

You asked us to provide you with depth / flow / water level data from the St Austell White River Estuary-TUFLOW model, 2011.

You should be aware of the following points, when considering modelled water levels:

- The maps produced as part of this commission do not show localised flooding resulting from intense rainfall and where surface flow might exceed the capacity of the drainage system. Likewise, the flood maps produced for this study do not show areas where overland sheet flow or runoff might cause flooding.
- The latest National guidance provided by the Environment Agency has been followed when identifying and including flood defences in the hydraulic model. This guidance states that flood defences should be assumed to be in perfect condition. This may not reflect reality and thus the condition of flood defences should be considered when undertaking site specific flood risk assessments.
- The undefended model scenario is based on a situation where all formal defences along have been removed. The reality of such a scenario should be given adequate consideration
- In the White River catchment, the LIDAR has been poorly filtered, particularly through St Austell where there is dense vegetation along the channel in some locations. The filtered LIDAR in these locations suggests the channel is wider than suggested by the more detailed channel survey. Topography fixes have been applied in these locations based on bank levels obtained from the topographic survey. There may be limitations to this approach as localised variability in the channel bank levels may not be fully represented in the model. Within St Austell this is not thought to be too significant as the channel has a sufficient capacity to convey flood flows. This limitation is not relevant to the White River between the outskirts of St Austell and Pentewan, as extensive topographic bank survey has been collected for these locations.
- The Polgooth Stream enters a series of culverts beneath Tyshute Lane and Fore Street. Culvert survey was not available and the geometry has been defined using best available data from design drawings. The model inflows are applied directly to the channel and account for all water running off the catchment. The embankments along the White River are however likely to prevent some surface water runoff from entering the channel and may result in water ponding behind them. This could therefore result in flooding on the ground that is not represented by the model for the 1% AEP event and below as the water is contained in the channel by the embankments for these events.
- The maps and digital data supplied should be considered only a summary of the conclusions of the study. It will be necessary to collect more detailed topographic information for particular sites where development is proposed and undertake a more detailed site-specific hydrological and hydraulic analysis for the location under study using guidance from the National Planning Policy Framework (NPPF).
- In this commission the focus has been on flooding from fluvial sources rather than tidal inundation.
- The data provided is not calibrated or verified
- Any assessment of Flood Risk undertaken must be appropriate for the decisions that need to be based upon it, consider the risks and also take into account any limitations of the data used.
- Please be aware that the Environment Agency does not guarantee that this data is suitable for your purposes.