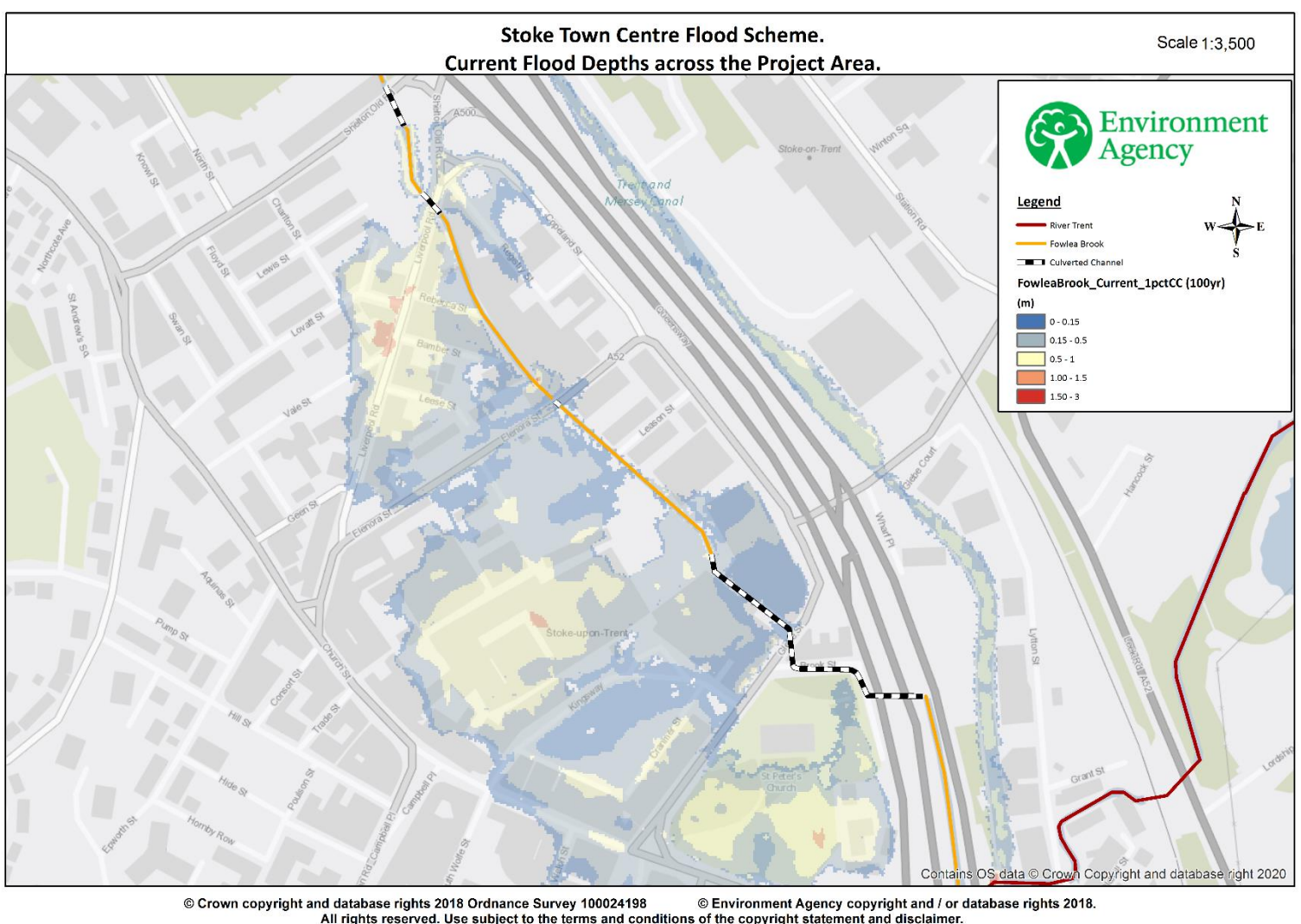


Developing a solution

Step One: Understanding flow routes and flood depths.

The Fowlea Brook is an extremely rapidly responding catchment, with water levels able to increase by over 1m in as little as 15 minutes, particularly during summer thunderstorm events. Ensuring we understand all the flow paths to the brook and the dimensions of culverts and the channel are vital in ensuring we design to the correct level. As a result, we have taken considerable time and effort to update the flood model to modern technical standards utilising all available technology to ensure these measurements are accurate.

The result is a clear picture on the flow routes and the depths – these depths are shown on the map below for the central project area.



Step Two: Assessing the possible options.

The urban location and rapid responding nature of the catchment have meant that this scheme has been around for a number of years. During this time a number of solutions have been considered and thoroughly investigated. The below details some of the options considered in the past:

- Upstream flood storage (multiple locations considered) – the urban location meant that sites with a suitable size to store the flood water area were few. The size of storage area would be significant and would reduce land identified as regeneration opportunities. Additionally, the post industrial landscape left huge question marks over the state of the ground and potential contamination issues.
- Elenora Street bypass culvert – earlier in the project the Elenora Street culvert was considered to be a significant driver in the flood risk. Consideration of the disruption to local businesses supported by additional inspection and measurement of this structure subsequently ruled this out.
- Linear flood defences – whilst more challenging from an engineering perspective this option is what has become the preferred option. See the “Proposed Scheme” information board for more information.