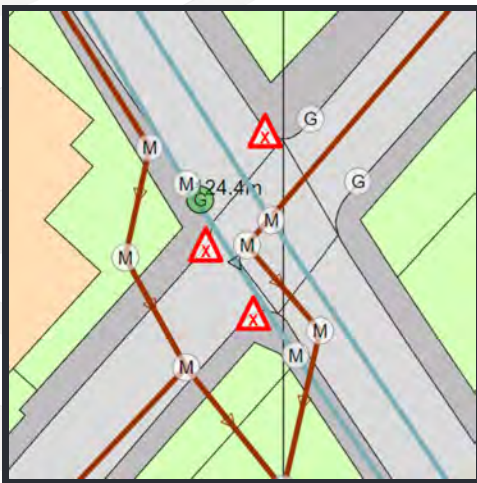


DRAINAGE CONNECTIVITY SURVEY TO REDUCE FLOOD RISK

THE PROBLEM

Thimblemill Brook on the boundary of the Abbey and Bristnall wards in Smethwick is fed by surrounding storm water systems. In extreme weather, the storm water networks becomes overwhelmed and water that would, under normal conditions, enter the brook had the potential to flood adjacent properties. Sandwell Council wanted to quantify that impact and get a better understanding of the water quality issues within it.



THE APPROACH

With Environment Agency funding, the Council commissioned KaarbonTech to undertake the project. Taking a staged approach, stage one looked at the condition of the drainage assets, the connections into Thimblemill Brook and the connections into the Severn Trent drainage network. The second stage used CCTV to perform an in-depth visual inspection of the problem locations discovered during the first phase, so that any defects could be recorded, and recommendations for future work could be made. The final stage was to investigate and identify the cause of possible water pollution using ammonia testing at the outfalls of both incoming lines to the brook and conducting a CCTV survey of the connecting pipes upstream.

THE RESULT

During the first phase we were able to inspect and record the condition of known drainage assets in the area and any new ones discovered during the process were plotted and the condition recorded.

A small number of outfalls running parallel to the brook were recommended for dig-outs out or jetting to reduce the risk of flooding issues in the area.

The positive results of the ammonia testing led to a CCTV survey being conducted both up and downstream of the outfall, the likely source of pollution was located, and the Council informed.

