Ballina-Killaloe Flood Relief Scheme

BOARD 7

Surface Water Measures

Main Street/Lakeside Drive Surface Water Flooding

There are ongoing flooding issues in front of the Boruma Gastro Bar, at the junction of R463 Main Street and Lakeside Drive near Killaloe Bridge. The main cause of flooding at this location is excessive surface runoff water due to inadequate collection and conveyance of the storm network; hence the flood water surcharges into the delivery entrance of Boruma. It is also believed that surface water from further upstream is causing inundation at this location due to an inadequate collection system further upstream in the storm drainage network.

To address this flood risk works are proposed which integrate with the Preferred Option (Option 3). The proposed works will collect the surface runoff at concentration points through collection system/ gullies and convey into outlet through the existing stormwater network. This existing stormwater line will be upsized as part of the Preferred FRS Option (Option 3). Figure 9-1 presents the locations of proposed concentration points and connections of proposed pipe into the existing stormwater lines.

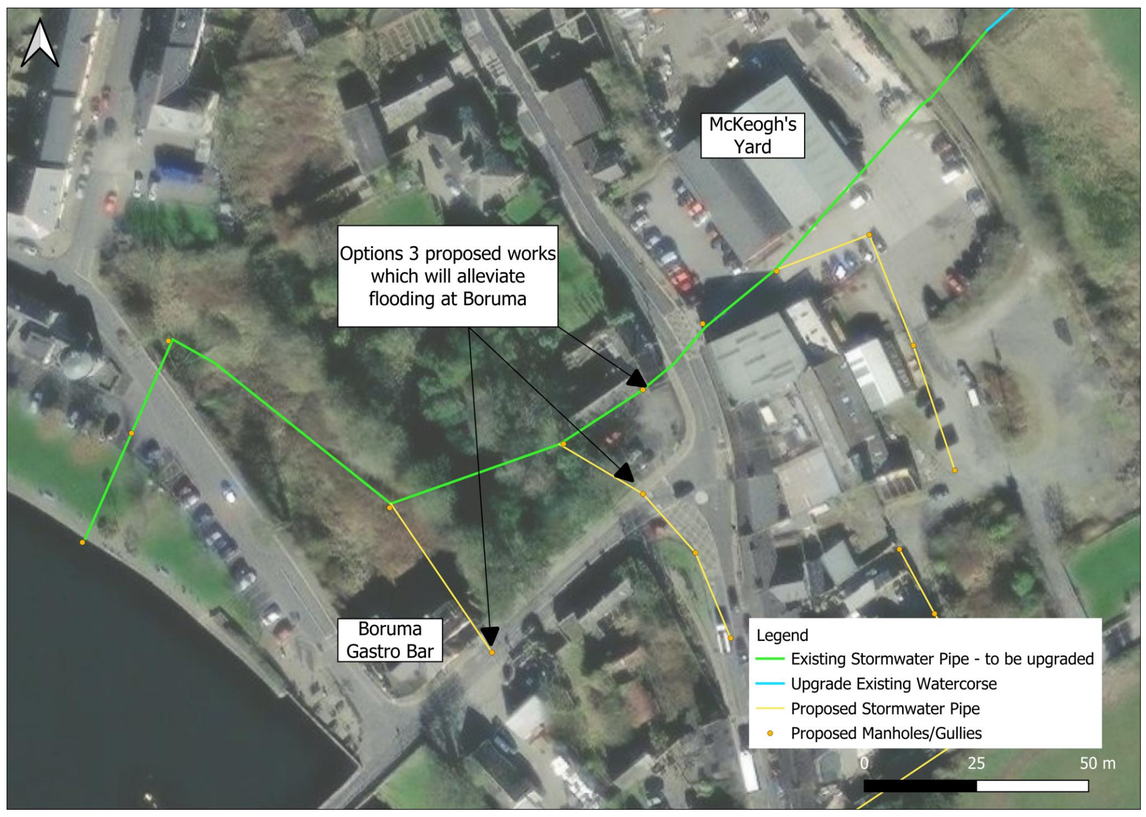

Figure 9-1: Boruma Surface Water Measures

R494/O'Brien's Lane Surface Water Flooding

The back of Collins Pharmacy, just off the R494 road and the intersection area of Caherelly Close/O'Brien's Lane with R494 is another area of Ballina which is prone to flooding. This stems from the fact that an extended area to the back of the property is draining down towards the back of Collins Pharmacy with an insufficient surface water drainage system to collect and effectively discharge the flows. A considerable volume of surface water from higher ground outside the premises flows in an uncontrolled manner onto a small concrete yard at the back of the building.

As part of the Preferred Option (Option 3), upsizing of the existing stormwater network is required and part of the proposed works will intercept some of the flow to Collins Pharmacy chamber and convey the flow towards McKeogh's Hardware. Therefore, through the Preferred FRS Option the flooding risk to Collings Pharmacy is improved, albeit not entirely removed.

To fully remove the flood risk to the back of Collins Pharmacy, a new stormwater line is proposed to intercept water before it gets to Collins Pharmacy and convey the flow towards O'Brien's Lane where is proposed to connect to the existing drainage system in O'Brien's Lane.

A flood issue also exists at Tuscany Bistro (Caherelly Close/O'Brien's Lane) whereby the capacity of the existing collection system at the intersection of R494 with O'Brien's Lane is not sufficient to effectively collect and discharge the flows.

To alleviate this, it is proposed to intercept and convey the stormwater from the R494 / O'Brien's Lane intersection via Caherelly Close to a discharge point at River Shannon. This is the route of an existing storm pipe.

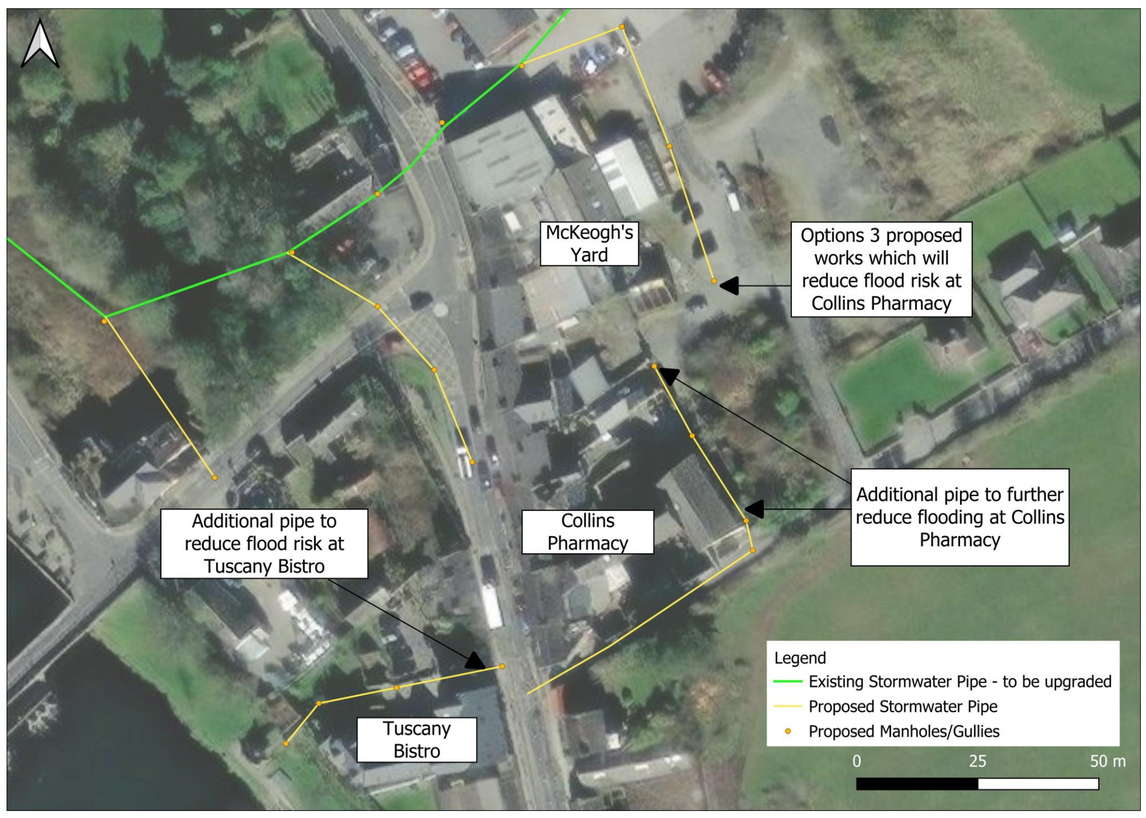

Figure 9-2: Collins Pharmacy Surface Water Measures

R494 Surface Water Flooding

Areas along the R494 are prone to flooding due to insufficient capacity of the existing stormwater network. A study was completed by Punch Consulting Engineers in July 2017 to evaluate the existing stormwater network and outline proposals for the upgrade of the existing stormwater network to alleviate existing flooding issues.

As part of the FRS, it is proposed to upgrade the R494 surface water network as proposed by Punch. The extent of the proposed upgrade in shown in Figure 9-3.

The upgraded R494 surface water network is proposed to be upsized to cater for the 1:100 year rainfall event. The upgraded network will discharge into the existing system at the bridge. Despite the additional flow which will enter the bridge from the R494 with the system upgrade, the flood risk downstream of the bride is not anticipated to increase. As part of the Emerging Preferred Option, the Drumbane River will be diverted towards McKeogh's Yard. This means there will be a reduction in flow through the existing system downstream of the R494, hence the system will be have sufficient capacity to take the additional R494 flows.

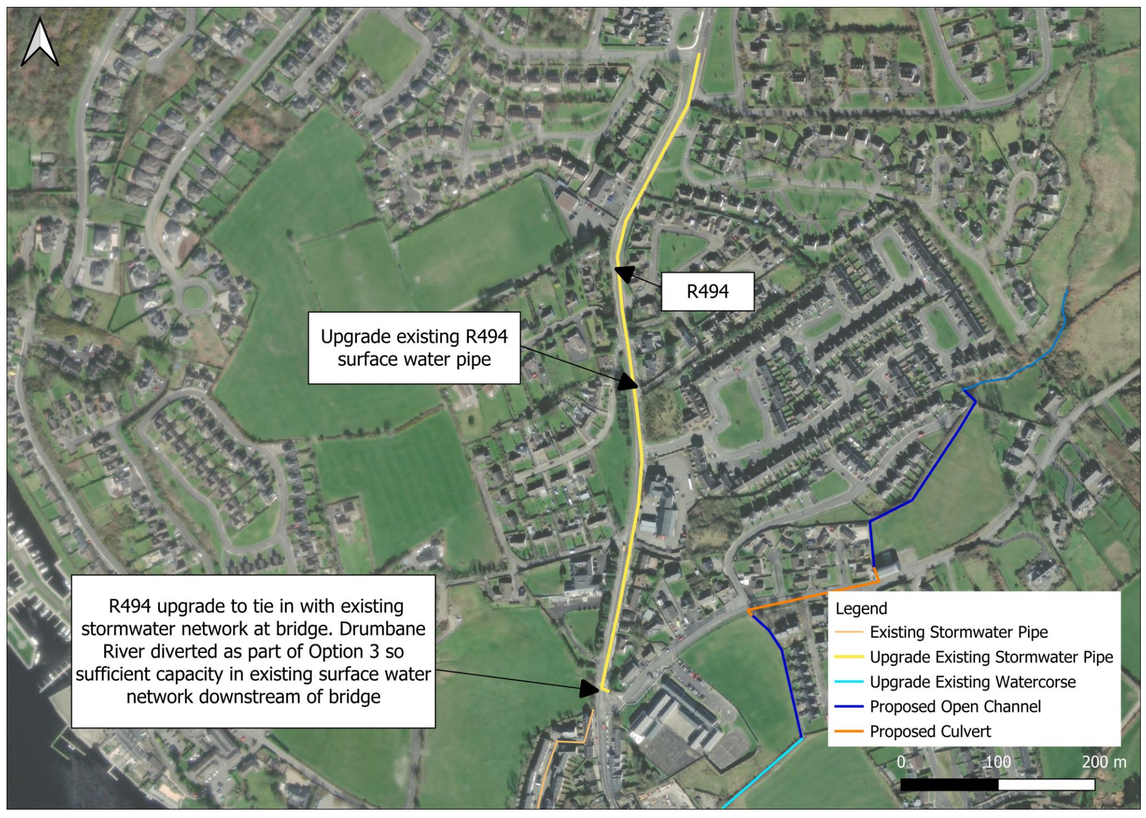

Figure 9-3: R494 Surface Water Measures