## **Knocklofty Flood Relief Scheme**

## **Drainage Design**

The project team have developed a drainage design to mitigate flooding within the embankment boundary.

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Description	Approx. Length	Comment
Culvert on open drain	145m	The existing spring water channel will be culverted under the flood defence embankment, allowing flows of 0.44 m³/s through a 750mm diameter concrete pipe. The channel will be infilled and grass-seeded. The infill will also support the embankment structure.
Storm Water Drainage (Collection)	30m	6No. gullies will be installed to drain the low-lying area, providing local drainage only. A 225mm diameter pipe will direct water into a proposed pumping station.
Pumping Station	5 x 5m footprint around manhole	Small submersible sump manhole to facilitate over-pumping during flooding on the River Suir.
Storm Water Drainage (Outfall)	55m	New gravity outfall from the pumping station (pressurised under flood conditions)
Headwall		The culverted open drain and outfalls from the pumping station will connect to a new headwall on the wet side with Non-Return Valves.























