

Sample of rainfall and flow data collected

The period from September 10th to 15th 2015 was extremely wet with the remnants of tropical storm Henri passing over the Country. The south-west was particularly badly affected with most areas receiving exceptionally high levels of rainfall. Over a 5.5 day period totals of 125.6-156.6 mm of rainfall were recorded on programme farms in the southwest, being concentrated on both the 11th and the 13th/14th.

The flow-rate from drains during this time was recorded and collected automatically from some of the programme farms. Given the extremes experienced, the following short report has been prepared to show the response of drainage systems installed to the extreme rainfall experienced on 3 of those farms (Doonbeg, Castleisland and Athea). Other programme farms experienced similar rainfall levels, but flow data is not currently available from these as it is collected on-site in six month blocks.

The table below presents data on total rainfall, peak hourly rainfall rate, peak and average flow rates and total flow over the period. Flows recorded at Doonbeg and Athea are at the outlet of 1 field drain, draining areas of approximately 1200 and 1800 m² respectively while the flow meter in Castleisland records flows from 4 field drains, draining an area of approximately 5750 m².

The plots presented below show the variation of rainfall and drain flow in time on each of the 3 sites. Peak flows are seen to correspond to peak rainfall.

	Rainfall (mm)	Peak Rainfall/hr.		Peak Flow rate		Avg. Flow (Litre/hr.)	Total flow (Litres)
		(mm)	(Time)	(Litre/hr.)	(Time)		
Doonbeg	156.6	12.2	11/09 16:00-17:00	14,578	11/09 16:40	1,505	201,670
Castleisland	129.9	11.4	11/09 16:30-17:30	20,335	11/09 15:50	3,115	417,410
Athea	125.6	12.8	11/09 15:15-16:15	17,599	11/09 18:20	704	94,336

