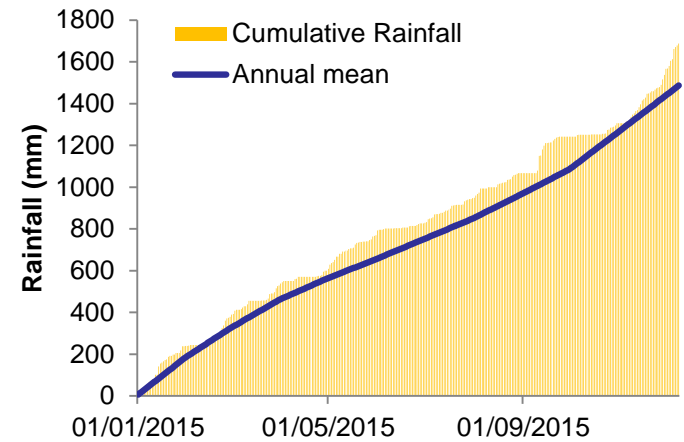
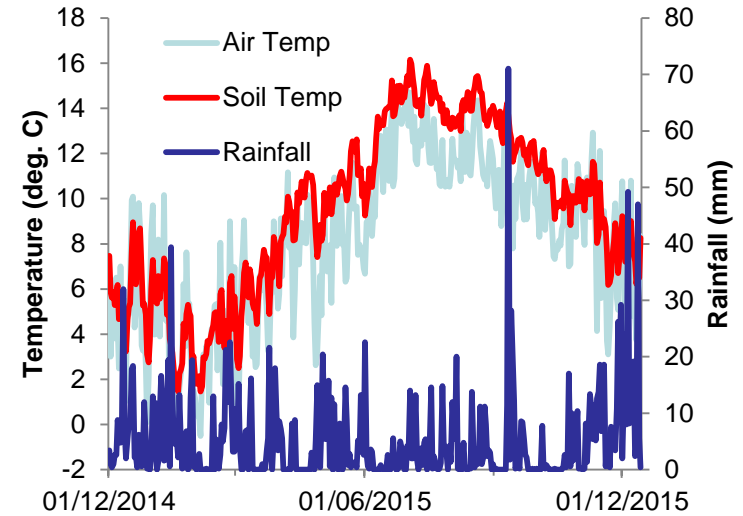
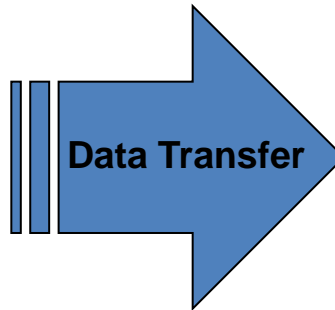


Heavy Soils Programme Review Jan. 18th 2016

Update of 2015 data and planned research work



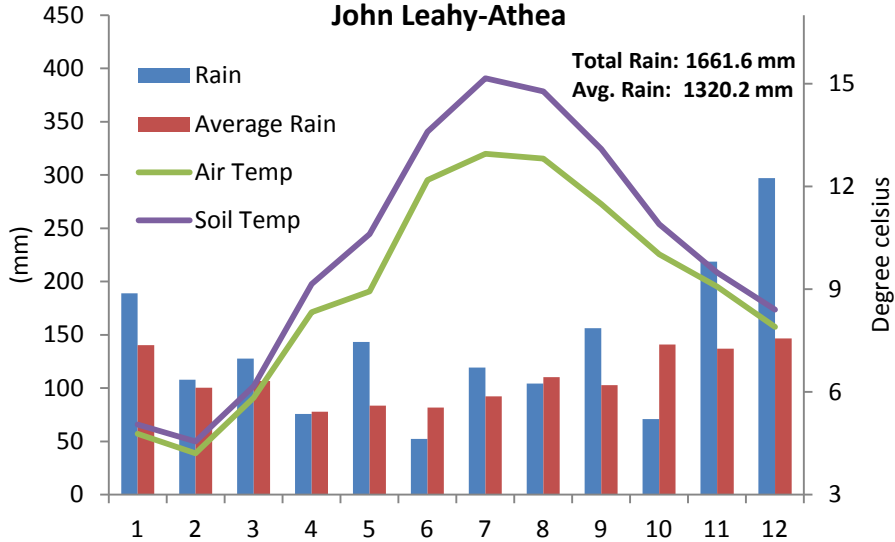
Weather data



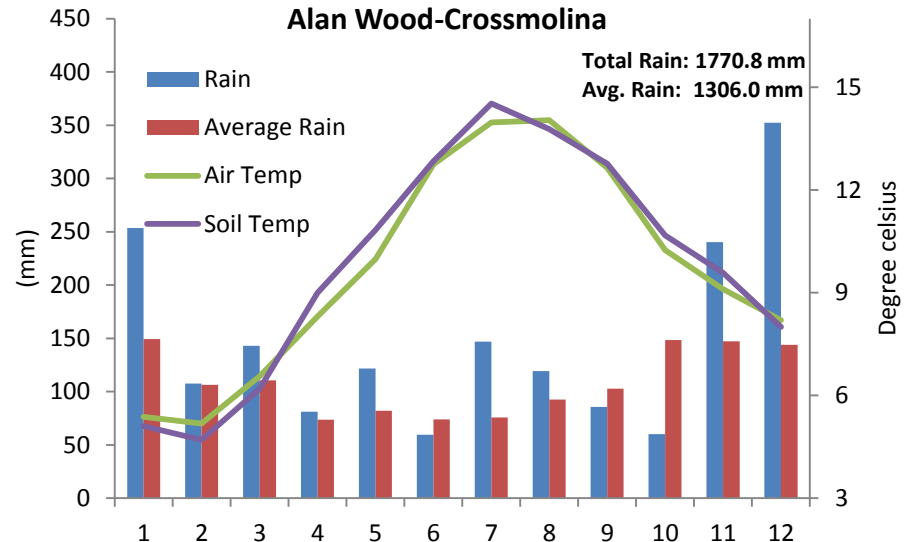
<http://www.teagasc.ie/heavysoils/weather/>

Weather Summaries

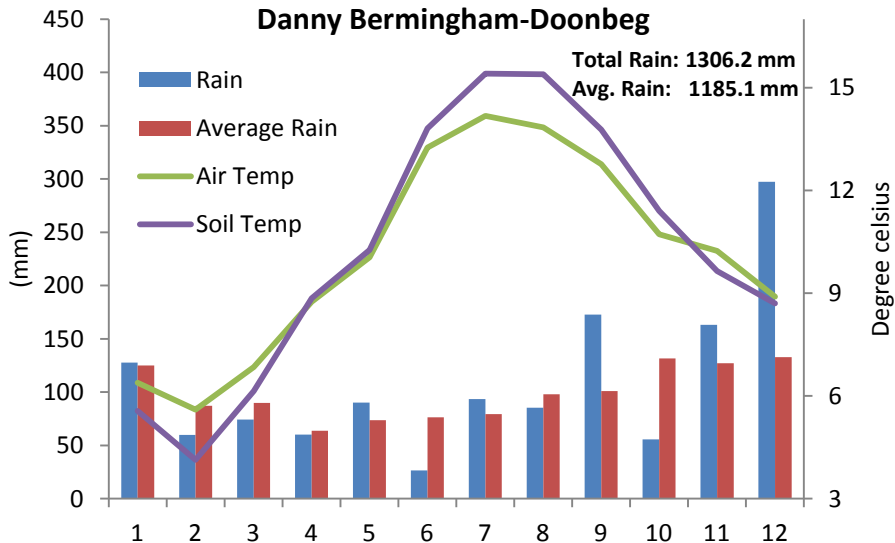
John Leahy-Athea



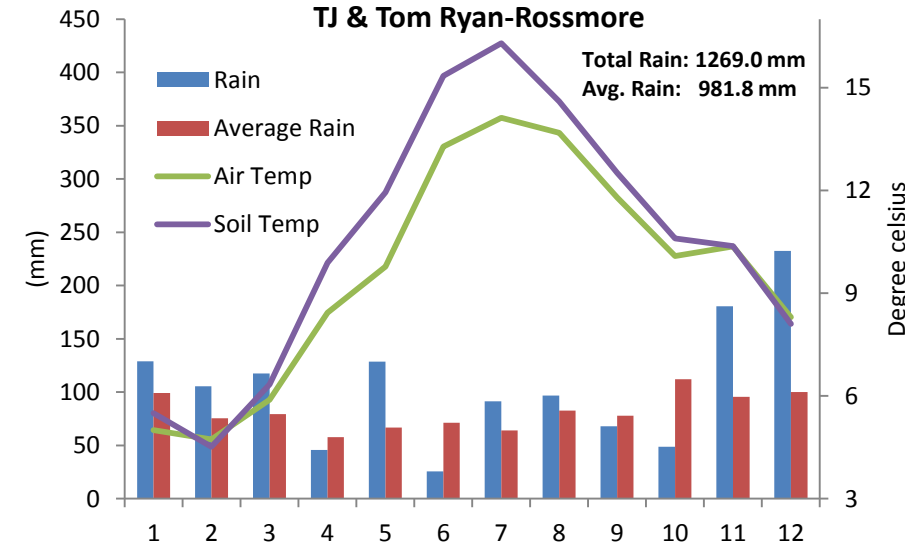
Alan Wood-Crossmolina



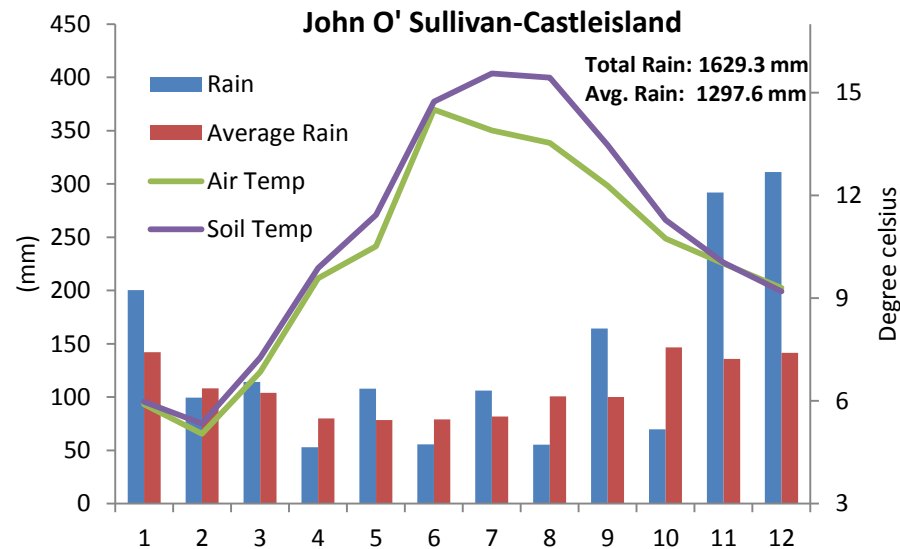
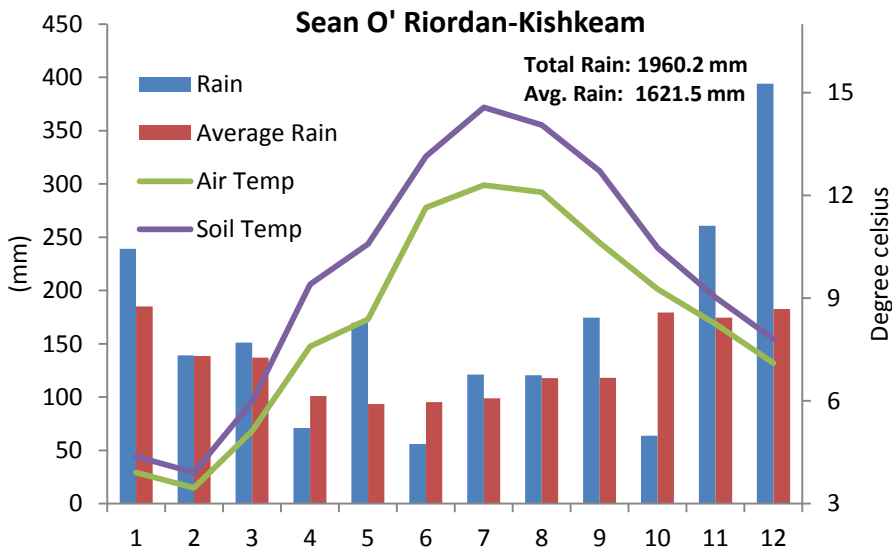
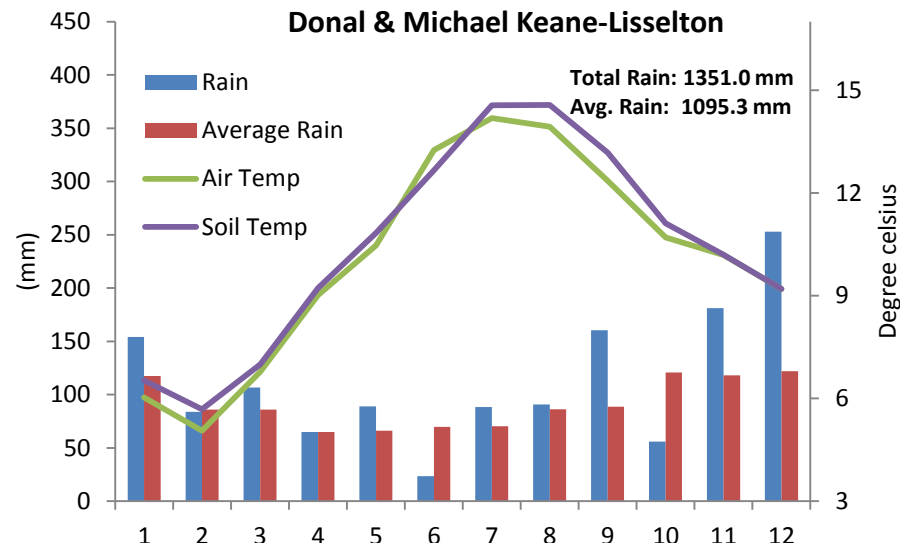
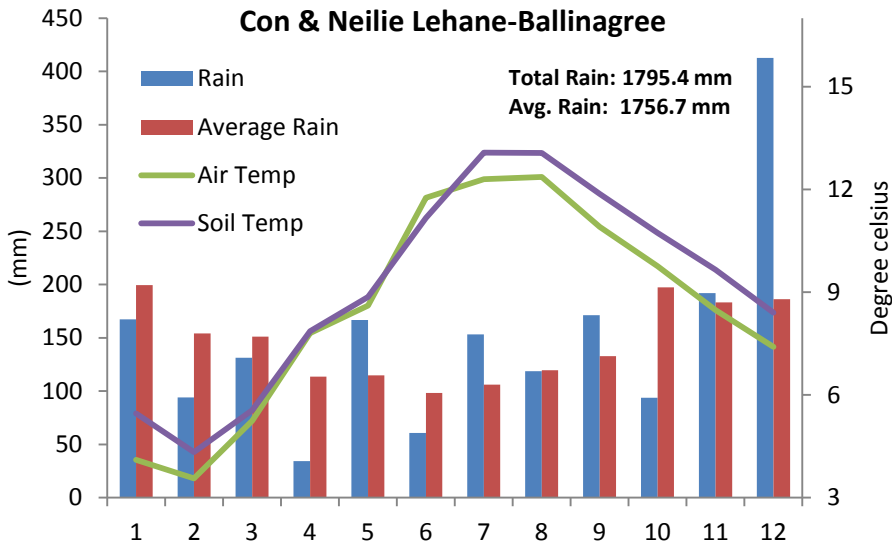
Danny Bermingham-Doonbeg



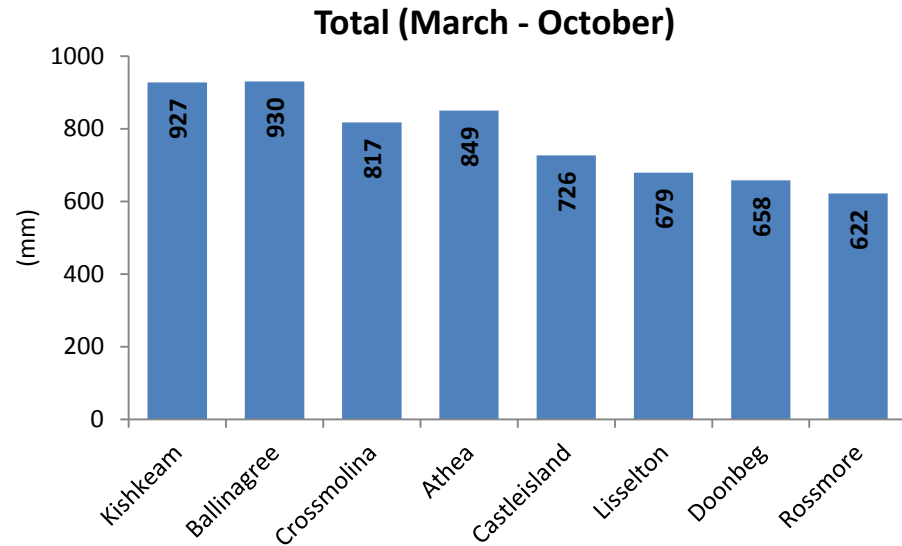
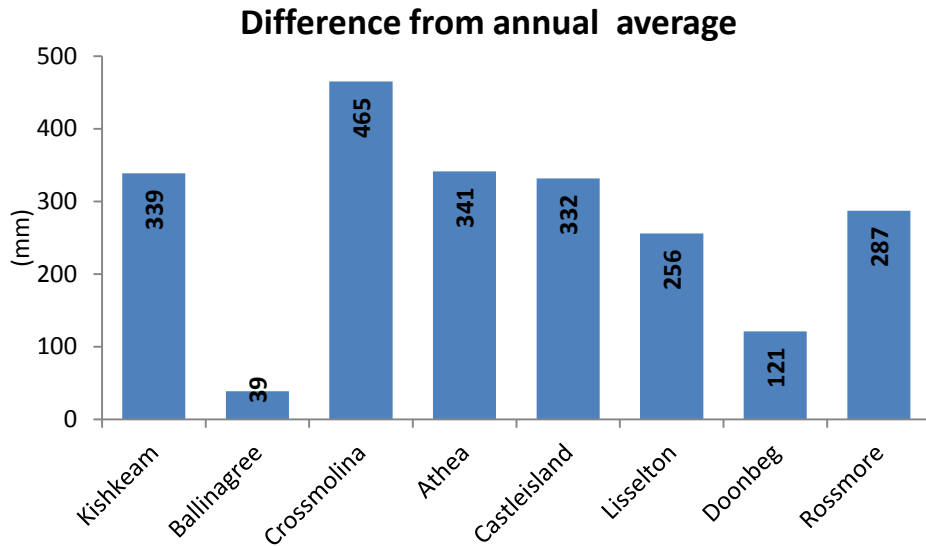
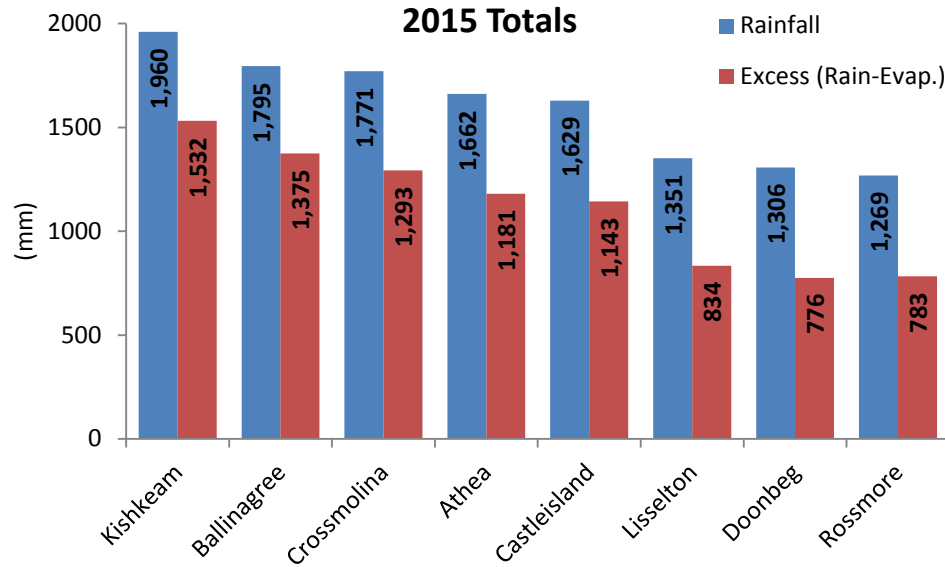
TJ & Tom Ryan-Rossmore



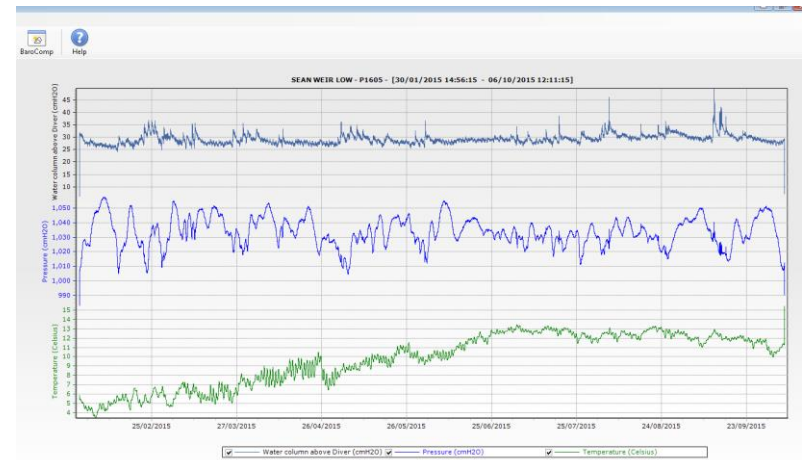
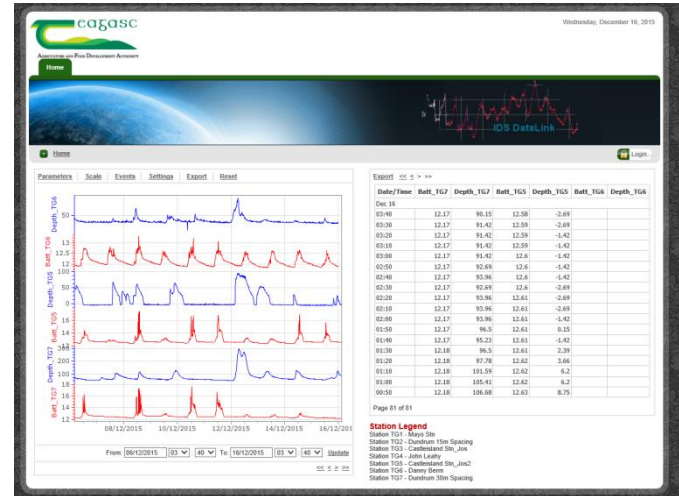
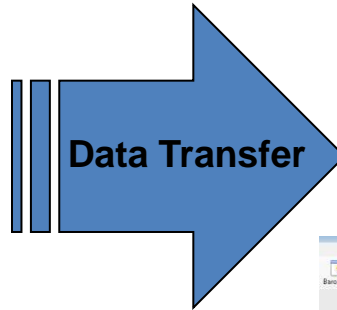
Weather Summaries



Weather Summaries

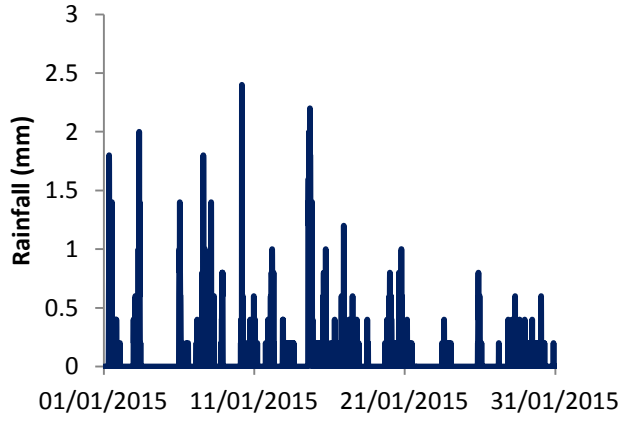


Drain Performance: Flow discharge

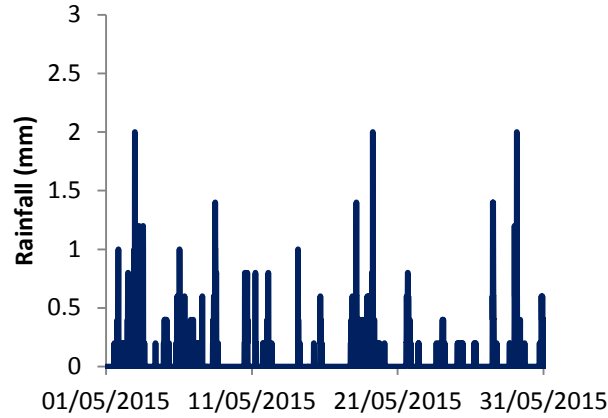


Drain Performance: Athea

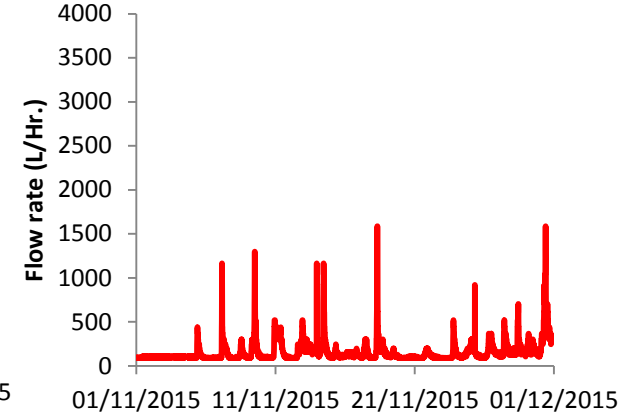
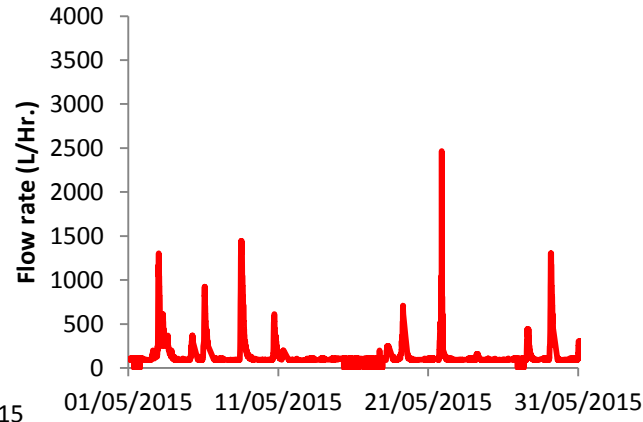
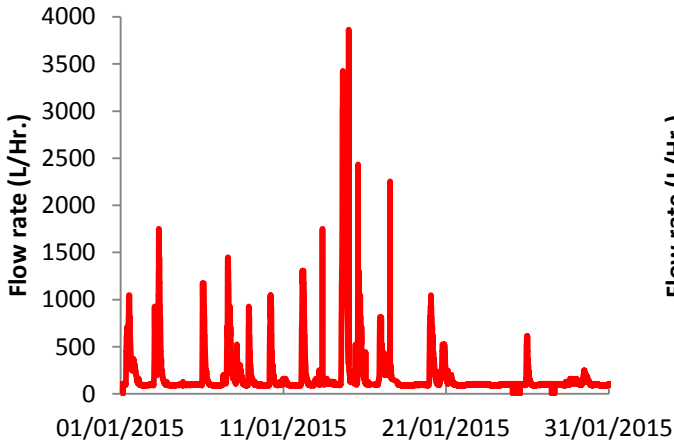
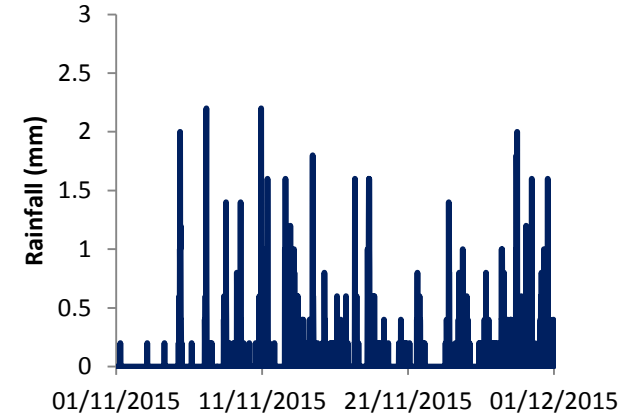
Jan. 2015



May 2015

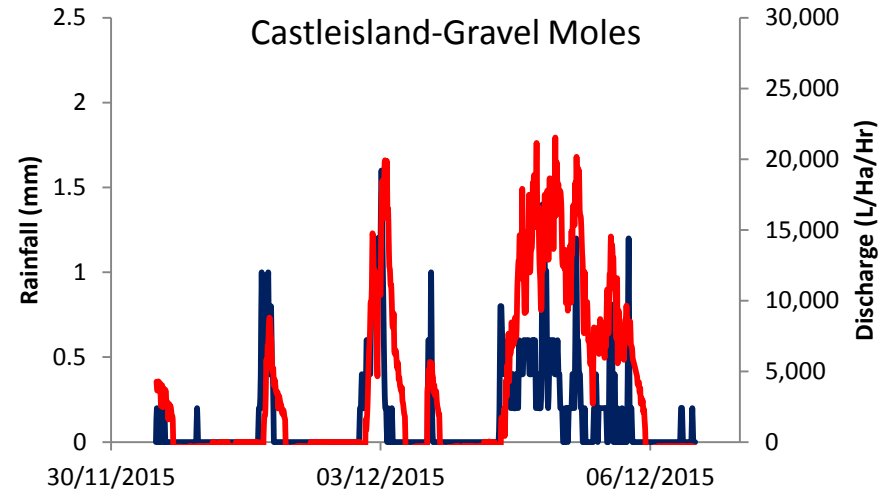
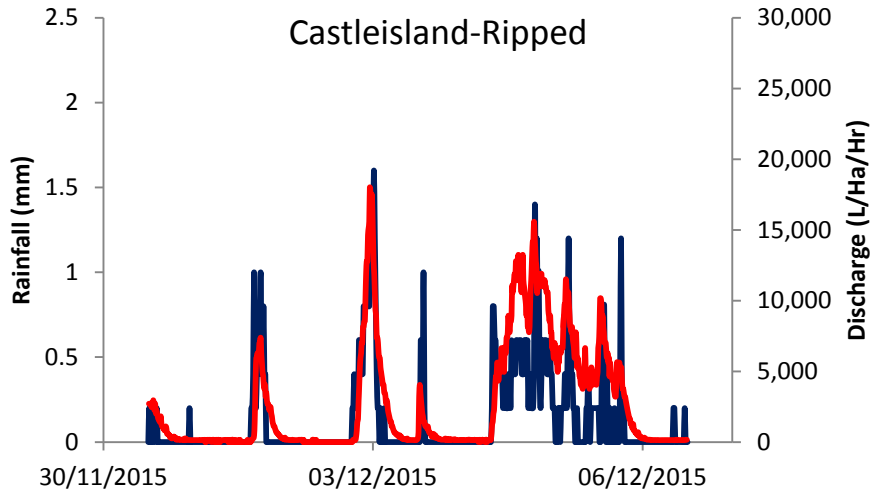
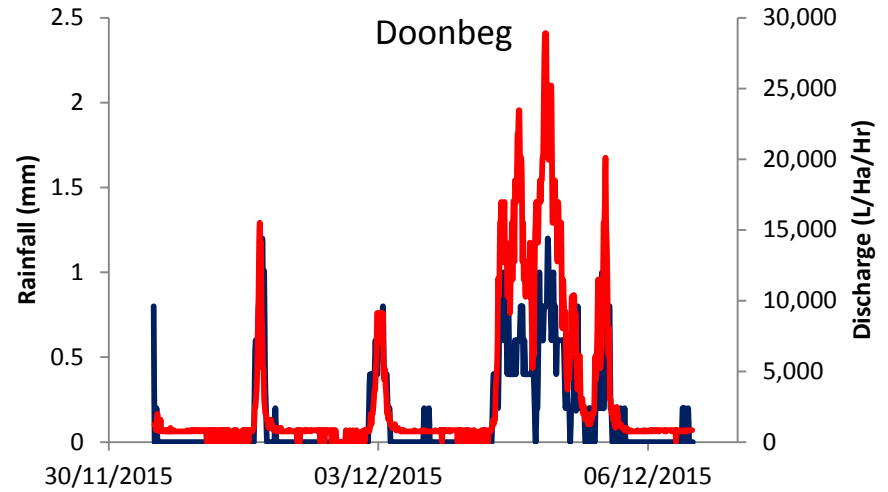
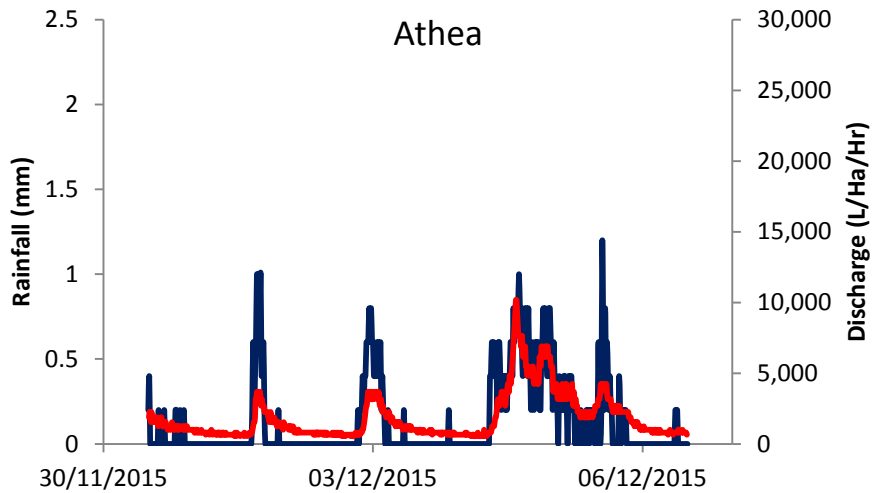


Nov. 2015



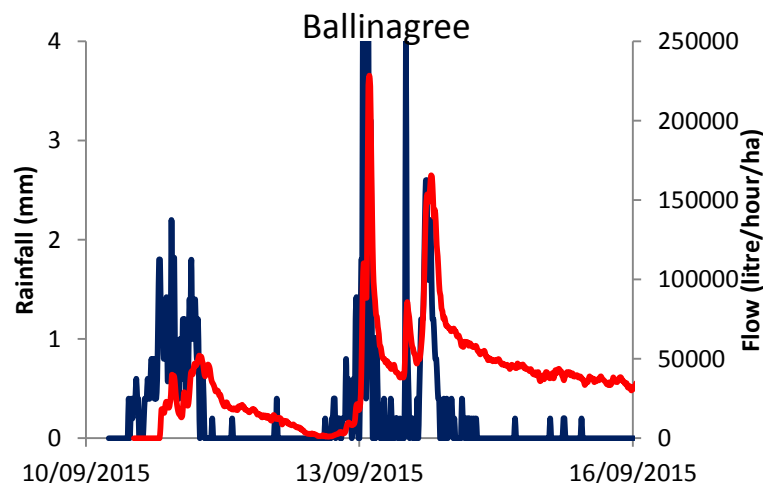
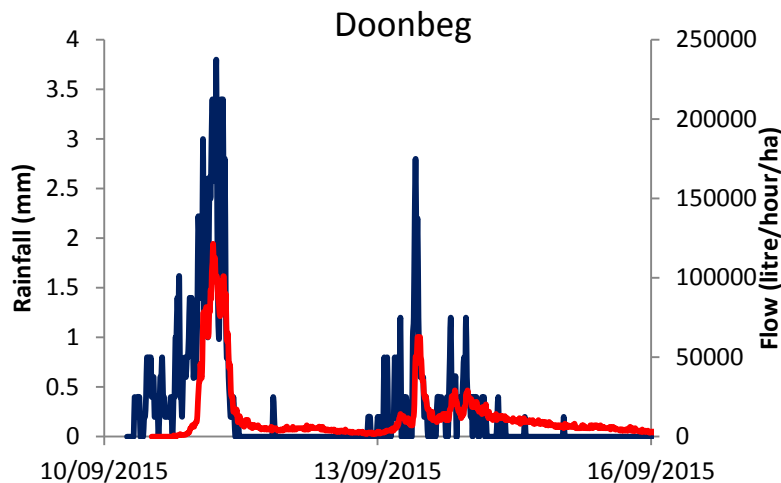
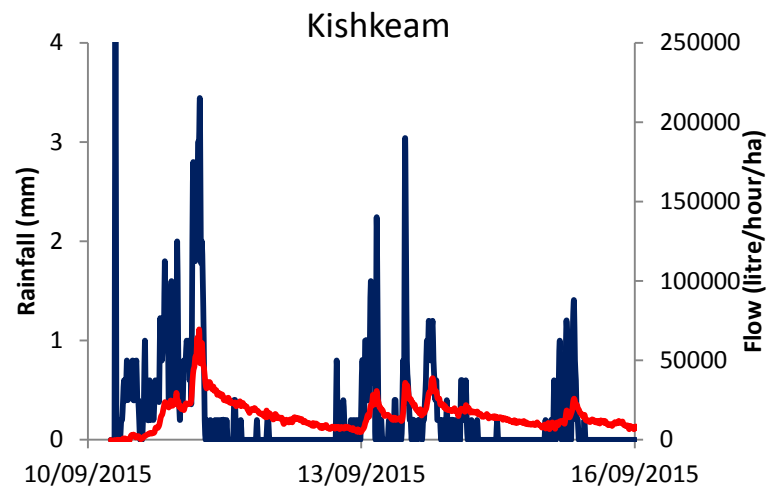
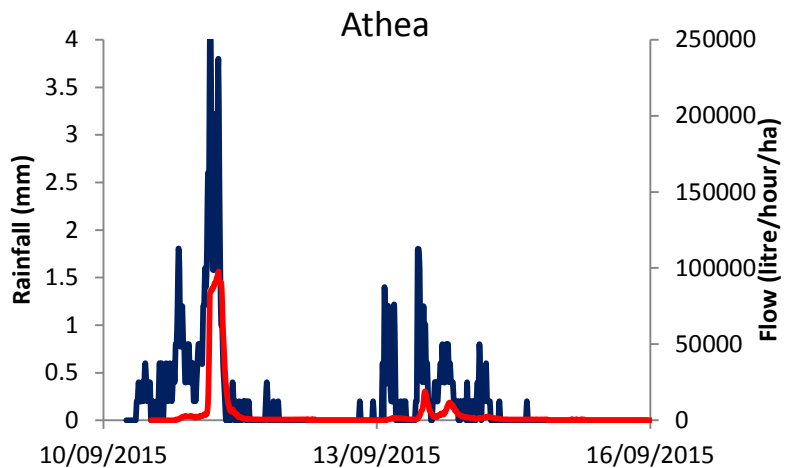
Month	Rain excess (Litres/Ha)	Flow (Litres/Ha)	% of Rainfall removed
Jan. 2015	1,716,000	746,793	44%
May 2015	909,000	592,232	65%
Nov. 2015	2,002,000	640,071	32%

Drain Performance: Storm Desmond



Site	Rain excess (Litres/Ha)	Flow (Litres/Ha)	% of Rainfall removed
Athea	720,000	256,896	37%
Doonbeg	760,000	482,554	63%
Castleisland (Ripped)	742,000	391,421	53%
Castleisland (Gravel Moled)	742,000	530,208	71%

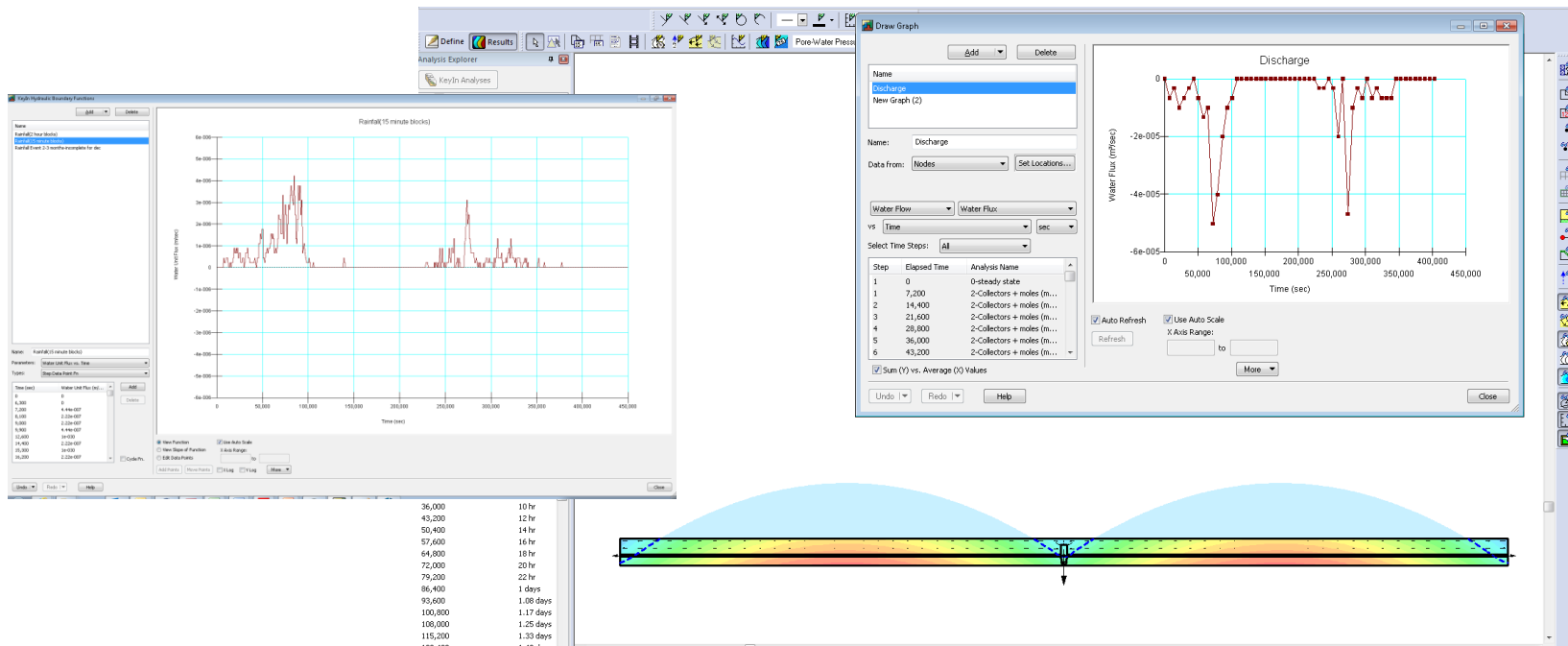
Drain Performance: Mid-September



Site	Rain excess (Litres/Ha)	Flow (Litres/Ha)	% of Rainfall removed
Athea	1,256,000	524,090	42%
Castleisland (Ripped)	1,299,000	725,930	56%
Doonbeg	1,566,000	1,680,583	107%
Kishkeam	1,438,000	2,155,300	150%
Ballinagree	1,484,000	5,313,930	358%

Drain Performance: Model Simulations

- Model simulations of drain performance are dependent on high resolution performance data and a really good description/measurement of the soil (links to soil mapping)
- Simulation models allow for variations in drainage design to be tested
- This approach allows for drainage design variations to be tested at a low cost.



Land Drainage Training Course

- New FETAC certified course
- Dedicated course to supersede all other in-service training
- Delivered over **8 full days in Sept-Nov period** each year
- 15-20 participants (Teagasc and private advisors, contractors etc.)
- Will include;
 - Classroom instruction with presentations and discussions
 - Practical sessions on the identification of soils and soil characteristics
 - Field trips to a range of sites to identify drainage problems and prescribe appropriate solutions.
 - Exams

