LOCATION: NGR Area/street name	Various locations within the Wirral Boundary			REFERENCE NO.	*W29.8.12/01-10*
Start date & time	29/08/12	End date & time	29/08/12	Data collection date	11/9/12
				Observer	J.H. Baker
** Responsible Risk Management Authority (RMA)	Highway Authority (LLFA), United Utilities, Dwr Cymru (Welsh Water			** Have RMA responded appropriately? Main contact (name& no)	Yes **Various contacts were made**
Maximum depth (m)	150mm			**History of flooding?**	A number of the locations had flooded before.

SOURCE OF FLOODING		**CAUSE OF FLOODING**					
River: Main (EA)	N	drainage capacity exceeded					Y
Sea (EA)	N	mechanical failure					N
Drainage: sewer (UU, WW)	Y	operational failure/ breach of defence					N
River: Ordinary	Y	system 'tide locked' (ie drain can not discharge due to high river level)					Y
Drainage: highway	Y	blockage of bridge	N	blockage in culvert/pipe			N
Surface water	Y	blockage in channel	N	blockage of screen			N
Ground water	Y	unknown/other (give details)					
Other/unknown (give details)							

Additional comments on the cause of flooding: An extreme storm event (1 in 20yr event) hit the Wirral on Wednesday 29 August 2012 ,

Is level survey required? (mark high water level/wrack)	N	Surveyed	N/A

EFFECT

Properties flooded (residential)	Y	internal	10	external	5	Max depth (m)	0.15
Properties flooded (commercial)	Y	internal	0	external	N/K		
Infrastructure affected (list)	Public sewer system						
Roads affected (list)	Y A number of roads were affected by flood water which receded once rain had ceased.						0..10
Other (list)	Many of the public sewers surcharged preventing the highway gullies from discharging.						

Map/ sketch of flood

ACTION TAKEN: All properties visited and details of flooding noted. Road gullies in vicinity of the properties checked and no problems identified. Residents advised to contact Water Company to report flooding.

ACTION REQUIRED: Water Companies to investigate public sewers in vicinity of flooded properties.

FURTHER INVESTIGATION: Investigations of locations were gullies are connected to a highway drain rather than a public sewer. However, the existing drainage systems as a whole were unable to deal with the amount of surface water generated by the storm event. Once storm had abated all flooding drained away.

OTHER INFO: It is unlikely that any improvements/additions to the highway drainage system would prevent future flooding from storm events of this magnitude. The Water Companies only design new sewers not to flood during this type of event they will however surcharge, which will prevent gullies connected to them from discharging.

PHOTOS		
Ref	Description	Direction of view

PERSONS AFFECTED – INDIVIDUAL FLOOD LEVELS				
Address	Contact Name	Contact Number	Flood Level (approx m)	Threshold / Floor Level
Is there a residents group?	YES / NO / PENDING			