LOCATION: NGR Area/street name			ous locations within the Wirral odary		REFERE NO.	ENCE	W13-14.8.	12/01-46			
Start date 13/08/12 & time		End date & time		14/08/12	Data collection date			15/8 – 18/9/12			
& time	time		ume			Observer			J.H. Baker		
Management Authority United U			tilities,	rity (LLFA), Dwr Cymru & Environment	** Have RMA responded appropriately? Main contact (name& no)		Yes  Various contacts were made		de		
Maximum depth (m) 200mm			m		History of flooding?			A number of the locations had flooded before.			
SOURCE OF FLOODING CAUSE O					CAUSE OF I	FLOODING					
River: Main (EA)			Υ	drainage capacity exceeded						Υ	
Sea (EA)			N	mechanical failure						N	
Drainage: sewer (UU, WW)			Υ	operational fa	nal failure/ breach of defence					N	
River: Ordinary			Υ	system 'tide	tide locked' (ie drain can not discharge due to high river level)						
Drainage: highway			Υ	blockage of b	ridge N blockage in culvert/pipe				N		
Surface water			Υ	blockage in c	hannel	N	blockage of	ge of screen			
Ground water			Υ	unknown/other (give details)							
Other/unknown (give details)											
					looding: An ext h rainfall contine				event) hit the Wi 2012,	rral on	the

Is level survey required? (mark high	N	S	urveyed	N/A				
EFFECT								
Properties flooded (residential)	Υ	internal	46	external	31			0.2
Properties flooded (commercial)	Υ	internal	0	external	N/K			
Infrastructure affected (list)	Public sewer system							
Roads affected (list)	Y A number of roads were closed by flood water which receded once rain had ceased. A number of locations had blocked gullies but it is not known if these were caused by debris washed in by heavy rain or had existed prior to the flood.							015
Other (list)	Many of the public sewers surcharged and water escaping from public sewer manholes was widely reported; a small number were reported as dislodged but were immediately replaced. Although detailed locations are not known.							

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 particularly where a problem still remained.

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				Direc	tion of view			
PERSONS	AFFECTED - INI	DIVIDUAL FLOOD LEVELS							
Address		Contact Name	Contact Number	Flood		Threshold /			
				(appro	x m)	Floor Level			
Is there a re	esidents group?	YES / NO / PENDING							