

<b>Location: Caherconlish, Co. Limerick</b>		<b>Unique ID: 250413</b> (from PFRA database)	
<b>Initial OPW Designation</b>	<b>APSR</b> <input type="checkbox"/>	<b>AFRR</b> <input checked="" type="checkbox"/>	<b>IRR</b> <input type="checkbox"/>
<b>Co-ordinates</b>	<b>Easting: 167902</b>	<b>Northing: 149358</b>	
<b>River / Catchment / Sub-catchment</b>	<b>Groody River / Groody / Shannon</b>		
<b>Type of Flooding / Flood Risk</b> (identify all that apply)	<b>Fluvial non-tidal</b> <input checked="" type="checkbox"/> <b>Fluvial tidal</b> <input type="checkbox"/> <b>Coastal</b> <input type="checkbox"/>		

<b>Stage 1: Desktop Review</b>	
<b>1.1 Flood History</b> (include review of Floodmaps.ie)	<p><b>River Flow Path</b></p> <p>The Groody River flows through the village of Caherconlish and meanders north-west to the river's confluence with the River Shannon.</p> <p>The Groody River is crossed by Whithorns, The Square and the R513 (Old Barrach Road).</p> <p><b>Flood Event Records</b></p> <p>Three flood records are listed on floodmaps.ie, two occur within the village. These events are not dated.</p>
<b>1.2 Relevant information on flooding issues from OPW and LA staff</b>	<p><b>PFRA database comments (<i>in italics</i>):</b></p> <p><b><i>OPW comments</i></b> <i>Not designated as APSR, no historical record or strong LA support. Major wedge - Would be APSR, not IRR - No history - No LA opinion?</i></p> <p><b><i>LA comments</i></b> <i>All agreed. Town under future development pressure</i></p> <p><b>Meeting / discussion summary comments:</b></p> <p><b>OPW comments</b></p> <ul style="list-style-type: none"> <li>The gradient of the Groody river upstream of the village, is flat and Michael Collins (OPW) is aware of a large storage area upstream.</li> <li>As the river flows past Gragane, its gradient becomes very steep towards the village.</li> <li>The rear of the properties on the left bank of the Groody river, south of the village Square, the Community Centre and properties north of the Community Centre are known to flood.</li> <li>Flooding issues at the estate east of Hundred Acres East are likely to be surface water flooding.</li> </ul> <p><b>LA comments</b></p> <ul style="list-style-type: none"> <li>No significant issues known. Upstream lands are flat and don't contribute large flows to the Groody River.</li> </ul>

<b>1.4 PFRA Data</b>			
<b>1.4.1 PFRA hazard mapping</b>	<b>PFRA mapping available in GIS layer:</b>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<b>PFRA mapping included on FRR map:</b>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>1.4.2 Summary of Principal Receptors</b>	<b>Type</b>		<b>FRI score (if available)</b>
	Garda Station		25
	Health Centre		25
	<b>Total</b>		<b>1320</b>
<b>1.7 Stage 1 Evaluation</b>	<b>Aspect</b>	<b>Clearly APSR</b>	<b>Uncertain</b>
	<b>Flood History (1.1)</b>		<b>X</b>
	<b>OPW / LA Information (1.2)</b>		<b>X</b>
	<b>PFRA Evaluation (1.4)</b>	<b>X</b>	
	<b>Overall Desktop Evaluation</b> (if any above aspect is uncertain then overall designation is uncertain)		<b>X</b>
<b>1.8 Proposed level of assessment for Stage 2 site visits</b>	<b>Level A Site Visit</b>		<b>X</b>
	<b>Level B Site Visit</b>		

<b>Stage 2: Site Inspection</b>		<b>Level A Assessment</b>		
<b>Date and Time of Inspection</b>		<b>Date: 08/06/11</b>		
		<b>Time: 12:30</b>		
<b>Names of inspection team (including OPW/LA staff if present)</b>		<b>Mathieu Valois</b>		
		<b>James Murray</b>		
<b>2.1 Ground-truthing of Hazard Mapping</b>	<b>Fluvial non-tidal</b> <input checked="" type="checkbox"/> <b>Fluvial tidal</b> <input type="checkbox"/> <b>Coastal</b> <input type="checkbox"/> <b>Not available</b> <input type="checkbox"/> PFRA hazard mapping seems to overestimate flood risk, particularly on the right bank in the town centre. Properties here are all raised and not at significant risk of flooding			
<b>2.2 Spot check ground-truthing of selected receptor vulnerability</b>  <b>(also note any key receptors noted during visit that are not identified by PFRA)</b>	<b>Receptor Type</b>	<b>Location description (if not obvious)</b>	<b>Exists?</b>	<b>Overall Vulnerability / Risk (L / M / H)</b>
	Garda Station	On raised ground in village centre	Yes	Low
	Health Centre not identified	On raised ground in village centre	yes	Low
<b>2.3 Local knowledge - on-site comments</b>  <b>(OPW, LA and any info volunteered by local residents during visit)</b>	Spoke to one resident who has lived in Caherconlish all his life. He believes that there is a significant pollution problems with the Groody River, but is unaware of any flooding problems			
<b>2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes</b>	The culverts on the main river channel through village centre generally have good capacity; however the river channel capacity exceeds the capacity of several culverts and they could potentially be constrictions to flow.  On the watercourse to the east, which was dry at the time of inspection there is an extremely small culvert. This ditch upstream of the culvert is not recorded as a watercourse on the EPA network.			

2.5 SVRS Assessment Matrix												
<b>Weightings:</b> <b>A - x1 - reasonable expectation of flooding</b> <b>B - x2 - high expectation of flooding</b> <b>C - x5 - risk to life</b>												
Approx. Number	1 to 4				5 to 20				>20			
Weighting		A	B	C		A	B	C		A	B	C
Property (domestic)	10	X			100				200			
Property (small retail or business)	20	X			200				400			
Property (large retail or business)	50				500				1000			
Road or Rail Infrastructure	30				300				600			
Critical Infrastructure (local) [hospital, school, police/fire/ambulance station, substation, WTW/WWTW, gov bldg, other (specify)]	50				500				1000			
Critical Infrastructure (national importance)	250				1000				2000			
Cultural Heritage Site	20				200				400			
Environmental Designated Site	20				200				400			
Hazardous Substances Site	50				500				1000			
<b>Total SVRS</b>									<b>30</b>			

  

2.6 Defence Assets	
<b>Formal and Informal Flood Defence Assets</b> <i>(include effective and ineffective assets to inform asset survey and potential mitigation measures)</i>	<p><b>Open Channel Watercourses</b></p> <p>Man-made river channel <input type="checkbox"/>      Flood relief channel <input type="checkbox"/>      Canal <input type="checkbox"/></p> <p>Mill leat <input type="checkbox"/>      Drainage channels / back drains <input type="checkbox"/></p> <p><b>Bridges and Culvert crossings</b></p> <p>Single Arch bridge <input type="checkbox"/>      Multi-Arch bridge <input type="checkbox"/></p> <p>Single Span bridge <input checked="" type="checkbox"/>      Multi-Span bridge <input type="checkbox"/></p> <p>Box culvert(s) <input type="checkbox"/>      Pipe culvert(s) <input type="checkbox"/>      Arch Culvert(s) <input type="checkbox"/></p> <p><b>Culverted Watercourses</b> (culvert length is greater than just a crossing)</p> <p>Box culvert(s) <input type="checkbox"/>      Pipe culvert(s) <input type="checkbox"/>      Arch Culvert(s) <input type="checkbox"/>      Irregular Culvert(s) <input type="checkbox"/></p> <p><b>Walls and Embankments</b></p> <p>Embankment(s) <input type="checkbox"/>      Raised wall(s) <input checked="" type="checkbox"/>      Retaining wall(s) <input type="checkbox"/></p> <p><b>Control Structures – weirs, gates, dams</b></p> <p>Fixed crest weir <input type="checkbox"/>      Adjustable weir <input type="checkbox"/>      Dam / Barrage <input type="checkbox"/></p> <p>Sluice gates <input type="checkbox"/>      Lock gates <input type="checkbox"/>      Radial gates <input type="checkbox"/></p> <p><b>Storage</b></p> <p>On-line storage (natural) <input type="checkbox"/>      On-line storage (artificial) <input type="checkbox"/>      Off-line storage <input type="checkbox"/></p> <p><b>Outfalls</b></p> <p>Flapped outfall(s) into watercourse <input type="checkbox"/>      Unflapped outfall(s) into watercourse <input type="checkbox"/>  <i>i.e. from smaller watercourses, drains etc. into river / estuary / sea</i></p> <p>Tidal flap(s) <input type="checkbox"/>      Tidal sluice(s) <input type="checkbox"/>  <i>i.e. from main watercourse into estuary / sea</i></p>

	<b>Other</b> Pumping Station <input type="checkbox"/> Erosion Protection <input type="checkbox"/> Sand Dunes <input type="checkbox"/> <b>Additional notes (if required):</b>
<b>2.8 Initial Potential Mitigation Measures</b>	
<b>Non-structural measures</b>	Planning and Development control <input checked="" type="checkbox"/> Sustainable Urban Drainage Systems <input checked="" type="checkbox"/> Flood forecasting / warning <input type="checkbox"/> Change in Operating Procedures for water level control: <input type="checkbox"/> Public awareness campaign <input checked="" type="checkbox"/> Individual property protection <input checked="" type="checkbox"/> Land use management <input checked="" type="checkbox"/>
<b>Structural measures</b>	<b>Strategic development management for floodplain development:</b> <input checked="" type="checkbox"/> <i>(integration of measures into strategic development proposals)</i> <b>Storage:</b> On-line <input type="checkbox"/> Off-line <input type="checkbox"/> <b>Flow diversion:</b> Flood relief channel <input type="checkbox"/> Flood relief culvert <input type="checkbox"/> <b>Increase conveyance:</b> Bridge works <input checked="" type="checkbox"/> Channel works <input type="checkbox"/> Floodplain <input type="checkbox"/> <b>Flood defences:</b> Walls <input checked="" type="checkbox"/> Embankments <input checked="" type="checkbox"/> <b>Localised works:</b> Defence raising <input type="checkbox"/> In-fill gaps <input type="checkbox"/> Trash screen <input type="checkbox"/> <b>Maintenance works:</b> Culvert / channel clearance <input checked="" type="checkbox"/> Asset maintenance <input type="checkbox"/> <b>Relocation of properties:</b> <input type="checkbox"/> <b>Improve existing defences:</b> <input type="checkbox"/> (describe)  <b>Other (describe):</b>

<b>Outcomes</b>				
<b>PFRA Designation</b>	APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/>		<b>FRI Score: 1320</b>	
<b>Site Ground-truthing of PFRA Assessment (hazard mapping and receptors)</b>	<b>High Confidence (good)</b>	<b>Uncertain</b>	<b>Low Confidence (poor)</b>	<b>Not available</b>
			<b>X</b>	
<b>Site Visit Review Score</b>	<b>30</b>			
<b>Recommended Designation</b>	APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/>			
<b>Summary comments (if required)</b>	The main risk of flooding identified by the PFRA hazard mapping is on the right bank of the Groody as it runs through Caherconlish town centre. There is development in this area, however the threshold of these properties is generally raised and they are not considered to be at significant risk of flooding.  There are an insufficient number of critical receptors at significant risk of flooding to warrant designation as an APSR.			



**Photo1:** View from bridge in centre of Caherconlish, looking downstream.



**Photo 2:** Upstream face of bridge in centre of Caherconlish.



**Photo 3:** View from bridge downstream of centre of Caherconlish, looking upstream.



**Photo 4:** View from bridge downstream of centre of Caherconlish, looking downstream.



