

Location: Springfield Co. Clare		Unique ID: Not in PFRA (from PFRA database)	
Initial OPW Designation	APSR <input type="checkbox"/>	AFRR <input checked="" type="checkbox"/>	IRR <input type="checkbox"/>
Co-ordinates	Easting: 162750	Northing: 161850	
River / Catchment / Sub-catchment	River Shannon / Shannon		
Type of Flooding / Flood Risk (identify all that apply)	Fluvial non-tidal <input checked="" type="checkbox"/> Fluvial tidal <input type="checkbox"/> Coastal <input type="checkbox"/>		

Stage 1: Desktop Review		
1.1 Flood History (include review of Floodmaps.ie)	<p>River Flow Path</p> <p>The River Shannon flows from north to south past Springfield, before turning west towards the Shannon Estuary in Limerick. Springfield is comprised of a number of dispersed dwellings located approximately 1.5 kilometres west of the River Shannon.</p> <p>Flood Event Records</p> <p>Five flood records are listed in floodmaps.ie. The flood risk in the area is from the River Shannon</p>	
1.2 Relevant information on flooding issues from OPW and LA staff	<p>PFRA database comments (<i>in italics</i>):</p> <p>Site not identified in the PFRA database</p> <p>Meeting / discussion summary comments:</p> <p>OPW comments</p> <ul style="list-style-type: none"> Springfield repeatedly floods. Widespread flooding in 2009. <p>LA comments</p> <ul style="list-style-type: none"> Should be included as an APSR. Flooded extensively in 2009. Pro-active and vocal community. 	
1.4 PFRA Data		
1.4.1 PFRA hazard mapping	<p>PFRA mapping available in GIS layer: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>PFRA mapping included on FRR map: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	
1.4.2 Summary of Principal Receptors	Type	FRI score (if available)
	<p>Receptors not considered as part of the PFRA process.</p> <p>FRI score not calculated in PFRA.</p>	

1.7 Stage 1 Evaluation	Aspect	Clearly APSR	Uncertain
	Flood History (1.1)	X	
	OPW / LA Information (1.2)	X	
	PFRA Evaluation (1.4)		N/A
	Overall Desktop Evaluation (if any above aspect is uncertain then overall designation is uncertain)	X The overwhelming evidence of significant flood risk outweighs the PFRA conclusion.	
1.8 Proposed level of assessment for Stage 2 site visits	Level A Site Visit		
	Level B Site Visit		X

Stage 2: Site Inspection		Level B Assessment	
Date and Time of Inspection		Date: 27/06/2011	
		Time: 15:00	
Names of inspection team (including OPW/LA staff if present)		James Murray	
2.3 Local knowledge - on-site comments (OPW, LA and any info volunteered by local residents during visit)	<p>The following is a summary of the points raised by local residents during the flood risk review:</p> <p>Residents provided their understanding of the key dates and statistics as far back as the commissioning of Ardnacrusha in 1929.</p> <p>Residents indicated that there is no known flood history in Springfield pre-1995. Since then there has been flooding in 1995, 1999, 2000, 2006 and 2009.</p> <p>Residents indicated that the flood extent was reduced following works carried out in the Plassey area (channel widening works). Residents expressed a strong desire to see these works expanded on, to further reduce the flood risk.</p> <p>Residents want:</p> <ul style="list-style-type: none"> • Accountability from OPW (Waterways Ireland), ESB and County Council • Leadership from OPW • Judicious management of opening of the sluice gates on the old Shannon River <p>A PowerPoint presentation was provided by the local residents to support the above comments.</p>		
	<p>2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes</p> <p>It is clear from the site visit and review of maps that immediately downstream of the confluence of the Shannon and Mulkear Rivers there is a significant narrowing of the Shannon River which may have the potential to limit the pass forward flow and hence increase upstream levels.</p>		
2.6 Defence Assets			
Formal and Informal Flood Defence Assets <i>(include effective and ineffective assets to inform asset survey and potential mitigation measures)</i>	Open Channel Watercourses		
	Man-made river channel <input type="checkbox"/>	Flood relief channel <input checked="" type="checkbox"/>	Canal <input type="checkbox"/>
	Mill leat <input type="checkbox"/>	Drainage channels / back drains <input checked="" type="checkbox"/>	
	Bridges and Culvert crossings		
	Single Arch bridge <input type="checkbox"/>	Multi-Arch bridge <input type="checkbox"/>	
Single Span bridge <input type="checkbox"/>	Multi-Span bridge <input type="checkbox"/>		
Box culvert(s) <input type="checkbox"/>	Pipe culvert(s) <input type="checkbox"/>	Arch Culvert(s) <input type="checkbox"/>	
Culverted Watercourses (culvert length is greater than just a crossing)			
Box culvert(s) <input type="checkbox"/>	Pipe culvert(s) <input type="checkbox"/>	Arch Culvert(s) <input type="checkbox"/>	Irregular Culvert(s) <input type="checkbox"/>
Walls and Embankments			
Embankment(s) <input type="checkbox"/>	Raised wall(s) <input type="checkbox"/>	Retaining wall(s) <input type="checkbox"/>	

	<p>Control Structures – weirs, gates, dams</p> <p>Fixed crest weir <input type="checkbox"/> Adjustable weir <input type="checkbox"/> Dam / Barrage <input type="checkbox"/> Sluice gates <input type="checkbox"/> Lock gates <input type="checkbox"/> Radial gates <input type="checkbox"/></p> <p>Storage</p> <p>On-line storage (natural) <input type="checkbox"/> On-line storage (artificial) <input type="checkbox"/> Off-line storage <input type="checkbox"/></p> <p>Outfalls</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> <p>Other</p> <p>Pumping Station <input type="checkbox"/> Erosion Protection <input type="checkbox"/> Sand Dunes <input type="checkbox"/></p> <p>Additional notes (if required):</p> <p>No assets within the APSR boundary were identified. The flood relief channel is downstream of the confluence of the Mulkear and Shannon Rivers well outside the APSR boundary.</p>
<p>2.8 Initial Potential Mitigation Measures</p>	
<p>Non-structural measures</p>	<p>Planning and Development control <input checked="" type="checkbox"/> Sustainable Urban Drainage Systems <input type="checkbox"/> Flood forecasting / warning <input checked="" type="checkbox"/> Change in Operating Procedures for water level control: <input checked="" type="checkbox"/> Public awareness campaign <input type="checkbox"/> Individual property protection <input checked="" type="checkbox"/> Land use management <input checked="" type="checkbox"/></p>
<p>Structural measures</p>	<p>Strategic development management for floodplain development: <input type="checkbox"/> <i>(integration of measures into strategic development proposals)</i></p> <p>Storage: On-line <input checked="" type="checkbox"/> Off-line <input type="checkbox"/></p> <p>Flow diversion: Flood relief channel <input type="checkbox"/> Flood relief culvert <input type="checkbox"/></p> <p>Increase conveyance: Bridge works <input type="checkbox"/> Channel works <input checked="" type="checkbox"/> Floodplain <input checked="" type="checkbox"/></p> <p>Flood defences: Walls <input type="checkbox"/> Embankments <input type="checkbox"/></p> <p>Localised works: Defence raising <input type="checkbox"/> In-fill gaps <input type="checkbox"/> Trash screen <input type="checkbox"/></p> <p>Maintenance works: Culvert / channel clearance <input type="checkbox"/> Asset maintenance <input type="checkbox"/></p> <p>Relocation of properties: <input checked="" type="checkbox"/></p> <p>Improve existing defences: <input type="checkbox"/> (describe)</p> <p>Other (describe):</p>

Outcomes	
Recommended Designation	APSR <input checked="" type="checkbox"/> not an APSR <input type="checkbox"/> IRR <input type="checkbox"/>
Summary Comments (if required)	<p>Springfield has repeatedly flooded over recent years. The PFRA mapping does not predict a significant flood risk; however the historic flooding evidence indicates that the mapping is underestimating flood risk in the area, with this conclusion supported by both Local Authorities and the OPW.</p> <p>Springfield is recommended to be designated as an APSR.</p>



Photo1: View of flood relief channel downstream of the Mulkear / Shannon confluence



Photo 2: View of flood relief channel downstream of the Mulkear / Shannon confluence

