

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)	River Flow Path 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.	
	Flood Event Records Five flood records are listed in floodmaps.ie. The flood risk in the area is from the River Shannon	
1.2 Relevant information on flooding issues from OPW and LA staff	PFRA database comments (<i>in italics</i>): Site not identified in the PFRA database	
	Meeting / discussion summary comments: OPW comments <ul style="list-style-type: none"> Springfield repeatedly floods. Widespread flooding in 2009. LA comments <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	PFRA mapping available in GIS layer:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	PFRA mapping included on FRR map:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1.4.2 Summary of Principal Receptors	Type	FRI score (if available)
	Receptors not considered as part of the PFRA process. FRI score not calculated in PFRA.	

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>		
2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes	<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>
2.8 Initial Potential Mitigation Measures	
Non-structural measures	<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>
Structural measures	<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

