

Location: Athlone, Co. Westmeath (including townland in Roscommon)		Unique ID: 260448 (from PFRA database)	
Initial OPW Designation	APSR <input checked="" type="checkbox"/>	AFRR <input type="checkbox"/>	IRR <input type="checkbox"/>
Co-ordinates	Easting: 205000	Northing: 239999	
River / Catchment / Sub-catchment	Shannon and tributaries / 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 <p>The River Shannon runs through Athlone and flows southward towards Lough Derg.</p> <p>There are two main tributaries to the Shannon in Athlone. The AI River flows westerly to it's confluence with the Shannon near the weir. The Cross River flows easterly to it's confluence with the Shannon downstream of the weir.</p> Flood Event Records <p>Thirty flood records are listed in floodmaps.ie. The main flooding is from the River Shannon but the AI river also the cause of flooding.</p>
1.2 Relevant information on flooding issues from OPW and LA staff	PFRA database comments (<i>in italics</i>): OPW comments <i>Designated APSR on the basis of predictive analysis and historical extents. Combine with Clonown and Creggan. Flooding from Shannon and AI rivers</i> LA comments <i>WWTW and Waterworks at risk – Waterworks within 600mm – Nov '09 WWTW – Golden Island, underwater Nov '09,- Risk of powerloss due to substations at the lock</i> Meeting / discussion summary comments: OPW comments <ul style="list-style-type: none"> Athlone floods from the Shannon and has a long history of flooding River AI south east of town is also a cause of flooding to parts of Athlone. LA comments <ul style="list-style-type: none"> There is a planning application to the east at Creggan for a large development. This site is identified as being in the flood plain of the River AI within the PFRA. Levels in the vicinity of the site are controlled by sluice gates. Westmeath County Council suggested a range of potential flood risk management options that should be explored for Athlone, including removal of Parteen Weir and a better control of levels within Lough Derg and Lough Ree.

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)
	Primary_School		252.5
	Nursing_Home		25
	Hospital		250
	WTP		25
	UWWTP		25
	Arch_Local		3.1
	Arch_Regional		197
	Arch_National_		25.5
	Monument_LV		42.1
Total		8141.25	
1.7 Stage 1 Evaluation	Aspect	Clearly APSR	Uncertain
	Flood History (1.1)	X	
	OPW / LA Information (1.2)	X	
	PFRA Evaluation (1.4)	X	
	Overall Desktop Evaluation (if any above aspect is uncertain then overall designation is uncertain)	X	
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: 26/05/11 Time: 18:00	
Names of inspection team (including OPW/LA staff if present)		Peter Smyth James Murray 	
2.3 Local knowledge - on-site comments (OPW, LA and any info volunteered by local residents during visit)	No on-site comments.		
2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes	<p>There are three bridge crossings within the town centre over the river Shannon; two road and one rail.</p> <p>The Athlone weir is at the downstream end of the town. Its span is approximately 200m. The gates controlling the levels at the weir only span 30 to 40m of this length. The ability of the sluice gates to provide any meaningful control of levels upstream of Athlone during extreme flow conditions is questionable.</p> <p>A large section of the AI River, on its approach to its confluence with the Shannon is culverted. There are several culverts upstream which could cause a constriction to flow.</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>	<div style="margin-bottom: 10px;"> Open Channel Watercourses Man-made river channel <input type="checkbox"/> Flood relief channel <input type="checkbox"/> Canal <input type="checkbox"/> Mill leat <input type="checkbox"/> Drainage channels / back drains <input type="checkbox"/> </div> <div style="margin-bottom: 10px;"> Bridges and Culvert crossings Single Arch bridge <input type="checkbox"/> Multi-Arch bridge <input checked="" type="checkbox"/> Single Span bridge <input type="checkbox"/> Multi-Span bridge <input type="checkbox"/> Box culvert(s) <input type="checkbox"/> Pipe culvert(s) <input checked="" type="checkbox"/> Arch Culvert(s) <input type="checkbox"/> </div> <div style="margin-bottom: 10px;"> 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"/> </div> <div style="margin-bottom: 10px;"> Walls and Embankments Embankment(s) <input type="checkbox"/> Raised wall(s) <input type="checkbox"/> Retaining wall(s) <input checked="" type="checkbox"/> </div> <div style="margin-bottom: 10px;"> Control Structures – weirs, gates, dams Fixed crest weir <input checked="" type="checkbox"/> Adjustable weir <input type="checkbox"/> Dam / Barrage <input type="checkbox"/> Sluice gates <input checked="" type="checkbox"/> Lock gates <input checked="" type="checkbox"/> Radial gates <input type="checkbox"/> </div> <div style="margin-bottom: 10px;"> Storage On-line storage (natural) <input checked="" type="checkbox"/> On-line storage (artificial) <input type="checkbox"/> Off-line storage <input type="checkbox"/> </div> <div> Outfalls Flapped outfall(s) into watercourse <input type="checkbox"/> Unflapped outfall(s) into watercourse <input checked="" type="checkbox"/> </div>		

	<i>i.e. from smaller watercourses, drains etc. into river / estuary / sea</i> Tidal flap(s) <input type="checkbox"/> Tidal sluice(s) <input type="checkbox"/> <i>i.e. from main watercourse into estuary / sea</i> Other Pumping Station <input type="checkbox"/> Erosion Protection <input type="checkbox"/> Sand Dunes <input type="checkbox"/> Additional notes (if required):
2.8 Initial Potential Mitigation Measures	
Non-structural measures	Planning and Development control <input checked="" type="checkbox"/> Sustainable Urban Drainage Systems <input checked="" 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 checked="" type="checkbox"/> Individual property protection <input checked="" type="checkbox"/> Land use management <input checked="" type="checkbox"/>
Structural measures	Strategic development management for floodplain development: <input type="checkbox"/> <i>(integration of measures into strategic development proposals)</i> Storage: On-line <input checked="" type="checkbox"/> Off-line <input type="checkbox"/> Flow diversion: Flood relief channel <input type="checkbox"/> Flood relief culvert <input type="checkbox"/> Increase conveyance: Bridge works <input type="checkbox"/> Channel works <input checked="" type="checkbox"/> Floodplain <input type="checkbox"/> Flood defences: Walls <input checked="" type="checkbox"/> Embankments <input type="checkbox"/> Localised works: Defence raising <input type="checkbox"/> In-fill gaps <input type="checkbox"/> Trash screen <input type="checkbox"/> Maintenance works: Culvert / channel clearance <input checked="" type="checkbox"/> Asset maintenance <input type="checkbox"/> Relocation of properties: <input checked="" type="checkbox"/> Improve existing defences: <input type="checkbox"/> (describe) Other (describe):

Outcomes	
Recommended Designation	APSR <input checked="" type="checkbox"/> not an APSR <input type="checkbox"/> IRR <input type="checkbox"/>
Summary Comments (if required)	<p>There are two different sources of flooding within Athlone; the Shannon and the AI River. Both of these rivers have very different hydrological characteristics.</p> <p>Athlone has a long history of flooding. The PFRA mapping predicts an ongoing significant flood risk with this conclusion supported by both Local Authorities and the OPW. Athlone was confirmed as an APSR following a desk based assessment, with no on-site verification of this conclusion required.</p>



Photo1: Sluices at weir in Athlone.



Photo 2: Weir and sluices in Athlone



Photo 3: View of Railway Bridge in Athlone



Photo 4: View of Road Bridge in Athlone.

