

Location: Shannon Harbour, Co Offaly		Unique ID: 255470 (from PFRA database)	
Initial OPW Designation	APSR <input checked="" type="checkbox"/>	AFRR <input type="checkbox"/>	IRR <input type="checkbox"/>
Co-ordinates	Easting: 203065	Northing: 219015	
River / Catchment / Sub-catchment	Brosna and 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 Grand Canal flows through Shannon Harbour, with the town to the south of the canal. The river Brosna flows westerly towards it's confluence with the river Shannon on the north side of the canal. The river Shannon flows in a southerly direction to the west of Shannon Harbour. The confluence of the Brosna, Grand Canal and the river Shannon are all immediately west of Shannon Harbour.</p> <p>Flood Event Records</p> <p>Four flood records are listed in floodmaps.ie with the main flood risk 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>OPW comments <i>Designated APSR on basis of reports of historical flood events and LA comments. On the Shannon - Suspect Predictive Mapping - Known historic flooding of properties</i></p> <p>LA comments <i>Shannon Harbour (Clonony Beg T:)Small Village – 230Historical flooding, every three yearsRoad risen – no flood reliefArea flooded annual – 2006, 2009Treatment works gets flooded</i></p> <p>Meeting / discussion summary comments:</p> <p>OPW comments</p> <ul style="list-style-type: none"> Flood risk is from the River Shannon <p>LA comments</p> <ul style="list-style-type: none"> There is a serious flood risk at Shannon Harbour from the Shannon.

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. <i>Flooding in 2009 exceeds PFRA mapping FRI score underestimated for Shannon Harbour.</i>		
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: 15/04/11	
		Time: 10:30	
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	There are no hydraulic constrictions at Shannon Harbour.		
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="text-align: center;">Open Channel Watercourses</div> Man-made river channel <input type="checkbox"/> Flood relief channel <input type="checkbox"/> Canal <input checked="" type="checkbox"/> Mill leat <input type="checkbox"/> Drainage channels / back drains <input type="checkbox"/>		
	<div style="text-align: center;">Bridges and Culvert crossings</div> 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"/>		
	<div style="text-align: center;">Culverted Watercourses (culvert length is greater than just a crossing)</div> 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 style="text-align: center;">Walls and Embankments</div> Embankment(s) <input type="checkbox"/> Raised wall(s) <input type="checkbox"/> Retaining wall(s) <input type="checkbox"/>		
	<div style="text-align: center;">Control Structures – weirs, gates, dams</div> 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"/>		
	<div style="text-align: center;">Storage</div> On-line storage (natural) <input checked="" type="checkbox"/> On-line storage (artificial) <input type="checkbox"/> Off-line storage <input type="checkbox"/>		
	<div style="text-align: center;">Outfalls</div> 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> Tidal flap(s) <input type="checkbox"/> Tidal sluice(s) <input type="checkbox"/> <i>i.e. from main watercourse into estuary / sea</i>		
	<div style="text-align: center;">Other</div> 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 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 type="checkbox"/> Land use management <input checked="" type="checkbox"/>
Structural measures	Strategic development management for floodplain development: <input checked="" 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 type="checkbox"/> Floodplain <input type="checkbox"/> Flood defences: Walls <input checked="" type="checkbox"/> Embankments <input checked="" 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 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)	Shannon Harbour has a history of flooding. The PFRA mapping predicts an ongoing significant flood risk with this conclusion supported by both the Local Authority and the OPW. Shannon Harbour was confirmed as an APSR following a desk based assessment, with no on-site verification required.



Photo 1: River Brosna and Grand canal confluence with the River Shannon, downstream of Shannon Harbour.



Photo 2: The Grand Canal at Shannon Harbour looking towards the River Shannon.



Photo 3: Road Bridge over the Grand Canal at Shannon Harbour.



Photo 4: Looking south down local road at Shannon Harbour. Road is known to flood.

