

Location: Abbeyshrule, Co. Longford		Unique ID: 260,446 (from PFRA database)	
Initial OPW Designation	APSR <input checked="" type="checkbox"/>	AFRR <input type="checkbox"/>	IRR <input type="checkbox"/>
Co-ordinates	Easting: 223,250	Northing: 260,250	
River / Catchment / Sub-catchment	River Inny / Owenacharra River / River Shannon (Lough Ree)		
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 The River Inny flows through the township of Abbeyshrule on the eastern town boundary whilst the Royal Canal forms the perimeter on the western side. The village has a canal harbour with a boat slip.</p> <p>Flood Event Records There are no records of flood events for Abbeyshrule on floodmaps.ie.</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 the basis of predictive analysis.</i></p> <p>LA comments <i>Inny Abbeyshrule - Potentially due to new development – twenty houses. Questioned the extent shown in the PFRA maps. Possibly not the experience but not to be ruled out. Should be compared to 2009 flood extent. Farmland.</i></p> <p>Meeting / discussion summary comments:</p> <p>OPW comments</p> <ul style="list-style-type: none"> • There are no flood risk issues that they are aware of. • The land downstream is low and acts as floodplain. • New houses near the church may be at risk. • The airfield is not known to be at significant risk. <p>LA comments</p> <ul style="list-style-type: none"> • Farmland flooded during the November 2009 event. • A public water supply intake is located upstream of the village; this is the source for the regional water supply. • The airfield was just about operational during the 2009 floods. Longford CoCo obtained aerial photos taken from an aircraft which took off from there. At that point (2 days post-peak), parts of the runway were on the cusp of being flooded. • Main flooding risk is downstream of the village. • Would not expect flooding upstream of Webb's Bridge. Water levels reached the bank crest in 2009 but did not overtop the banks near to the village. • Works were completed in 2009 to reprofile the river banks. • Unsure how the capacities of the canal aqueduct upstream of the village and Webb's Bridge downstream compare. • Consider that the village should be an APSR due to the water intake alone.

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)
	WTP		25
	Arch_Regional		31
	Arch_National		25
	Monument_LV		51
	TOTAL		402.4
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		X
	Level B Site Visit		

Stage 2: Site Inspection		Level A Assessment		
Date and Time of Inspection		Date: 19/05/11		
		Time: 15:30		
Names of inspection team (including OPW/LA staff if present)		Alan Dew		
		James Murray		
2.1 Ground-truthing of Hazard Mapping	Fluvial non-tidal <input checked="" type="checkbox"/> Fluvial tidal <input type="checkbox"/> Coastal <input type="checkbox"/> Not available <input type="checkbox"/>			
	Extent of potential flood risk shown on the PFRA mapping is reasonable.			
2.2 Spot check ground-truthing of selected receptor vulnerability (also note any key receptors noted during visit that are not identified by PFRA)	Receptor Type	Location description (if not obvious)	Exists?	Overall Vulnerability / Risk (L / M / H)
	Residential properties	Right bank	Yes	M
	Commercial property	Airfield, left bank	Yes	M
	Water supply intake / WTP	Right bank,	Yes	M
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>Webb's Bridge, downstream of the village, comprises a large double arch structure (~15m height), and is not considered to present a constraint to flow.</p> <p>The Royal Canal aqueduct upstream of the village comprises a 5 arch structure. The arch nearest to the right bank has silted up and was not in use at the time of inspection; the arch would however provide additional capacity at high flows. There is a low likelihood of the aqueduct's capacity being reached.</p>			

2.5 SVRS Assessment Matrix

Weightings:

A - x1 - reasonable expectation of flooding

B - x2 - high expectation of flooding

C - x5 - risk to life

Approx. Number	1 to 4				5 to 20				>20			
Weighting		A	B	C		A	B	C		A	B	C
Property (domestic)	10				100	X			200			
Property (small retail or business)	20				200				400			
Property (large retail or business)	50	X			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	X			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			
Total SVRS									200			

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 type="checkbox"/> Canal <input type="checkbox"/> Mill leat <input type="checkbox"/> Drainage channels / back drains <input type="checkbox"/>		
	Bridges and Culvert crossings Single Arch bridge <input checked="" 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 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"/>		
	Control Structures – weirs, gates, dams 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"/>		
	Storage On-line storage (natural) <input type="checkbox"/> On-line storage (artificial) <input type="checkbox"/> Off-line storage <input type="checkbox"/>		
	Outfalls 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>		

	Other Pumping Station <input type="checkbox"/> Erosion Protection <input type="checkbox"/> Sand Dunes <input type="checkbox"/> Additional notes (if required): Regional water supply intake
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 type="checkbox"/> Public awareness campaign <input checked="" type="checkbox"/> Individual property protection <input type="checkbox"/> Land use management <input 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 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 type="checkbox"/> Improve existing defences: <input type="checkbox"/> (describe) Other (describe):

Outcomes				
PFRA Designation	APSR <input checked="" type="checkbox"/> not an APSR <input type="checkbox"/> IRR <input type="checkbox"/>		FRI Score: 402.4	
Site Ground-truthing of PFRA Assessment (hazard mapping and receptors)	High Confidence (good)	Uncertain	Low Confidence (poor)	Not available
	X			
Site Visit Review Score	200			
Recommended Designation	APSR <input checked="" type="checkbox"/> not an APSR <input type="checkbox"/> IRR <input type="checkbox"/>			
Summary Comments (if required)	The River Inny is a significant watercourse and its extensive natural floodplain in the area is indicative of the extent of any likely major flood extents. The developments in the low lying areas of Abbeyshrule are at risk of flooding, which could be extensive in a major flood event. There are sufficient critical receptors, including the regional water supply intake, at risk of flooding to warrant designation as an APSR.			



Photo 1: Whiteworth Aqueduct viewed from the upstream right bank of the River Inny.



Photo 2: Road bridge downstream of the village viewed from the upstream right bank



Photo 3: River Inny looking downstream from the airfield access bridge



Photo 4: New housing development viewed from the right bank of the River Inny.

