

Location: Knockvicar, Co. Roscommon		Unique ID: 265482 (from PFRA database)	
Initial OPW Designation	APSR <input type="checkbox"/>	AFRR <input checked="" type="checkbox"/>	IRR <input type="checkbox"/>
Co-ordinates	Easting: 187391	Northing: 305847	
River / Catchment / Sub-catchment	Boyle River / 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 The River Boyle flows from west to east through Lough Key and on to Knockvicar. The R285 which is the main road through Knockvicar crosses the Boyle at Knockvicar.</p> <p>Flood Event Records There are no records of flood events on floodmaps.ie for this location.</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>Not designated APSR as failed to reach predictive analysis threshold.</i></p> <p>LA comments <i>STW at risk(private) PO flooded Roads. Same as Cootehall – Boyle River Part of Shannon problem/solution</i></p> <p>Meeting / discussion summary comments:</p> <p>OPW comments</p> <ul style="list-style-type: none"> • Not included in Boyle scheme. • Flood risk from Lough Key. <p>LA comments</p> <ul style="list-style-type: none"> • The road to the north west of Knockvicar floods. • There is a playground that floods, and • A restaurant and new development may be at risk.

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)		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: 28/04/11		
		Time: 09:00		
Names of inspection team (including OPW/LA staff if present)		Mathieu Valois		
		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"/> PFRA hazard mapping provides a good indication of flood risk.			
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)
	1 post office and 1 house and 1 OPW office and some farm sheds with wwtw	Post office and house (one building) and opw office are on the left bank just upstream of river Farm sheds with wwtw are just downstream of the bridge on the left bank	Yes	Medium
2.3 Local knowledge - on-site comments (OPW, LA and any info volunteered by local residents during visit)	Waterways Ireland lock gate keeper confirmed water levels in November 2009, water rose to the top of the lock wall. This was a 6in (150mm) increase in level in a 24hr period. He believes flooding was not exacerbated by any hydraulic constraint. Local post office and home owner, agrees flooding was due to extreme rainfall but believes the initial Lough levels were too high and could not cater for the rainfall. His post office was flooded during the event.			
2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes	A three arch bridge with two flood relief arches exists in Knockvicar. The bridge has good capacity but could have caused a constriction to flow during the 2009 event.			

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	X			100				200			
Property (small retail or business)	20	X			200				400			
Property (large retail or business)	50				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								80				
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 type="checkbox"/>											
	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 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 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"/>											
	Storage On-line storage (natural) <input checked="" 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>											

	<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>2.8 Initial Potential Mitigation Measures</p>	
<p>Non-structural measures</p>	<p>Planning and Development control <input checked="" type="checkbox"/></p> <p>Sustainable Urban Drainage Systems <input type="checkbox"/></p> <p>Flood forecasting / warning <input checked="" type="checkbox"/></p> <p>Change in Operating Procedures for water level control: <input checked="" type="checkbox"/></p> <p>Public awareness campaign <input checked="" type="checkbox"/></p> <p>Individual property protection <input checked="" type="checkbox"/></p> <p>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 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 type="checkbox"/> Floodplain <input type="checkbox"/></p> <p>Flood defences: Walls <input checked="" type="checkbox"/> Embankments <input checked="" 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>

<p>Outcomes</p>				
<p>PFRA Designation</p>	<p>APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/></p>	<p>FRI Score: Not scored</p>		
<p>Site Ground-truthing of PFRA Assessment (hazard mapping and receptors)</p>	<p>High Confidence (good)</p>	<p>Uncertain</p>	<p>Low Confidence (poor)</p>	<p>Not available</p>
	<p>X</p>			
<p>Site Visit Review Score</p>	<p>80</p>			
<p>Recommended Designation</p>	<p>APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/></p>			
<p>Summary Comments (if required)</p>	<p>Although Knockvicar has a history of flooding, there are an insufficient number of critical receptors at significant risk of flooding to warrant designation as an APSR.</p>			



Photo 1: Bridge over the Boyle at Knockvicar (downstream face)



Photo 2: River Boyle at Knockvicar

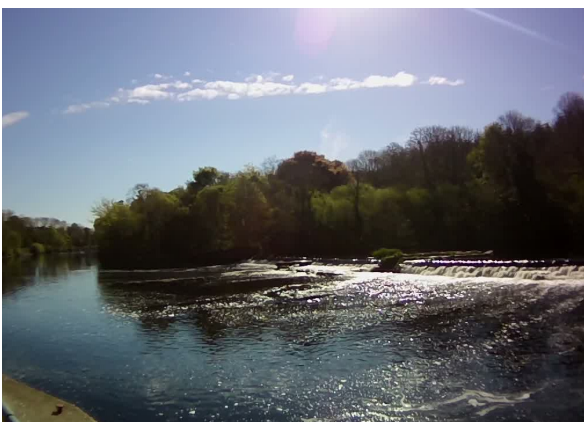


Photo 3: Weir at Lough Key



Photo 4: Lock gates at Lough Key, upstream of Knockvicar

