

<b>Location: Roscrea, Co. Tipperary</b>		<b>Unique ID: 250440</b> (from PFRA database)	
<b>Initial OPW Designation</b>	<b>APSR</b> <input checked="" type="checkbox"/>	<b>AFRR</b> <input type="checkbox"/>	<b>IRR</b> <input type="checkbox"/>
<b>Co-ordinates</b>	<b>Easting: 213500</b>	<b>Northing: 189500</b>	
<b>River / Catchment / Sub-catchment</b>	<b>Bunow River / Little Brosna / Shannon</b>		
<b>Type of Flooding / Flood Risk</b> (identify all that apply)	<b>Fluvial non-tidal</b> <input checked="" type="checkbox"/> <b>Fluvial tidal</b> <input type="checkbox"/> <b>Coastal</b> <input type="checkbox"/>		

<b>Stage 1: Desktop Review</b>	
<b>1.1 Flood History (include review of Floodmaps.ie)</b>	<b>River Flow Path</b> <p>The Bunow river flows southerly through the town of Roscrea before turning westerly towards it's confluence with the Little Brosna.</p> <p>The route of the river through the town is heavily modified with significant development on both banks.</p> <b>Flood Event Records</b> <p>No recorded events on floodmaps.ie.</p>
<b>1.2 Relevant information on flooding issues from OPW and LA staff</b>	<b>PFRA database comments (<i>in italics</i>):</b> <p><b>OPW comments</b>  <i>Designated APSR on the basis of predictive analysis and historical extents. No wedges Maintain as APSR and Risk Review (as required for all APSRs) will confirm status</i></p> <p><b>LA comments</b>  <i>Was there a flood at Tesco? Some location, about 15 years ago. Questioning inclusion? Leave in but no knowledge of serious risk. More local knowledge needed. Check predictive</i></p> <p><b>Meeting / discussion summary comments:</b></p> <p><b>LA comments</b></p> <ul style="list-style-type: none"> <li>• Tipperary North are unaware of any flooding in Roscrea.</li> <li>• Flooding in Tesco may have been restricted to the car park.</li> </ul>

<b>1.4 PFRA Data</b>			
<b>1.4.1 PFRA hazard mapping</b>	<b>PFRA mapping available in GIS layer:</b>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<b>PFRA mapping included on FRR map:</b>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>1.4.2 Summary of Principal Receptors</b>	<b>Type</b>		<b>FRI score (if available)</b>
	UWWTPLoc		25
	Arch_Local		83
	Arch_Regional		112.2
	<b>Total</b>		<b>1072.5</b>
<b>1.7 Stage 1 Evaluation</b>	<b>Aspect</b>	<b>Clearly APSR</b>	<b>Uncertain</b>
	<b>Flood History (1.1)</b>		<b>X</b>
	<b>OPW / LA Information (1.2)</b>		<b>X</b>
	<b>PFRA Evaluation (1.4)</b>	<b>X</b>	
	<b>Overall Desktop Evaluation</b> (if any above aspect is uncertain then overall designation is uncertain)		<b>X</b>
<b>1.8 Proposed level of assessment for Stage 2 site visits</b>	<b>Level A Site Visit</b>		<b>X</b>
	<b>Level B Site Visit</b>		

<b>Stage 2: Site Inspection</b>		<b>Level A Assessment</b>		
<b>Date and Time of Inspection</b>		<b>Date: 02/06/11</b>		
		<b>Time: 14:00</b>		
<b>Names of inspection team (including OPW/LA staff if present)</b>		<b>Mathieu Valois</b>		
		<b>James Murray</b>		
<b>2.1 Ground-truthing of Hazard Mapping</b>	<b>Fluvial non-tidal</b> <input checked="" type="checkbox"/> <b>Fluvial tidal</b> <input type="checkbox"/> <b>Coastal</b> <input type="checkbox"/> <b>Not available</b> <input type="checkbox"/>			
	PFRA hazard mapping seems accurate through Roscrea.			
<b>2.2 Spot check ground-truthing of selected receptor vulnerability</b>  <b>(also note any key receptors noted during visit that are not identified by PFRA)</b>	<b>Receptor Type</b>	<b>Location description (if not obvious)</b>	<b>Exists?</b>	<b>Overall Vulnerability / Risk (L / M / H)</b>
	Retail  WWTP	Throughout the town  Not located	Yes	Medium  Risk not assessed.
<b>2.3 Local knowledge - on-site comments</b>  <b>(OPW, LA and any info volunteered by local residents during visit)</b>	No on-site comments.			
<b>2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes</b>	There are several bridges of low capacity running through the town centre. The river channel is heavily modified and has two severe 90 degree bends.  The modified nature of the watercourse through the town centre along with several bridges of low capacity indicate that the river will be heavily constricted in times of high flows.			

## 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				200			
Property (small retail or business)	20				200				400	X		
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				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			
<b>Total SVRS</b>									<b>400</b>			

## 2.6 Defence Assets

<b>Formal and Informal Flood Defence Assets</b> <i>(include effective and ineffective assets to inform asset survey and potential mitigation measures)</i>	<b>Open Channel Watercourses</b> Man-made river channel <input checked="" type="checkbox"/> Flood relief channel <input type="checkbox"/> Canal <input type="checkbox"/> Mill leat <input type="checkbox"/> Drainage channels / back drains <input type="checkbox"/>  <b>Bridges and Culvert crossings</b> Single Arch bridge <input type="checkbox"/> Multi-Arch bridge <input type="checkbox"/> Single Span bridge <input checked="" type="checkbox"/> Multi-Span bridge <input type="checkbox"/> Box culvert(s) <input checked="" type="checkbox"/> Pipe culvert(s) <input type="checkbox"/> Arch Culvert(s) <input type="checkbox"/>  <b>Culverted Watercourses</b> (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"/>  <b>Walls and Embankments</b> Embankment(s) <input type="checkbox"/> Raised wall(s) <input checked="" type="checkbox"/> Retaining wall(s) <input checked="" type="checkbox"/>  <b>Control Structures – weirs, gates, dams</b> 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"/>  <b>Storage</b> On-line storage (natural) <input type="checkbox"/> On-line storage (artificial) <input type="checkbox"/> Off-line storage <input type="checkbox"/>  <b>Outfalls</b> 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>
---	---

	<b>Other</b> Pumping Station <input type="checkbox"/> Erosion Protection <input type="checkbox"/> Sand Dunes <input type="checkbox"/> <b>Additional notes (if required):</b> The watercourse through Roscrea is heavily modified, the result of which means that there are significant number of walls that may be acting as flood defences throughout the town. A full and detailed inspection will be required to identify all informal assets in Roscrea.
<b>2.8 Initial Potential Mitigation Measures</b>	
<b>Non-structural measures</b>	Planning and Development control <input checked="" type="checkbox"/> Sustainable Urban Drainage Systems <input checked="" type="checkbox"/> Flood forecasting / warning <input type="checkbox"/> Change in Operating Procedures for water level control: <input type="checkbox"/> Public awareness campaign <input type="checkbox"/> Individual property protection <input checked="" type="checkbox"/> Land use management <input type="checkbox"/>
<b>Structural measures</b>	<b>Strategic development management for floodplain development:</b> <input type="checkbox"/> <i>(integration of measures into strategic development proposals)</i> <b>Storage:</b> On-line <input type="checkbox"/> Off-line <input type="checkbox"/> <b>Flow diversion:</b> Flood relief channel <input type="checkbox"/> Flood relief culvert <input checked="" type="checkbox"/> <b>Increase conveyance:</b> Bridge works <input checked="" type="checkbox"/> Channel works <input checked="" type="checkbox"/> Floodplain <input type="checkbox"/> <b>Flood defences:</b> Walls <input checked="" type="checkbox"/> Embankments <input type="checkbox"/> <b>Localised works:</b> Defence raising <input type="checkbox"/> In-fill gaps <input checked="" type="checkbox"/> Trash screen <input type="checkbox"/> <b>Maintenance works:</b> Culvert / channel clearance <input checked="" type="checkbox"/> Asset maintenance <input checked="" type="checkbox"/> <b>Relocation of properties:</b> <input type="checkbox"/> <b>Improve existing defences:</b> <input type="checkbox"/> (describe)  <b>Other (describe):</b>

<b>Outcomes</b>				
<b>PFRA Designation</b>	<b>APSR</b> <input checked="" type="checkbox"/> <b>not an APSR</b> <input type="checkbox"/> <b>IRR</b> <input type="checkbox"/>		<b>FRI Score: 1072.5</b>	
<b>Site Ground-truthing of PFRA Assessment (hazard mapping and receptors)</b>	<b>High Confidence (good)</b>	<b>Uncertain</b>	<b>Low Confidence (poor)</b>	<b>Not available</b>
	X			
<b>Site Visit Review Score</b>	400			
<b>Recommended Designation</b>	<b>APSR</b> <input checked="" type="checkbox"/> <b>not an APSR</b> <input type="checkbox"/> <b>IRR</b> <input type="checkbox"/>			
<b>Summary Comments (if required)</b>	While there is no historic flood risk in Roscrea there are sufficient critical receptors, most notable a large number of retail properties, at significant risk of flooding to warrant Roscreas recommended designation as an APSR.  The modified river channel and low capacity bridges serve to exacerbate flood risk while the extensive development increases the significance of any potential flood event in Roscrea.			



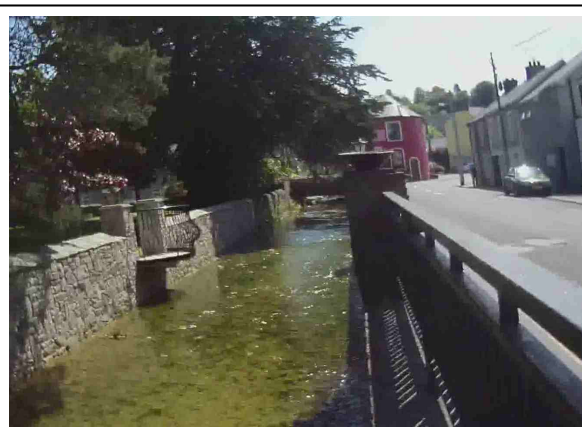
**Photo1:** Bunow River in Roscrea, upstream of town centre, looking upstream.



**Photo 2:** Bridge with low soffit over the Bunow River in Roscrea, downstream face.



**Photos 3:** 90 degree bend on the Bunow River in Roscrea.



**Photo 4:** Bunow River in Roscrea, looking downstream.



