

<b>Location: Newport, Co. Tipperary</b>		<b>Unique ID: 240433</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: 172620</b>	<b>Northing: 162375</b>	
<b>River / Catchment / Sub-catchment</b>	<b>Newport/Mulcair River / Mulkear / 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>	<p><b>River Flow Path</b></p> <p>The Mulcair/Newport river flows in a southerly direction through the town of Newport. The Small river flows west and then south towards its confluence with the Mulcair just upstream of the bridge in the centre of Newport. The Mulcair then flows southerly until its confluence with the Mulkear. The rivers are in valleys and are very fast flowing.</p> <p><b>Flood Event Records</b></p> <p>Nine flood records are listed in floodmaps.ie. These events are not restricted to Newport town itself and there is little further information on floodmaps.ie to determine the mechanism or source of flooding</p>
<b>1.2 Relevant information on flooding issues from OPW and LA staff</b>	<p><b>PFRA database comments (<i>in italics</i>):</b></p> <p><b>OPW comments</b>  <i>Designated APSR on the basis of predictive analysis. One wedge D/S, but not in village - Most predictive is residential - No history - Neutral LA Opinion? Maintain as APSR and Risk Review (as required for all APSRs) will confirm status, taking into account Local Authority information ref. problem and ongoing drainage issue</i></p> <p><b>LA comments</b>  <i>Above bridge still flooding New scheme complete? Carried out by OPW as part of Mulkear scheme? Didn't flood in Nov but very close Not in village just at Egan's site? Some location flood very regularly, agricultural land? Upstream still at risk, despite the Previous service water problem, backing up. Solved but still insufficient drainage system in town.</i></p> <p><b>Meeting / discussion summary comments:</b></p> <p><b>LA comments</b></p> <ul style="list-style-type: none"> <li>• There is an OPW drainage scheme in Newport</li> <li>• As a result of the scheme no properties are at risk downstream of the bridge.</li> <li>• There is a history of flooding in Newport.</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>
	Arch_Regional		10
	Monument_LV		20
	<b>Total</b>		<b>336.7</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:09/06/11</b>		
		<b>Time:09:00</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 to overestimate flooding; roads in centre of town are not at risk. It does suggest that the flooding is constrained but it is probably more constrained than is indicated.			
<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>
	Monuments – bridge over river and others	River crossing	Yes but not all confirmed	Medium
	Private dwellings	Downstream of town centre on the right bank	Yes	Medium
<b>2.3 Local knowledge - on-site comments</b>  <b>(OPW, LA and any info volunteered by local residents during visit)</b>	Spoke to one resident, no knowledge of flood risk to property. Indicated that one area does flood a little but just sits on the lane until water levels subside and the water makes its way back into the river channel. This area is on the right bank just downstream of the bridge in the centre of the town.			
<b>2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes</b>	All bridges have very good capacity, no issues identified.  The watercourse has a very steep hydraulic gradient and will be 'flashy'. No warning of impending flood is likely.			

## 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				500				1000			
Road or Rail Infrastructure	30	x			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>230</b>			

## 2.6 Defence Assets

### Formal and Informal Flood Defence Assets

(include effective and ineffective assets to inform asset survey and potential mitigation measures)

### Open Channel Watercourses

Man-made river channel ☐ Flood relief channel ☐ Canal ☐  
Mill leat ☐ Drainage channels / back drains ☐

### Bridges and Culvert crossings

Single Arch bridge ☒ Multi-Arch bridge ☐  
Single Span bridge ☐ Multi-Span bridge ☐  
Box culvert(s) ☒ Pipe culvert(s) ☐ Arch Culvert(s) ☐

### Culverted Watercourses (culvert length is greater than just a crossing)

Box culvert(s) ☐ Pipe culvert(s) ☐ Arch Culvert(s) ☐ Irregular Culvert(s) ☐

### Walls and Embankments

Embankment(s) ☐ Raised wall(s) ☒ Retaining wall(s) ☐

### Control Structures – weirs, gates, dams

Fixed crest weir ☐ Adjustable weir ☐ Dam / Barrage ☐  
Sluice gates ☐ Lock gates ☐ Radial gates ☐

### Storage

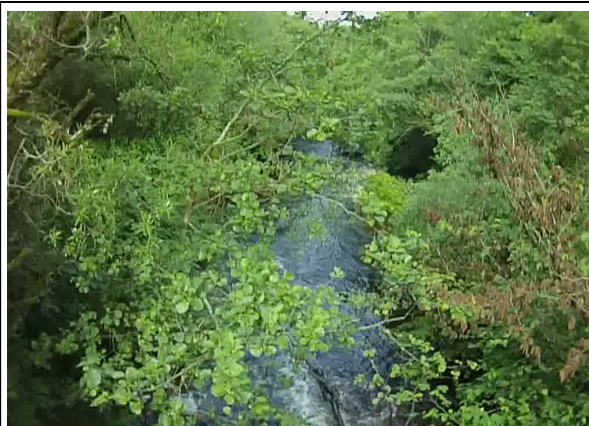
On-line storage (natural) ☐ On-line storage (artificial) ☐ Off-line storage ☐

### Outfalls

Flapped outfall(s) into watercourse ☐ Unflapped outfall(s) into watercourse ☐  
i.e. from smaller watercourses, drains etc. into river / estuary / sea  
Tidal flap(s) ☐ Tidal sluice(s) ☐  
i.e. from main watercourse into estuary / sea

	<b>Other</b> Pumping Station <input type="checkbox"/> Erosion Protection <input type="checkbox"/> Sand Dunes <input type="checkbox"/> <b>Additional notes (if required):</b>
<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 type="checkbox"/> Flood forecasting / warning <input type="checkbox"/> Change in Operating Procedures for water level control: <input type="checkbox"/> Public awareness campaign <input checked="" 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 type="checkbox"/> <b>Increase conveyance:</b> Bridge works <input type="checkbox"/> Channel works <input type="checkbox"/> Floodplain <input type="checkbox"/> <b>Flood defences:</b> Walls <input checked="" type="checkbox"/> Embankments <input checked="" type="checkbox"/> <b>Localised works:</b> Defence raising <input type="checkbox"/> In-fill gaps <input type="checkbox"/> Trash screen <input type="checkbox"/> <b>Maintenance works:</b> Culvert / channel clearance <input type="checkbox"/> Asset maintenance <input 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>	APSR <input checked="" type="checkbox"/> not an APSR <input type="checkbox"/> IRR <input type="checkbox"/>		FRI Score: 336.7	
<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>	230			
<b>Recommended Designation</b>	APSR <input checked="" type="checkbox"/> not an APSR <input type="checkbox"/> IRR <input type="checkbox"/>			
<b>Summary Comments (if required)</b>	The rivers flowing through Newport have very steep hydraulic gradients and very short response times. The velocities associated with any out of bank flows could pose a potential risk to life.  There are sufficient critical receptors, at significant risk of flooding, in Newport to warrant its recommended designation as an APSR.			



**Photo1:** Newport/Mulcair River upstream of Newport, looking downstream.



**Photo 2:** Downstream face of the R503 Road Bridge.



**Photo 3:** Standing on the R503 Road Bridge, looking downstream.



**Photo 4:** Behind housing estate downstream of Newport, looking upstream.

