

<b>Location: Pollagh, Co. Offaly</b>		<b>Unique ID: 250436</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: 219358</b>	<b>Northing: 225152</b>	
<b>River / Catchment / Sub-catchment</b>	<b>River Brosna / 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>	<p><b>River Flow Path</b></p> <p>The River Brosna flows in a south westerly direction through Pollagh. There are two independent developments associated with Pollagh which are separated by the river, one lies north of the river while the other, which would be considered the village centre, is located south of the river on the bank of the Grand Canal.</p> <p><b>Flood Event Records</b></p> <p>Four flood records are listed in floodmaps.ie. Two of these events are dated, one in 1944 and the other 1968/1969.</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 and LA comments. Major wedges all around village, with extended amalgamated area - Reported flooding from canal but not relevant - No History</i></p> <p><b>LA comments</b>  <i>Canal, 1906 Agreed</i></p> <p><b>Meeting / discussion summary comments:</b></p> <p><b>OPW comments</b></p> <ul style="list-style-type: none"> <li>The Brosna drainage scheme passes through Pollagh. This should have alleviated any flood risk in Pollagh.</li> <li>Pollagh is on low lying flat land and could potentially be flooded from the Brosna.</li> <li>The river is very deep at this location and the Clodiagh flows into the Brosna 1.5km upstream of the village.</li> </ul> <p><b>LA comments</b></p> <ul style="list-style-type: none"> <li>The main issue would be a breach of the canal.</li> <li>There are no historic flooding issues from the Brosna at Pollagh.</li> <li>There was an extreme rainfall event here in 2008 but there was no consequential flooding.</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>
	UWWTP		25
	Monument_LV		10
	<b>Total</b>		<b>343.2</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: 15/04/11</b>		
		<b>Time: 13:00</b>		
<b>Names of inspection team (including OPW/LA staff if present)</b>		<b>Peter Smyth</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 good for Pollagh.			
<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>
	Private dwellings	North of the River Brosna	Yes	Medium
	School	On the bank of the Grand Canal	Yes	Medium
<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>	Tributaries to the north and south of the Brosna. Both channels have reasonable conveyance capacities and the culverts inspected are sufficiently large to convey high flows.  The bridge over the Brosna at Pollagh is unlikely to cause any constriction to flood flow. The soffit level is above the natural bank level, clearly constructed out of the floodplain. The river channel is wide with a shallow gradient resulting in very slow almost stagnant flows.			

2.5 SVRS Assessment Matrix												
<b>Weightings:</b> <b>A - x1 - reasonable expectation of flooding</b> <b>B - x2 - high expectation of flooding</b> <b>C - x5 - risk to life</b>												
Approx. Number	1 to 4				5 to 20				>20			
Weighting		A	B	C		A	B	C		A	B	C
Property (domestic)	10				100				200	X		
Property (small retail or business)	20				200				400			
Property (large retail or business)	50				500				1000			
Road or Rail Infrastructure	30				300				600			
<b>Critical Infrastructure (local)</b> [hospital, school, police/fire/ambulance station, substation, WTW/WWTW, gov bldg, other (specify)]	50	X			500				1000			
<b>Critical Infrastructure (national importance)</b>	250				1000				2000			
<b>Cultural Heritage Site</b>	20				200				400			
<b>Environmental Designated Site</b>	20				200				400			
<b>Hazardous Substances Site</b>	50				500				1000			
<b>Total SVRS</b>									<b>250</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>	<div> <b>Open Channel Watercourses</b>                      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> <div> <b>Bridges and Culvert crossings</b>                      Single Arch bridge <input type="checkbox"/>      Multi-Arch bridge <input type="checkbox"/>                      Single Span bridge <input type="checkbox"/>      Multi-Span bridge <input checked="" type="checkbox"/>                      Box culvert(s) <input checked="" type="checkbox"/>      Pipe culvert(s) <input checked="" type="checkbox"/>      Arch Culvert(s) <input type="checkbox"/> </div> <div> <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"/> </div> <div> <b>Walls and Embankments</b>                      Embankment(s) <input type="checkbox"/>      Raised wall(s) <input type="checkbox"/>      Retaining wall(s) <input type="checkbox"/> </div> <div> <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"/> </div> <div> <b>Storage</b>                      On-line storage (natural) <input type="checkbox"/>      On-line storage (artificial) <input type="checkbox"/>      Off-line storage <input type="checkbox"/> </div> <div> <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> </div>

	<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 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 checked="" 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 type="checkbox"/> Embankments <input checked="" 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: 343.2</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>	250			
<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>	The properties on the right bank of the River Brosna just upstream of the main bridge crossing in Pollagh are identified as being at risk from flooding. While these properties are at least 100m away from the river, there are flood flow paths to these properties.  There are sufficient critical receptors, at significant risk of fluvial flooding, within Pollagh to warrant its recommended designation as an APSR.			



**Photo1:** Upstream face of bridge over the River Brosna at Pollagh. Properties at risk in the background.



**Photo 2:** River Brosna at Pollagh.

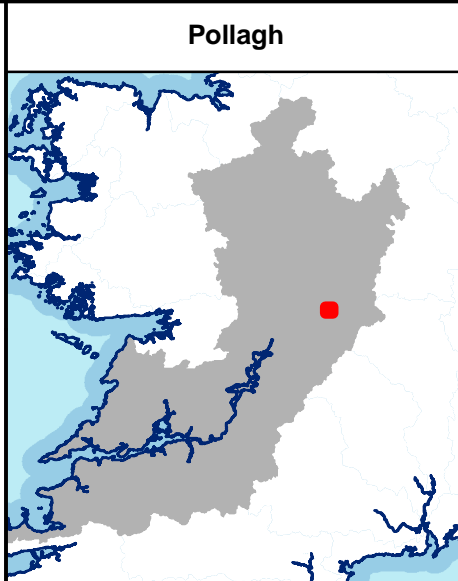
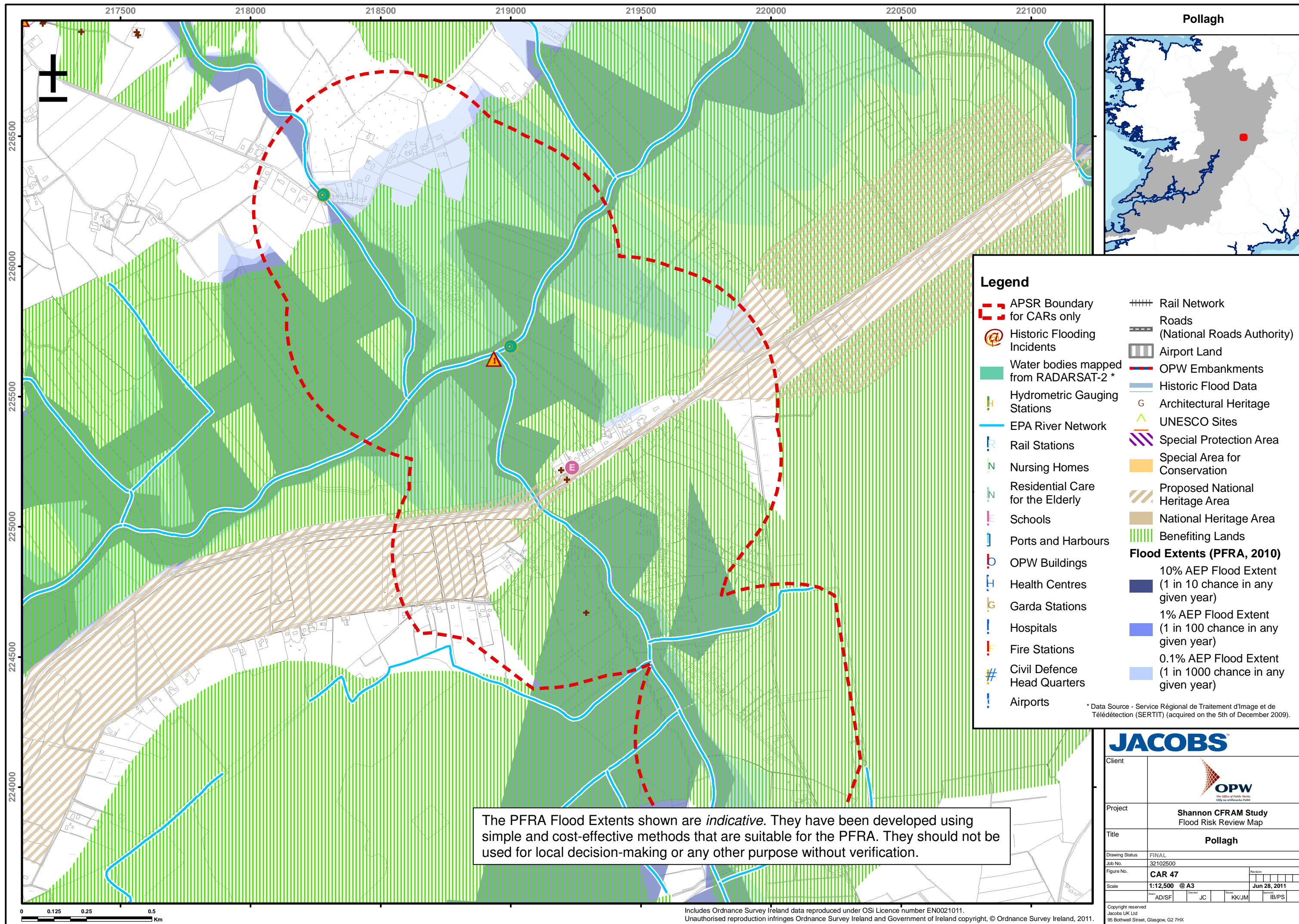


**Photo 3:** River Brosna at Pollagh.



**Photo 4:** Typical tributary to the River Brosna at Pollagh.






**Legend**

- APSR Boundary for CARs only
  - Historic Flooding Incidents
  - Water bodies mapped from RADARSAT-2 \*
  - Hydrometric Gauging Stations
  - EPA River Network
  - Rail Stations
  - Nursing Homes
  - Residential Care for the Elderly
  - Schools
  - Ports and Harbours
  - OPW Buildings
  - Health Centres
  - Garda Stations
  - Hospitals
  - Fire Stations
  - Civil Defence Head Quarters
  - Airports
  - Rail Network
  - Roads (National Roads Authority)
  - Airport Land
  - OPW Embankments
  - Historic Flood Data
  - Architectural Heritage
  - UNESCO Sites
  - Special Protection Area
  - Special Area for Conservation
  - Proposed National Heritage Area
  - National Heritage Area
  - Benefiting Lands
- Flood Extents (PFRA, 2010)**
- 10% AEP Flood Extent (1 in 10 chance in any given year)
  - 1% AEP Flood Extent (1 in 100 chance in any given year)
  - 0.1% AEP Flood Extent (1 in 1000 chance in any given year)
- \* Data Source - Service Régional de Traitement d'Image et de Télédétection (SERTIT) (acquired on the 5th of December 2009).

The PFRA Flood Extents shown are *indicative*. They have been developed using simple and cost-effective methods that are suitable for the PFRA. They should not be used for local decision-making or any other purpose without verification.

<b>JACOBS</b>	
Client	
Project	<b>Shannon CFRAM Study</b> Flood Risk Review Map
Title	<b>Pollagh</b>
Drawing Status	FINAL
Job No.	32102500
Figure No.	<b>CAR 47</b>
Scale	1:12,500 @ A3
Drawn	AD/SF
Checked	JC
Reviewed	KK/JM
Approved	IB/PS
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