

Location: Abbey, Co. Galway		Unique ID: 250399 (from PFRA database)	
Initial OPW Designation	APSR <input type="checkbox"/>	AFRR <input checked="" type="checkbox"/>	IRR <input type="checkbox"/>
Co-ordinates	Easting: 173750		Northing: 205750
River / Catchment / Sub-catchment	Tributary to Cappagh River / Cappagh / 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)	River Flow Path Minor watercourses flow through Abbey, which eventually discharge into the Cappagh River Flood Event Records Two flood records are listed in floodmaps.ie. Events were from 1995 and 2005, both reported by a local property / business owner who has been affected by the flooding.
1.2 Relevant information on flooding issues from OPW and LA staff	PFRA database comments (<i>in italics</i>): OPW comments <i>Not designated as APSR, no historical record or strong LA support</i> LA comments <i>Why has Abbey such a high rating?-Query is it Abbeyknockmoy</i> Meeting / discussion summary comments: LA comments <ul style="list-style-type: none"> Holohan's bar flooded in 2009 and 2005. OPW and Galway CC have recently completed a local scheme to upgrade crossing under main road which was the cause of past flooding. Galway CC believes this work has mitigated the flood 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)
	Monument_LV		10
	Monument_HV		250
	Total		291
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: 01/06/11		
		Time: 18:00		
Names of inspection team (including OPW/LA staff if present)		Peter Smyth		
		Mathieu Valois		
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 seems reasonable through Abbey.			
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)
	Public House		Yes	Medium
	Old Abbey		Yes	Low
	Church		Yes	Medium
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	The culvert under the main road has recently been upgraded. There are now twin pipes and a box culvert. The footbridge by the Church has a low capacity and could cause a hydraulic constriction.			

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				500				1000			
Critical Infrastructure (national importance)	250				1000				2000			
Cultural Heritage Site	20	X			200				400			
Environmental Designated Site	20				200				400			
Hazardous Substances Site	50				500				1000			
Total SVRS									50			
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 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"/>											
	Bridges and Culvert crossings 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"/>											
	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):
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 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"/>
Structural measures	Strategic development management for floodplain development: <input type="checkbox"/> <i>(integration of measures into strategic development proposals)</i> Storage: On-line <input 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 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 checked="" type="checkbox"/> Relocation of properties: <input type="checkbox"/> Improve existing defences: <input type="checkbox"/> (describe) Other (describe):

Outcomes				
PFRA Designation	APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/>		FRI Score: 291	
Site Ground-truthing of PFRA Assessment (hazard mapping and receptors)	High Confidence (good)	Uncertain	Low Confidence (poor)	Not available
	X			
Site Visit Review Score	50			
Recommended Designation	APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/>			
Summary Comments (if required)	Although Abbey has a history of flooding, there are an insufficient number of critical receptors at significant risk of flooding to warrant designation as an APSR.			



Photo1: Twin culvert and overflow outlet at Abbey



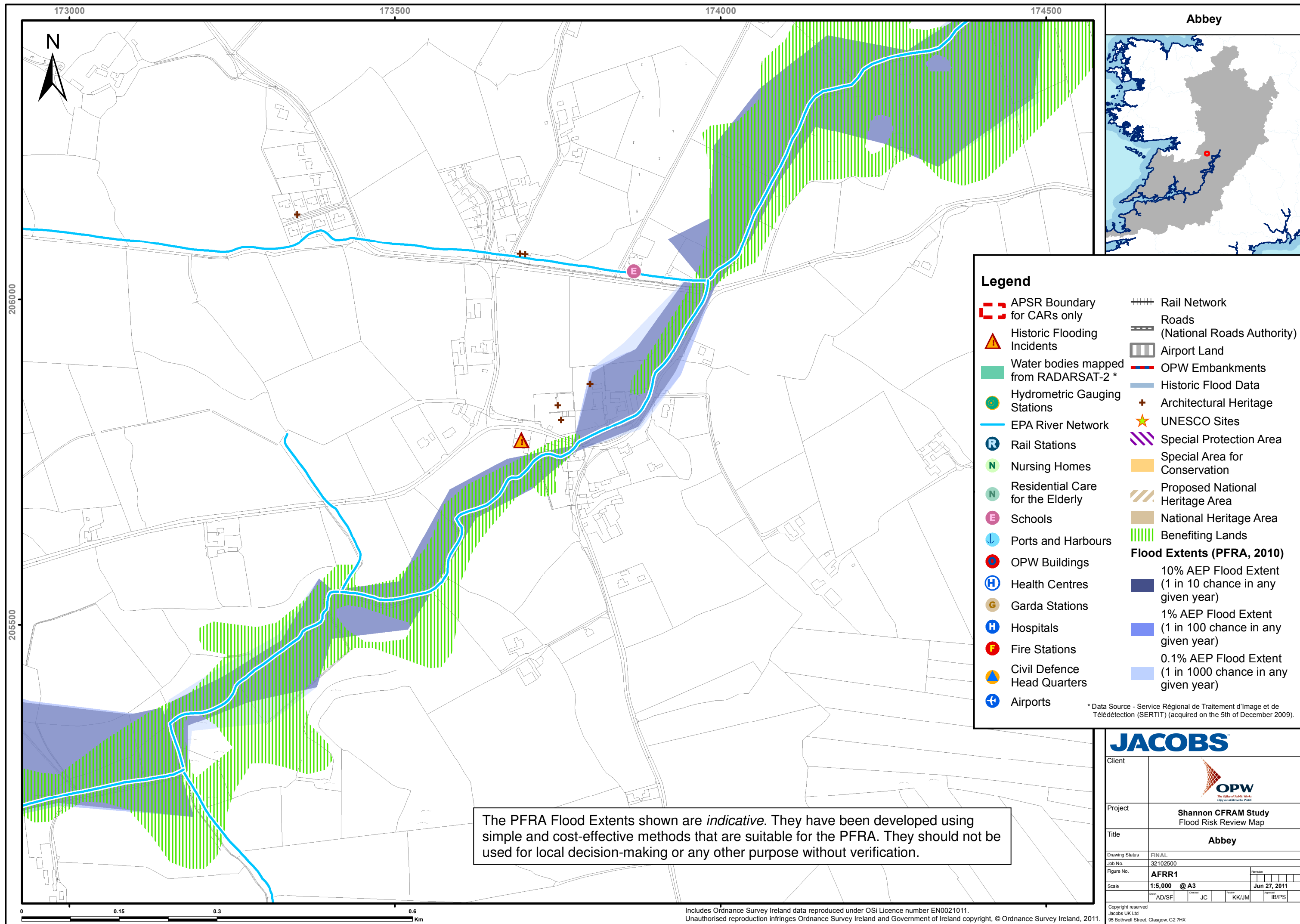
Photo 2: Close up of twin culvert and overflow




Photo 3: View downstream of twin culvert



Photo 4: View further downstream of twin culvert



JACOBS

Client			
Project	Shannon CFRAM Study Flood Risk Review Map		
Title	Abbey		
Drawing Status	FINAL		
Job No.	32102500		
Figure No.	AFRR1		
Scale	1:5,000 @ A3		
Drawn	AD/SF	Checked	JC
Drawn	KK/JM	Checked	IB/PS
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