

Location: Abbeyfeale, Co. Limerick		Unique ID: 232632 (from PFRA database)	
Initial OPW Designation	APSR <input type="checkbox"/>	AFRR <input checked="" type="checkbox"/>	IRR <input type="checkbox"/>
Co-ordinates	Easting: 111536		Northing: 126758
River / Catchment / Sub-catchment	River Feale, Allaghaun River / Feale Catchment		
Type of Flooding / Flood Risk (identify all that apply)	Fluvial non-tidal <input type="checkbox"/> Fluvial tidal <input checked="" type="checkbox"/> Coastal <input type="checkbox"/>		

Stage 1: Desktop Review

1.1 Flood History (include review of Floodmaps.ie)	<p>River Flow Path</p> <p>The River Feale runs parallel to the west of Abbeyfeale, flowing to the north. Two large tributaries of the Feale meet the river in the vicinity of Abbeyfeale - the Allaghaun at the northern edge of Abbeyfeale and the Oolagh to the northwest.</p> <p>Flood Records</p> <p>Three flood records are listed on floodmaps.ie – all of which are recurring flood events.</p> <ul style="list-style-type: none"> • Reports dated from 2005. Not a lot of detail contained within the documentation available. Key point relates to one recurring flood event: <i>“On the Allaghaun River near Abbeyfeale. Local road rendered impassable. Flooding occurs roughly twice a year. One house is under threat of flooding. Last incident on January 07th 2005.”</i> <p>Flood risk management included in the LAP:</p> <ul style="list-style-type: none"> • <i>Land abutting the River Allaghaun... may be liable to fluvial flooding at times. Information from the Office of Public Works is limited for the Abbeyfeale area although the precautionary approach should be taken where local knowledge and local drainage patterns indicate a history of flooding has occurred in the area...</i>
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>None</i></p> <p>LA comments <i>LA - Abbeyfeale sewerage plant floods regulatory and some commercial buildings.</i></p> <p><i>OPW to check out location of sewerage treatment extraction points. Limerick Co Co to do submission LA Submission " Sewerage treatment plant floods on a regular basis</i></p> <p>Meeting / discussion summary comments:</p> <p>OPW comments</p> <ul style="list-style-type: none"> • Flooding at Allaghaun Bridge (recurring incidents) has been alleviated. • The County Council requested defences on the right bank of the Feale where the Allaghath / Allaghaun river joins the Feale (by New Street),

	<p>however this is not being progressed.</p> <ul style="list-style-type: none"> The bridge arch of the Allaghaun bridge nearly collapsed recently due to undermining. Works to repair this are underway at present (May 2011). The flooding incident recorded in the town (on floodmaps.ie) is considered likely to be associated with pluvial flooding. The OPW made reference to the biggest flood event on record for the Abbeyfeale area. This occurred in 1973 u/s of Abbeyfeale at the Feale bridge (N21 crossing). Flood waters reached a height 1-2 feet below the soffit of the bridge. Although this is outside the area under review, such an event at Abbeyfeale could pose a significant risk. <p>LA comments</p> <ul style="list-style-type: none"> The works at the bridge include construction of fish passes and replacement of 6" siphon and addition of an 8" siphon d/s of the bridge. There is a school next to the river, but this has naturally high banks – no flood history. LCC think that flood waters have reach properties on the left bank of the Allaghaun u/s of the bridge. WWTP has not flooded The Allaghaun is known as a 'flashy' river Not aware of any major flood referred to by the OPW in 1973. 		
1.4 PFRA Data			
1.4.1 PFRA hazard mapping	<p>PFRA mapping available in GIS layer: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>PFRA mapping included on FRR map: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>		
1.4.2 Summary of Principal Receptors	Type		FRI score (if available)
	<p>Receptors not considered as part of the PFRA process.</p> <p>FRI score not calculated in PFRA</p>		
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: 12/05/11		
		Time: 16:30		
Names of inspection team (including OPW/LA staff if present)		Mathieu Valois		
		Kelly Kasperczyk		
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"/>			
	Appears to be a fairly good representation of this site. For example, the lands at the left bank of the Feale u/s and d/s of the R555 bridge are much lower than the right bank where the housing is located.			
2.2 Spot check ground-truthing of selected receptor vulnerability	Receptor Type	Location description (if not obvious)	Exists?	Overall Vulnerability / Risk (L / M / H)
(also note any key receptors noted during visit that are not identified by PFRA)	Funeral Home	At south end of town centre on local road, d/s of small stream.		Moderate - Overgrown vegetation and large debris reducing capacity of stream and culvert.
	Industrial units	Right bank at confluence of Allaghaun and Feale		Moderate
	WWTP	Right bank of Feale		Moderate
	School			Low – on very high ground.
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	Small tributary of the Feale u/s of the funeral home has steep banks but a lot of fly tipping is obvious u/s of the culvert (and funeral home) as well as overgrown vegetation, reducing capacity. Construction works underway at Allaghaun bridge (repair of recent collapse and construction of fish passes).			

2.5 SVRS Assessment Matrix

Weightings:

A - x1 - reasonable expectation of flooding

B - x2 - high expectation of flooding
or flooding is tidal (any risk)

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	X			200				400			
Property (large retail or business)	50	X			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									220			

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 ☐

	<p>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> <p>Other Pumping Station <input type="checkbox"/> Erosion Protection <input checked="" type="checkbox"/> Sand Dunes <input type="checkbox"/></p> <p>Additional notes (if required):</p> <ul style="list-style-type: none"> Gabions on right bank of Feale d/s of R555 bridge. Gabions on left bank of Allaghaun river u/s of R524 bridge. New revetments d/s R524 bridge (Allaghaun Bridge), east of the town. This is part of a recent flood alleviation scheme for a single property. Gabions at local road off N21 on left bank of Allaghaun river
2.8 Initial Potential Mitigation Measures	
Non-structural measures	Planning and Development control <input 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 type="checkbox"/> Individual property protection <input type="checkbox"/> Land use management <input type="checkbox"/>
Structural measures	<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 checked="" type="checkbox"/></p> <p>Maintenance works: Culvert / channel clearance <input checked="" type="checkbox"/> Asset maintenance <input checked="" type="checkbox"/></p> <p>Relocation of properties: <input type="checkbox"/></p> <p>Improve existing defences: <input type="checkbox"/> (describe)</p> <p>Other (describe):</p>

Outcomes				
PFRA Designation	APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/>		FRI Score: N/A	
Site Ground-truthing of PFRA Assessment (hazard mapping and receptors)	High Confidence (good)	Uncertain	Low Confidence (poor)	Not available
	X			
Site Visit Review Score	220			
Recommended Designation	APSR <input checked="" type="checkbox"/> not an APSR <input type="checkbox"/> IRR <input type="checkbox"/>			
Summary Comments (if required)	Bridge repair work and flood alleviation works in place and under construction at Abbeyfeale may reduce / alleviate flood risk. Abbeyfeale town lies primarily on the right bank of the Feale which is 2-5m			

	<p>higher than the left bank (some natural storage is available here). There is some erosion of the right bank just as the Feale merges with the Allaghaun River. The Allaghaun is reported to be a 'flashy' river, and this is evident from the site visit. Properties on the left bank of the Allaghaun River are lower than those on the right bank which could pose a flood risk.</p> <p>A small tributary to the Feale which is culverted under a local road to the rear of the Funeral home, and again under the N21 as it flows west towards the Feale may pose a risk to the Funeral home. The banks of this tributary are steep but a lot of fly tipping is obvious u/s of the funeral home as well as overgrown vegetation reducing capacity of this stretch and the culvert.</p>
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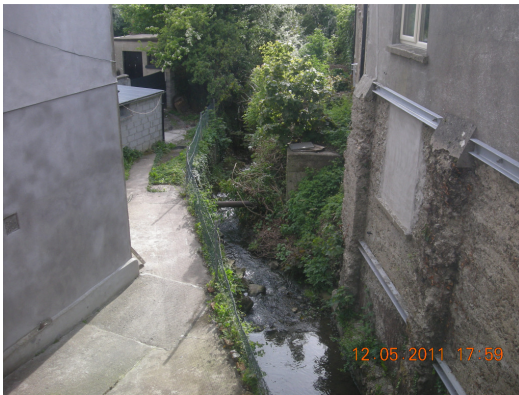
12.05.2011 16:18

Photo 1: The River Feale at the R555 looking east



12.05.2011 16:46

Photo 2: Construction works on the Allaghaun Bridge



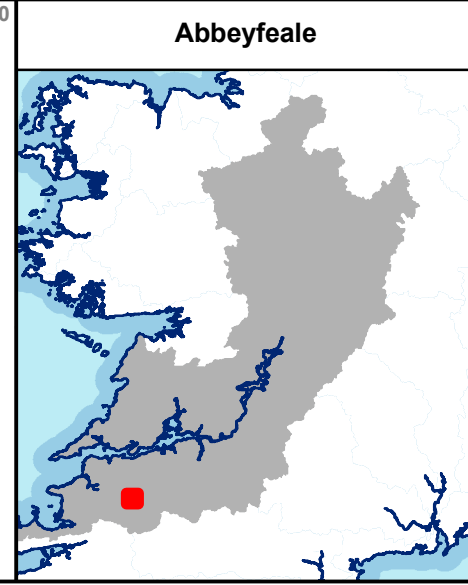
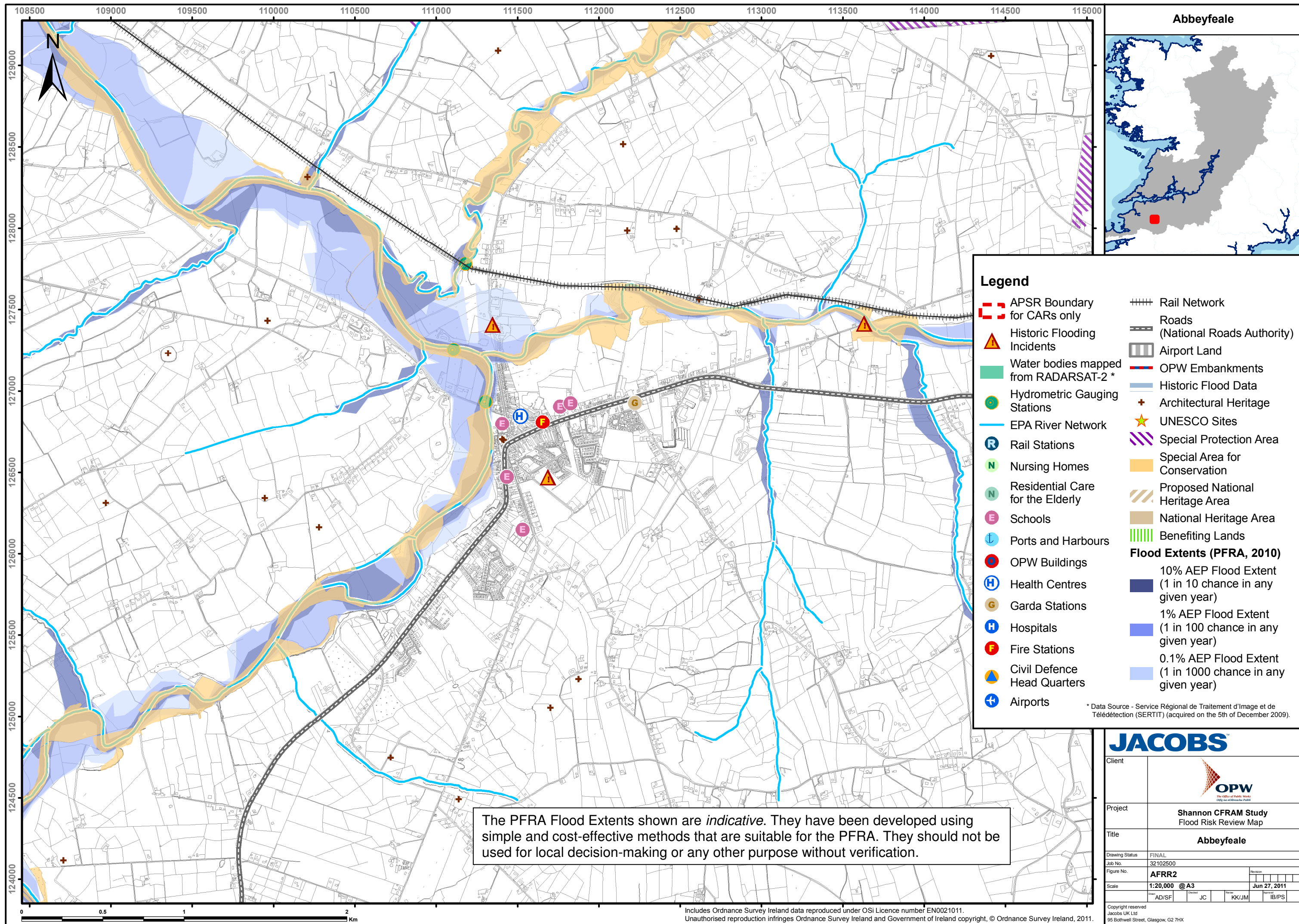
12.05.2011 17:59


Photo 3: Tributary to the Feale d/s of 2nd culvert opening



12.05.2011 17:31

Photo: 4 Allaghaun River Bridge looking u/s



JACOBS	
Client	
Project	Shannon CFRAM Study Flood Risk Review Map
Title	Abbeyfeale
Drawing Status	FINAL
Job No.	32102500
Figure No.	AFRR2
Scale	1:20,000 @ A3
Date	Jun 27, 2011
Drawn	AD/SF
Checked	JC
Reviewed	KK/JM
Approved	IB/PS
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