

Location: Limerick Junction Co. Tipperary (Tipperary South)		Unique ID: 250428 (from PFRA database)	
Initial OPW Designation	APSR <input type="checkbox"/>	AFRR <input checked="" type="checkbox"/>	IRR <input type="checkbox"/>
Co-ordinates	Easting: 186432	Northing: 138183	
River / Catchment / Sub-catchment	Popes River / 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)	<p>River Flow Path</p> <p>The Pope's River flows through Limerick Junction and under a number of railway lines near the train station.</p> <p>Flood Event Records</p> <p>Fourteen flood records are listed on floodmaps.ie for the Limerick Junction area. One event was in November 2000 while the others are not dated. Not all of the events occurred within the village itself and some are known to be from surface water sources.</p>
1.2 Relevant information on flooding issues from OPW and LA staff	<p>PFRA database comments (<i>in italics</i>):</p> <p><i>OPW comments</i> <i>Not designated as APSR, no historical record or strong LA support. Possible wedge - marginal on predictive - No history - No LA support</i></p> <p><i>LA comments</i> <i>to be confirmed locally</i></p> <p>Meeting / discussion summary comments:</p> <p>LA comments</p> <ul style="list-style-type: none"> JBA have produced flood maps for Tipp South including Limerick Junction (See tippssouthcoco.ie/planning/floodmaps – these are free to use). Limerick Junction is a strategically important location particularly with the railway hub. There is fluvial flood risk North West of the railway station. Given it's location the area is under significant development pressure and has several planning applications in the area. Flooding to the houses near the station (south west) is from surface water issues.

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)	
	Arch_Regional	30	
	Total	241	
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: 08/06/11		
		Time: 09:00		
Names of inspection team (including OPW/LA staff if present)		Mathieu Valois		
		James Murray		
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"/> The PFRA hazard mapping over-estimates flood risk; station is on high ground.			
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)
	Arch_Regional – refers to railway station historic buildings Railway station	At railway station	Yes Yes	Low – on high ground Low – on 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	Culvert under N24, inlet and outlet not visible but evidence suggests that it is small, probably a 450 diameter pipe. Inlet and outlet to culverts under railway are not visible. Watercourse in general difficult to see due to hedgerows and property. What was visible seems to contradict what is on the blue line network.			

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				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				200				400			
Environmental Designated Site	20				200				400			
Hazardous Substances Site	50				500				1000			
Total SVRS									10			
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 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 type="checkbox"/> Multi-Span bridge <input type="checkbox"/> Box culvert(s) <input type="checkbox"/> Pipe culvert(s) <input checked="" 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 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 checked="" type="checkbox"/>
Structural measures	Strategic development management for floodplain development: <input checked="" 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 checked="" type="checkbox"/> Channel works <input type="checkbox"/> Floodplain <input type="checkbox"/> Flood defences: Walls <input checked="" type="checkbox"/> Embankments <input checked="" 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 checked="" 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: 241	
Site Ground-truthing of PFRA Assessment (hazard mapping and receptors)	High Confidence (good)	Uncertain	Low Confidence (poor)	Not available
		X		
Site Visit Review Score	10			
Recommended Designation	APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/>			
Summary Comments (if required)	There is a very low risk of fluvial flooding to the railway station and its supporting infrastructure. Surface water, or pluvial, flood risk is of a greater concern to the area.			



Photo1: Watercourse upstream of N24

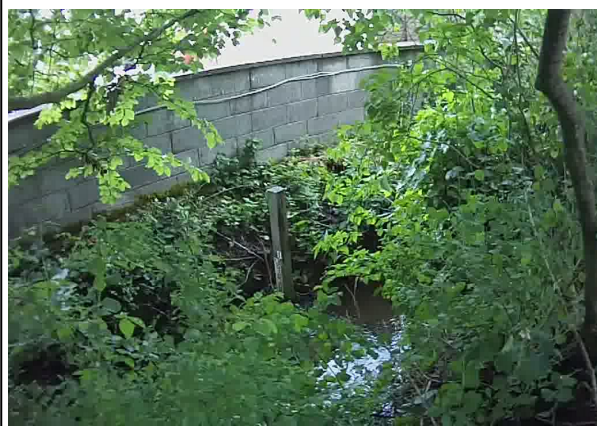


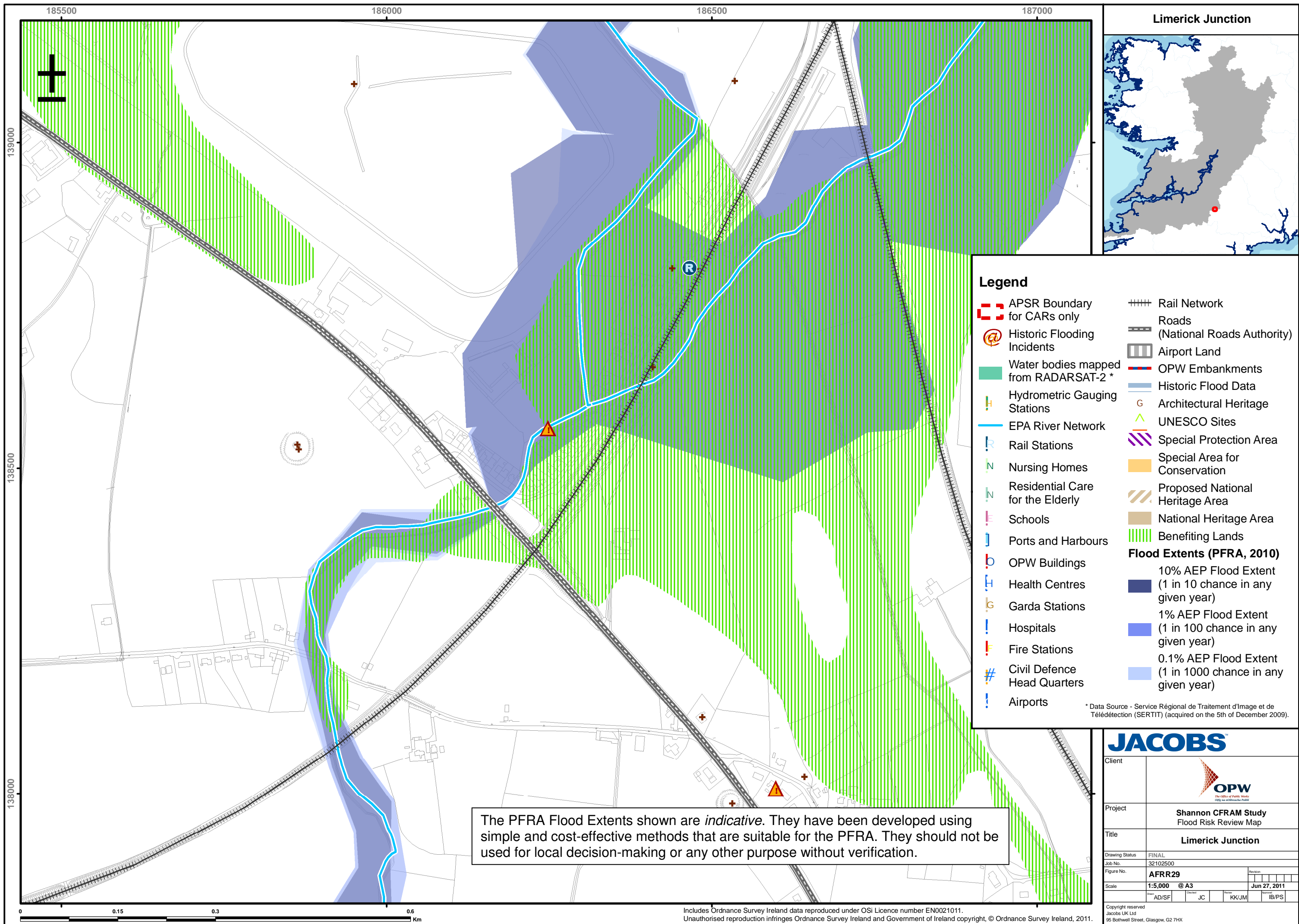
Photo 2: Watercourse downstream of N24
(Station side)



Photo 3: Properties at risk from pluvial /
surface water flooding



Photo 4: Railway Station property



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.

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).

JACOBS

Client			
Project	Shannon CFRAM Study Flood Risk Review Map		
Title	Limerick Junction		
Drawing Status	FINAL		
Job No.	32102500		
Figure No.	AFRR29		
Scale	1:5,000 @ A3		
Drawn	AD/SF	Checked	JC
Drawn	AD/SF	Checked	KK/JM
Drawn	AD/SF	Checked	IB/PS
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