

Location: Lisselton, Co. Kerry		Unique ID: 230356 (from PFRA database)	
Initial OPW Designation	APSR <input type="checkbox"/>	AFRR <input checked="" type="checkbox"/>	IRR <input type="checkbox"/>
Co-ordinates	Easting: 92937	Northing: 138577	
River / Catchment / Sub-catchment	Cashen River/ Feale Catchment		
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 <p>The land within the village and in the general vicinity of Lisselton is relatively flat and low lying, with the exception of Knockanore Mountain approx 4km northeast.</p> <p>Two tributaries of the Cashen River (EPA order 1-2) run approx 200m west and east of Lisselton village.</p> <p>A small drainage ditch/channel connected to the western tributary runs through Lisselton parallel to the R554 (heading west from Lisselton).</p> Flood Records <p>No OPW flood records.</p>
1.2 Relevant information on flooding issues from OPW and LA staff	PFRA database comments (<i>in italics</i>): <p><i>OPW comments</i> <i>Coastal? - Extended rural amalgamated area with extensive wedges - No history - No LA Support</i></p> <p><i>LA comments</i> <i>LA - not aware of any reason why this location is included.</i></p> <p>Meeting / discussion summary comments:</p> <p>OPW comments</p> <ul style="list-style-type: none"> • PFRA mapping indicates a risk to the village area, but attendees do not know of any significant issues. Suggested that this may be associated with water from the hills affecting a small number of dispersed properties. Suggested that the channels at the hills are probably unable to deal with the flow. • Flooding issues are known at locations behind the embankments of the Cashen. • Not a significant flooding problem at Lisselton. <p>LA comments</p> <ul style="list-style-type: none"> • Kerry County Council representative has known this area for 30 years and is not aware of any flooding issues. • PFRA flood mapping appears to be over-estimated, showing large areas to west flooded.

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)
	Primary_Weighted_F_S		250
	Monument_LV_Weighted_F_E		51
	Total		1734.35
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: 26/05/2011		
		Time: 14:30		
Names of inspection team (including OPW/LA staff if present)		Iain Blackwell		
		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"/>			
	Lisselton village: PFRA mapping seems inaccurate at the village centre and does not appear to represent the location of watercourses in the area. This is likely to be due to the flat topography in the area.			
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)
	School		Y	L
	Residential		Y	L
2.3 Local knowledge - on-site comments (OPW, LA and any info volunteered by local residents during visit)	School Principal: Water from the stream in front of the school reached the school yard once in 20 years. This did not 'flood' the school yard and did not reach the school building. Water did not reach the road (R554).			
2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes	The stream adjacent to the school is culverted under the crossroads at Lisselton village centre. This culvert opens u/s of the school to the south of the R554 and running parallel to it. As this stream flows past the school, it is crossed by 3 box culvert bridges (access to/from the school). The stream is then culverted again under the front gardens of the four properties west of the School. The culvert opens to the west of the last property. If these culverts were blocked, there is potential for water to enter the school grounds at high flows. The conveyance route for the water would be to the south across expansive flat areas.			

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				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	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									50			

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 <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 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 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 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 checked="" type="checkbox"/> Asset maintenance <input 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: 1734	
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"/>			

<p>Summary Comments (if required)</p>	<p>The school is not considered to be at significant risk, although it is identified under Section 2.5 .as it represents an important asset, and a key part of the high FRI score.</p> <p>The houses west of the school are not considered at risk as their boundaries are slightly higher. If high flows were experienced in this stream, water would reach the school yard first, and flow south across the low lying land adjacent to the school.</p> <p>Bridge crossings of the two larger streams east and west of the village centre seem to have decent capacity. Properties adjacent to these are not considered at risk.</p> <p>The remaining FRI score of around 1400 (excluding the school) is predominantly from predictive residential flooding. This appears to be a cumulative score based on dispersed properties across an area of around 10km² to the west and southwest of Lisselton.</p> <p>It is concluded that Lisselton should not be designated as an APSR.</p>
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Photo 1: Small watercourse east of Lisselton Village



Photo 2: Small watercourse west of Lisselton Village



Photo 3: Watercourse adjacent to the R554 with several crossings and partially culverted, east of Lisselton Village



Photo 4: Looking north towards the watercourse (and road) large green area adjacent to school which is on the right



Photo 5: Access crossing to the school



Photo 6: Water course extreme west of the study area

