Location: Clonfert, Co. Galway		Unique ID: 252906 (from PFRA database)	
Initial OPW Designation	**APSR** ☐	**AFRR** ☒	**IRR** ☐
Co-ordinates	**Easting: 197134**	**Northing: 221731**	
River / Catchment / Sub-catchment	**Un-named minor tributaries / River Shannon**		
Type of Flooding / Flood Risk (identify all that apply)	**Fluvial non-tidal** ☒ **Fluvial tidal** ☐ **Coastal** ☐		

Stage 1: Desktop Review

1.1 Flood History (include review of Floodmaps.ie)	**River Flow Path** A number of un-named minor tributaries for the River Shannon are located in this area. **Flood Event Records** There are records of 2 flood events in 1954 and 1999 and a further undated flood event on floodmaps.ie. These events relate to the flooding of low lying areas following heavy rainfall.
1.2 Relevant information on flooding issues from OPW and LA staff	**PFRA database comments *(in italics)*:** ***OPW comments*** *Not designated APSR as failed to reach predictive analysis threshold or receive strong LA support.* ***LA comments*** *Houses flooded 1995, 2009-Houses under threat-Roads impassable-1995, 2006, 2009 road blocked each time-- Suggest Review Again* **Meeting / discussion summary comments:** **OPW comments** • OPW not aware of any fluvial flood risk issues associated with Clonfert. **LA comments** • Source of flooding is River Suck, 3km away. • Flood waters come across Bord na Mona floodplains upstream. In November 2009, Clonfert flooded 1 week after everywhere else in the Shannon catchment; the rationale for this being that water was stored in the Bord na Mona floodplain area. Only when the Shannon water level fell, was this water released to flow towards Clonfert. • Galway CoCo carried out emergency works in 2009 by introducing a temporary cut through the old railway and road lines to prevent the flood waters backing up and exacerbating the flooding.

<table>
<tr><td colspan="4">1.4 PFRA Data</td></tr>
<tr><td>1.4.1 PFRA hazard mapping</td><td colspan="3">PFRA mapping available in GIS layer: Yes ☒ No ☐
PFRA mapping included on FRR map: Yes ☒ No ☐</td></tr>
<tr><td rowspan="2">1.4.2 Summary of Principal Receptors</td><td colspan="2">Type</td><td>FRI score (if available)</td></tr>
<tr><td colspan="2">Receptors not considered as part of the PFRA process.

FRI score not calculated in PFRA.</td><td></td></tr>
<tr><td rowspan="5">1.7 Stage 1 Evaluation</td><td>Aspect</td><td>Clearly APSR</td><td>Uncertain</td></tr>
<tr><td>Flood History (1.1)</td><td></td><td>X</td></tr>
<tr><td>OPW / LA Information (1.2)</td><td></td><td>X</td></tr>
<tr><td>PFRA Evaluation (1.4)</td><td></td><td>X</td></tr>
<tr><td>Overall Desktop Evaluation
(if any above aspect is uncertain then overall designation is uncertain)</td><td></td><td>X</td></tr>
<tr><td rowspan="2">1.8 Proposed level of assessment for Stage 2 site visits</td><td colspan="2">Level A Site Visit</td><td>X</td></tr>
<tr><td colspan="2">Level B Site Visit</td><td></td></tr>
</table>

Stage 2: Site Inspection	Level A Assessment
Date and Time of Inspection	**Date: 26/05/11** **Time: 15:00**
Names of inspection team (including OPW/LA staff if present)	**Alan Dew** **Peter Smyth**

2.1 Ground-truthing of Hazard Mapping

Fluvial non-tidal ☒ Fluvial tidal ☐ Coastal ☐ Not available ☐

Ground-truthing of available November 2009 flood outline mapping confirmed to be reasonably accurate.

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)
Residential properties	Main road through village	Yes	M
Commercial operation		Yes	M
Road		Yes	H

2.3 Local knowledge - on-site comments

(OPW, LA and any info volunteered by local residents during visit)

A local employee was interviewed. The fields to north of the shop / restaurant building flood every year. In November 2009, all buildings nearby were flooded, with the main shop being flooded to a depth of 600mm. This height of flood water was reached inside an hour. Further residential properties on the other side of main road through village, were also flooded in November 2009.

2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes

No hydraulic constrictions were observed. A small culvert was observed beneath the road associated with a minor ditch / tributary (labelled Mill Race on-site) but the channel was observed to convey very limited flow and it was observed that no receptors at risk were present in the vicinity.

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	X			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								**60**				

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 ☐ Unflapped outfall(s) into watercourse ☐
i.e. from smaller watercourses, drains etc. into river / estuary / sea
Tidal flap(s) ☐ Tidal sluice(s) ☐
i.e. from main watercourse into estuary / sea

	Other Pumping Station ☐ Erosion Protection ☐ Sand Dunes ☐ **Additional notes (if required):** The Emmanuel House of Providence has constructed a flood wall of approximately 50 metres in length to the north of the shop building. This was incomplete at the time of inspection; awaiting 2 flood gates.
2.8 Initial Potential Mitigation Measures	
Non-structural measures	Planning and Development control ☐ Sustainable Urban Drainage Systems ☐ Flood forecasting / warning ☐ Change in Operating Procedures for water level control: ☐ Public awareness campaign ☐ Individual property protection ☒ Land use management ☐
Structural measures	**Strategic development management for floodplain development:** ☐ *(integration of measures into strategic development proposals)* **Storage:** On-line ☐ Off-line ☐ **Flow diversion:** Flood relief channel ☒ Flood relief culvert ☒ **Increase conveyance:** Bridge works ☐ Channel works ☐ Floodplain ☐ **Flood defences:** Walls ☒ Embankments ☒ **Localised works:** Defence raising ☐ In-fill gaps ☐ Trash screen ☐ **Maintenance works:** Culvert / channel clearance ☐ Asset maintenance ☐ **Relocation of properties:** ☐ **Improve existing defences:** ☐ **(describe)** **Other (describe):**

Outcomes

PFRA Designation	**APSR** ☐ **not an APSR** ☒ **IRR** ☐		**FRI Score:** Not scored	
Site Ground-truthing of PFRA Assessment ***(hazard mapping and receptors)***	**High Confidence (good)**	**Uncertain**	**Low Confidence (poor)**	**Not available**
	X			
Site Visit Review Score	**60**			
Recommended Designation	**APSR** ☐ **not an APSR** ☒ **IRR** ☐			
Summary Comments (if required)	Flooding in 2009 at Clonfert is noted to have resulted from the River Suck to the north. Flood waters flowed through Bord na Mona peat bogs before emerging at Clonfert and flowing towards Shannon. Although Clonfert 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: River Shannon east of Clonfert, viewed from the right bank

Photo 2: Bord na Mona land east of Clonfert, viewed from the railway bridge

Photo 3: Emmanuel House of Providence church building at raised level.

Photo 4: Emmanuel House of Providence shop building. Note the newly constructed flood wall at the rear of the building.