Location: Ballylongford, Co. Kerry		Unique ID: 240370 (from PFRA database)	
Initial OPW Designation	**APSR** ☒	**AFRR** ☐	**IRR** ☐
Co-ordinates	**Easting: 99500**	**Northing: 144750**	
River / Catchment / Sub-catchment	**Ballyline River/ Shannon Estuary**		
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

The Ballyline River flows though the centre of Ballylongford. There are five steams discharging to the Ballyline River in the vicinity of Ballylongford (two before the town, two in the town and one after the town all crossed by bridges).

The Ballyline River is tidal through the village and upstream of Ballylongford Bridge. The river widens significantly north of Ballylongford before discharging into the Shannon Estuary.

Flood Event Records

Cause of flooding in the area attributed to rainfall / runoff from the Ballyline catchment combined with high tide, wind direction and low pressure.

Flood records are listed, including events in Ballylongford itself and south of the village:

- Recurring flood area along the R552 at Gortnacooka Bridge south of Ballylongford.
- Recurring flood area at Bridge Street (village centre).

1.2 Relevant information on flooding issues from OPW and LA staff

PFRA database comments *(in italics)*:

OPW comments
Residential flooding on occasion

LA comments
Land

Meeting / discussion summary comments:

OPW comments

- No OPW assets or any maintenance.
- OPW offered Kerry CC to fund a study (unclear what the status of this was, but not believed to have taken place).
- Mixed fluvial tidal problem.

LA comments

- Generally no problem at the main bridge in town. i.e. it is not considered to be a hydraulic restriction.
- High tides and a northerly wind could be a problem giving tidal flooding.

	• Flooding occurs up at Gortanacooka Bridge, 2km u/s (south) of the village centre, on the Ballyline River. Not significant – mainly fields. • There is a lowered part of the embankment just upstream of the crossing of the R552 (Gortanacooka Bridge). • There is an additional area at the SW edge of town, where a tributary floods and affects 3 or 4 properties on the left bank of the tributary, between the tributary and the R552 on the edge of the village. Three of these properties are relatively new; one is old. • Some fluvial / tidal flooding on Ballyline River, with water flowing over the left bank by the church, through the church gate, and on to Bridge Street. • Flooding here is considered to be tidally dominated. • No flooding issues on the tributaries flowing in to the tidal section from the east, downstream of Bridge Street (flowing under Quay Street).

1.4 PFRA Data

1.4.1 PFRA hazard mapping	**PFRA mapping available in GIS layer:**	**Yes** ☒	No ☐
	PFRA mapping included on FRR map:	**Yes** ☒	No ☐

1.4.2 Summary of Principal Receptors	**Type**	**FRI score (if available)**
	Arch Regional	11.1
	Total:	**430.67**

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**	
	Level B Site Visit	**X**

Stage 2: Site Inspection	Level B Assessment
Date and Time of Inspection	**Date: 12/04/11** **Time: 10:00**
Names of inspection team (including OPW/LA staff if present)	**Iain Blackwell** **Kelly Kasperczyk**

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	Bridge St in village centre – 3 large box culverts. Some restriction, but not as much as other bridges typically found elsewhere. Various road bridge crossings of different minor tributaries, including single and double pipe culverts, and a corrugated arch culvert.

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 race ☐ 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):**
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):** Flap valves on outfalls Possible need for sluice / flap on a watercourse at the west end of the village.

Outcomes			
Recommended Designation	**APSR** ☒	**not an APSR** ☐	**IRR** ☐
Summary Comments (if required)			

Photo 1: Ballylongford Bridge from the south d/s

Photo 2: Immediately North on the RHS d/s of Ballylongford Bridge a number of un-flapped valves/outfalls

Photo 3: North of Ballylongford Bridge and Well Street example of a potential flood defence asset

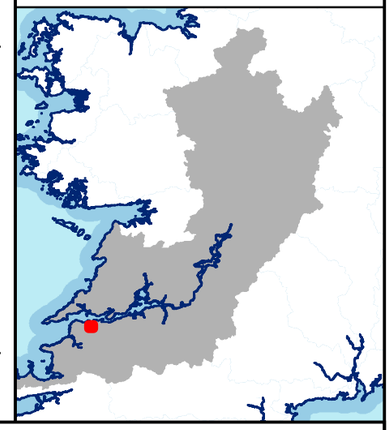
Photo 4: Low Section of the Ballylongford embankment RHS of the estuary looking north

98500 99000 99500 100000 100500 101000 101500

146000 145500 145000 144500 144000 143500

N

Ballylongford



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).

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.

0 0.2 0.4 0.8 Km

JACOBS

Client	OPW The Office of Public Works Oifig na nOibreacha Poibli
Project	**Shannon CFRAM Study** Flood Risk Review Map
Title	**Ballylongford**
Drawing Status	FINAL
Job No.	32102500
Figure No.	**CAR 9**
Revision	
Scale	**1:10,000 @ A3**
Date	**Jun 28, 2011**
Drawn	AD/SF
Checked	JC
Review	KK/JM
Approved	IB/PS