

Location: Fenit, Co. Kerry		Unique ID: 230352 (from PFRA database)	
Initial OPW Designation	APSR <input type="checkbox"/>	AFRR <input checked="" type="checkbox"/>	IRR <input type="checkbox"/>
Co-ordinates	Easting: 73049		Northing: 115876
River / Catchment / Sub-catchment	North Kerry Tralee Bay		
Type of Flooding / Flood Risk (identify all that apply)	Fluvial non-tidal <input type="checkbox"/> Fluvial tidal <input type="checkbox"/> Coastal <input checked="" type="checkbox"/>		

Stage 1: Desktop Review		
1.1 Flood History (include review of Floodmaps.ie)	General Area Fenit is a small port town situated on Tralee Bay 10 km west of Tralee. Flood event records There are no OPW flood records for the Fenit area.	
1.2 Relevant information on flooding issues from OPW and LA staff	PFRA database comments (<i>in italics</i>): OPW comments <i>Coastal risk to port? Wait for ICPSS results and review</i> LA comments <i>None</i> Meeting / discussion summary comments: OPW comments <ul style="list-style-type: none"> Not aware of any significant issues in this area. OPW constructed a wall of rock armour on the main road to the port (R558). LA comments <ul style="list-style-type: none"> Not aware on any fluvial issue. Possible coastal erosion issue. 	
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)
	UWWTPLoc_Weighted_T_C	3.43
	Port_Harbour_Weighted_T_C	342.5
	Total	374.7

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: 24/05/11		
		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 type="checkbox"/> Fluvial tidal <input type="checkbox"/> Coastal <input checked="" type="checkbox"/> Not available <input type="checkbox"/>			
	No PFRA mapping, but FRI score of 374 primarily associated with the Port. Coastal mapping was not available at time of the site visit. Subsequent review of the ICPSS mapping shows no properties at risk in the 0.5% AEP event.			
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)	Residential	West end of Fenit, close to access across to Fenit Within	Yes	L
	Port (Tralee and Fenit Harbour)		Yes	L
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	No hydraulic restrictions noted. Not relevant to this area being considered for coastal flood risk.			

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		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		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									120			

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</p> <p>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></p> <p>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</p> <p>Pumping Station <input type="checkbox"/> Erosion Protection <input type="checkbox"/> Sand Dunes <input type="checkbox"/></p> <p>Additional notes (if required):</p> <ul style="list-style-type: none"> Ineffective informal walls and embankments located west of the bridge to Tralee and Fenit Harbour Effective informal embankments at northwest corner of Fenit Without, by track to Fenit Within. Rock amour on west side of access track to Fenit Within. Seawall at side of access bridge to the Harbour buildings. Rock amour on northern bank of Harbour Island.
2.8 Initial Potential Mitigation Measures	
Non-structural measures	<p>Planning and Development control <input checked="" type="checkbox"/></p> <p>Sustainable Urban Drainage Systems <input type="checkbox"/></p> <p>Flood forecasting / warning <input checked="" type="checkbox"/></p> <p>Change in Operating Procedures for water level control: <input type="checkbox"/></p> <p>Public awareness campaign <input type="checkbox"/></p> <p>Individual property protection <input checked="" type="checkbox"/></p> <p>Land use management <input type="checkbox"/></p>
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 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 type="checkbox"/></p> <p>Maintenance works: Culvert / channel clearance <input type="checkbox"/> Asset maintenance <input type="checkbox"/></p> <p>Relocation of properties: <input type="checkbox"/></p> <p>Improve existing defences: <input checked="" type="checkbox"/> (describe) Raising/widening embankments on the western facing coast of Fenit Without.</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: 374	
Site Ground-truthing of PFRA Assessment (hazard mapping and receptors)	High Confidence (good)	Uncertain	Low Confidence (poor)	Not available
				X
Site Visit Review Score	120			
Recommended Designation	APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/>			

<p>Summary Comments (if required)</p>	<p>There are a few low-lying properties (including sailing club and Beach Café) on northwest and south of Fenit Without, but most of the properties are located on elevated ground and not considered at risk.</p> <p>Properties (3-4No.) located at the north-western corner of Fenit Without are the most exposed to tidal / coastal influences, currently protected by an embankment. The ICPSS mapping shows no properties to be at risk in the 0.5% AEP event.</p> <p>The main part of the flood risk score (either from the FRI or SVRS) is related to the port. This is an entirely separate flood risk issue to the risk posed to the 3-4 properties noted above. The current flood risk is low, and the port is protected with extensive rock armour.</p> <p>Land on northern coast of Fenit Within (adjacent to low-lying properties) is currently zoned for residential development.</p>
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Photo 1: Properties on Fenit Without, taken from access road to Fenit Within (1)



Photo 2: Properties on Fenit Without, taken from access road to Fenit Within (2)



Photo 3: Embankment protecting small number of properties behind defences NW of Fenit Without, close to access road to Fenit within (1)



Photo 4: Embankment protecting small number of properties behind defences NW of Fenit Without, close to access road to Fenit within (2)



Photo 5: Properties located behind the embankment in the NW of Fenit Island



Photo 6: Looking South Fenit Port (Tralee and Fenit Harbour)



Photo 7: Properties located on high ground on southern shore of Fenit Without. Access bridge to the port to the south of Fenit.



Photo 8: 5 properties located on lower ground on southern shore of Fenit Without (east of properties shown in Photo 6). All properties further east are on high ground.

