

<b>Location: Moher, Kerry</b>		<b>Unique ID: 230359</b> (from PFRA database)	
<b>Initial OPW Designation</b>	<b>APSR</b> <input type="checkbox"/>	<b>AFRR</b> <input checked="" type="checkbox"/>	<b>IRR</b> <input type="checkbox"/>
<b>Co-ordinates</b>	<b>Easting: 105250</b>	<b>Northing: 142250</b>	
<b>River / Catchment / Sub-catchment</b>	<b>Ahavanlummaun River / Cashen River / Feale Catchment</b>		
<b>Type of Flooding / Flood Risk</b> (identify all that apply)	<b>Fluvial non-tidal</b> <input checked="" type="checkbox"/> <b>Fluvial tidal</b> <input type="checkbox"/> <b>Coastal</b> <input type="checkbox"/>		

<b>Stage 1: Desktop Review</b>	
<b>1.1 Flood History</b> (include review of Floodmaps.ie)	<b>River Flow Path</b> The River Ahavanlummaun and a tributary of this river flows through this townland.  <b>Flood event records</b> No OPW flood event records.
<b>1.2 Relevant information on flooding issues from OPW and LA staff</b>	<b>PFRA database comments (<i>in italics</i>):</b>  <b>OPW comments</b> <i>Some Wedges - Three linked areas - No history - No LA Support</i>  <b>LA comments</b> <i>None</i>  <b>Meeting / discussion summary comments:</b>  <b>OPW comments</b> <ul style="list-style-type: none"> <li>No known issues in Moher</li> <li>One known flood event u/s of Moyvane, but not considered to be significant.</li> <li>The area of the N69 over which the PFRA mapping extends is 2-3m high and therefore not considered at risk of flooding.</li> <li>Not a significant number of properties in the area - dispersed.</li> <li>The surrounding area is flat and could hold water in a flood event.</li> <li>The OPW constructed a retaining wall along a cul-de-sac (approx location indicated on site map) – works associated with undermining of existing wall.</li> </ul> <b>LA comments</b> <ul style="list-style-type: none"> <li>Not aware of any flooding issue.</li> <li>PFRA flood mapping appears to be over-estimated.</li> </ul>

<b>1.4 PFRA Data</b>			
<b>1.4.1 PFRA hazard mapping</b>	<b>PFRA mapping available in GIS layer:</b>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	<b>PFRA mapping included on FRR map:</b>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>1.4.2 Summary of Principal Receptors</b>	<b>Type</b>		<b>FRI score (if available)</b>
	No principal receptors within the area for flood risk review. The FRI score is from residential and commercial properties.		
	<b>Total</b>		<b>344.1</b>
<b>1.7 Stage 1 Evaluation</b>	<b>Aspect</b>	<b>Clearly APSR</b>	<b>Uncertain</b>
	<b>Flood History (1.1)</b>		<b>X</b>
	<b>OPW / LA Information (1.2)</b>		<b>X</b>
	<b>PFRA Evaluation (1.4)</b>		<b>X</b>
	<b>Overall Desktop Evaluation</b> (if any above aspect is uncertain then overall designation is uncertain)		<b>X</b>
<b>1.8 Proposed level of assessment for Stage 2 site visits</b>	<b>Level A Site Visit</b>		<b>X</b>
	<b>Level B Site Visit</b>		

<b>Stage 2: Site Inspection</b>		<b>Level A Assessment</b>		
<b>Date and Time of Inspection</b>		<b>Date: 12/05/2011</b>		
		<b>Time: 10:00</b>		
<b>Names of inspection team (including OPW/LA staff if present)</b>		<b>Mathieu Valois</b>		
		<b>Kelly Kasperczyk</b>		
<b>2.1 Ground-truthing of Hazard Mapping</b>	<b>Fluvial non-tidal</b> <input checked="" type="checkbox"/> <b>Fluvial tidal</b> <input type="checkbox"/> <b>Coastal</b> <input type="checkbox"/> <b>Not available</b> <input type="checkbox"/>			
	The streams in the area are very small with small catchment areas, and the PFRA extents seem over-estimated as some streams have a bed level of 2 – 2.5m below surrounding land.			
<b>2.2 Spot check ground-truthing of selected receptor vulnerability</b>	<b>Receptor Type</b>	<b>Location description (if not obvious)</b>	<b>Exists?</b>	<b>Overall Vulnerability / Risk (L / M / H)</b>
<b>(also note any key receptors noted during visit that are not identified by PFRA)</b>	No receptors other than residential / farming properties.			L - Most properties are 2-3m above river bed level. Flood plain is mainly agricultural land with storage.
<b>2.3 Local knowledge - on-site comments</b> <b>(OPW, LA and any info volunteered by local residents during visit)</b>	<b>Resident south of Tarmon West, west of N69</b> Experienced flooding 7-8 years ago at N69 and driveway entrance. Due to blockage of N69 crossing (single arch). At this event, a farmer cleared the debris and they have no experience problems since. Resident has not experienced flooding at rear of their lands (d/s).			
<b>2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes</b>	Arch bridges appear to be in good conditions and offer reasonable capacity to the watercourses. No major restrictions observed. The watercourses observed have deep banks; no major issues identified.			

## 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	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			
<b>Total SVRS</b>									<b>40</b>			

## 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 ☐

	<b>Outfalls</b> 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> <b>Other</b> Pumping Station <input type="checkbox"/> Erosion Protection <input type="checkbox"/> Sand Dunes <input type="checkbox"/> <b>Additional notes (if required):</b>
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## 2.8 Initial Potential Mitigation Measures

<b>Non-structural measures</b>	Planning and Development control <input checked="" 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 type="checkbox"/> Land use management <input type="checkbox"/>
<b>Structural measures</b>	<b>Strategic development management for floodplain development:</b> <input type="checkbox"/> <i>(integration of measures into strategic development proposals)</i> <b>Storage:</b> On-line <input type="checkbox"/> Off-line <input type="checkbox"/> <b>Flow diversion:</b> Flood relief channel <input type="checkbox"/> Flood relief culvert <input type="checkbox"/> <b>Increase conveyance:</b> Bridge works <input type="checkbox"/> Channel works <input type="checkbox"/> Floodplain <input type="checkbox"/> <b>Flood defences:</b> Walls <input type="checkbox"/> Embankments <input type="checkbox"/> <b>Localised works:</b> Defence raising <input type="checkbox"/> In-fill gaps <input type="checkbox"/> Trash screen <input type="checkbox"/> <b>Maintenance works:</b> Culvert / channel clearance <input type="checkbox"/> Asset maintenance <input type="checkbox"/> <b>Relocation of properties:</b> <input type="checkbox"/> <b>Improve existing defences:</b> <input type="checkbox"/> (describe) <b>Other (describe):</b> Erosion was observed on the left bank of the Ahavanlummaum river, d/s of the local road crossing (road to Ballylongford; west of N69). A single property is located on the left bank at this location.

## Outcomes

<b>PFRA Designation</b>	APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/>				<b>FRI Score: 344</b>
<b>Site Ground-truthing of PFRA Assessment (hazard mapping and receptors)</b>	<b>High Confidence (good)</b>	<b>Uncertain</b>	<b>Low Confidence (poor)</b>	<b>Not available</b>	
		X			
<b>Site Visit Review Score</b>	40				
<b>Recommended Designation</b>	APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/>				
<b>Summary Comments (if required)</b>	Moher consists of an area of dispersed properties with no clearly defined area boundary. Flood risk in Moher is very low.				



**Photo 1:** D/s of Ahavanlummaun river bridge crossing looking u/s



**Photo 2:** Property on the left bank of the River Ahavanlummaun, bank is relatively high



**Photo 3:** D/s of the bridge crossing there is some bank erosion of the left bank

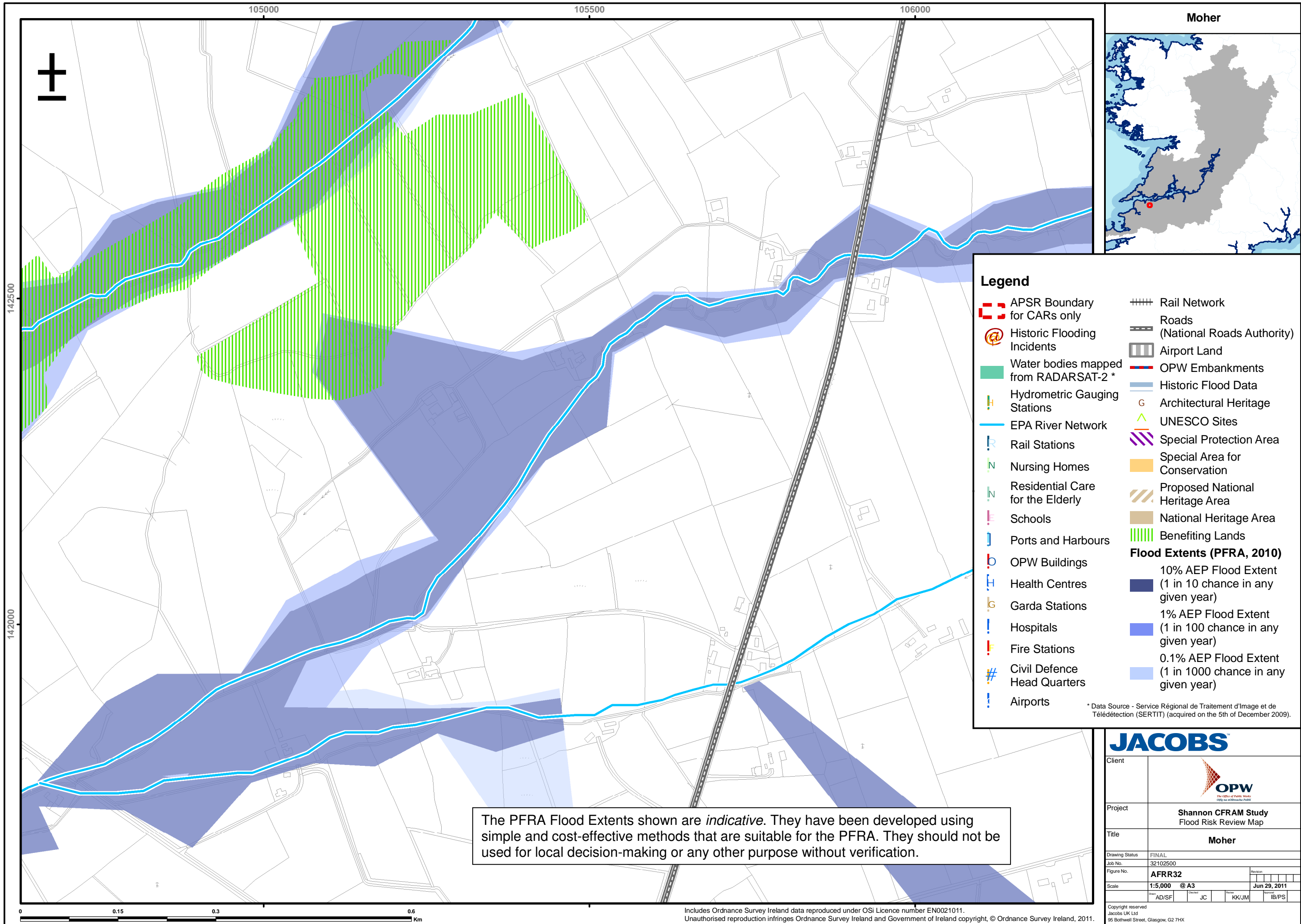


**Photo 4:** U/s of the River Ahavanlummaun looking d/s to the culvert previously cleared due to road flooding. Properties in the background are higher than the river bank






**Photo 5:** U/s of the River Ahavanlummaun  
looking d/s towards elevated properties



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.

JACOBS	
Client	
Project	Shannon CFRAM Study Flood Risk Review Map
Title	Moher
Drawing Status	FINAL
Job No.	32102500
Figure No.	AFRR32
Scale	1:5,000 @ A3
Date	Jun 29, 2011
Drawn	AD/SF
Checked	JC
Reviewed	KK/JM
Approved	IB/PS
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