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| Location: Derryquay, Co. Kerry | | Unique ID: 230349 (from PFRA database) | |
| Initial OPW Designation | APSR <input type="checkbox"/> | AFRR <input checked="" type="checkbox"/> | IRR <input type="checkbox"/> |
| Co-ordinates | Easting: 76250 | Northing: 111250 | |
| River / Catchment / Sub-catchment | Derryquay River / North Kerry Tralee Bay | | |
| 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 | |
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| 1.1 Flood History (include review of Floodmaps.ie) | <p>General Area</p> <p>The Derryquay River which flows through the townland of Derrymore East is sourced from the Slieve Mish Mountains to the south and discharges to Tralee Bay.</p> <p>The Derrymore river is located west of the Derryquay River; this river is also sourced from the Slieve Mish Mountains to the south and discharges to Tralee Bay to the north.</p> <p>There are two smaller stream located between the two rivers sourced from the Slieve Mish Mountains and discharging to Tralee Bay.</p> <p>Flood event records</p> <p>There are no OPW flood records for the Derryquay River in Derrymore East townland.</p> |
| 1.2 Relevant information on flooding issues from OPW and LA staff | <p>PFRA database comments (<i>in italics</i>):</p> <p>OPW comments <i>Investigate first under risk review - Wedge D/S of road - Possible Minor Works</i></p> <p>LA comments <i>Primary School up on the hill but stream runs down behind it. LA are not aware of any reason why these locations are included. It may be associated with the fact that mountain streams flow through these areas, however there is no history of flooding</i></p> <p>Meeting / discussion summary comments:</p> <p>OPW comments</p> <ul style="list-style-type: none"> Attendees are not very familiar with this area The streams at this location are believed to be like ravines, quite steep-sided. <p>LA comments</p> <ul style="list-style-type: none"> Number of culverts on the road to Derrymore Strand Carpark. Low spot in the road on N86 There are minor drainage issues at the school No problems at Derryquay Bridge Land may be flooded, but no properties. Not aware of any flooding issues around Derrymore Bridge. |

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| 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 |
| | Total | | 252 |
| 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 | | |

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| Stage 2: Site Inspection | | Level A Assessment | | |
| Date and Time of Inspection | | Date: 24/05/11 | | |
| | | Time: 12:15 | | |
| Names of inspection team (including OPW/LA staff if present) | | Iain Blackwell | | |
| | | Kelly Kasperczyk | | |
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| 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"/> | | | |
| | The extents of the PFRA mapping appear to be exaggerated north of the N89. The slope here is still quite steep and large areas of flooded land is not likely. | | | |
| 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 | | Yes | L |
| 2.3 Local knowledge - on-site comments (OPW, LA and any info volunteered by local residents during visit) | School Principal: The Principal of the school has grown up in the house immediately west of the school. She has never experienced flooding problems associated with the stream that runs behind (and now culverted under) the school (field). Surface water runoff from the mountains has in the past entered the school yard from the fields to the rear (south). This has not impacted on school activities and has drained away naturally without any problem. Stream is culverted under the school field (west of the school building). Front lawns of two properties west of the school stream (and east of next stream) pond with water. Even before these properties were constructed, this field was known to pond. | | | |
| 2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes | Banks of stream next to school are heavily vegetated u/s of N86 road crossing; potential for blockage. Also, garden waste is dumped on the banks at this location. Unable to view culvert under school grounds. However, in the event that the entrance was blocked, flow would tend to be across the school field and west towards the downstream end of the culvert, rather than into the school. | | | |

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 | 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 | | | | | | | | | 30 | | | |

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 ☐

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| | 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): |
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2.8 Initial Potential Mitigation Measures

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| 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 checked="" type="checkbox"/> Individual property protection <input 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: 252 | |
| Site Ground-truthing of PFRA Assessment (hazard mapping and receptors) | High Confidence (good) | Uncertain | Low Confidence (poor) | Not available |
| | | X | | |
| Site Visit Review Score | 30 | | | |
| Recommended Designation | APSR <input type="checkbox"/> not an APSR <input checked="" type="checkbox"/> IRR <input type="checkbox"/> | | | |

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| Summary Comments (if required) | <p>In assessing potential flood risk to the school it was considered that if the culvert opening to the south of the school blocked, the flow path is likely to direct water away from the school (to the west) into the adjacent field (marshy vegetation), and then back towards the stream crossing u/s of the N89 bridge crossing.</p> <p>The school is not considered to be at significant risk.</p> |
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Photo 1: Looking south to the Slieve Mish Mountains



Photo 2: Lowlands to the north of the main road, dropping down to the tidal flood plain in the distance



Photo 3: Derryquay School located on the main road through Derryquay



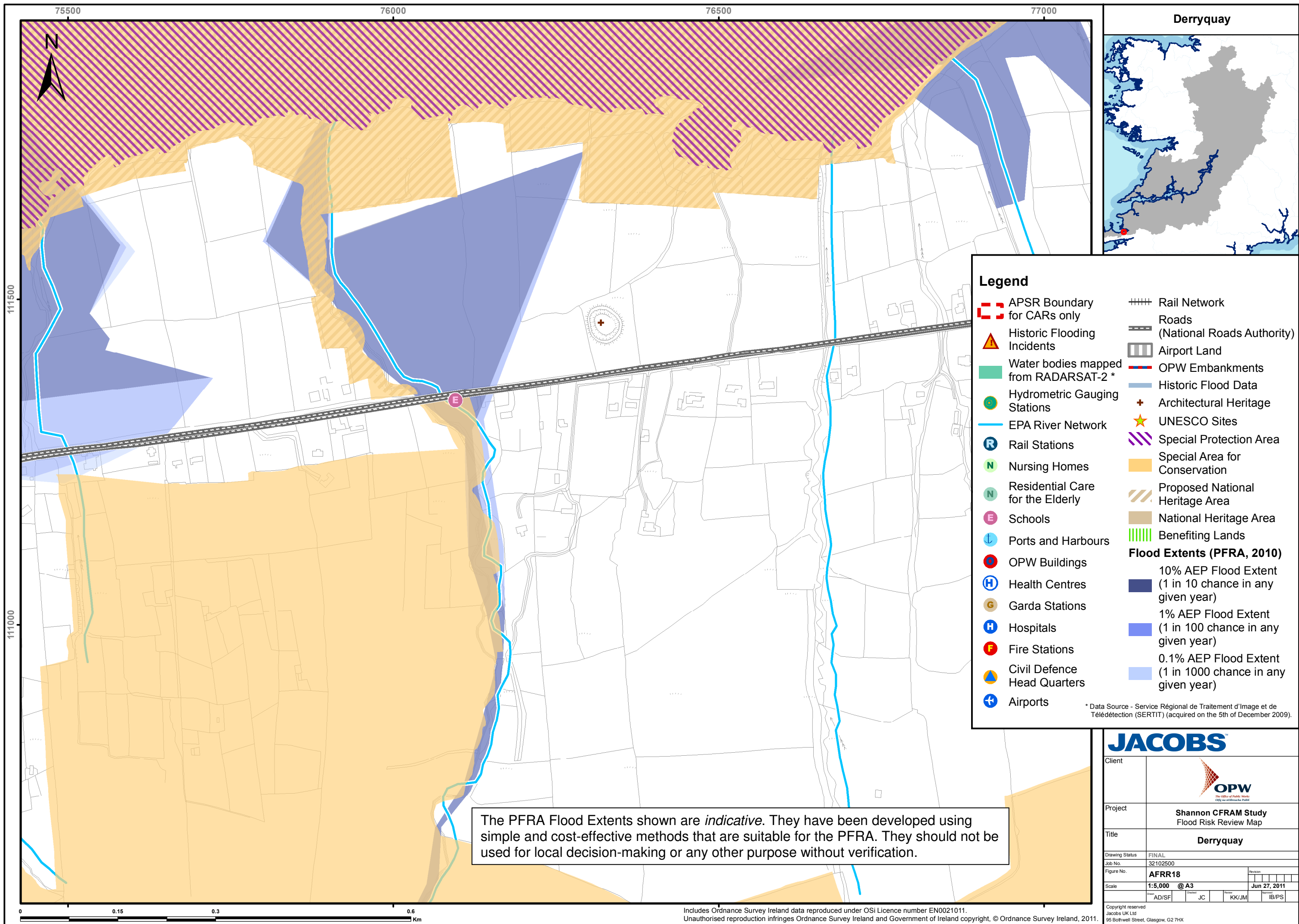
Photo 4: Small watercourse is culverted through the playing field, exiting at the junction of the green fence and the wall




Photo 5: Watercourse is culverted across the school field. Out of bank flows will tend to flow to the west (right in this picture)



Photo 6: Marshy field adjacent (west) to the school grounds. Most of the properties are higher up, but the front lawns next to the road pond with water.



JACOBS

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| Client |  | | |
| Project | Shannon CFRAM Study Flood Risk Review Map | | |
| Title | Derryquay | | |
| Drawing Status | FINAL | | |
| Job No. | 32102500 | | |
| Figure No. | AFRR18 | | |
| Scale | 1:5,000 @ A3 | | |
| Drawn | AD/SF | Checked | JC |
| Drawn | KK/JM | Checked | IB/PS |
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