Location: Boyle, Co. Roscommon		Unique ID: 260454 (from PFRA database)	
Initial OPW Designation	**APSR** ☒	**AFRR** ☐	**IRR** ☐
Co-ordinates	**Easting: 180226**	**Northing: 302423**	
River / Catchment / Sub-catchment	**Boyle / 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

The Boyle River flows through the town of Boyle and meanders south-westerly from Lough Key to Lough Gara.

The Boyle River is crossed several times within the town boundary by both roads and a railway line. Roads include the N61 (Sligo Road), Bridge Street, Abbeytown and Mill Road. The railway crossing is located southwest of the town centre.

Flood Event Records

Ten flood records are listed in floodmaps.ie. The most significant events were recorded in 1996 and 1998.

1.2 Relevant information on flooding issues from OPW and LA staff

PFRA database comments *(in italics)*:

OPW comments
Designated APSR on the basis of predictive analysis and LA comments. Approved – APSR

LA comments
Drum BridgeBetween canal and riverHouses floodedTurloughs/swallow holes

Meeting / discussion summary comments:

OPW comments

- Flooding nearly closed the access road to the town from the main road in 2009.
- Nov 2009, flooding reached the top of the road embankment but did not quite overtop. There were also properties at risk near Drum Bridge Silt was deposited in the park area by high flows.
- The old bridge dates from the 12th century and is most likely archaeologically protected.

LA comments

- The River Boyle starts in Lough Gara and has a history of flooding.
- Road to Drum (wooden bridge) floods in a regular basis.
- There is a scheme through the town that the OPW maintain.
- Stewarts Mill animal feed / mill is used it for electricity generation. The rights associated with this mill may be an issue when considering flood alleviation options.

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)
OPW_LV	2
UWWTP	2.5
Arch_Local	1.1
Arch_Regional	146.1
Arch_National	25
Monument_LV	193.2
Total	**1017.9**

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: 13/05/11** **Time: 09:00**
Names of inspection team (including OPW/LA staff if present)	**Peter Smyth** **James Murray**

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	The downstream control at Lough Key is a restriction to flow. During the site visit the low flow conditions in the Lough were influencing levels at least as far upstream at the N61. Three bridges in the town cause some constriction and there is a mill upstream of the town which is active.

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):

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

Recommended Designation	**APSR** ☒ **not an APSR** ☐ **IRR** ☐
Summary Comments (if required)	Boyle has a history of flooding. The PFRA mapping predicts an ongoing significant flood risk with this conclusion supported by both the Local Authority and the OPW. Boyle was confirmed as an APSR following a desk based assessment, with no on-site verification required.

Photo1: Upstream face of bridge over the River Boyle in the town centre.

Photo 2: Downstream face of bridge over the River Boyle in the town centre.

Photo 3: View of the River Boyle in Boyle town centre, looking downstream.

Photo 4: Tributary to the River Boyle in Boyle.