

Location: Dromcolliher, Co. Limerick		Unique ID: 242722 (from PFRA database)	
Initial OPW Designation	APSR <input checked="" type="checkbox"/>	AFRR <input type="checkbox"/>	IRR <input type="checkbox"/>
Co-ordinates	Easting: 138230	Northing: 121197	
River / Catchment / Sub-catchment	Carroward Stream & River Ahavarragh / Deel Catchment / Shannon Estuary		
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	
1.1 Flood History (include review of Floodmaps.ie)	<p>River Flow Path</p> <p>The Ahavarragh River runs through the western part of Dromcolliher village along the Newcastle West Road (R522) before entering the River Deel some 5km downstream. A small river referred to as the 'Carroward Stream' runs through the eastern part of the village before joining the Ahavarragh River towards the downstream end of the village.</p> <p>Flood event records</p> <p>Two flood records are listed – 1 singular and 1 recurring flood event.</p> <p>Flooding is mainly from the Carroward Stream rather than from the Ahavarragh Stream. Flooding from the Carroward Stream is noted as follows:</p> <p><i>"The almost annual flooding in Dromcolliher is caused by the insufficient capacity of the 'Carroward Stream' channel through the eastern part of the village."</i></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</p> <ul style="list-style-type: none"> <i>Designated APSR on the basis of predictive analysis. Combine with Ballinlongig (score 811.4).</i> <i>Scheme undertaken in nineties</i> <p>LA comments</p> <ul style="list-style-type: none"> <i>(am) OPW Scheme – for roads and properties(pm) Surface water sewer put in by LA in late 90's. Nursing home beside river. Limerick to submit LA Submission" Flood relief system upgraded during last decade, still local flood issues close to Catholic Church</i> <p>Meeting / discussion summary comments:</p> <p>OPW comments</p> <ul style="list-style-type: none"> This has a scheme with a new major culvert that was installed late 1990s. This runs along the main street from the upstream end of town, through the centre and outfalls just upstream of the sewage treatment works. Since the construction of the scheme there have not been any further problems to OPW's knowledge.

	LA comments <ul style="list-style-type: none"> Aware of some previous issues at the Respite Centre/Sheltered housing. Not familiar with the area of Ballinlongig. 		
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)	
	Receptors not considered as part of the PFRA process for Dromcolliher. FRI score not calculated in PFRA for Dromcolliher. Total score of 811 when considered together with Ballinlongig (downstream)		
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: 30/03/11		
		Time: 13:00		
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 checked="" type="checkbox"/> Fluvial tidal <input type="checkbox"/> Coastal <input type="checkbox"/> Not available <input type="checkbox"/> Dromcolliher Site conditions appear to represent a good correlation with the flood hazard mapping. Ballinlongig PFRA mapping does not appear to reflect site conditions. Large areas are shown as being flooded which is not considered to be 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)
	Nursing home		Yes, but Respite Centre	L
2.3 Local knowledge - on-site comments (OPW, LA and any info volunteered by local residents during visit)	Dromcolliher Café on Pound Street - Owners have been resident for 5 years here and have not experienced any flooding in the town. Café is d/s of the diverted and culverted Carroward stream at the end of Carroward East. Dromcolliher Respite Centre: A Centre employee who has lived in the town for 9 years does not know of any flooding issues at the Centre or in and around Drumcolliher. Ballinlongig A farmer that owns land either side of the L7028 has not experienced flooding in the 60 years he has lived in Ballinlongig.			
2.4 Comments on hydraulic constrictions (bridges, etc.) and conveyance routes	Ahavarragh River Under high flows the bridge upstream of Chapel/Church Street (R515) is likely to present constrictions. The bridge at North Road (main road out of Dromcolliher to the NW) has barbed wire and some fencing across the arch (potentially to discourage cattle). This presents a blockage risk. Carroward Stream The Carroward stream is now culverted (scheme completed in 1990s). The entrance to the culvert has a trashscreen in place.			

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	X			200			
Property (small retail or business)	20	X			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									170			

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 ☐

	<p>Outfalls</p> <p>Flapped outfall(s) into watercourse <input type="checkbox"/> Unflapped outfall(s) into watercourse <input checked="" 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> <p>Primary flood defence asset is the flood relief culvert along the L7014 and North Road, which now conveys the Carroward Stream.</p>
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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 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 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 checked="" type="checkbox"/> Floodplain <input type="checkbox"/></p> <p>Flood defences: Walls <input checked="" 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 checked="" type="checkbox"/></p> <p>Maintenance works: Culvert / channel clearance <input checked="" type="checkbox"/> Asset maintenance <input checked="" type="checkbox"/></p> <p>Relocation of properties: <input type="checkbox"/></p> <p>Improve existing defences: <input type="checkbox"/> (describe)</p> <p>Other (describe):</p>

Outcomes				
PFRA Designation	APSR <input type="checkbox"/> not an APSR <input type="checkbox"/> IRR <input type="checkbox"/>		FRI Score: N/A (811 with Ballinlongig)	
Site Ground-truthing of PFRA Assessment (hazard mapping and receptors)	High Confidence (good)	Uncertain	Low Confidence (poor)	Not available
			X	
Site Visit Review Score	170			
Recommended Designation	APSR <input checked="" type="checkbox"/> not an APSR <input type="checkbox"/> IRR <input type="checkbox"/>			

Summary Comments	<p>Historic flood issues associated with Carroward stream appear to be alleviated by the OPW scheme constructed in the 1990s comprising the flood relief culvert along the L7014 and North Road.</p> <p>There are a few locations in Dromcolliher where there may be a residual flood risk to a small number of properties / infrastructure, primarily related to the Ahavarragh Stream.</p> <p>The flood risk downstream in Ballinlongig is considered to be low. This townland consists of the road and surrounding area along the L7028 between the R522 and R515. The area is quite flat either side of the L7028. A local farmer who owns land either side of the L7028 has not experienced flooding in the 60 years he has lived in Ballinlongig.</p> <p>It is recommended that Dromcolliher (which excludes the area further downstream at Ballinlongig) is designated as an APSR.</p>
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Photo 1: Trash screen and culvert entrance for the Carroward Stream (on the local road SE out of town)



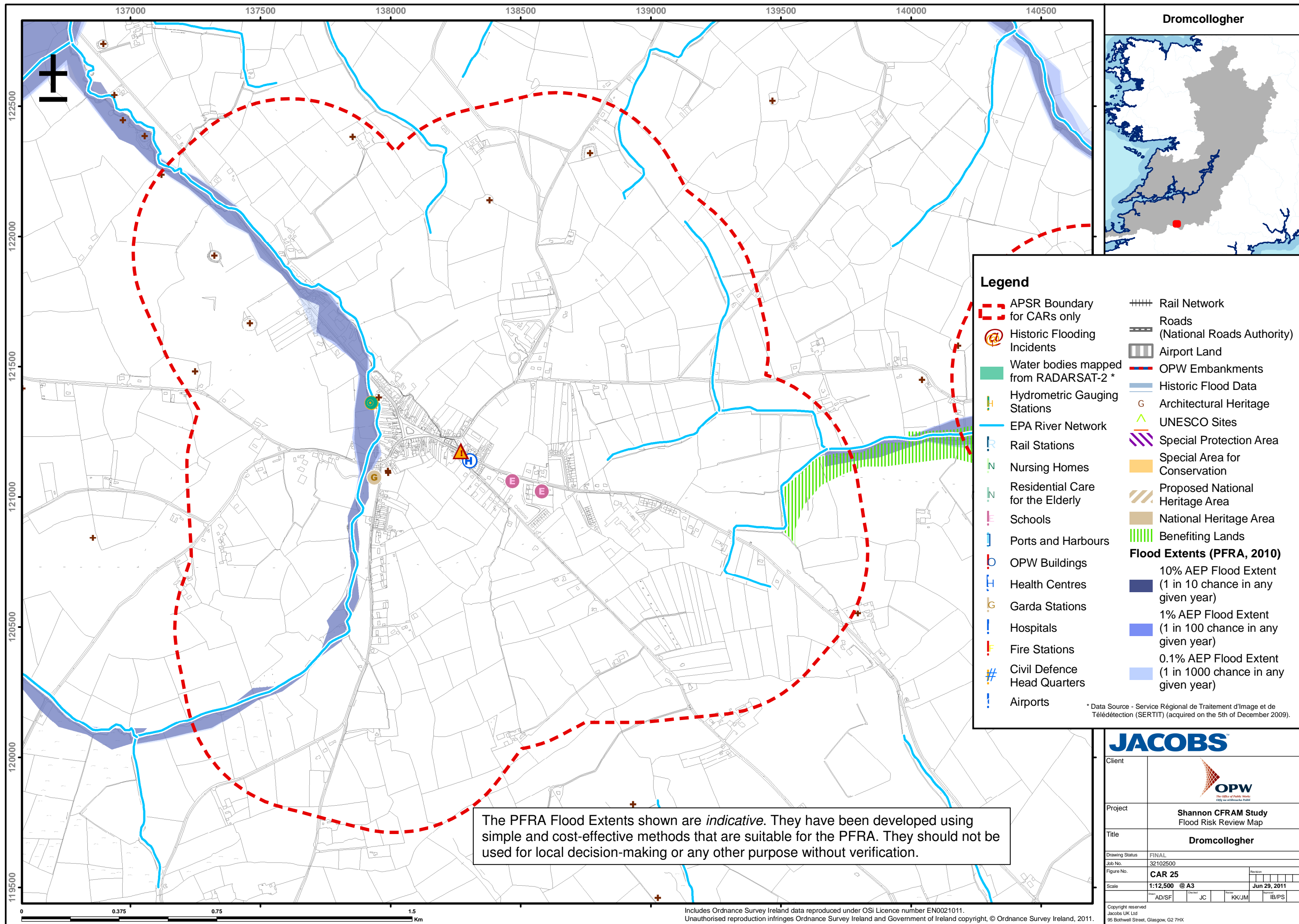
Photo 2: Looking upstream, the Carroward Stream is culverted along the L7014



Photo 3: Small residual flow in channel along the L7014 d/s of the trash screen, looking NW



Photo 4: Ahavarragh Stream by the church looking u/s



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.

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).

JACOBS	
Client	OPW The Office of Public Works OPW ne réclame pas de droits de propriété intellectuelle
Project	Shannon CFRAM Study Flood Risk Review Map
Title	Dromcollogher
Drawing Status	FINAL
Job No.	32102500
Figure No.	CAR 25
Scale	1:12,500 @ A3
Drawn	AD/SF
Checked	JC
Reviewed	KK/JM
Approved	IB/PS
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