



Flood Risk Management

COUNTY SUMMARY

COUNTY: TIPPERARY

(Information correct as of 31/12/2017)

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1. OPW Capital Investment to 31 December 2017

MAJOR FLOOD RELIEF SCHEMES: 1995-2017

Historically, flood risk management focused on arterial drainage for the benefit of agricultural improvement. Arising from increasing flood risk, the Arterial Drainage Act, 1945, was amended in 1995 to permit the Office of Public Works (OPW) to implement localised flood relief schemes to provide flood protection for cities, towns and villages.

Some schemes have been carried out by the Local Authorities under their own powers using the Planning and Development legislative code. The OPW either works in association with the relevant Local Authorities or funds Local Authorities directly to undertake flood relief works.

COUNTY: TIPPERARY

No.	Scheme At Design/Planning	Scheme At Construction	Scheme Completed	Properties Protected	Budget (€)	Current Status (or Completion Date)
1	-	-	Clonmel West	142	25.5m	Scheme Completed 2012
2	-	-	Clonmel North & East	358	18.8m	Scheme Completed 2013
3	-	-	Carrick-on-Suir	110	6.1m	Scheme Completed 2003
4	-	-	Mulkear River, Newport (Ballymackeogh)	53	4.4m	Scheme Completed 1998
5	-	River mall (Templemore)	-	109	10.2m	Projected Completion Q3 2019

MINOR FLOOD MITIGATION WORKS AND COASTAL PROTECTION SCHEME: 2009-2017

The Minor Flood Mitigation Works & Coastal Protection Scheme (the “Minor Works Scheme”) was introduced by the Office of Public Works in 2009. The purpose of the scheme is to provide funding to Local Authorities to undertake minor flood mitigation works or studies to address localised flooding and coastal protection problems within their administrative areas. The scheme generally applies where a solution can be readily identified and achieved in a short time frame.

Under the scheme, applications are considered for projects that are estimated to cost not more than €750,000 in each instance. Funding of up to 90% of the cost is available from the OPW for approved projects. The commencement and progression of any works for which funding is approved is a matter for each Local Authority concerned.

COUNTY: TIPPERARY		(Local Authority: Tipperary County Council)		
No.	Project Location	Project Details	Approved Funding (€)	Year of Approval
1	Tivoli Heights, Clonmel	Works-Installation of new grill to improve flow, construction of wing walls to side of culvert/pipe	18,000	2009
2	Ardfinnan, Clonmel	Works – Strengthening riverbank, raising embankment & removal of vegetation.	162,684	2009
3	Currabaha	Construct inspection chambers, upgrade existing land drainage pipe.	9,900	2010
4	Barravie	Construct gullies and lay piping, upgrade existing pipe, clean out existing land drain	18,054	2010
5	Coolaholiga, Nenagh	Channel maintenance, replace culvert. Restore parapet walls and wing walls	24,000	2010
6	Baynanagh, Toomevara	Remove wall, lay piping, construct inspection chambers and roadside gullies. Provide fencing.	42,210	2010
7	Carrigeen, Cahir	Improvements to Marshes Stream	26,325	2010
8	Moangarriff, Clonmel	Channel improvements	30,600	2010
9	Railstown, Cashel	Widen Moyle Stream, repair bridges & culverts	45,360	2010
10	Red City Fethard	Upgrade culvert	52,920	2010
11	Toureen, Cahir	Installation of 450mm pipe and 350m of additional land drains	11,250	2010
12	Convent Road, Cahir	Cleaning & deepening of existing drain / Excavation of trench / Laying of pipe bedding and 40m of concrete pipe / Construct manhole and backfill/compact / Restoration works	31,500	2010

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No.	Project Location	Project Details	Approved Funding (€)	Year of Approval
13	Cascade Heights, Clonmel	Provide side support to the existing banks of Aulk Stream and reinforced concrete wall to front / Purchase concrete blocks and amend grille / Clean culvert under the road	14,805	2010
14	Marfield Lake, Clonmel	Site Investigation, including culvert systems and design of repair and reconstruction works	12,600	2010
15	Tivoli Heights, Clonmel	Works-Installation of new grill to improve flow, construction of wing walls to side of culvert/pipe	1,373	2010
16	Ardfinnan, Clonmel	Works – Strengthening riverbank, raising embankment & removal of vegetation.	15,636	2010
17	Ardfinnan, Clonmel	Works – Strengthening riverbank, raising embankment & removal of vegetation.	44,550	2010
18	Ardfinnan, Clonmel	Installation of 40 linear metres by approx. 3 metres height of rock armour to provide 1.2 metres height of protection to existing river bank	15,480	2010
19	Clareen Cross, Moyaliff, Ballycahill	To construct approx. 600m of 300mm diameter pipe line and associated accommodation works	33,408	2011
20	Grange Road, Ballina	To provide 12 inch diameter SW piping and associated road gullies for a total distance of 400m	47,610	2011
21	Grange Village, Clonmel	Survey and study	6,300	2011
22	Doon, Araglin	Excavation of a new drainage ditch, cleaning an existing deep drainage ditch, installation of drainage pipes and electric fencing	14,580	2011
23	Ardfinnan, Clonmel	The provision of a pumping installation in the 'Back River' to discharge to River Suir over flood defences during flood times	15,750	2011
24	Nenagh Swimming Pool & Adjacent Land	Clean drains/stream of silt/debris/vegetation Upgrade embankments	13,500	2012
25	Barna, Newport	Provide 12" diameter piping at roadside for 250 metres to discharge to soak-pits	27,180	2012
26	St. Johnstown, Fethard	Replacement of culvert	4,500	2012
27	Curragh, Goatenbridge	Cleaning of approx. 200 metres of existing 1.50m deep drainage ditch /Installation of approx. 60 metres of 375mm concrete drainage pipe & drainage grates	7,650	2012
28	Grange Cremary	Install 900mm pipes to upgrade bridge capacity	9,000	2012

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No.	Project Location	Project Details	Approved Funding (€)	Year of Approval
29	Buffanagh, Killenaule	Maintenance of river between Buffanagh & Moglass	13,250	2012
30	Kilroe, Ballylooby	Excavation of approx. 250 metres of a new 1.50m deep drainage ditch	14,200	2012
31	Spa Villa, Old Spa Road, Clonmel	Form temporary dam & concrete bed, provide additional protection to wall, construct clay embankment & associated works	5,400	2014
32	Rathkennan	Overflow pipe from lane way adjacent to houses to mitigate against flooding	4,500	2015
33	R504 at Longhouse, Birdhill	Install 4no new gullies & lay 100m of 300mm diameter drainage pipes to an outfall	13,500	2015
34	Lagganstown	Road drainage system & outfall pipe through hill to natural lake	18,000	2015
35	River Suir, Loughmore	Removal of obstructions & improvement of Water Conveyance in part of the River Channel which is not a Drainage District	45,000	2015
36	R-690-4 Lismalin	Install new drainage culvert beneath the R69-4 & excavate a new 130m long open drainage ditch on private lands	10,800	2016
37	R-691- 4 Ballinure School	Clear out 500m of open drain on agricultural land & dispose of material	13,500	2016
38	Clonsingle, Newport	Construct new flood ramp, 2 new piers & barrier foundation. Purchase of flood barrier & fixtures	13,500	2016
39	Newcastle, Clonmel	To replace sections of the existing masonry walls & replace with railing or other approved construction, to reduce risk of flooding of commercial premises using flood walls, gates etc. & fit non-return valves to existing pipe network	21,600	2016
40	Ballinahalla, Clogheen	To install drainage gullies & lay approximately 800m of 300mm diameter storm water drainage pipe to outfall	45,000	2016
41	Cloughcarrigeen Estate, Kilsheelin	To install new 240m long 300mm diameter surface water drainage pipe, connect existing open channel linear attenuation drain to new estate surface water drainage system & clean existing open drain	63,000	2016
42	Ballinderry	Install new stone filter drain with perforated 225mm storm pipe & large gully	47,700	2016
43	Graigue, Clogheen	To intercept storm water, works to include the laying of a 450mm diameter corrippe, backfilling & road reinstatement works	13,950	2017
44	Knockballiniry, Goatenbridge	Excavation works, the laying of 450mm diameter corrippe, two road crossings & associated works	32,625	2017

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No.	Project Location	Project Details	Approved Funding (€)	Year of Approval
45	The Millrace, Cahir	Clean & dredge the Millrace from the River Suir to the downstream weir, remove silt & vegetation	35,550	2017
46	Mullinahone	Removal of debris from the channel and banks prior to building a foundation and retaining wall along the banks A design and method statement to be developed	225,000	2017
47	Waller's Lot	Study	22,611	2017
			1,415,411	

2. Maintenance carried out under Arterial Drainage Act, 1945

The OPW has statutory responsibility for and carries out a programme of Arterial Drainage Maintenance. These maintenance works relate to arterial drainage schemes completed by the OPW under the Arterial Drainage Acts 1945, with the primary purpose to improve the drainage of agricultural lands. Local Authorities are responsible for the maintenance of Drainage Districts, which were completed up to 1943.

The OPW's annual Arterial Drainage Maintenance Works Programme protects 260,000 hectares (650,000 acres) of agricultural lands and comprises 11,500km (7,150 miles) of river channel and approximately 800km (500 miles) of embankments.

COUNTY: TIPPERARY				
Completed Scheme		County(s)	Duration of Works	Benefitting Area (Acres)
Maigue	(Major Scheme)	Limerick, Tipperary, Cork	1973 – 1986	30,500
Nenagh	(Minor Scheme)	Tipperary, Offaly	1955 – 1960	6,500
Clareen	(Small Scheme)	Tipperary	1959 – 1961	1,100
Carrigahorig	(Small Scheme)	Tipperary, Offaly	1968 – 1971	3,800

3. Proposed Measures in Flood Risk Management Plans

The OPW has now studied and assessed flood risk in Ireland, focussing on 300 areas of potentially significant risk throughout the country.

Flood Maps have been created for each of these communities to describe existing and potential flood risk. The OPW has now published Flood Risk Management Plans which set out, for these communities, how it is proposed to manage the assessed flood risk through investment in flood relief schemes and other policy measures. The Plans also set out measures in place and under consideration that can manage flood risk in other parts of the county.

The following tables set out the communities in this County that are covered by the Flood Risk Management Plans and provides an indication of the proposed flood relief schemes contained in the Plans for these communities.

In some instances, a technically viable flood relief scheme has been identified, however, a more detailed assessment of the costs and benefits will be completed to determine if the proposed Scheme is feasible.

For other communities, there is a relatively low level of flood risk from rivers and/or the sea, and no structural flood relief measures are therefore proposed at this time. The current level of risk will be reviewed, along with all areas, on a regular basis into the future.

In addition to the implementation of proposed flood relief schemes, funding will continue to be available for localised projects under the Minor Works Scheme.

The Plans also set out those non-structural measures in place or proposed, for example Flood Forecasting, which benefit all at risk communities and properties. The Interdepartmental Flood Policy Co-ordination Group will continue its work now greatly informed by the wealth of knowledge in the Plans to bring forward further feasible proposals for Government's consideration to support and assist households and communities through non-structural flood risk management and mitigation measures.

COUNTY: TIPPERARY					
AREA NAME	Existing Scheme in Place	Scheme in Construction, Design or Pending	New Scheme Proposed in the Plans	Potential Scheme subject to further assessment.	No Scheme Proposed as Community at Low Risk or Scheme Not Viable
Ardfinnan			√		
Ballyporeen					√
Bansha					√
Borrisokane					√
Borrisoleigh			√		
Cahir			√		
Carrick on Suir	√				
Clonmel	√				
Fethard			√		
Golden			√		
Marlfield					√
Mullinahone		√			
Nenagh			√		
Newcastle			√		
Newport	√				
Roscrea			√		
Templemore		√			
Thurles			√		
Tipperary Town					√

No.	Proposed Scheme	Properties Protected	Further Information on Proposed Scheme
1	Ardfinnan	28	The potential measure would protect at-risk properties against the 1% AEP Fluvial flood event by a combination of flood defences, road raising and two electrically operated penstocks. The proposed flood defences would include sheet piles to counter the underground flow paths which exist between the river and flood receptors and consist of a series of flood embankments (average height of 1.25m and a total length of 667m) and retaining walls (average height of 1.5m and a total length of 300m).
2	Borrisoleigh	28	<p>The potential measure would protect at-risk properties against the 1% AEP Fluvial flood event by a combination of flood defences and improved channel conveyance. The potential flood defences would consist of a series of flood embankments (average height of 1.0 m and a total length of 78m), flood walls (average height of 1.2m and a total length of 90m) and road raising (0.4m over bridge) on the Cromoge River. The potential improvement in channel conveyance would consist of a bridge replacement with a culvert (1.6m x 6m wide) on the Cromoge River and pipe replacement with culvert (2m x 8m x 15m long) on the Coolataggle tributary.</p> <p>(c) The potential improvement in channel conveyance would also consist of 2m of channel widening and 110m of channel conveyance on the Cromoge River and channel conveyance of 95m and 88m of new channel to be cut on the tributary river.</p>
3	Cahir	41	<p>The potential measure would protect at-risk properties against the 1% AEP Fluvial flood event by a combination of flood defences, improved channel conveyance and other works. The potential flood defences would consist of a series of flood embankments (average height of 1.2 m and a total length of 265m) and flood walls (average height of 1.2m and a total length of 503m) on the Suir River and its tributary. The potential improvement of channel conveyance would consist of upgrading one existing weir in the diversion channel and upgrading one existing culvert on the tributary river,</p> <p>(c) Installation of a Penstock Sluice Gate in the diversion channel of the River Suir – 2 m height x 8 m width.</p>
4	Fethard	16	<p>The potential measure would protect at-risk properties against the 1% AEP Fluvial flood event by flood defences. The potential flood defences would consist of the following:</p> <p>(a) Flood embankments (average height of 1.2m and a total length of 621m),</p> <p>(b) Flood walls (average height of 1.3m and a total length of 184m),</p> <p>(c) Upgrading existing walls (average height 1.3m and a total length of 116m),</p> <p>(d) Installation of flood gates (3 No. 2m x 3m and 4 No. 2m).</p>
5	Golden	8	The potential measure would protect at-risk properties against the 1% AEP Fluvial flood event by flood defences. The proposed flood defences would include sheet piles to counter the underground flow paths which exist between the river and flood receptors and consist of a series of flood embankments (average height of 1m and a total length of 425m), flood walls (average height of 1.2m and a total length of 50m) and a demountable barrier (1.5m length x 1.2m high).
6	Nenagh	58	<p>The proposed measure for Nenagh that may be implemented after project-level assessment and planning or Exhibition and confirmation might include;</p> <ul style="list-style-type: none"> • Construct a new 480m embankment along Nenagh River to defend properties. • Replace culvert on Benedin Stream with hydraulic control to limit flows downstream during flood events.

No.	Proposed Scheme	Properties Protected	Further Information on Proposed Scheme
			<ul style="list-style-type: none"> • Flood forecasting unit on River Nenagh. • Targeted public awareness. • Introduction of a storage area.
7	Newcastle	17	<p>The potential measure would protect at-risk properties against the 1% AEP Fluvial flood event by a combination of flood defences and Improved Channel Conveyance. The potential flood defences would consist of a series of flood embankments (average height of 1.5 m and a total length of 220m), flood walls (average height of 1.2m 20m parapets for bridge, 50m at main channel downstream of Bridge on Main Stream and 50m at side channel north of Newcastle) and road raising (over the existing culvert and at the bridge on main street over a length of 30m and raised by 0.4m (average)). The potential improvement in channel conveyance would consist of a bridge replacement of the existing bridge on Main Street and channel maintenance between the Ardfinnan Road and the Suir.</p>
8	Roscrea	40	<p>The proposed measure for Roscrea that may be implemented after project-level assessment and planning or Exhibition and confirmation might include;</p> <ul style="list-style-type: none"> • Construct 630m of new structural flood defence walls and 213m of flood defence embankments.
9	Thurles	37	<p>The potential measure would protect at-risk properties against the 1% AEP Fluvial flood event by flood defences. The potential flood defences would consist of a series of flood embankments (average height of 1.5 m and a total length of 493m), flood walls (average height of 1.2m and total length of 589m) and flood gate (1m at bridge opening at crossing of Emmet Street and Thomond Road).</p>

In addition to the 300 areas that were the focus of the CFRAM programme, a small number of other areas were also assessed through four Pilot CFRAM programmes, or have rural or small flood relief schemes already in place or in progress. These other areas have been referenced in the Flood risk Management plans and the main outputs are summarised below.

COUNTY: TIPPERARY					
AREA NAME	Existing Scheme in Place	Scheme in Construction, Design or Pending	New Scheme Proposed in the Plans	Potential Scheme subject to further assessment.	No Scheme Proposed as Community at Low Risk or Scheme Not Viable
Holycross			√		
Knocklofty			√		

Proposed Scheme	Properties Protected	Further Information on Proposed Scheme
Holycross	1	The potential measure would protect at-risk properties against the 1% AEP Fluvial flood event by flood defences. The proposed flood defences would include a series of flood embankments (average height of 1.2m and a total length of 191m), upgrading flood walls (average height of 1.2m and a total length of 38m and average height of 1.5m and a total length of 96m) and a flood gate (1 No. over 2m width).
Knocklofty	5	The potential measure would protect at-risk properties against the 1% AEP Fluvial flood event by flood defences. The proposed flood defences would include a series of flood embankments (average height of 1.4m and a total length of 469m) and a flood gate (1 No. over 6m and 1 No. over 1m).