



Flood Risk Management

COUNTY SUMMARY

COUNTY: DUBLIN

(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: DUBLIN						
No.	Scheme At Design/Planning	Scheme At Construction	Scheme Completed	Properties Protected	Budget (€)	Current Status (or Completion Date)
1	-	-	River Tolka (Fingal)	18	5.1m	Scheme Completed 2011
2	Skerries	-	-	61	1.5m	Feasibility Stage
3	Poddle	-	-	840	15-€20m	Construction to commence Q1 2019
4	Camac	-	-	TBC	TBC	SDCC working to appoint consultants
5	-	-	River Dodder (Tidal)	1,000	16.1m	Scheme Completed 2013
6	-	River Dodder (Fluvial)	-	1,572	14.5m	Substantial Completion Q1 2019
7	-	-	River Wad (Clanmoyle)	51	4.9m	Scheme Completed 2014
8	-	-	River Tolka (Dublin)	1,346	7.5m	Scheme Completed 2008
9	-	-	Spencer Dock	1,200	3.4m	Scheme Completed 2009
10	-	-	South Campshires	750	5m	Scheme substantially completed 2017
11	Sandymount Coastal Protection Scheme	-	-	1,411	18m	Phase 1 at Planning Stage
12	Whitechurch Stream	-	-	165	1.8m	Design Stage
13	Portmarnock (Strand Road)	-	-	18	1.56m	Consultants to be appointed

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: DUBLIN					
No.	Local Authority	Project Location	Project Details	Approved Funding (€)	Year of Approval
1	Dun Laoghaire / Rathdown	Packenham Rd, Monkstown	Install new screen and overland route	43,200	2011
2	Dun Laoghaire / Rathdown	Stradbrook Stream, Monkstown	Replace culverts at two locations Screen replacement	153,000	2012
3	Dun Laoghaire / Rathdown	Deansgrange Stream	Realign stream & embankment	148,500	2013
4	Dun Laoghaire / Rathdown	Deansgrange Stream	Realign stream & embankment	122,339	2015
5	Dun Laoghaire / Rathdown	Loreto Park, Nutgrove	Install new screen to latest standards	31,500	2016
6	Dun Laoghaire / Rathdown	Johnstown / Granville Road	Study, upgrade of trash screen, access road realignment & replace section of boundary fence	30,000	2016
7	Fingal County Council	Aspen, Swords	Increase the channel capacity by widening the Gaybrook stream along a 200m length at Aspen	54,000	2011
8	Fingal County Council	Rowlestown	Construction of a flood defence embankment along the left bank of the Broadmeadow Tributary in Rowlestown	153,000	2011
9	Fingal County Council	Portrane / Rush (coastal)	Coastal Erosion Risk Management Study	57,800	2013
10	Fingal County Council	The Grange, Malahide	Construction of bund/berm & associated works	93,600	2013
11	Fingal County Council	R127, Skerries Balbriggan Regional Road	Emergency sea defence works- stonework pointing, replacement of existing wall, additional rock armour & re-instatement of damaged rock armour	197,480	2014
12	Fingal County Council	Malahide Town Centre	Study	45,000	2014
13	South Dublin County Council	River Poddle		250,000	2012

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No.	Local Authority	Project Location	Project Details	Approved Funding (€)	Year of Approval
14	South Dublin County Council	Tallaght / Jobstown Areas	Redesign and replacement of three significant screens on Jobstown Stream, Killinarden Stream / N81 and at the Jobstown Road Building of a swale and increase of boundary wall height by 500mm at Knockmore Park and Avenue Installation of two new screens and headwalls at the N81 at Deselby Stream maintenance between Hazelgrove Golf and Jobstown Inn	333,000	2012
15	South Dublin County Council	Owendoher River	Increase the height of the existing reinforced concrete wing/wall Continue this reinforced concrete retaining wall up the banks of the Owendoher River	108,000	2012
16	South Dublin County Council	Owendoher River	Increase the height of the existing reinforced concrete wing/wall Continue this reinforced concrete retaining wall up the banks of the Owendoher River	43,650	2013
17	Dublin City Council	Raheny Village & Harmonstown Road	Works at Harmonstown Road river culvert and upstream of Harmonstown Bridge Works between Howth Road and Raheny Main Street – Raising of embankments, replacement of walls and flap valves on pipe outlets. Modelling of Santry River	135,000	2011
18	Dublin City Council	Dodder Estuary, Fitzwilliam Quay	Restore section of Quay Wall on Fitzwilliam Quay	150,000	2011
19	Dublin City Council	Dodder Estuary, Fitzwilliam Quay	Restore section of Quay Wall on Fitzwilliam Quay	250,000	2011
20	Dublin City Council	Camac River at: Carrickfoyle Terrace, Millbrook Terrace & Lady's Lane, Kilmainham	Installation of 60m rock armour along the Eany Water River bank to protect the old graveyard and ecclesiastical remains New early warning device	225,000	2012
				2,624,069	

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: DUBLIN

Completed Scheme		County(s)	Duration of Works	Benefitting Area (Acres)
Broadmeadow & Ward	(Minor Scheme)	Meath, Dublin	1961 – 1964	7,400
Matt	(Small Scheme)	Dublin	1964 – 1965	500

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: DUBLIN					
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
Balbriggan					√
Baldonnell					√
Balgriffin		√			
Belcamp Park					√
Donabate					√
Dublin City	√	√	√		
Kinsaley					√
Loughlinstown			√		
Lucan to Chapelizod	√		√		
Lusk					√
Malahide		√			
Mulhuddart	√				
Old Connaught / Wilford			√		
Oldtown					√
Portrane					√
Rush				√	
Santry	√	√	√		
Skerries		√			
Staffordstown Turvey					√
Sutton & Baldoyle					√
Sutton & Howth North			√		
Swords					√
Swords (south)	√				
Bray	√				

No.	Proposed Scheme	Properties Protected	Further Information on Proposed Scheme
1	Dublin City	160	The proposed measure for Carysfort Maretimo HPW that may be implemented after project-level assessment and planning or Exhibition and confirmation might include physical works, such as a series of flood defence walls and five offline storage areas. The result is a reduced flow along the Carysfort Maretimo reducing the length and height of any hard defences required. The hard defences provide the additional protection against the 1% AEP fluvial flood event with an average and maximum height of 0.8m and 1.4m respectively and a total length of 250m.
2	Loughlinstown	256	The proposed measure for Loughlinstown that may be implemented after project-level assessment and planning or Exhibition and confirmation might include physical works, such as a series of hard defences (flood embankments and walls) along with dredging, a bridge and culvert upgrade on the Shanganagh River and two storage areas on the Deansgrange River. The proposed measure would protect to the 1% AEP flood event with a total wall length of 0.9km, a total embankment length of 0.6km, a total volume of in-channel excavation of 350m ³ , a total volume of storage area excavation of 3,874m ³ , one bridge upgrade and five culvert upgrades. The hard defences have an average height of 1.6m (reaching a maximum height of 3.4m).
3	Lucan to Chapelizod	120	The proposed measure for Lucan to Chapelizod that may be implemented after project-level assessment and planning or Exhibition and confirmation might include physical works, such as a series of hard defences (flood embankments and walls). The hard defences would protect to the 1% AEP fluvial flood event with an average and maximum height of 1.2m and 2.9m respectively and a total length of 3.0km of wall and a total length of 2.1km of embankment
4	Old Connaught / Wilford	20	The proposed measure for Old Connaught and Wilford that may be implemented after project-level assessment and planning or Exhibition and confirmation might include physical works, such as a series of hard defences (flood embankments and walls) in conjunction with, a culvert upgrade and channel dredging at the Dublin Road adjacent to St Brendan's School, and a flow diversion channel on the Old Connaught River. The hard defences would protect to the 1% AEP fluvial flood event, with an average height of 1.0m (reaching a maximum height of 1.7m) and a total length of 1.1km.
5	Santry	41	The Raheny (Santry River) Flood Protection Project was initiated following major fluvial flooding in 1986, 2008, 2009 and 2011, and a first phase was constructed in 2013. A phase from the Malahide Road to Raheny Village is at design stage by Dublin City Council and, subject to funding, will progress to submission for planning approval. A third phase downstream of Raheny village is planned for construction thereafter again subject to funding and planning approval.
6	Sutton & Howth North	49	The proposed measure for Sutton & Howth North that may be implemented after project-level assessment and planning or Exhibition and confirmation might include physical works, such as a combination of wave return walls and flood defence walls with an average and maximum height of 1.1m and 2.4m respectively