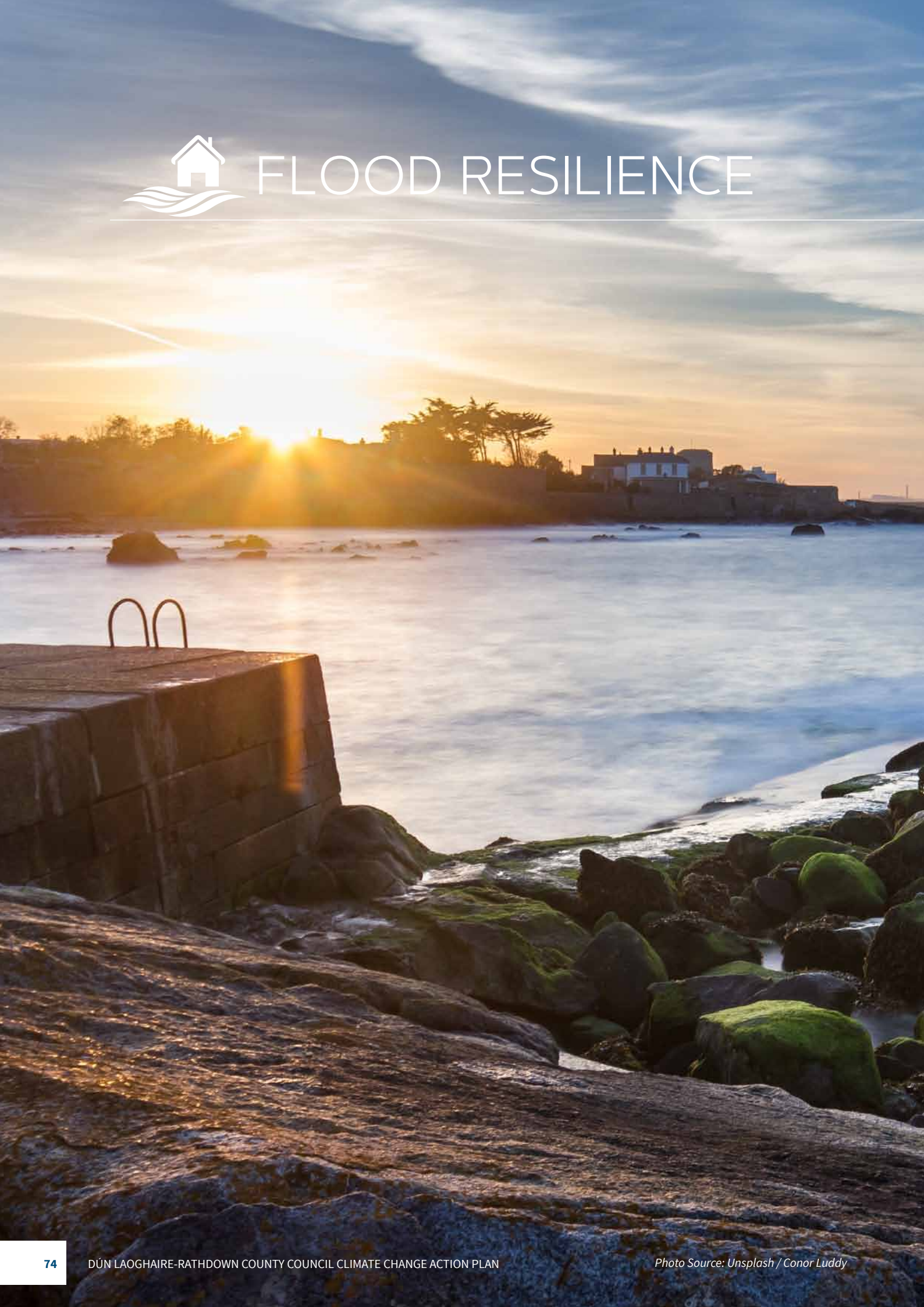




# FLOOD RESILIENCE



**OVERVIEW**

**MAIN RIVERS:**

DODDER, CARRICKMINES, LOUGHLINSTOWN, DEANSGRANGE, CARYSFORT MARETIMO & SHANGANAGH

**17km**  
OF COASTLINE



**TARGET**



A CLIMATE-RESILIENT REGION

REDUCTION/MITIGATION OF FLOOD RISKS IN REGION

**EXAMPLES OF MAIN ACTION TYPES**



**STAKEHOLDERS TO WORK WITH AND INFLUENCE**

OFFICE OF PUBLIC WORKS

GENERAL PUBLIC

ENVIRONMENTAL GROUPS



GOVERNMENT DEPARTMENTS

COMMUNITY GROUPS

DEVELOPERS

**3** One of the effects of Climate Change that can be anticipated, and a key Climate Change adaptation issue, is the management of rainfall runoff and the maintenance of quality standards as the global temperature increases and rainfall patterns change. Flood risk needs to be considered at all stages of the land use planning process and managed in an environmentally sensitive way. The Government publication ‘Flood Risk Management Guidelines’, (2009), intends to ensure a more rigorous and systematic approach to integrating flood risk management in the preparation of Development Plans, Local Area Plans and in the determination of individual planning applications.

- County Development Plan 2016-2022

The Council is working with a range of stakeholders including Irish Water in the management of pluvial flooding across the local authority area. In partnership with the Office of Public Works (OPW) and neighbouring local authorities, DLRCC is working to adapt the areas that are vulnerable to flooding, now and in the future. DLRCC is building flood defences that take into consideration current and future risks; DLRCC is looking at measures that include nature and have multiple benefits beyond flood defence, such as providing new spaces for recreation and habitats for birds and animals.

Flooding is a key climate change risk facing the Dublin Region. Climate change increases the frequency and duration of heavy rainfall events and storm surges, which increase the risk of pluvial, fluvial and tidal flooding in vulnerable areas of the County. Extreme rainfall and weather events can also place additional pressure on the urban drainage network, which can result in flooding. DLRCC is actively working with the OPW to implement projects and programmes that align with the EU Floods Directive and Water Framework Directive, which call for member states to undertake strategic flood risk assessments and to employ nature-based solutions such as integrated wetlands, green infrastructure, and Sustainable urban Drainage Systems (SuDS) to be used for adaptation and mitigation responses to achieve flood resilience.

## FLOOD RISK MANAGEMENT

**3** The Council will ensure the implementation of the DoEHLG/OPW Guidelines ‘The Planning System and Flood Risk Management’ (2009) and DoECLG Circular PI2/2014 (or any updated/superseded document) in relation to flood risk management within the County.

- County Development Plan 2016-2022

DLRCC is working to adapt areas that are at risk of flooding by using comprehensive flood risk mapping. DLRCC works interdepartmentally to ensure that all solutions are assessed for options that could increase the capacity for biodiversity and recreation.



## FLOOD DEFENCE

DLRCC will prioritise nature-based flood defences where possible. However, there are certain areas of the County that are not suited to soft solutions, such as parts of the Loughlinstown River. Therefore, DLRCC is building physical flood defences that take into consideration current and future risks.

### CASE STUDY

#### **Kilbogget Park Flood Alleviation**

Recognising the risk of fluvial flooding for the Seafield/Bayview area of Loughlinstown, DLRCC is planning to implement a flood alleviation measure in the Deansgrange Stream in Kilbogget Park.












The approach taken by DLRCC will involve a combined green and grey solution, due to an existing culvert in the park. Given the number of homes at risk downstream, DLRCC has designed a means to regulate the flow of water during heavy rainfall events, and plans to construct a large screen in the park with a flow control structure. There will also be a sea viewing platform for birdwatchers.





Photo Source: Fáilte Ireland / Jason Baxter



# FLOOD RESILIENCE

NO	ACTION	TIMEFRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED
<b>ACTIONS CURRENTLY BUDGETED</b>					
<b>FLOOD RISK MANAGEMENT</b>					
<b>F1</b>	Implement flood risk management guidelines	2019 onwards	Multi-departmental	# of projects following guidelines	
<b>F2</b>	Coordinate Emergency Response Plans incorporating climate change	2020	Drainage, lead agencies, AGS, HSE	Quarterly meetings with neighbouring local authorities	
<b>F3</b>	Prepare and implement an integrated Coastal Zone Management Plan that addresses natural and cultural heritage and follows the Marine Spatial Planning Directive/Framework	2019	Parks	Coastline maintained, improvement in habitats	
<b>F4</b>	The Council and CARO will work with the Geological Survey of Ireland in the areas of urban geology and coastal vulnerability	Ongoing	CARO and Municipal Services	Working Group Established	
<b>F5</b>	Implement coastal monitoring programme, map of vulnerable areas	2020	Parks	Map produced	
<b>F6</b>	Develop and implement a biosphere work programme within the County	Ongoing	Parks	Work programme developed and implemented	
<b>F7</b>	Develop a climate change impact GIS risk map with scenarios for the Dublin Region	2020	Climate Ireland, Environment and Climate Change, multi-departmental	GIS map developed	
<b>F8</b>	Develop template to capture impacts, response and costs (including ecosystem services/natural capital costs) for all major climate events	2019	Environment and Climate Change	Template developed and issued	
<b>F9</b>	Risk workshops to assess impacts on Council services	2019	All departments	Risks identified	
<b>F10</b>	Establish a Working Group to deal with the Issue of Pluvial Flood Risk. This shall include: <ul style="list-style-type: none"> <li>• How to manage “urban creep” and the increase in impermeable surfaces</li> <li>• Promotion of SuDS early in design process</li> <li>• Development of pluvial flood forecasting through use of point rainfall forecasting</li> <li>• Interim use of DCC “FLAG” meetings as a model for DLAs in relation to pluvial flood forecasting and response</li> </ul>	2019	Multi-departmental	Working group established	
<b>F11</b>	Update DLA urban drainage and flooding policies for current knowledge of flood risk and the latest best practice in drainage design promoting natural flood measures as a priority	2019	Multi-departmental	Policies updated	





NO	ACTION	TIMEFRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED
F12	Communication and awareness campaigns on flood risk management and natural flood management measures to be included in CARO and local authority public awareness initiatives	2020	Multi-departmental	# of campaigns delivered	 

### FLOOD DEFENCE

The following flood storage actions will incorporate nature-based solutions and biodiversity enhancement measures where possible:

F13	Cabinteely Park flood storage	2022	Water and Drainage, Parks	Project at feasibility stage	
F14	Fernhill Park flood storage feasibility study	2021	Water and Drainage, Parks	Project at feasibility stage	
F15	Kilbogget Park flood storage	2021	Water and Drainage, Parks	Project completed	
F16	Installation of screen monitoring cameras	Ongoing	Water and Drainage, Parks	Project completed	
F17	Glenavon Park flood storage and integrated wetland	2021	Water and Drainage, Parks	Project completed	
F18	Marlay Park enhanced flood storage	2022	Water and Drainage, Parks	Project completed	
F19	Sandyford Park flood storage	2022	Water and Drainage, Parks	Project completed	
F20	Corbawn coastal protection works	2019	Roads Maintenance	Project completed	

### ACTIONS AWAITING BUDGET

F21	Promote and encourage community involvement in the retrofit of SuDS in existing developments	To be decided	Parks, Water and Drainage	# of communities involved	 
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### EXAMPLES OF RELEVANT LEGISLATION/POLICIES/GUIDANCE

- Arterial Drainage Acts
- Catchment-Based Flood Risk Management Plans (CFRMP)
- dlr Green Infrastructure Strategy (dlrcoco County Development Plan 2016 - 2022 Policy OSR3)
- dlr Green Roofs Guidance Document (dlrcoco County Development Plan 2016 - 2022)
- dlrcoco County Development Plan 2016 - 2022 (Policies CC14; CC15; CC16; CC17; EI3; LBH25; LHB34)
- Dublin Bay Biosphere Biodiversity Conservation and Research Strategy 2016-2020
- Dún Laoghaire-Rathdown Biodiversity Plan
- Eastern Catchment Flood Risk Assessment and Management (CFRAM) Study 2011-2016
- EU Floods Directive 2007/60/EC
- Greater Dublin Strategic Drainage Study
- National Landscape Strategy for Ireland 2015-2025
- OPW - Implementing the National Flood Risk Policy
- Planning System and Flood Risk Management Guidelines
- Water Framework Directive 2000/60/EC
- Water Services Strategic Plan (2015)