

South Dublin County Council

CLIMATE CHANGE NEWSLETTER

01/2022

FLOOD RESILIENCE EDITION

As our climate changes increased flood events will present a real risk to properties, infrastructure and lives in the county. The Dublin Region is especially vulnerable to flooding due to rising sea levels, an increase in the number of heavy rainfall days per year and major rivers flowing through the region.

South Dublin County Council is working with a range of stakeholders to deliver flood alleviation schemes on the Poddle, Whitechurch and Camac are in various stages of development and once completed they will protect hundreds of homes.

We are also looking to the natural world in adaption and mitigation responses to flood resilience. Sustainable Urban Drainage Systems are being used to mitigate the effect of urban environment on the natural water cycle.

Flood Alleviation Schemes In South Dublin



One of the aims of our Climate Change Action Plan is to make South Dublin a more resilient region. This means adapting to ensure we are better prepared for extreme weather events in the future.

While flood alleviation using nature-based solutions is the preferred solution in South Dublin, there are areas where building physical flood defences are the only option.

This means adapting to ensure we are better prepared for extreme weather events in the future.

Three schemes are currently in different stages of development and schemes are being developed in conjunction with the

Office of Public Works and Dublin City Council.

One of the aims of our Climate Change Action Plan is to make South Dublin a more resilient region.

The River Poddle has overflowed its banks, to a point where a severe flood in October 2011 presented a significant risk to life. The River Poddle Flood Alleviation Scheme which commenced in March 2018 will strive to protect 920 properties and is currently working its way through the planning process. A Part 10 Planning application was submitted to An Bord Pleanála on February 27th 2020. We are currently awaiting a planning decision from An Bord Pleanála, with a current tar-

get decision date of January 28th 2022. Details for this scheme are available on www.poddefas.ie

South Dublin County Council is also working to deliver the Whitechurch Flood Alleviation Scheme which will protect up to 170 properties when completed. While Planning was submitted in August 2021 and permission granted by An Bord Pleanála in December 2021, leave for Judicial Review on An Bord Pleanála's decision was granted by the High Court in February 2021. This Judicial Review process is currently still ongoing with an appeal hearing on the Judgement delivered in October 2021, listed to be heard on December 14th 2021. It is expected that the Judicial Review process will be completed by mid-2022. Full details of the scheme can be found at www.whitechurchfas.ie

The Camac Flood Alleviation scheme is currently in Stage 1 - Preliminary Design stage and initial surveys, which included environmental, topographical, threshold and CCTV surveys of culverts, have been completed. This is along with a Hydromorphic Assessment of the River. The main works currently being carried out involve the building of the Hydraulic Model and the production of flood maps. Once these maps have been produced, this will then be followed by the development of flood defence options for the scheme. Check www.camacfias.ie for more information.

Managing Water In Urban Environments

With a growing population in an urban environment it is vital that we make space for water. Sustainable Drainage Systems (SuDS) can

Through using nature-based solutions, are a "total" rainwater management system. Comprising natural and semi natural measures, and unlike paved surfaces, they absorb surface water and increase our protection against flooding.

While flood defence schemes have an important role to play in protecting property from the impacts of flooding, the preferred option are nature-based solutions.

Sustainable Drainage Systems (SuDS) use natural and semi-natural measures to absorb water in an urban environment.

SuDS can support biodiversity, cool the air in summer heatwaves, and are visually attractive. Eventually, SuDS release their water into rivers, lakes, or the surface water drainage network. Many different types of SuDS are being deployed all around South Dublin and are now mandatory in all new developments in

South Dublin.

South Dublin County Council is currently developing SuDS guidance documents to inform policy and support the County Development Plan. Guidance documents are expected to be ready in 2022.

In south Dublin we are delivering SuDS demonstration sites in parks and new developments:

Attenuation Wetlands/Ponds can be found in Griffeen Valley Park in Adamstown and Vesey Park in Lucan. They receive surface water from nearby roads and housing developments, filter it, and then drain it at a controlled rate into the Griffeen River. Not only this, but they are also a visual amenity supporting diverse wildlife.

In Dodder Valley Park, the pavilion sports



a Green Roof, a natural planted surface replacing the traditional roof that can absorb rainwater. A grassed Swale, or ground depression, slows the flow of surface water from the car park.

In Tandy's Lane Park, walkways and car/bike parking areas are a Grass Paving system, allowing surface water to percolate into the ground, thereby mimicking nature, while Swales, Filter Drains and Detention Basins help to slow and store water.

- Rathcoole Park Summer Walk Route
- Ballyowen Park Lucan Summer Walk Route

Dublin Urban Rivers LIFE Project



Across the country, incorrect domestic plumbing can mean household wastewater is connected to the surface water drainage network rather than the foul drainage network. Whereas the foul drainage network carries wastewater to treatment plants, the surface water drainage network is designed to carry rainfall to a nearby stream or river.

Dublin Urban Rivers LIFE is a unique collaboration between South Dublin County Council as project lead, Dun Laoghaire-Rathdown County Council and the EU LIFE Programme. The four-year project has a budget of €2.6 million with the EU LIFE Programme providing 50% of the funding and an estimated completion date of June 2024. The project will help Ireland to meet the requirements of the EU Water Framework Directive (concerning water quality in Europe) and the River Basin Management Plan for Ireland 2022-2027.

The Dublin Urban Rivers Life project aims to improve water quality in County Dublin by making it quicker and easier to carry out domestic misconnection assessments and by building wetlands in public parks to treat and improve water quality.

Domestic misconnections are incorrectly plumbed domestic washing machines and dishwashers draining to the surface water drainage network and then the local river rather than the foul drainage network. This means untreated domestic wastewater is entering rivers and bathing sites directly polluting that water and its aquatic habitats.

The project uses a combination of Geographic Information Systems (GIS) desktop mapping, Apps and field data collected by project staff to find houses most likely to have a misconnection. The purpose of taking this approach is to try and reduce inconvenience to householders not misconnected, and to increase the efficiency of misconnection work. The utilisation of IT solutions for domestic misconnection problems allows for a high degree of process management from the first call to a householder to confirming all pipes are properly connected.

The project will also build five Integrated Constructed Wetlands in South Dublin County to treat polluted stormwater before it enters the local river. These natural water retention measures will improve the quality of the receiving river, provide flood alleviation, bioretention of particulates and nutrients, improve habitat conditions and biodiversity, and promote the relationship between green infrastructure and public wellbeing. They also help to protect us, our homes, and our infrastructure against flooding.

Data from the GIS project and from the performance of the ICWs also goes towards the creation of a Decision-Support Tool for water managers, planners, project developers and policymakers to use when deciding future options to improve storm water draining from urban areas.

Overall, the project seeks to remedy the negative effect of misconnections by assessing houses and building integrated constructed wetlands. Check out www.dublinriverlife.ie

News In Brief

Climate Action Plan 2021

The Department of the Environment, Climate and Communications released the National Climate Action Plan at the end of 2021. The plan describes how Ireland will achieve a 51% reduction in greenhouse gas emissions by 2030, setting us on a path to our 2050 target of net-zero emissions. The Plan outlines the actions and indicative emission reduction ranges for all sectors of the economy. For more see gov.ie



Dodder Greenway Bridge

The Dodder Greenway Project continues to progress with the unveiling of three new bridges, representing three key pieces of infrastructure for the Greenway. The route follows the rich ecology of the Dodder basin and will offer over 17kms of commuter and recreational infrastructure to support the shift to active travel (walking and cycling). When finished, the project will link the Dublin mountains to Sir John Rogerson's Quay in the city centre. For more visit sdcc.ie



EPA National Waste Report

Urgent action is required following the latest EPA report on waste. For the year 2019, the report showed an increase in waste generation. Household waste was an average of 330kg per person. Recycling rates require significant improvement, with just 28% of plastic packaging recycled. Meanwhile, Ireland continued to export a large quantity of our waste. The EPA advise that current business models need to transform towards circular economy principals, promoting reduction, reusing, and recycling across all economic sectors. To read the report and take action visit epa.ie



This newsletter will examine more closely some of the actions we are working on, keeping readers informed on what we are delivering and how we are delivering them. If you would you like to receive a copy of this newsletter, please email climatechange@sdblincoco.ie