

**APPENDIX 2: SOUTH COUNTY DUBLIN STRATEGIC FLOOD RISK
ASSESSMENT 2022 - 2028**



South Dublin County Development Plan Strategic Flood Risk Assessment

Final - July 2022



South Dublin County Council South Dublin County Development Plan

Strategic Flood Risk Assessment

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Author:..... **Warren Vokes**

Checker: **John Paul Rooney**

Approver:..... **John Paul Rooney**

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South Dublin County Council South Dublin County Development Plan

Strategic Flood Risk Assessment

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APPENDIX A FLOOD MAPPING

1. INTRODUCTION

1.1 Commission

Roughan & O'Donovan Consulting Engineers (ROD) was commissioned by South Dublin County Council (SDCC) to prepare a Strategic Flood Risk Assessment to supplement the preparation process and review of the South Dublin County Development Plan 2022 - 2028. The Development Plan will shape the future growth of the County over the 6-year period of the plan and beyond.

1.2 Scope

The scope of this report is as follows:

- Provide an assessment/identification of flood risk for the Development Plan area in accordance with "*The Planning System and Flood Risk Management – Guidelines for Planning Authorities*" (The Guidelines), 2009, published by the Department for the Environment, Heritage and Local Government and the Office of Public Works (OPW).
- Undertake a Flood Risk Assessment Report assessing the hydrology and hydraulics and determining mechanisms of flooding in the Development Plan area, taking into account anticipated future increases in rainfall, river flows and sea level rise as a result of climate change.
- Provide recommendations for future flood risk assessments for proposed developments and planning applications, in accordance with The Guidelines.
- Delineate Riparian Corridors at a strategic level and detail requirements for hydromorphological assessments to aid in meeting our obligations under the Water Framework Directive and Floods Directive. Riparian Corridors are identified to protect and enhance watercourses and their natural regimes including: ecological, biogeochemical, hydromorphological and flood resilience in the face of climate change.
- Liaison with Consultants completing the Strategic Environmental Assessment (SEA), Appropriate Assessment and South Dublin County Council as well as public consultation.

A Stage 1 Flood Risk Identification has been undertaken to identify any flooding or surface water management issues related within the County that may warrant further investigation. As part of this stage the most up to date available data at the time of preparation was acquired from the Office of Public Works (OPW) and South Dublin County Council. The Eastern and Dodder CFRAMS has generated flood zone mapping which has been deemed suitable as a Stage 2 Initial Flood Risk Assessment. This flood risk information has enabled SDCC to apply 'The Guidelines' sequential approach, and where necessary the Justification Test, to appraise sites for suitable land zonings and identify how flood risk can be managed as part of the development plan.

Although great care and modern widely-accepted methods have been used in the preparation and interpretation of flood risk areas, there is inevitably a range of inherent uncertainties and assumptions made during the estimation of design flows and the construction of flood models. The inherent uncertainty necessitates a precautionary approach when interpreting flood extent mapping.

1.3 Study Area

1.3.1 Overview

The subject area comprises lands in South Dublin County and is bounded by the River Liffey to the North, rural lands to the West and the Dublin Mountains to the South. It has an area of approximately 223 km² and consists of metropolitan consolidation towns and small towns/villages. The lands in South County Dublin are bounded by adjoining counties of Wicklow, Kildare, Dublin City, Fingal and Dun Laoghaire. Refer to Figure 1.1 below. The south of the study areas is characterised by the Dublin mountains and differs significantly from the urban and suburban landscape character of the majority of the county.

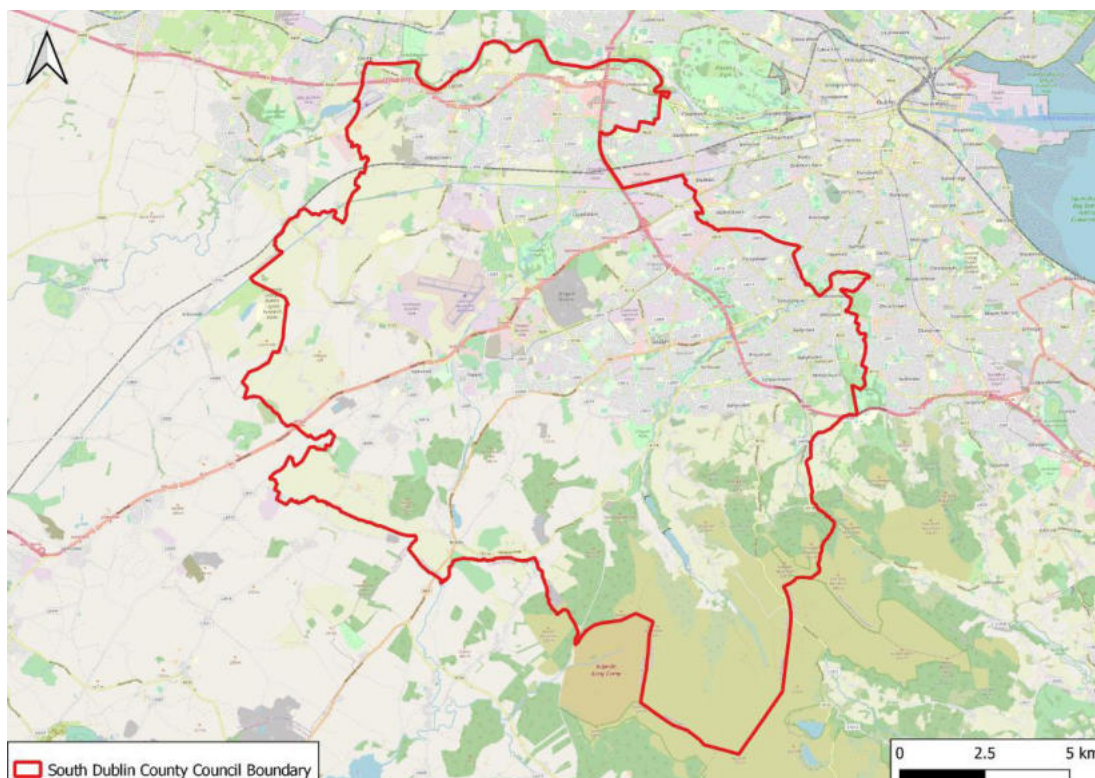


Figure 1.1: South Dublin County Development Plan lands (© OpenStreetMap)

1.3.2 Catchment Description

The Development Plan area lies within the Hydrometric Area 09 Liffey-Dublin Bay and contains catchments of the following key rivers: the Griffeen, the Dodder, the Poddle and the Camac River as well as the Owendoher and the Whitechurch Streams. The general topography of the county means all major watercourses within the county flow in a south west to north west direction watercourses and catchments are outlined in Figure 1.2.

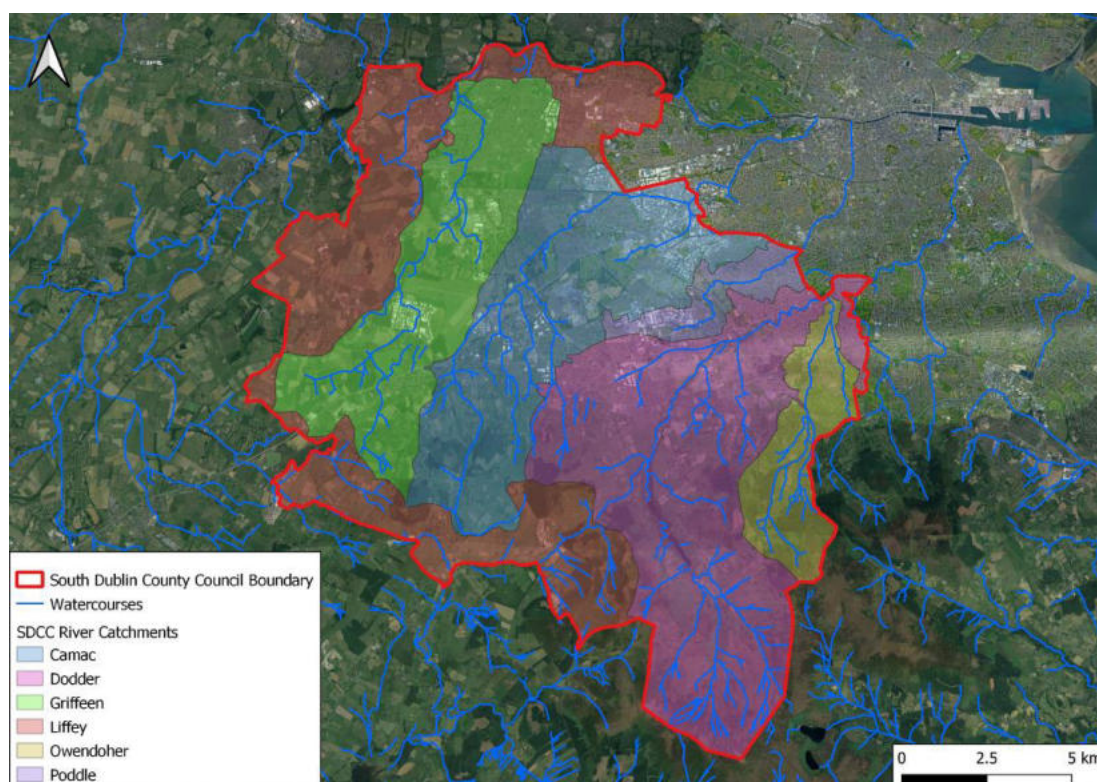


Figure 1.2: Watercourses and catchments within South Dublin County (©Google Satellite)

1.3.3 Environment

The following Natura 2000 sites are located within the study area:

- Glenasmole Valley (SAC), approximately 7km north of the border with the Wicklow/Dublin Mountains;
- Wicklow Mountain (SAC and SPA); at the southern boundary of South Dublin County.

Under Article 6(3) of the EU Habitats Directive, an “appropriate assessment” (AA) is required where any plan or project, either alone or ‘in combination’ with other plans or projects, could have an adverse effect on the integrity of a Natura 2000 site.

Natural Heritage Areas (NHAs) are sites of national importance for nature conservation and are afforded protection under planning policy and the Wildlife Acts, 1976-2012. Proposed NHAs (pNHAs) are published sites identified as of similar conservation interest but have not been statutorily proposed or designated. The NHA/pNHAs in the study area are:

- Liffey Valley (proposed NHA), along the northern border of South Dublin County;
- Grand Canal (proposed NHA), traversing the County from West to East;
- Dodder Valley (proposed NHA), South-East of Tallaght;
- Lugmore Glen (proposed NHA), South-West of Tallaght;
- Slade of Saggart and Crooksling Glen (proposed NHA), North of Brittas;
- Glenasmole Valley (proposed NHA), approximately 7km north of the border with the Wicklow/Dublin Mountains.

Therefore, the management of flood risk within the Development Plan study area must have regard to potential negative impacts to this environment.

1.4 Existing Land Use Zoning

The study area of South Dublin County currently comprises 16 different zoning objectives as per the Development Plan and are shown in Table 1.1 below.

Table 1.1 SDCC Zoning Objectives from Development Plan 2016-2022

Zoning	Abbreviation	Objective
Existing Residential	RES	To protect and/or improve residential amenity
New Residential	RES-N	To provide for new residential communities in accordance with approved area plans
Strategic Development Zone	SDZ	To provide for strategic development in accordance with approved planning schemes
Regeneration	REGEN	To facilitate enterprise and/or residential led regeneration.
Town Centre	TC	To protect, improve and provide for the future development of Town Centres
District Centre	DC	To protect, improve and provide for the future development of District Centres
Village Centre	VC	To protect, improve and provide for the future development of Village Centres
Major Retail Centre	MRC	To protect, improve and provide for the future development of a Major Retail Centre
Local Centre	LC	To protect, improve and provide for the future development of Local Centres
Enterprise and Employment	EE	To provide for enterprise and employment related uses
Retail Warehousing	RW	To provide for and consolidate retail warehousing
High Amenity Dublin Mountains	HA-DM	To protect and enhance the outstanding natural character of the Dublin Mountains Area
High Amenity Liffey Valley	HA-LV	To protect and enhance the outstanding character and amenity of the Liffey Valley
High Amenity Dodder Valley	HA-DV	To protect and enhance the outstanding character and amenity of the Dodder Valley
Open Space	OS	To preserve and provide for open space and recreational amenities
Rural and Agriculture	RU	To protect and improve rural amenity and to provide for the development of agriculture

Not taking the area from roads into account, the largest zonings by area pertain to rural agricultural and rural amenity land uses: High Amenity Dublin Mountains – HA-DM (~33%), followed by lands zoned as Rural and Agriculture - RU (~27%). The third largest land use is existing Residential - RES (~14%), refer to figure 1.3 below.