Appendices

Appendix 4

Green Infrastructure: Local Objectives and Case Studies

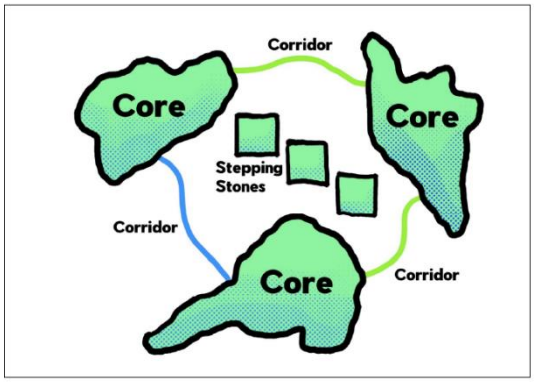
South Dublin 2022-2028
County Development Plan

1.0 Introduction

South Dublin's Green Infrastructure (GI) Strategy provides an overarching vision and spatial framework for GI in the County which will protect, promote and enhance its GI assets. South Dublin County Council employed KPMG Future Analytics in partnership with Mary Tubridy Associates; Nic de Jong Associates and Curtins to prepare the Strategy in collaboration with the Council.

GI comprises the interconnected network of natural, semi-natural and artificial habitats, green spaces and ecological assets that traverse our urban and rural areas. These networks are spatially defined in terms of several common components (see Figure 1). Core or hub areas serve as anchors within a GI network. They are the point of origin and destination for wildlife and are sites at which essential ecological processes occur. Corridors represent the physical links that tie the network together. They can comprise linear open spaces, watercourses and even hedgerows and allow for the migration of species between core habitats. Stepping stones are smaller areas of public and private open space. They provide alternative routes for the movement of species within the overall network and contribute to local biodiversity. The spatial arrangement of these different components and their relationship to one another comprises a spatial GI network.

South Dublin's GI network has been identified and mapped as part of the development of this strategy. This exercise has aided the development of a spatial framework to guide the future development of the County's GI assets and to enable the realisation of their multi-functional benefits. It is based on detailed analysis of the components of GI and supports a plan led approach to the sustainable development of South Dublin County.



This Appendix document builds on and further elaborates the Strategy presented in Chapter 4 of the Development Plan. Specifically, it presents a detailed overview of the methodological approach underpinning the development of the Spatial Framework and sets out further detailed objectives to support its implementation. It is structured as follows:

- Section 1 presents a detailed overview of the 'Local GI Corridors' which play a key supporting role to the 'Strategic County GI Corridors' defined within Chapter 4;
- Section 2 outlines a number of thematic case study areas to demonstrate and analyse localised challenges and opportunities for GI protection and enhancement;
- Section 3 details the SCOT analysis (Strengths, Constraints, Opportunities, Threats) for GI across the county;

2.0 Spatial Framework: Local Corridors

Green Infrastructure corridors are the principal, higher-level or county-wide components of the spatial framework for GI. As Chapter 4 highlights, this GI Strategy aims to increase connectivity and integration within the overall GI network and promotes the proactive management of key corridors to improve their overall function and amenity. Specifically, this Strategy seeks to support a network of Strategic County GI Corridors (described in Chapter 4) which are further supported by a number of Local GI Corridors, as demonstrated in Figure A 4.1.

Local GI Corridors provide additional interconnectivity for the county-wide GI network and contribute ecosystem services at the local scale. By linking communities, local parks and public and private open spaces into the wider GI network these corridors will enhance biodiversity, improve access and contribute to local benefits around placemaking, environmental quality, water management and climate change mitigation. This section provides a detailed overview of each Local Corridor and its associated objectives.

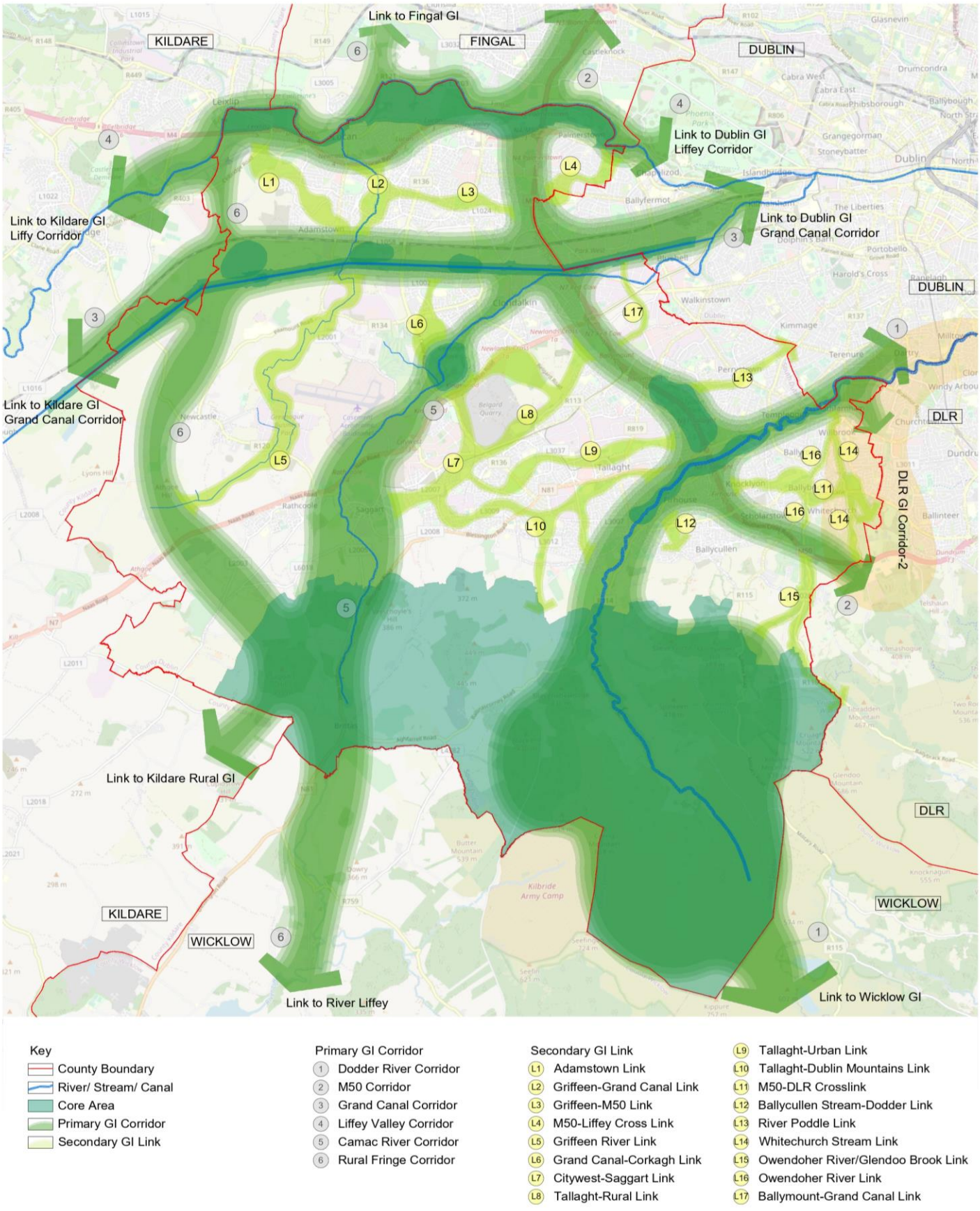
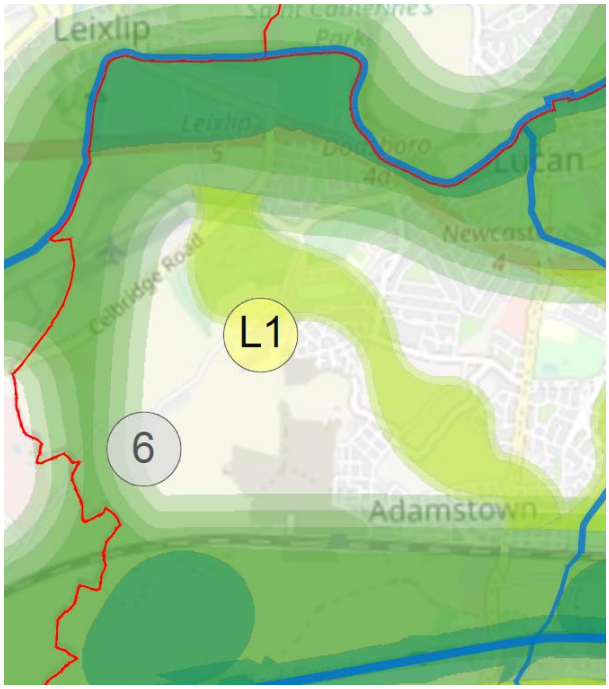


Figure A 4.1: Green Infrastructure Strategy Map



L1 – Adamstown Link

Weston Airport – Lucan Golf Club – Lucan United – Adamstown SDZ – Finnstown Castle Hotel Grounds – Finnspark Public Open Space

The L1 Corridor is located in the north-west of South Dublin and provides an additional link between the Primary Liffey Valley Corridor that runs along the County's northern boundary and the Griffeen Valley Corridor that runs to the south of the County. The L1 corridor comprises a combination of public and private open spaces, including Weston Airport, Lucan Golf Glub and the grounds of the Finnstown Castle Hotel. Notably the corridor passes through the Adamstown SDZ, the plan for which includes a central neighbourhood park and other pocket parks to the north and east of the SDZ area. As such there is a possibility to further promote GI as part of the development of the Adamstown SDZ and provide public open space for residents to complete a linear corridor of open space from Weston Airport through to the Griffeen Valley Corridor.

Objectives

- To provide appropriate planting as part of further implementation of the Adamstown SDZ Planning Scheme to ensure coherent connection between open spaces within Adamstown and existing open spaces to the west and east.
- To provide non-motorised linkages between Adamstown and surrounding public amenity areas.
- To ensure no net loss of existing trees and hedgerows at Finnstown Castle Grounds.

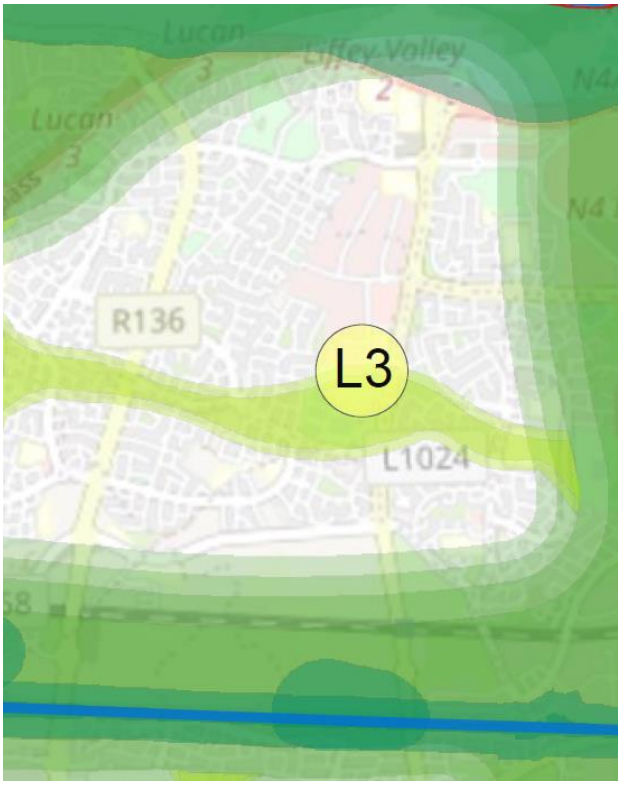
L2 Griffeen – Grand Canal Link

Griffeen Valley Park –- Open space at Glebe –- Vesey Park –- Lucan Village Park

L2 provides a link between the Liffey and Grand Canal corridors that circumvent the built-up areas in the north of the county, following the course of the Griffeen River where it flows under the Grand Canal through to Lucan. The local corridor encompasses the extensive Griffeen Valley Park, the catchment of which includes the neighbouring areas of Griffeen Valley and Finnstown. The banks of the river are marked with dense trees and shrubbery. The river then flows under the N4 to Vesey Park and through Lucan Village to join the River Liffey. Vesey Park contains notable woodland, with additional tree planting throughout Lucan.

Objectives

- To investigate the potential for a green retrofit of the existing footbridge that links Griffeen Valley Park and Vesey Park across the N4 to make it eco-friendly and support mobility of local species.
- To identify suitable locations for wildflower meadow in Griffeen Valley Park to support the All-Ireland Pollinator Plan.
- To ensure the preservation of existing trees at Vesey Park and beside the R120 at the entrance to Lucan Village, consistent with South Dublin's tree management policy.



L3 – Griffeen-M50 Link

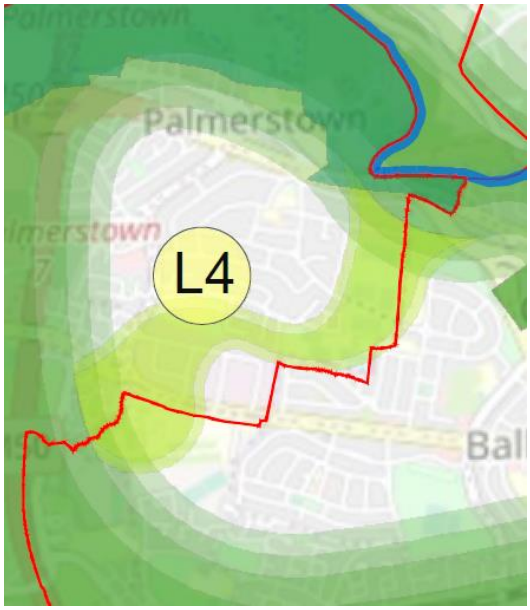
Griffeen Valley Park – Ballyowen Park – Rowlagh – Collinstown Park Community College – Collinstown Park

The L3 corridor is located in the north of the county and River Liffey and M50 Primary Corridors, creating a connection between Griffeen Valley Park and lands to the east at the M50. The corridor comprises several local public parks, beginning at Griffeen Valley Park and linking to Ballyowen Park and Rowlagh before passing through the grounds of Collinstown Park Community College and terminating at Collinstown Park just off the M50. The residential area of Ballyowen also contains an esker and a number of pocket parks and green spaces. A linear tree-lined corridor passes through the residential area of Ballyowen and traverses the R136, connecting these spaces into the corridor.

Existing trees, hedgerow and roadside planting will be protected, and additional planting is required along Balgaddy Road to ensure a linear connection between Ballyowen Park and the Collinstown Park College grounds. By protecting and enhancing linkages between these spaces, it is intended that the L3 corridor will improve the coherency of the local GI network and help facilitate the movement of different species, thereby improving local biodiversity value.

Objectives

- To provide additional roadside planting along Balgaddy Road to ensure a linear connection between Ballyowen Park and the Collinstown Park College grounds.
- To provide roadside pollinator friendly planting at Collinstown Road to improve biodiversity.
- To improve the ecosystem services provision of the Griffeen Valley Park, Ballyowen Park and Collinstown Park by implementing new landscaping and SuDS measures.
- To investigate the potential for active pedestrian and cycling travel links across the R136.



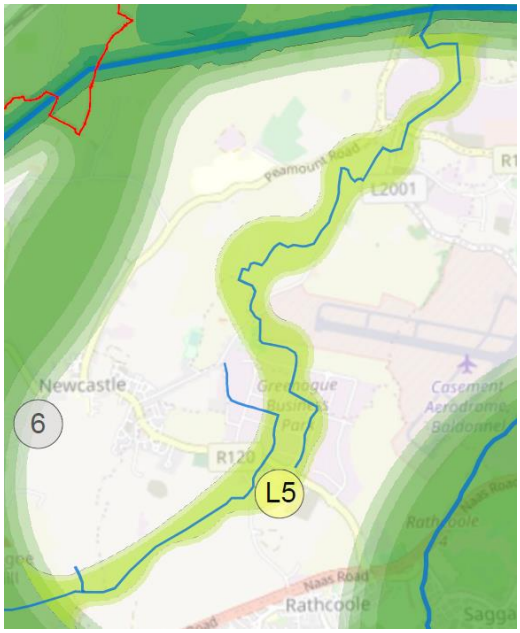
L4 – M50-Liffey, Dublin City Council Cross Link

Open space (Ballyfermot Football Club) – Cherry Orchard Hospital Grounds – Palmerstown Club Grounds – Glenaulin Park – Gaels-Drumfinn Avenue Park

The L4 corridor in the north-east of the county connects Cherry Orchard and the M50 Primary Corridor with the River Liffey Corridor to the north-east, linking in lands at Palmerstown to the wider County GI network. This area is largely dominated by the Cherry Orchard Industrial Estate and dense Palmerstown residential area, which isolates Ballyfermot Football Club, Palmerstown Sports Grounds and the green spaces of Cherry Orchard Hospital from the linear corridor of open space running from Palmerstown Club to Gaels-Drumfinn Avenue Park. New tree planting around the Cherry Orchard Industrial Estate will be provided as a means to close the gap between these areas, providing a linear link between the hospital grounds, Palmerstown Sports Complex and the corridor of open space to the east. Increased planting and connectivity between these green spaces will contribute to local placemaking and minimise the impact of industrial land uses on the surrounding residential environment. An enhanced local GI network will help reduce pollution and improve local air quality, with related health benefits for residents.

Objectives

- To provide new tree planting within and around the perimeter of the Cherry Orchard Industrial Estate to create a linear link between the hospital grounds, Palmerstown Sports Complex and the corridor of open space to the east.



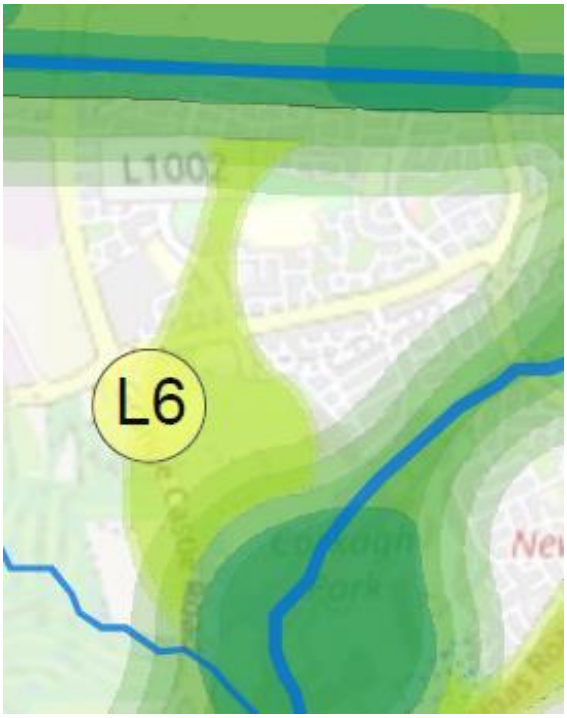
L5 – Griffeen River Link

Athgoe – Greenogue Business Park – Castlebaggot – Grange Castle Business Park

L5 follows the course of the Griffeen River as it passes through the industrial areas of Greenogue and Grange Castle through to where it meets the Grand Canal. In doing so it provide an additional linkage between South Dublin's rural fringe and the grand canal primary corridor. The river, which has been extensively culverted, flows from rural lands at Athgoe through to the Greenogue Business Park. Comprising industrial uses, Greenogue Business Park does contain small discreet areas of open space, with scope to formalise these spaces into pocket parks. Further north the Griffeen daylights just west of Casement Aerodrome and flows openly through the area of Castlebaggot to Grange Castle Business Park. The western area of the Grange Castle Business Park, through which the river course flows, also predominantly comprises industrial uses, with some intermittent linear sections of trees and hedgerow. There is further potential for site specific measures to enhance greenery within the business park and improve its natural setting.

Objectives

- To investigate the creation of a pedestrian and cycle greenway that follows the course of the Griffeen River in order to improve the accessibility and recreational amenity of South Dublin's rural fringe.
- To encourage the retrofit of GI interventions at Greenogue Business Park (e.g increased planting etc).
- To enhance planting within the Grange Castle Business Park to create a linear local GI corridor.
- To promote daylighting of the river where opportunities arise.
- To identify a suitable location for the implementation of an ICW (integrated constructured wetlands) along the course of the Griffeen River.

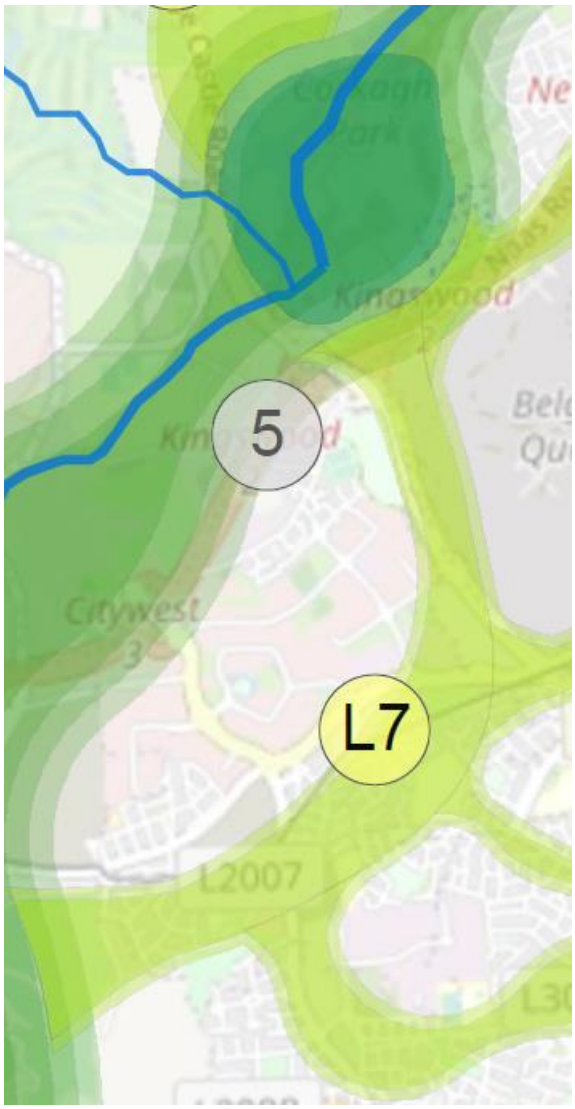


L6 Grand Canal – Corkagh Link

Corkagh Park – Deansrath – Grange Castle Golf Club – Grange Castle Grounds – Cuthberts Meadow – Park at Kilmahuddrick

The L6 Local Corridor provides an additional connection between the Grand Canal Corridor and the county's rural fringe, crossing public and private amenity space and industrial grounds at Grange Castle. There is an opportunity to enhance this connection and strengthen the green infrastructure links through these industrial grounds. Corkagh Park is a park of regional importance to the County and an important outdoor amenity space for Clondalkin and its wider catchment area. Biodiversity in the park is bolstered by an array of trees, hedgerows, a dedicated flower garden and extensive ponds and wetlands. To the north the park borders new development at Kilcarbery with strong GI links throughout. Further hedgerows alongside the western boundary of the R136 connect these lands to the heavily landscaped Grange Castle Business Park to the north. The Grange Castle Golf Club is located to the west of Kilcarbery across the R136. The golf club grounds also connect northwards by way of roadside tree planting through to the grounds of Grange Castle.

- To provide an increase in biodiversity within Grange Castle Business Park to improve ecological connectivity between GI at Grange Castle Golf Club and grounds of Grange Castle.
- To maintain biodiversity friendly planting which enhances the setting of Grange Castle (historic building) and contributes to local placemaking.
- To ensure access to recreational lands at Corkagh Park for current and future residents at Kilcarbery.
- To provide improved access and recreational linkages to Cuthberts Meadow.



L7 – Citywest-Saggart Link

Rathcoole Park – Citywest Golf Club – Green space at Cooldown Commons –Coldwater Commons – Green space for development adjacent Fortunestown Luas Stop – Citywest Village Green – Citywest Ave green space – Roadstone Quarry

Corridor L7 draws a connection between green spaces at the edge of Citywest to South Dublin's urban-rural fringe at Saggart and Rathcoole. This area presents a difficult spatial situation as several green spaces (stepping stones) have been separated from each other by residential and industrial development. These spaces include Rathcoole Park, Citywest Golf Club and smaller pockets of green space at Citywest Business Campus and the Brookfield residential area. The enhancement of the L7 corridor will attempt to link these spaces in a coherent fashion to the proposed L8 corridor at the Roadstone Quarry. New planting measures are required at Mill Road to connect Rathcoole Park to the grounds of the Citywest golf club, with further extensive planting required eastwards from the golf club to create a linear buffer of trees connecting to planting around the perimeter of the quarry boundary. Fortunestown/Citywest LAP is currently under development providing for the retention of wetlands and hedgerows. It is proposed that SDCC engage with developers on future progression of the lands to implement GI measures and ensure site development facilitates the L8 corridor.

Objectives

- To implement new roadside planting along Mill Road in order to provide a linear link between Rathcoole Park and Citywest Golfclub.
- To engage with stakeholders in order to support the implementation of GI features within the Fortunestown LAP.
- To undertake a study/planning for the development of a planting strategy to create a link between the Fortunestown/Citywest LAP lands and the L7 Corridor.
- To implement new biodiversity-friendly planting throughout the L7 Corridor.
- To ensure the GI value of the open space zoned lands along the corridor is maintained and existing hedgerow trees and recreational value is retained.

L8 – Belgard Quarry-M50 Corridor

Roadstone Quarry – Newlands Golf Club – Ballymount Park

The L8 corridor will help address habitat fragmentation in this area, as well as the impact of the Roadstone Quarry on local biodiversity. Corkagh Park is a core GI area to the north. It is adjacent to Newlands Golf Club and agricultural lands, which are subdivided with trees and hedgerow. Intensified planting around the perimeter of the quarry and the adjacent rural lands, particularly where it borders the R136 and Katherine Tynan Road, will help improve local biodiversity and placemaking, further delineating the quarry from the residential areas to the south. Newlands golf club is separated from Ballymount Park to the east by the Belgard Road. The installation of an ecotunnel or ecobridge could provide linear connections east-west and north-south for local animal species. It is envisioned that these measures will help form the basis of a local biodiversity hub, creating a significant and coherent block of recreational open space with improved planting, connectivity and biodiversity.

Objectives

- Investigate the potential to deliver an ecobridge or ecotunnel at Belgard Road to connect Ballymount Park and Belgard Quarry to Corkagh Park.
- To maintain planting around the perimeter of the Roadstone Quarry.
- To ensure no net loss of existing hedgerows in agricultural lands to the east of Belgard Quarry and Belgard Road
- To maintain the open nature of the stream at Ballymount park and surrounding lands and encourage actions to improve the water quality
- To recognise the calcareous grasslands within the agricultural lands and promote measures to ensure species diversity

L9 – Tallaght-Templeogue

Jobstown Park and Butler Magee Park – Open space at Springfield– Tallaght University Hospital – Public Lands at Belgard Square-Tallaght ZIP – TU Tallaght Campus – Bancroft Park – Tallaght Community School Grounds – Tymon Park

The L9 Corridor also represents a combination of local green and blue infrastructure. Following the course of the River Poddle through to Tymon Park it helps bridge the gap between the M50 and Camac River Primary Corridors, connecting open spaces within the built-up area of Tallaght eastwards through to Tymon Park and across the M50 to Templeogue. To the west beyond Jobstown the corridor connects to the L9 Corridor via green spaces located along the R136.

A large block of open space comprising Jobstown Park, Butler Magee Park and open spaces at Springfield connect to lands at Tallaght University Hospital by way of smaller pocket parks dotted within the Springfield residential area and the Tallaght ZIP. Jobstown and Butler Magee predominantly comprise of mown grasslands and there is potential to implement new planting measures to improve biodiversity. Just to the east of the hospital the Council has plans to build a new community plaza at a greenfield site located adjacent to the Exchange Hall apartments and the Cookstown Industrial Estate, and a link is planned from this area southwards to the ZIP. This represents an opportunity to enhance connectivity within the L9 Corridor and implement new GI and SuDS interventions. Existing roadside planting connects the plaza site to the grounds of TU Tallaght, which in turn neighbour Bancroft Park. The link from Bancroft Park continues eastwards along the Poddle at Tymon Park, linking in institutional lands at St. Agnes Church and open space associated with Tallaght Community School and Tallaght Sports Complex.

Objectives

- To implement new grassland management regimes at Jobstown Park and Butler Magee to contribute to local biodiversity and support the implementation of the National Pollinator Plan.
- To provide a suitable green play area for children within Jobstown Park
- To incorporate GI measures into the developments of the Tallaght LAP area and along this corridor.
- To enhance and protect the natural habitat of the banks of the River Poddle, where possible.
- To consider the implementation of ICWs/wetlands at Bancroft park.
- To investigate a walking and cycling link between the TU Campus and Tymon Park.
- To investigate an extension of the ZIP along the course of the River Poddle through Bancroft Park.

L10 – Tallaght-Dublin Mountains Link

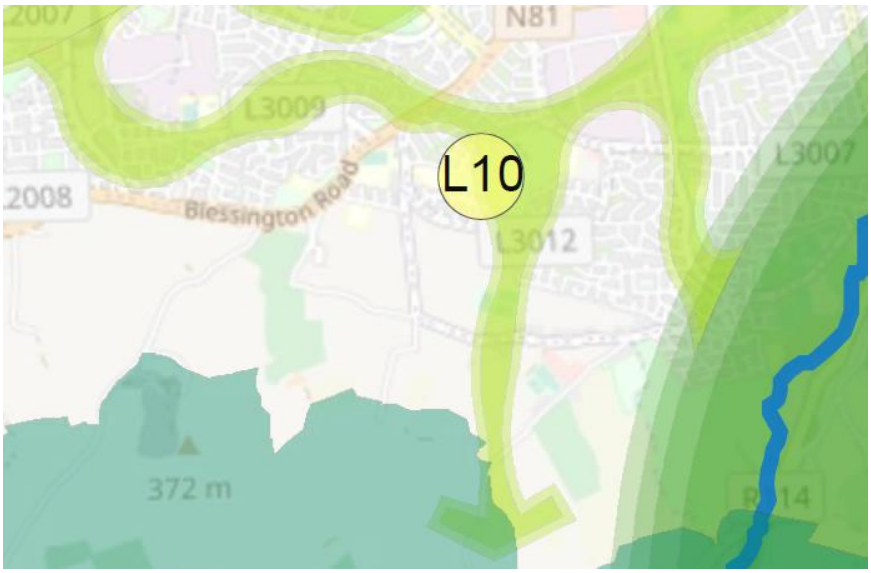
Open space just east of Citywest Shopping Centre (Fortunestown LAP) – Grounds of Mount Seskin Community College – Killinarden Community School grounds – Killinarden Park – Whitestown Steam– Sean Walsh Memorial Park – Dodder Valley Park - Sean Walsh Memorial Park – Kiltipper Park - Boharnabreena

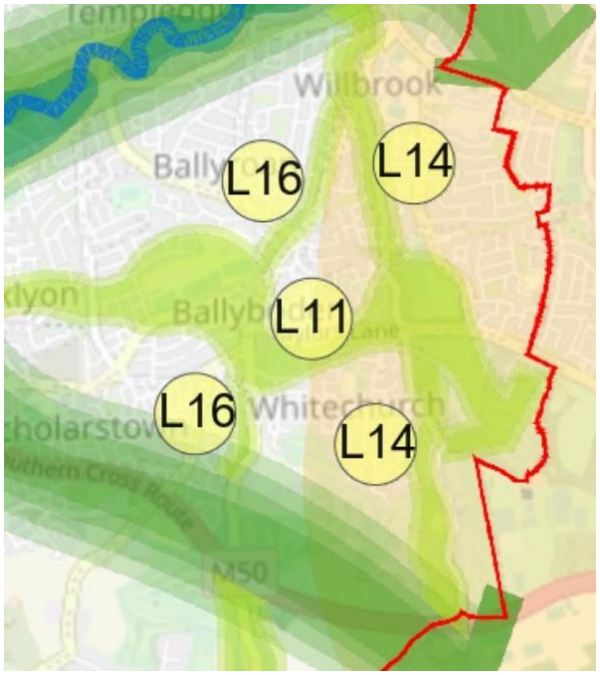
The L10 Corridor represents a combination of green and blue infrastructure elements. It commences in Citywest and from Jobstown Road follows the route of the Whitestown Stream, which flows east to join the River Dodder at Dodder Valley Park and incorporates a variety of public, private and institutional open spaces including Sean Walsh Memorial Park. Though the corridor includes Killinarden Park and terminates at the Dodder Valley Park, the corridor largely comprises smaller areas and pocket parks interspersed amongst the residential areas at Citywest and Millbrook Lawns, which help provide a continuous network of open space. Tree planting along the banks of Whitestown Stream also allow the corridor to traverse Whitestown Industrial Estate. A second branch of the L10 corridor runs southward towards the foothills of the Dublin Mountains, linking Sean Walsh Memorial Park, Kiltipper Park and Boharnabreena.

The enhancement of the L10 Corridor will serve to establish coherency between the disparate collection of smaller open spaces, linking them to more formal spaces of Killinarden, Sean Walsh Memorial Park and Dodder Valley Park. Local green spaces and roadside verges in the Citywest residential area present an opportunity to utilise tree and hedgerow planting to create a linear linkage along the route. Further, Whitestown Stream is culverted at several locations. The council will identify any suitable locations at which to daylight and de-channelise Whitestown Stream where appropriate. The second branch serves an important function linking the built up area of the County into the Core Area of the Dublin Mountains, and represents an opportunity to bolster the provision of ecosystem services for Tallaght.

Objectives

- To identify suitable locations for the daylighting of culverted sections of the Whitestown Stream and de-channelising where appropriate.
- To renaturalise the Whitestown Stream between Bawnlea and Cloonmore
- To provide active travel routes in accordance with the GDA cycle scheme
- To promote new tree and hedgerow planting within open spaces in Citywest/Fortunestown.
- To promote additional species diverse planting for pocket parks in Citywest and Milbrook Lawns residential area to contribute to local biodiversity.
- To maintain the green link through Killinarden Park and southwards to the rural uplands.
- To increase planting along Kiltipper Way to improve biodiversity linkages between Sean Walsh Memorial Park and Kiltipper Park.
- To incorporate a cycle lane at the existing pedestrian route from Ellensborough to Kiltipper Park to improve recreational access to the lowlands of the Dublin Mountains Core Area.
- To engage with the Dublin Mountains Partnership to improve recreational access to Kiltipper Park and lands at Bohernabreena.





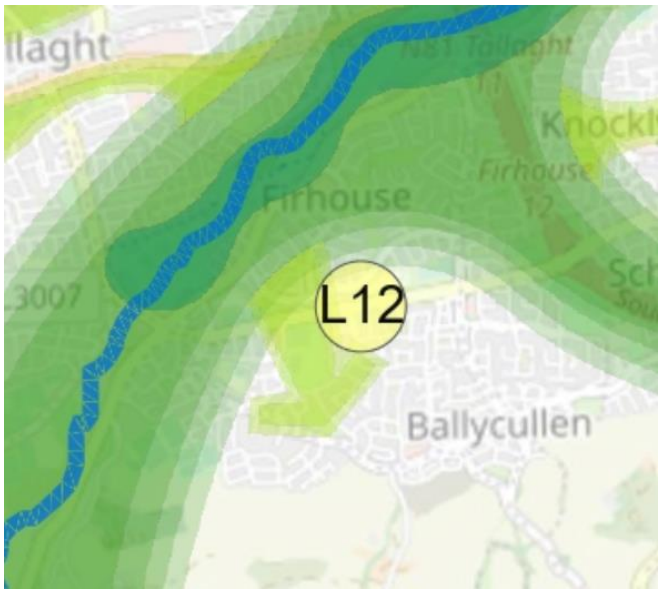
L11 – M50-DLR Crosslink

Delaford – Green space at Knocklyon – Green space at Coolamber Park – Green space at Templeroan – Ballyroan school campus/pitches – Residential green spaces– St. Enda's Park

L11 is located between the eastern branches of the Corridors of the M50 and Dodder Valley and provides a linear corridor of local green spaces within a large residential zone comprising Knocklyon, Ballyboden and Edmondstown. These green spaces comprise pocket parks, sports pitches and institutional grounds. The most significant section of open space is the central hub at Ballyboden GAA club, comprising the club grounds and the collective grounds of Coláiste Éanna, Scoil Naomh Padraig and Saplings. The open space at Delaford link eastwards to the hub at Ballyboden by way of a linear corridor of trees and roadside planting, passing by pocket parks and small open spaces within residential areas. The Ballyboden hub connects eastwards to St. Enda's park by way of roadside tree planting and small open spaces along Ballyboden Road.

Objectives

- To implement new street planting where required within the corridor
- To implement biodiversity-friendly planting and management regimes in public open spaces and at roadside verges.
- To promote the retrofitting of SuDS measures in pocket parks and public spaces in the L11 Corridor.
- To develop active travel routes between public open spaces and the surrounding residential areas.



L12 – Ballycullen Stream-Dodder Link

Ballycragh Park – Open Space at Ballycullen Drive – Public Open Space at Killakee Green – Dodder Riverbank Park

L12 follows the course of the Ballycullen Stream as it flows northwards from Ballycragh Park to join the River Dodder at the Dodder Riverbank Park at Firhouse. Ballycragh Park contains a pond feature and healthy tree planting alongs it's perimeter, particularly where it adjoins Killiney Road. The banks of the Cullen Stream are also marked with extensive hedgerow within the park. The Ballycullen Stream is culverted under Killiney Road and proceeds to flow under the public open space bounded by Killiney Road and Ballycullen Drive. It remains culverted as it flows under the Killakee residential area, daylighting again just to the east of the Church of Scientology Centre before joining the River Dodder. There is an opportunity to utilise the Ballycullen Stream to improve local placemaking and enhance its function as a local GI asset.

Objectives

- Protect the hedgerow and planting that mark the banks of the Ballycullen Stream in Ballycragh Park.
- Promote the daylighting of the Ballycullen Stream as it passes through public open space at Killiney Road/Ballycullen Drive.
- Enhance the planting of the banks at the Ballycullen Stream where is re-emerges in Dodder Riverbank Park, particularly at its northern bank where planting is currently deficient.

L13 – River Poddle Link

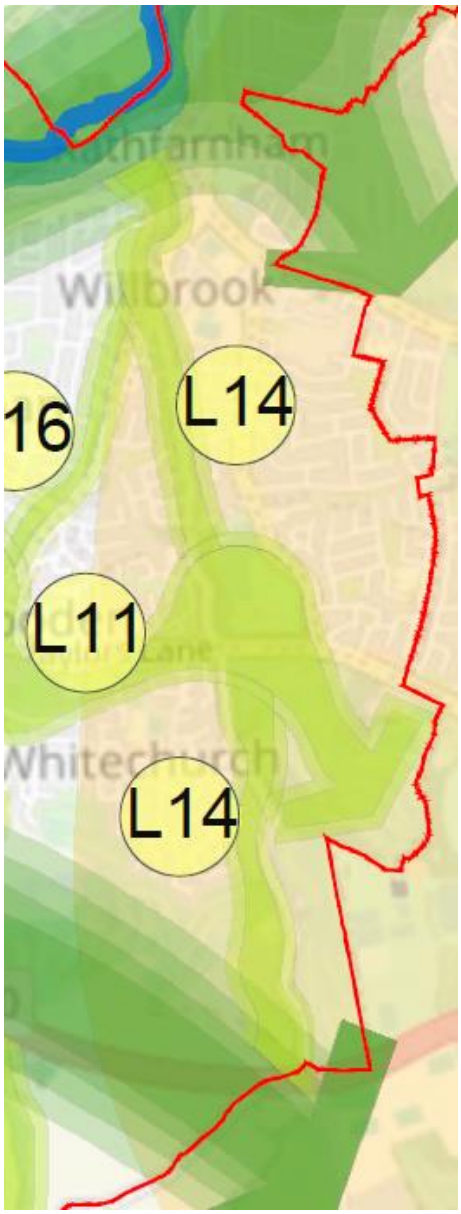
Tymon Park – Open Space at Wainsfort Manor – Priory Walk Park – Pond at the Orchard

L13 follows the course of the River Poddle as it flows eastward from Tymon Park to the county boundary at Kimmage. The banks of the Poddle are marked with intermittent planting, serving as a sort of green buffer between the residential areas of Walkinstown and Templeogue. The Poddle then passes just north of the public open at Wainsfort Manor, before linking through a number of interconnected open spaces around the Priory Walk Park near Kimmage Priory. Here the Poddle's banks are marked with intermiitant tree planting. The Poddle is then culverted, though a pedestrian link connects the Priory Walk Park to a wooded area with a pond located just behind the Orchard residential area.

Several pedestrian paths align with the course of the River Poddle as it passes through L13. However, these do not link to create a coherent route of travel. There is a significant opportunity to implement additional pedestrian and cycle links between existing pathways in order to create a local greenway route that extends from Tymon Park to Kimmage.

Objectives

- Implement the ICW at Tymon Park proposed as part of the River Poddle Flood Alleviation Scheme
- Protect and enhance the existing pond and woodland area at the Orchard as a local biodiversity hotspot.
- Monitor and ensure ongoing maintenance of the River Poddle's Water Quality.



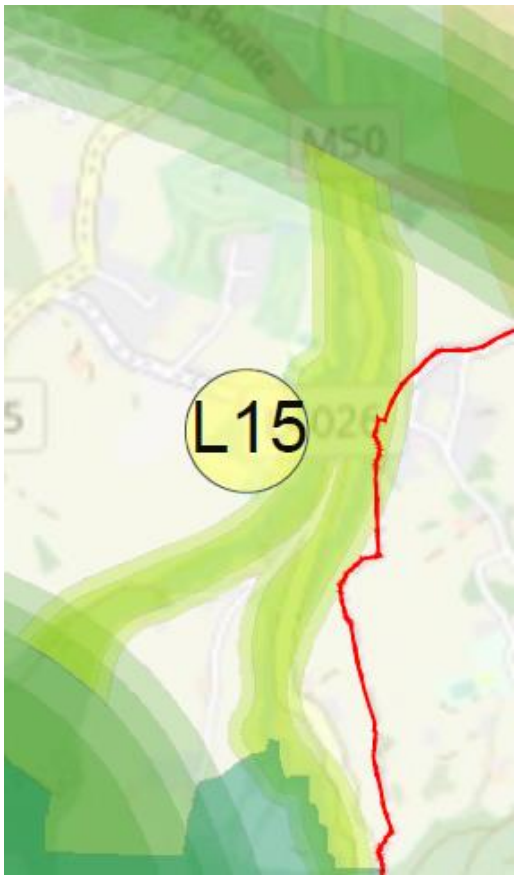
L14 – Whitechurch Stream Link

Agricultural Lands at Whitechurch Road – Edmonstown Golf Club – Grange Golf Club – Saint Enda's Park – The River Dodder at Rathfarnham

L14 follows the course of the Whitechurch Stream at it flows northwards from agricultural lands at Whitechurch Road to join the River Dodder at Rathfarnham. As such it provides an additional link between South Dublin's rural hinterland and its build up residential area. The Whitechurch Stream is daylighted at a wooded areas Whitechurch Road, just north of the M50. It follows the course of Whitechurch Road northward, passing through agricultural lands and the Edmonstown Golf Club before entering a small pond at Sanit Enda's Park. Along the way the banks of the Whitechurch Stream are marked with extensive tree planting, with a particularly substantial woodland area noted where it passes through Grange Golf Club. The Stream continues to flow northwards through a wooded area of Saint Enda's Park before continuing its course along Whitechurch Road as it passes through residential areas at Wilbrook and Rathfarnham. Though culverted in some places the Whitechurch Stream remains daylighted more most of this route. The Whitechurch Stream is joined by the Owendoher River in Wilbrook and continues to flow northward before joining the River Dodder as it passes the southern boundary of Bushy Park in Rathfarnham.

Objectives

- Ensure that any tree removal as part of the Whitechurch Stream Flood Alleviation Scheme is suitably mitigated with new planting.
- Monitor and ensure ongoing maintenance of the Whitechurch Stream Water Quality.
- Engage with Grange Castle Golf Club to promote the development of a publicly accessible pedestrian travel route alongside the banks of the Whitechurch Stream as it flows through the woodland area of the golf club.
- Identify opportunities, subject to site specific investigation and feasibility, to daylight the culverted sections of the Whitechurch Stream as it passes through Wilbrook and Rathfarnham.
- Identify suitable locations for the provision of public seating along the Whitechurch Stream in Rathfarnham to promote passive recreation.



L15 – Owendoher River/Glendoo Brook Link

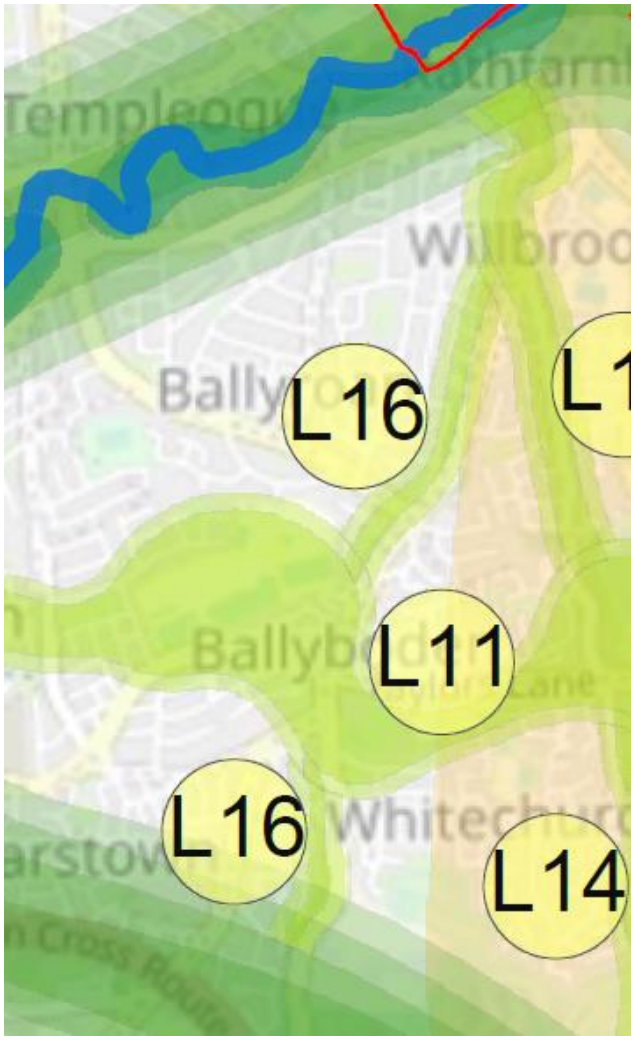
Cruagh Wood – Massy's Wood – Mount Venus Cemetery – Kilmashogue Cemetery - Rathfarnham Golf Club -

L15 provides an additional connection between the core area of the Dublin Mountains and the M50 by incorporating green spaces along the courses of the R116 and Owendoher River as it flow northwards from the mountains and pass under the m50, to join the River Dodder at Rathfarnham.

Cruagh Wood represents a transition between South Dublin's rural hinterland and the Dublin Mountains, with walking trails available that provide access to the Cruagh and Glendoo mountain summits. The Owendoher River emerges in the Cruagh Woods and flows norhwards through Masy's Woods, another popular amenity with walking and nature trails. The Owendhoher then passes through the rural hinterland, linking to Cruagh Cemetry, Kilmashogue Cemetery and Rathfarnham Golf Club. Throughout this area the banks of the Owendoher are marked with intermittent trees and hedgerows.

Objectives

- To development a pedestrian and cycling greenway along the course of the Owendoher River to provide improved recreational access to the Dublin Mountains.
- Monitor and ensure ongoing maintenance of the Owendoher River's Water Quality.
- Protection and enhance the bidoviersity value of the Mount Venus and Kilmashogue Cemeteries by promoting biodiversity friendly landscaping and appropriate management of the GI value and facilitation of access where appropriate.
- To ensure no net loss of existing hedgerows in the rural lands around the Kilmashogue Cemetery.



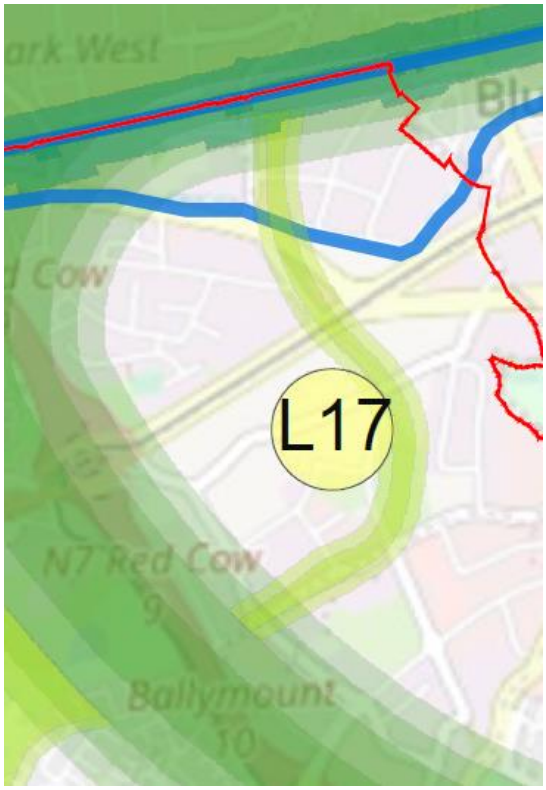
L16 – Owendoher River Link

Edmonstown Park – Woodlands at Ballyboden – Public Open Space at the Rise – Owendoher Lodge Woodland Area – Public Open Space at Willowbank Drive – Public Open Space at Willbrook Park

L16 continues to follow the course of the Owendoher River after it traverses the M50. The river follows the route of the R116 just west of Edmonstown Park through a woodland area before passing through the residential area of Brookwood. Just south of the Ballyboden Way/Taylor roundabout there is a notable area of public open space with further forestry. The course of the river then contonutes northward along Ballyboden Road, incorporating further linear woodland areas at Owendoher Lodge and Willowbank Drive before joining the Whitechurch Stream near Willbrook Park.

Objectives

- To connect the Owendoher River Link to the proposed greenway under L15 to improve access and recreational amenity.
- To protect the extensive trees and woodlands that mark the banks of the Owendoher River.
- Monitor and ensure ongoing maintenance of the Owendoher River's Water Quality.
- Engage with landowners to investigate the provision of public pedestrian access into the woodlands at Ballyboden to improve local recreational access.



L17 – Ballymount-Grand Canal Link

Ballymount Park – Open Space at Ballymount Industrial Estate – Open Space between the R134 and Knockmitten Lane – Grand Canal

L17 is a primarily indicative route that suggests how a new link between the M50 Primary Corridor and the Grand Canal Primary Corridor can be developed. It envisages the enhancement and development of existing open space within the Ballymount Industrial Estate, and the linking of this space northwards to join the Grand Canal. The open space at Ballymount Industrial estate is dissected by Ballymount Avenue and is fenced off from public access. It contains rough shrubbery and notably a small daylighted stream that runs eastwards towards Robinhood Road where it is culverted. Subject to future development within Ballymount, South Dublin will engage with local landowners to enhance this space, as well as the smaller area of open space to the north located between the R134 and Knockmitten Lane. Landscaping interventions will be used to link these open spaces and green roadside verges at Killeen Road to create a new local link to the Grand Canal.

Objectives

- To engage with landowners and stakeholders to enhance the biodiversity of open space in Ballymount Industrial Estate through appropriate landscaping interventions.
- To engage with landowners and stakeholders on the possibility of incorporating an ICW at open space in Ballymount Industrial Estate.
- To enhance roadside planting along Killeen Road.

3.0 Case Studies

In developing the Green Infrastructure Strategy for South Dublin, a Case Study Framework was developed and deployed. The purpose of the Framework is to identify thematic area typologies throughout the county in order to analyse GI assets and understand key challenges and opportunities for GI protection and enhancement.

The thematic GI area typologies are as follows:

Case Study Number	Typology	Case Study Area
1	Regeneration	Naas Road
2	Established Urban	Clondalkin Village
3	New Urban	Citywest
4	Rural	Peamount
5	Foothills	Ballyculllen
6	Valleys / Corridors	The Dodder
7	Urban Edge	Whitechurch Road
8	Parks and Open Space	Griffeen Valley Park

Case Study 1: Naas Road	
Typology	Urban Regeneration
Description	

The Naas Road Area form the urban regeneration case study. A key area of priority in relation to this area is to explore the scope for GI enhancement / open space delivery particularly in the context of ensuring compact growth and improving water quality. Specific areas for policy focus include:

Policy Recommendations	
GUR-1	To encourage and promote the re-naturalisation of the River Camac where it has been culverted.
GUR-2	To promote the integration and provision for biodiversity within public open space provision and sustainable water management measures (including SuDS) where possible and appropriate.
GUR-3	Monitor and ensure maintenance and ongoing enhancement of the River Camac's water quality. The River should accept attenuated clean water only.
GUR-4	To promote the use of green building approaches in order to create positive impacts on our climate and the natural environment.
GUR-5	To minimise hard surfaces within new developments and to promote permeable paving use, where possible.
GUR-6	To safeguard and promote the retention of any areas with either an existing high GI value or with the potential to contribute to the development of a wider green network.
GUR-7	Protect and preserve hedgerows where appropriate and where feasible
GUR-8	Promote the linkage of areas of high GI (such as the canal, greenfield sites, parks etc) within and adjacent to the area by green linkages, walking and cycling pathways with areas used for other purposes (commercial, amenity, residential).
GUR-9	Provide opportunities for food production through allotments, community planting and urban farming where appropriate.

GUR-10	Ensure all landscaping has a positive impact on biodiversity/pollinators and breeding birds. Promote dense shrubberies in parks.
GUR-11	To promote and facilitate the creation of north-south connections of green spaces to link Phoenix Park to Tymon park as a habitat

County wide applications of the key lessons from this Case Study:

The challenge for many built up areas of the county is to become 'greener' while also becoming denser – in line with objectives around compact urban growth. This urban regeneration case study demonstrates some key mechanisms and objectives through which an appropriate balance can be achieved. This includes the following:

- To promote the use of green building approaches including green roofs and green walls. Green roofs and walls are an essential component of a greener, denser city especially in those areas which have historically had a deficiency in parks and green spaces. They can help store stormwater, provide additional wildlife habitat, and also create greener public realm or roof gardens above our busy streets.
- To minimise the extent of hard surfaces utilised throughout any new developments and the promotion of permeable paving use where possible for car parking. This reduces risks of flash flooding by intercepting and slowing down the flow of rainfall.
- To provide opportunities for food production through allotments, community planting and urban farming where appropriate. Urban agriculture is an important GI tool with the potential to enhance the sustainability and resilience of urban communities.
- To provide GI links to existing parks or open spaces where appropriate to further expand and protect the County GI network.

Case Study 2: Clondalkin Village	
Typology	Established Urban
Description	

Clondalkin Village forms the 'established urban' case study area. Within this area, the River Camac, a 12,000 year old landscape feature is a site of particular note. Awareness of this important feature should be enhanced and the value of existing GI assets in Clondalkin should be further developed to improve multifunctionality and connectivity. Specific areas for policy focus include:

Policy Recommendations	
GES-1	To promote the development of increased pedestrian/ cycling links to the Grand Canal Greenway and between the Greenway and village centre along the route of the River Camac to Corkagh Park.
GES-2	To develop the River Camac as an equally safe pedestrian cycling route throughout Clondalkin, by, converting Watery Lane into a Greenway, expanding Corkagh Park eastwards
GES-3	To improve the overall visibility of the River Camac east of the village centre.
GES-4	To reconfigure all park entrances to allow cyclists to use them more safely.
GES-5	To maintain Corkagh Park as an area of high biodiversity and amenity.
GES-6	To develop partnerships with Waterways Ireland (to improve access to Canal Greenway). Tidy Towns (to encourage biodiverse planting and local schools (to maximise use of green areas for env. Education etc).
GES-7	To ensure that development of Clondalkin achieves important GI objectives to promote ecosystem services including: • Daylighting of culverted sections of the Camac • Amelioration of air quality and noise through appropriate planting/screening • Improvement of water quality through SuDS and other measures • Street tree planting • Retrofitting of hard paved areas to permeable surfaces where feasible
GES-8	To retain the important ecosystems and heritage value of the Mill Ponds

GES-9	Ensuring that green linkages are maximised in any new development recognising the potential of existing open spaces and the river to connect different areas.
GES-10	To daylight appropriate sections of the Camac and other water courses within the County at suitable locations.
GES-11	To ensure that future infill development in Clondalkin Village and other urban areas within the county provide new local green spaces.
GES-12	To ensure that all new urban development leads to a net increase in GI value.
GES-13	New car parking provision and car parking surfaces incorporate planting and permeable paving to ameliorate the impact of pollution and surface water runoff on local environmental quality.
GES-14	To provide new urban street tree planting at appropriate locations to help improve local air and water quality.

County wide applications of the key lessons from this Case Study:

Within this case study, lessons around the maximisation of existing GI assets within established urban areas has been explored. While some of the challenges in this context relate also the urban regeneration case study (e.g. balancing requirements for urban greening and compact growth), a number of further applicable lessons can be discerned as follows:

- To promote enhanced pedestrian and cycling links between existing GI infrastructure (including parks, greenways, river corridors) and town and village centres
- To promote ecosystem services through, for example, the daylighting of culverted rivers and streams where appropriate, the provision of SuDs, enhanced street planting, and use of green building approaches.
- To ensure that all new urban development leads to a net increase in GI value.

Case Study 3: Citywest	
Typology	New Urban
Description	

The Citywest case study is related to the 'New Urban' typology, signalling its more recent development trajectory. Specific areas for policy focus include:

Policy Recommendations	
GNU-1	Seek the creation of new wetlands and/or enhancement of existing wetlands through provision for Sustainable Drainage Systems (SuDS).
GNU-2	Retain and, if relevant, restore connectivity between watercourses by opening up culverts where possible.
GNU-3	Incorporate some GS (tall uncut) grassland and appropriate biodiverse planting in local parks north and south east of Citywest Shopping Centre.
GNU-4	Ensure that all landscaping in publicly owned land is biodiversity friendly given Citywest's location in the foothills/rural Dublin.
GNU-5	Ensure that the natural and riparian features within the LAP lands are protected and used to enhance amenity and water quality and provide for connections to the open spaces within the Fortunestown lands.
GNU-6	To link new development areas to existing parklands and amenities, providing for active and passive recreation for growing communities
GNU-7	To ensure that new development results in no net loss of existing trees and hedgerows.
GNU-8	To incorporate new pocket parks and green spaces to provide active and passive recreational amenities for new and growing communities.

GNU-9	To provide suitable new planting and landscape measures as part of all new developments.
GNU-10	To incorporate new multifunctional green play areas for new and existing schools.
GNU-10	To use existing natural landscape features such as ditches and hedgerow systems to guide the development and implementation of new nature-based SuDS systems in new developments.

County wide applications of the key lessons from this Case Study:
Within this case study, lessons around providing for, protecting and enhancing GI within new and growing urban communities were examined. In this context, the following mechanisms and objectives are broadly applicable:

- Linking new development areas to existing parklands and amenities, as well as the creation of new pocket parks and green spaces, providing for active and passive recreation for growing communities
- To ensure that new development results in no net loss of existing trees and hedgerows.
- Use of existing ditches and hedgerow systems to guide development of nature-based SuDs
- To incorporate new multifunctional green play areas for new and existing schools.

Case Study 4: Rural Lowlands	
Typology	Rural
Description	

South Dublin County's rural lowland is an important resource for the County and the Dublin Region. The rural landscape largely incorporates a working agricultural landscape. The rural belt also provides an important green buffer between the built-up area of Dublin, rural settlements and urban centres the Kildare border. One of the area's primary GI assets is the Grand Canal pNHA. In addition to this, the area is associated with a variety of semi-natural habitats which have developed as a result of quarrying near the canal (flooded ponds, semi natural grasslands, woodlands and shrubberies). Agricultural lands support various habitat types including hedgerows, watercourses and woodlands in addition to food production. Supportive farming practices have the ability to preserve the biodiversity of large swathes of land in an otherwise rapidly developing area. The preservation and protection of these GI resources as valuable assets for amenity, health and awareness of biodiversity is increasingly important to help with the achievement of the County's targets in relation to climate change. The area is of high value for amenity currently (organised and casual) general and specialised (GAA, pitch and putt, casual angling, walking, meditating, picnicking and canoeing/water activities). Moreover, the Council should ensure that any new development protects major assets such as surrounding habitats of high GI value, including badger sett, bats and other protected species and old buildings and suitable trees which might provide important roosting sites for bats.

Policy Recommendations	
GR-1	Consult with Waterways Ireland to promote this area as an amenity centre for canal users (canoeing, angling, walking, environmental education).
GR-2	Support the provision of specialised facilities (angling and canoeing) in the area, including supporting the careful renovation of the mill building as a water sports centre or service area.
GR-3	Provide enhanced green linkages between the canal and existing housing development

GR-4	Investigate the land at Gollierstown Quarry along the Grand Canal for designation as a Local Nature Reserve.
GR-5	Minimise impacts to biodiversity along the Grand Canal by ensuring sufficient set back of any development and incorporation of suitable mitigation measures.
GR-7	Provide opportunities for food production through allotments and urban farming where appropriate.
GR-8	Investigate a common approach to a greenbelt/green spaces between the growing settlements within South Dublin and Kildare County Councils to provide a 'green lung' between the adjacent developing areas.
GR-9	To engage with Coillte to identify suitable locations to promote the development of new native woodlands areas.
GR-10	To preserve the quantify and shape of existing hedgerows within the county's rural lowlands.
GR-11	To identify suitable opportunities for the development of new pedestrian access routes to improve accessibility to the county's rural lowlands.
GR-12	To promote and implement responsible lighting practices to encourage the creation of dark zones in the rural lowlands.

County wide applications of the key lessons from this Case Study:

South Dublin's rural areas are an important regional and county resource. In these areas, the conservation and enhanced connectivity of natural habitats as well as the preservation of natural heritage features is of particular importance. In this context, applicable lessons include:

- To identify suitable opportunities for the development of new pedestrian access routes to improve accessibility to the county's rural lowlands.
- To promote and implement responsible lighting practices to encourage the creation of dark zones in the rural lowlands.
- Provide opportunities for food production through allotments and urban farming where appropriate.
- To engage with Coillte to identify suitable locations to promote the development of new native woodlands areas.

Case Study 5: Ballycullen	
Typology	**Foothills on the urban-rural edge**
Description	

Ballycullen is located within the foothills of the Dublin Mountains region. As such, it forms an important 'transition' area between more urbanised and rural areas. Recreational use of this area is potentially high but there is a need for safe routes - such as off-road paths for cycling and walking. Specific areas for policy focus within this case study include:

Policy Recommendations	
GF-1	Provide opportunities for food production through allotments and urban farming where appropriate.
GF-2	Protect and preserve hedgerows, associated ditches and semi-natural habitats ensuring that they are identified, retained and designed into development to the greatest possible extent with minimum net hedgerow loss.
GF-4	To promote biodiversity friendly parks and open spaces within residential areas.
GF-5	Ensure that the impacts of lighting on the rural-urban fringe is kept to a minimum to protect biodiversity.
GF-6	Where development occurs adjacent to watercourses incorporate measures to increase their biodiversity value, water quality and facilitate surface water management.
GF-7	Planting in public spaces needs to be biodiversity /pollinator/bird nesting friendly. Grasslands should be managed as wildflower meadows to improve their biodiversity i.e. grass allowed to grow long, cut later in the season and cuttings removed particularly in green spaces near the countryside.

GF-8	Provide and enhance safe routes (such as off-road paths) for cycling and walking

County wide applications of the key lessons from this Case Study:

This case study area provides important insights into the management of GI with transition areas between the built-up urban footprint and rural areas. These areas may come under more significant development pressure and as such, retaining and enhancing GI value is of utmost importance. Applicable lessons in this regard are:

- Planting in public spaces needs to be biodiversity /pollinator/bird nesting friendly. Grasslands should be managed as wildflower meadows to improve their biodiversity i.e. grass allowed to grow long, cut later in the season and cuttings removed particularly in green spaces near the countryside.
- Semi-natural habitats to be identified, retained to the greatest extent possible and repurposed in the context of new development. These include drainage ditches, patches of scrub, native woodland and good quality hedgerows, including those bounding roads.
- Where development occurs adjacent to watercourses measures shall be incorporate to increase their biodiversity value, water quality and facilitate surface water management.
- Provide for enhanced safe routes for walking and cycling (including off-road paths).

Case Study 6: The Dodder	
Typology	Valleys / Corridors
Description	

The River Dodder is a major watercourse within the Dublin region, passing through three local authority areas. It flows from its river valley at Glenasmole in the Dublin Mountains through Tallaght and Templeogue in South Dublin, then through the suburbs within the administrative area of Dún Laoghaire–Rathdown before reaching Dublin City and joining the River Liffey at Ringsend.

The Dodder is also the site of the proposed Dodder Greenway, a major piece of GI infrastructure that is being implemented collaboratively by South Dublin County Council, Dún Laoghaire–Rathdown County Council and Dublin City Council. The route of the greenway commences at Grand Canal Dock in Dublin's city centre and follows the River Dodder as far as Bohernabreena, south of Glenasmole valley in the Dublin/Wicklow Mountains. The route for the Greenway passes between three Local Authority administrative areas: Dublin City Council, Dún Laoghaire–Rathdown County Council and South Dublin County Council. As part of the initial site scoping exercise, the following observations are made:

- Biodiversity value varies but far superior to that in lower sections in DLR and Dublin City. The most natural section is a pNHA within South Dublin Co Co. Important species present such as otter are present in South Dublin but not salmonids as they cannot get above Beaver Row in Donnybrook.
- Amenity value depends on extent of publicly owned land adjacent to it. Some sections within private landholdings are not easily visible. Best sections for passive recreation are in the parks adjacent to the pNHA and near Glenasmole.
- The value of the river for water management is very important particularly where public land (usually managed as parks) is adjacent to the river and it can take overflow.
- Landscape value very high where banks are bounded by semi-natural vegetation and there is not just a view but access to the river.

• Cultural heritage particularly high at the Firhouse Weir (where water tapped off for city supply). Weir is a spectacular feature.	
Policy Recommendations	
GV-1	Improve connectivity between Dodder GI and adjacent areas managed for biodiversity by daylighting its tributaries in appropriate locations, including the Poddle, Whitechurch Stream, Owerdoher Stream and Ballycullen Stream.
GV-2	To enhance the setting of the Dodder's tributaries with native planting interventions.
GV-3	Integrate of GI and Public Open Space objectives as set out in the Development Plan (Chapters 4 and 8)
GV-4	Improve access along the corridor to enhance its safety and to allow continuous off road routeway along the Dodder.
GV-5	Collaborate with adjacent local authorities and other stakeholders on the management and control of non-native invasive species
GV-6	Maintain and protect quiet areas and nature refuges along the river bank and develop a management plan for the Dodder Valley pNHA.
GV-7	To develop a management plan for the Dodder Valley pNHA.
GV-8	To reduce or minimise sections of the river that have active zones on both banks of the river; where possible provide alternative routes for wildlife by mirroring a river bank with high amounts of human activity with a darker, quieter river bank on the opposite side.
GV-9	To use landscape design techniques to divert human activity away from areas of high ecological activity and focus activity within the less ecologically sensitive locations of the park.
GV-10	To provide for viewing areas and seating areas at appropriate locations within the Dodder Valley Park and at other appropriate riverside locations.

County wide applications of the key lessons from this Case Study:

This case study area focuses on river valleys and corridors. These features are core components of the GI network, incorporating areas of high ecological activity and must be protected and enhanced. Applicable lessons in this regard are:

- To deliver ecosystem services in river valleys relating to flood alleviation and attenuation, climate change mitigation and adaptation measures, active and passive recreation, tourism and sustainable transport
- To use landscape design techniques to divert human activity away from areas of high ecological activity and focus activity within the less ecologically sensitive locations.

Case Study 7: Whitechurch Road	
Typology	Urban Edge
Description	

The area around Whitechurch Road, South Dublin's eastern boundary with the administrative area of DLRCC, includes two tributaries of the River Dodder, located to the north and the south of the M50. These tributaries, as well as their banks and the associated shrubberies and woodlands, are important local green and blue infrastructure assets. Other GI assets in the vicinity include the large block of woodland along Whitechurch Road's eastern boundary, local hedgerows and the cemetery at Whitechurch Parish, beside Whitechurch Road. Assessment of this area resulted in the following preliminary observations:

- Opportunity to maximise value of Dodder tributaries as greenways of value for recreation and biodiversity
- Need to consider how to treat highly constrained sites with high value GI resource
- Consider how to incentivise developers to improve ecological connectivity
- Need to consider relationship between heritage features and GI.
- How to leverage the visual impact of the transition between South Dublin's urban and rural areas.
- Scope to further identify appropriate ecological features that make appropriate urban-rural gateways.

Policy Recommendations	
GP-1	Optimise biodiversity and connectivity along the Whitechurch Stream to the greatest extent possible.
GP-2	To investigate the provision of a local greenway along the course of Whitechurch Stream and other minor watercourses within the county to

	improve accessibility from the county's residential suburbs to surrounding recreational opportunities and amenities.
GP-3	Ensure that areas of high biodiversity value are identified, preserved and incorporated into development. Accommodations must be made to ensure that the biodiversity value is not reduced. Measures to be considered include; improving access where appropriate, incorporation of SUDS measures which enhance not just flood attenuation but also amenity value
GP-4	Protect the geodiversity interest of the landscape and prohibit landfills which damage geodiversity interest.
GP-4	Recognising that flood relief schemes may involve the loss of certain flora, ensure that development on these lands gives the greatest protection possible to mature trees and heritage and ecological features which enhance its character.
GP-5	Retain and incorporate broad leaf woodland in amenity parkland or within open space areas and ensure that where loss of broadleaf cannot be avoided it is suitably mitigated.
GP-6	Retain and protect existing cemeteries which are a feature of this area and to increase their contribution to the ecosystems services of the area by measures such as; biodiversity friendly landscaping and appropriate management of the GI value and facilitation of access where appropriate.
GP-7	Ensure bat surveys carried out due to the high potential for bat roosts within the existing buildings and mature
GP-8	Promote public understanding and engagement in biodiversity management such as in the areas of cemetery management, golf course management and private gardens.
GP-9	Retain and protect local heritage features which exist in the area such as granite walls, site for water pump, and small houses. Use of local materials within new development is important in this regard.
GP-10	Ensure that all new planting is reflective of the character and local biodiversity of the area, and encourage the use of native planting and discourage the use of non-native planting.

County wide applications of the key lessons from this Case Study:

This case study forms the 'urban edge' typology and as such is concerned with the transition areas between South Dublin's urban / suburban and rural areas. Of particular interest is the further identification of appropriate ecological features that make appropriate urban-rural gateways. Applicable lessons in this regard include:

- Promote public understanding and engagement in biodiversity management such as in the areas of cemetery management, golf course management and private gardens.
- Ensure that all new planting is reflective of the character and local biodiversity of the area and encourage the use of native planting while discouraging the use of non-native planting.
- Ensure that areas of high biodiversity value are identified, preserved and incorporated into new development. Accommodations must be made to ensure that the biodiversity value is not reduced. Measures to be considered include; improving access where appropriate, incorporation of SUDS measures which enhance not just flood attenuation but also amenity value

Case Study 8: Griffeen Valley Park	
Typology	Parks and Open Space
Description	

Griffeen Valley Park is a regional park within South Dublin. It also serves as an important GI corridor due to the presence of the Griffeen River. Its extension, through an intensively developed area from one core area to another makes it an extremely important route for recreation, amenity and biodiversity. The park shall be used as an important linking element to enhance GI across its entire catchment area and to facilitate recreation. It is important that developments within the catchment area of Griffeen Park provide GI links to it This case study also provides an important link with the Parks and Open Space Strategy. Specific areas for policy focus include:

Policy Recommendations	

GP-1	Incorporate a management regime to manage the water quality of the Griffeen River and to continue to incorporate ICWs, where appropriate
GP-2	Implement the Sports Pitch Strategy for the County while ensuring that the impact of pitch location and use within the park is minimised e.g grass pitches shall not be let or railed off. The maintenance of pitches should be managed in biodiversity friendly manner. Where pitches are used by certain species (e.g over wintering birds) the management regime should be adjusted to accommodate same.
GP-3	Map high biodiversity areas within the park, communicate to staff and develop policies and work programmes to maintain and enhance this area i.e. (no planting of non-natives, fencing to allow for movement of small animals and implement hedgerow management regime i.e. prune in an A shape every three years).
GP-5	For parks that are in river corridors maintain areas for flood attenuation. This may involve temporary dispersion of pedestrians or cyclists during times of flooding. Areas of sacrificial flooding should be mapped within the management plan.
GP-6	Develop and implement a signage management strategy for the park in accordance with the Signage Strategy for the County.
GP-7	Promote public understanding and engagement in biodiversity management such as in the areas of cemetery management, golf course management and private gardens.
GP8	Other parks within the Lucan area should be linked to it where possible, facilitating development of recreation and amenity within those parks. As development moves westwards, it is important to extend the parkland along the Griffeen River corridor.

County wide applications of the key lessons from this Case Study:
This case study is concerned with South Dublin's parks and is thus also informed by the County Parks and Open Space Strategy. In their role as green infrastructure, parks and open spaces are a fundamentally important community resource. By planning and managing urban parks as parts of an interconnected green space system, urban areas can reduce flood risk as well as stormwater management costs. Parks can also protect biological diversity and preserve essential ecological functions while serving as a place for recreation and civic engagement. Applicable lessons include:

— Develop a management plan for parks, ensuring that areas of high biodiversity/GI value are identified and mapped, and appropriate management measures put in place.

4.0 SCOT Analysis

This section identifies current strengths and constraints in South Dublin's County-wide GI network and highlights high-level opportunities and threats for its further enhancement. Overall, it is considered that the strengths of South Dublin's GI network outweigh its weaknesses, and that there are significant opportunities for enhancements and interventions to address constraints and future-proof against anticipated threats arising from further development within the County.

Strengths

- The foothills of the Dublin Mountains serve as the primary core area for South Dublin's GI network. The foothills contain walking and hiking trails and so provide excellent outdoor recreational amenity for residents and visitors to the County, while their unique heather habitat also contributes to biodiversity within the county.
- The various rivers and water courses within the County are key GI assets. The River Dodder and its attributes are a primary GI corridor that flows from the Dublin Mountains through the built-up eastern area of the County. The Griffeen Valley Corridor provides relief to much of the built up area in the north of the County, while the River Liffey and its surrounding open spaces is rich in GI components where it bounds Fingal County Council. The Grand Canal is also a primary corridor that dissects the centre of South Dublin from Kildare to the west through to Dublin City to the east.
- Golf courses provide open spaces, extensive hedgerows, water bodies and other natural features. These features have potential to have a stronger role in contribution to GI in the County should more friendly approaches to management and maintenance be explored.
- South Dublin's wide array of regional and neighbourhood parks help to break up the built-up area of the County, providing accessible local recreational opportunities and contributing to water attenuation.

Constraints

- South Dublin's built-up residential suburban areas and industrial lands, primarily concentrated in the north and east of the county, make a limited contribution to GI. This is due to the presence of large areas of impermeable surfacing, though this is broken up by South Dublin's array of formal and informal pocket parks and public open spaces.
- There are signs that urban sprawl is impacting the GI value of the County's rural fringe, with industrial estates and smaller settlements extending into the south and west of the County. These areas generally do not contribute to the GI network of the County and risk contributing to habitat fragmentation in the countryside.
- Large swathes of land in South Dublin's rural fringe are characterised by intense agricultural use, which reduces its GI value and contribution to biodiversity.
- Some of the County's regional parks were typically managed and cultivated in such a way as to maximise their accessibility and amenity for visitors. In recent times new maintenance practices and new GI interventions have enhanced their biodiversity and GI value. This approach needs to be reinforced across the County.

Opportunities

- There is a significant opportunity to build on the County's rich array of parks and public open spaces by implementing new maintenance measures and new planting interventions in order to further enhance their GI, biodiversity and ecosystem services value to local communities.
- The provision of new hedgerow and tree planting measures as consistent with South Dublin's Tree Management Policy and the implementation of site specific GI measures, including green roofs,

green walls and SuDS represent an opportunity to support GI and enhance local ecosystem services.

- There is an opportunity to capitalise on the GI elements of County's river and water corridors and enhance the ecosystem services that their adjoining areas provide.
- The Dodder Greenway project exhibits how collaboration between administrative authorities can help leverage regional GI assets to provide new opportunities for recreation and enhancement. In the future there is further scope for South Dublin to engage further with neighbouring local authorities to ensure the coordinated management and enhancement of shared GI assets e.g. the Grand Canal and the Liffey Valley corridors to maximise their value and support the regional GI network.

Threats

- Uncoordinated development poses a threat to the integrity of the County's GI network. The encroachment of further development from the built-up areas of the County into the rural landscape in the south and west of the County risks compromising the GI assets of these areas. Development should be planned in a sustainable fashion and should promote the implementation of GI standard and interventions (see Chapter 4 Green Infrastructure and Chapter 13 Implementation and Monitoring: in order to ensure that further development contributes, rather than detracts, from South Dublin's GI network).