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OPW Oifig na
nOibreacha Poiblí
Office of Public Works

RIVER PODDLE FLOOD ALLEVIATION SCHEME

PLANNING REPORT



February 2020

 **NICHOLAS
O'DWYER**

**SOUTH DUBLIN COUNTY COUNCIL & DUBLIN CITY COUNCIL IN
ASSOCIATION with THE OFFICE OF PUBLIC WORKS****RIVER PODDLE FLOOD ALLEVIATION SCHEME****Planning Report**

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1 INTRODUCTION

This Planning Report has been prepared by Laurie McGee, BA, MA, MIPI, MRTPI, Senior Environmental Consultant and Chartered Town Planner of project consultants Nicholas O'Dwyer Ltd. (NOD) on behalf of joint applicants South Dublin County Council (SDCC) and Dublin City Council (DCC). It outlines the supporting case for an application for planning permission for the **River Poddle Flood Alleviation Scheme**.

The Scheme, which has been developed in collaboration with the Office of Public Works (OPW), proposes flood protection, flood storage and flood prevention measures at locations along a 6km stretch of the Poddle River from Tymon North, Tallaght to St. Teresa's Gardens and Donore Avenue, and at the National Stadium, South Circular Road, Merchant's Quay, Dublin. It combines main flood storage at Tymon Park and additional flood storage at Ravensdale Park, with linear defences along the River where they are required to provide flood protection, new flap valves and culvert screens, and sealing manholes to prevent surcharging during a flood event.

It has been determined that the proposed Flood Alleviation Scheme requires the preparation of an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS). This planning application for local authority development is, therefore, made to An Bord Pleanála in accordance with Sections 175 and 177AE of the Planning and Development Act 2000, as amended.

2 LANDOWNER CONSENT

Consent has been provided by the landowner to use the private lane off Kimmage Road West to get access to the rear of properties on Fortfield Road in order to build flood walls, and also to provide a one-way system for construction traffic to enter from the gate at Kimmage Road West, and exit on to Fortfield Road adjacent to the An Post Delivery Office.

Some of the works in the proposed River Poddle Flood Alleviation Scheme will be on, or require access, to private property. It is the intention of the Councils to undertake the works in private property by way of agreement with each affected property owner. In the event that agreement with a property owner is not possible, the relevant Councils may seek to use their powers of entry onto lands under Section 4 of the Local Authorities Works Act, 1949. It is noted that the consent of landowners and the use of powers of entry onto lands required for the Scheme is a separate process and, therefore, not required for an application for approval of the proposed development under Sections 175 and 177AE of the Planning and Development Act, 2000, as amended.

3 CONSULTATION AND ENGAGEMENT

There is no facility for pre-application consultation with An Bord Pleanála for local authority planning applications under Sections 175 and 177AE of the Planning and Development Act 2000, as amended. The project consultants, NOD, have communicated with the Board's Strategic Infrastructure Team on application procedures, the form of statutory notices, and have notified them in advance of the intended submission.

The proposed Scheme has been developed after extensive engagement with key statutory agencies at EIA scoping stage, with officials from SDCC and DCC during the design process, and through regular reports by the Project Resident Engineer to the relevant Area Committees of each Council and to SDCC full Council in May 2019.

SDCC maintains a project website www.poddlefas.ie which provides information on the Scheme. The website will be the main means to communicate with the public on the progress of the planning application and, in the event of the Scheme approval, through construction of the Scheme.

The Councils have engaged with representative residents' associations and individual property owners affected by past significant flooding events throughout the project. The Councils also engaged with the receiving communities and local residents through public exhibitions that were held in December 2018 and January 2020 in SDCC and DCC Council areas, and through meetings with local residents, residents' associations, and community groups. The Resident Engineer and consultants NOD attended public information evenings that were held by Councillors in DCC area in November and December 2019.

In mid-December 2019, SDCC sent letters to properties that will be directly affected by the proposed Scheme, as well as to those properties in the vicinity of the works which may experience potential disruption and disturbance, informing them of the project and providing details on the proposals.

Once the planning application is lodged with An Bord Pleanála the application documentation and EIAR will be available for viewing in hard copy and digital display in both Council offices during the statutory consultation period. It will also be available for viewing and download on the project website www.poddlefas.ie.

A detailed report of all consultation and engagement undertaken for the Scheme is contained in **EIAR Chapter 3 Scoping and Consultations**.

4 THE PROPOSED SCHEME

4.1 Location

The River Poddle is some 11.6km in length with a catchment area of approximately 16,400ha. The River Poddle rises in the Cookstown area, north of Tallaght village, flowing east through Tymon North and into Tymon Park where it passes under the M50 motorway. It flows northeast towards Greenhills/ Templeogue, continues through Kimmage and the edge of Crumlin and passes through Mount Jerome into Harold's Cross. The River then crosses under the Grand Canal and flows under the city centre in a culverted section, discharging to the River Liffey. The confluence of the Poddle and the Liffey rivers is visible at low tide at a grated opening in the Liffey walls at Wellington Quay. As shown in **Figure 1**, the Poddle is a highly urbanised catchment, particularly in the middle and lower reaches where it is culverted and channelled in sections.

4.2 Description of Works

The intervention area of the proposed Flood Alleviation Scheme extends along the Poddle River from Tymon Park (west of the M50) in Tallaght to Mount Argus Close in Harold's Cross; with further works to seal manholes in the vicinity of Poddle Park and Ravensdale

Park, Kimmage, and in St. Teresa's Gardens and Donore Avenue, and at the National Stadium in Merchant's Quay, Dublin.

There are three areas where more substantial works are proposed in green spaces and parks, including:

- In Tymon Park (east of the M50) where the main flood storage embankment is to be constructed and an Integrated Constructed Wetland (ICW) is also planned;
- at Whitehall Park, east of Templeville Road in Templeogue where a channel re-alignment is proposed; and
- at Ravensdale Park in Kimmage where flood walls are to be constructed to provide flood protection and storage.

4.2.1 Ancillary Works and Associated development

Proposed ancillary works and associated development includes drainage channel clearance and removal of trees where required for the works; rehabilitating or installing culvert screens in locations as required; installing flap valves in all culverts draining to the River; biodiversity enhancements including installation of floating nesting platforms in Tymon Lake, Tymon Park, Tallaght; and landscape mitigation and restoration at Tymon Park, Tallaght, Whitehall Park, Terenure, and Ravensdale Park and St. Martin's Drive, Kimmage including public realm improvements, replacement footbridges, biodiversity enhancements, tree planting and landscaping.

4.2.2 Temporary Works

Temporary works include establishing a main construction compound in Tymon Park with access off Limekiln Road, which will be in operation for the entire duration of the works. Additional temporary works/ set down areas at Wainsfort Manor Crescent, St. Martin's Drive and Ravensdale Park, which will be in use for the duration of the works to be carried out in these locations. Other temporary works include temporary stockpiling of excavated earth in Tymon Park; temporary channel crossings at Tymon Park (west and east of the M50) in Tallaght, and channel diversions at Tymon Park, Tallaght and Whitehall Park, Templeogue to enable the works along the River channel to be carried out.

The proposed development is shown in **Drawing Nos. 08131 to 08253** of the planning drawings provided in **Part 2** of the Application Documentation.

4.2.3 Other works

Other works such as the ICW and the landscape mitigation incorporating landscape restoration, replacement tree planting, public realm improvements and biodiversity enhancements are not essential to the main purpose of flood alleviation. They are proposed to mitigate the landscape changes, habitat changes and tree loss that are an unavoidable impact of the Scheme. These bring added benefits to the community and environment including improved water quality, enhanced biodiversity, and improved public access and enjoyment of the parks and green spaces along the River.

Landscape Mitigation, Replacement Tree Planting and Biodiversity Enhancements

Specialist landscape mitigation and tree planting plans have been prepared for Tymon Park, Ravensdale Park and St. Martin's Drive, and recommendations are made for biodiversity enhancements at Whitehall Park/ Wainsfort Manor Green. The landscape mitigation and tree planting plans were developed by the project's Landscape Architects and Designers with input from the project Ecologist and Arboriculturist and in consultation with SDCC and DCC Parks and Landscape departments.

Replanting will be done in accordance with the landscape mitigation plans and in other areas, as shown on the planning drawings, in line with each Council's tree strategies and policies, and as agreed with each Council at detailed design stage. The consultant team have recommended areas for replacement tree planting and these are displayed in the planning drawings and in the landscape mitigation plans contained in **EIAR Volume 3**.

The landscape mitigation, replacement tree planting and biodiversity enhancements proposed in the Scheme are described below.

Tymon Park

Permanent landscape changes and tree and habitat loss are an inevitable feature of the Flood Alleviation Scheme, where the main flood storage and an ICW are proposed for Tymon Park. The objectives of the Landscape Mitigation Plan for Tymon Park and Lakes were to:

- mitigate the effects of landscape changes on the site through landscape design;
- provide pedestrian access and sitting out areas; and
- mitigate tree and habit loss by providing replacement tree planting and creating and restoring habitats.

The proposed landscape mitigation plan for Tymon Park seeks to re-establish pedestrian access by re-aligning paths to meet the embankments and re-profiling areas in a manner that limits impact on trees in the Park. The main flood storage embankment will have a pedestrian path running along the top, with the ground re-profiled to meet existing contours and existing paths at slopes which allow safe access for maintenance. A picnic/sitting out area is proposed on the Lake side of the embankment.

Areas for replacement tree planting and habitat restoration have been identified in the landscape mitigation plans. These include re-establishing footpaths in the Park and re-planting trees along them in the vicinity of the ICW; creating a new habitat zone with riparian planting on the Lake margin inside the embankment; and replanting trees and woodland areas in the Park.

The ICW is itself a biodiversity enhancement measure. The wetland emergent plant species, that will be planted to provide the water cleansing function, will create a habitat of their own and, through time, will fit well within the Park landscape and complement the species-rich reedbeds and tall-herb swamps around Tymon Lake.

Where flood embankments are constructed on species-rich dry meadows in Tymon Park, the existing topsoil will be stripped and reserved, and distributed in site restoration on the

surface of the embankment and other working areas allowing species-rich meadow to re-establish. It is estimated by the Project Ecologist that it could take 1 to 2 years for these meadows to re-establish, up to 5 years for the lakeside marginal vegetation to re-establish, and 10 to 20 years for the trees and woodlands to be fully established in the Park.

Additional biodiversity enhancements recommended by the project Ecologist for Tymon Park include the installation of nesting platforms in Tymon Lake and provision of artificial nesting banks for sand martins and kingfisher in and around Tymon Lake. Where embankments will be constructed on species-rich dry meadows in Tymon Park, the existing topsoil will be stripped and re-laid on the surface of the embankment, and in other areas of the Park, allowing species-rich meadow to re-establish in these areas.

The final landscaping and biodiversity enhancement proposals for Tymon Park are to be agreed with SDCC at detailed design stage.

Ravensdale Park

The main objectives of the landscape mitigation plan for Ravensdale Park were to make a feature from the proposed central flood wall, to minimise tree loss and provide replacement tree planting, and to ensure access and visibility through the Park.

The new flood walls at Ravensdale Park will have varying heights from 1.1m to 1.35m along Ravensdale Drive, with the central flood wall 1.35m high tapering to 0.7m. The landscape mitigation plan makes a feature of the new flood wall through the centre of the Park by integrating seating areas as the wall tapers in height and enhancing the entrances to the Park. The plan includes a reconstructed path in ground concrete finish through the centre of the Park. Various options were suggested for the area of the Park that will be enclosed within the flood walls such as a skatepark, playground or kickabout area. The final landscaping proposals for Ravensdale Park are to be agreed with DCC.

St. Martin's Drive

The main objective of the landscaping and tree planting plan for St. Martin's Drive was to replace the trees that will be lost as a result of the construction of a 1.1m high flood wall along the River at this location. A tree planting and landscaping plan has been prepared for this works area.

Whitehall Park/Wainsfort Manor Green

Whitehall Park is a green space along the River off Templeville Road in Kimmage, which is backed onto by the gardens of dwellings separated by high walls and sheet piling in some cases. There is currently no through access to the adjacent green space at Wainsfort Manor Crescent. There will be no access by persons or machines from the green spaces at Whitehall Park to Wainsfort Manor Crescent during construction or in the final proposals.

The proposed Scheme will entail channel re-alignment at Whitehall Park, and re-profiling the newly created banks for ease of access and maintenance, along with flood walls around the Lakelands overflow on both banks of the River. It will also involve construction of flood walls along the left bank of the River opposite the green space at Wainsfort Manor Crescent, with felling of trees required. A new gate is proposed at the end of Whitehall

Park to provide SDCC access for maintenance. The existing channel debris screen will be replaced within the re-aligned channel.

Replacement tree planting in line with the Council's Tree Strategy will be provided either in the green space at Wainsfort Manor Crescent or at Tymon Park in locations to be agreed with SDCC. The final re-instatement plan for the green space at Whitehall Park is to create a wildflower meadow by re-laying the topsoil that was stripped from the works areas, and by seeding the area with pollinator plants that are beneficial to insects. This will require some maintenance by occasional mowing as is carried out here currently.

4.3 Design of the Proposed Scheme

4.3.1 Contributing surveys and studies

The proposed Scheme is designed to alleviate fluvial flooding (*i.e.* holding back water from going over the banks) in a 1 in 100 year flood (1% Annual Exceedance Probability or AEP) with 60% blockage in 12 major culverts and 40% in the remaining culverts. Surveys and studies that were carried out for the project, which contributed to the engineering and design of the Flood Alleviation Scheme included:

- A structural and condition survey of over 50 structures (*i.e.* culverts, weirs and bridges) along the River from Greenhills Road, Tallaght, to Gandon Close, Harold's Cross. The findings from the survey have informed a robust maintenance programme that is underway to repair the structures including reinforcement, repointing, replacing stones, and clearing vegetation.
- Post-flood surveys undertaken after the 2011 flood event recorded flood extents and levels. This information, along with photographs and evidence, were used to calibrate the hydraulic model that is the basis of design of the proposed Scheme.
- The hydraulic modelling was verified with data from a topographic survey along the channel, a closed-circuit television (CCTV) survey of Lakelands culvert and Priory Road, and a flow survey conducted over 6 weeks along the route of the channel. Based on this information, maximum flood levels were checked along the whole length of the River to identify areas where flood defences were required and to determine the heights of the defences.
- An engineering survey was then carried out to check the structure and condition of existing walls to determine the works required (*i.e.* to construct new walls or reinforce or replace existing walls) to a standard that will provide flood protection.

4.3.2 Climate Change Considerations

The effects of climate change were taken into consideration in the design of the proposed Flood Alleviation Scheme. Various climate change scenarios were run in the hydraulic modelling to test the resilience of the Scheme. The purpose of this testing was to check flood levels and defence freeboard. For example, a threshold check was carried by running the modelling with no blockages in all culverts and a 20% increase in peak rainfall. This test resulted in a marginal increase in flood levels in Tymon Lake with a net decrease downstream.

In the final design a freeboard of 500mm for embankments and 300mm for walls is added to the proposed flood defence heights to allow for failure of the defences or overtopping in an event greater than the 1% AEP, and to allow for climate change in accordance with the OPW policy. All structures in the Scheme are designed with foundations such that they will be capable of being raised in the future to account for climate change.

4.3.3 Alternatives Considered

The project consultants NOD considered alternative project designs at the three main areas of works at Tymon Park, Whitehall Park / Wainsfort Manor Crescent, Ravensdale Park, and at St. Martin's Drive. The final design for each location was chosen based on factors including:

- Maximising flood storage and flood protection;
- Reducing the need to remove trees or disturb important habitat features;
- Minimising insofar as possible changes to the landscape affecting visual amenity;
- Public uses of the green spaces; and
- Keeping in mind the need to provide safe means of access to structures and for ease of maintenance.

4.3.4 Materials and Finishes

The embankments in Tymon North and Tymon Park will be finished in grass. No landscaping or tree planting is permitted on the embankments so that their function for flood storage and protection is maintained. The proposed flow control structure at Tymon Lake in Tymon Park will be pre-cast concrete. The materials for the footbridge, with safety handrail atop the flow control structure, will be durable materials such as metal. The footpaths along the embankment and in Tymon Park will be bituminous.

All flood protection walls in the Scheme are random rubble stone with rounded capping, except at Ravensdale Park where the flood protection wall along the northern boundary of the Park and through the centre of the Park is proposed to be partly in polished concrete incorporating seating, with paths of quality, durable material. The materials for the replacement footbridge at Ravensdale Park are stonework pillars and abutments with metal swing gates.

The materials and finishes will be agreed with the Councils at detail design stage.

4.4 Operation of the Proposed Scheme

In flood conditions, the flow control structure in Tymon Park will restrict flow from Tymon Park lakes to a maximum of 748l/s which is the equivalent of the 2-year return period flow. In storm events of greater magnitude than a 2-year return period, the excess volume of floodwater will fill the storage area in Tymon Park lakes and be contained by the flood storage embankment. A storage volume of 66,000m³ will be provided, which is sufficient to accommodate the attenuated volume in excess of the 100-year return period event.

Downstream of Tymon Park, the River will be contained in channel by the proposed flood walls. In Ravensdale Park, once the capacity of the culvert at the downstream end of the Park has been exceeded, excess volume in the region of 800m³ will be stored within the Park and will begin re-entering the culvert once the flood levels recede.

An important element of the operation of the Scheme is its ongoing maintenance. The section following describes the existing maintenance regimen in operation by each Council, and the proposed measures which will be instituted as part of the Flood Alleviation Scheme.

4.5 Maintenance of the Proposed Scheme

Following the flood of October 2011, level alarms and CCTV were installed at the Lakelands overflow weir, Wainsfort Manor culvert, and Gandon Close. These alarms notify SDCC/DCC Drainage Departments when water levels rise to a certain point which might indicate a blockage or obstruction at the culvert inlet screen. Culvert screens are checked regularly and cleared by each Council, and additional screens have been added.

Tree and garden cuttings, fly-tipping and dumping of discarded furniture and white goods into the river channel is unfortunately a common occurrence in the River Poddle.

This has been well highlighted from discussions with local residents and also from clean ups that are periodically undertaken by local community groups. In addition to the flood risk, this poses an ecological risk to the riverine habitats from pollution and is a health and safety risk for those tasked with their removal.

When the project is complete, a robust programme of maintenance will be instituted by each Council to ensure that culvert screens and channels are kept clear of debris, and to maintain walls in a floodproof state so that the Flood Alleviation Scheme can function properly during a storm event. In addition to routine planned maintenance, greater public awareness is required to educate and inform local communities of the risks and consequences of illegal dumping and to provide contact details to alert the local authorities when this has occurred. The duty of the local authority in this regard is to respond adequately in a timely fashion.

A register of the flood defence assets in SDCC and DCC areas will be compiled as part of the Scheme to ensure that no subsequent developments remove or alter the flood defence asset without SDCC/DCC review. The flood asset register will be referenced by SDCC and DCC in the upcoming development plans to ensure that the defences constructed as part of the Scheme will not be removed or altered in future as part of any proposed development.

5 PLANNING HISTORY

The proposed working areas are in an urban/ suburban setting in the south-west of Dublin City. The catchment is fully urbanised and, given the demand for housing in Dublin, the main pressures are from intensification of urban development through infill or redevelopment of sites.

Live and recently approved planning applications in the vicinity of the River Poddle were reviewed on the online planning register of SDCC and DCC. The following applications were considered to be relevant to the proposed scheme:

- An application for 7 no. houses was submitted at the Terenure Badminton Club on Whitehall Rd. in 2018 (planning reference SD18A/0360) but was 'deemed withdrawn' by SDCC following the expiration of a request for further information.

- A Part VIII Application was made in 2016 for the construction of a new library beside Castletymon Road (planning reference SD168/0003) adjacent to the River Poddle. An Appropriate Assessment screening report was included in the documentation, and it was determined that the proposed development would not be likely to have a significant effect on any European site. Construction of this project commenced in January 2019 and is expected to be completed in January 2020.
- Permission was granted in 2016 for an extension to the Scoil Aonghusa Senior National School at Balrothery (SD16A/0257), although most construction would be more than 100 m from the river. This extension was completed in December 2017. There is a recent approval for a single storey temporary prefab classroom adjacent to the southeast boundary of the site and associated site works (SD19A/0289).
- A large residential development has been under construction for several years on the grounds of Mount Argus church in Kimmage Road Lower and may continue in 2020. The River Poddle runs through this site and has been modified as part of the development with two new road bridges and concrete channels.
- There is a current planning application for demolition of an office building and development of 12 no. units apartment building at a site located at Unit 1, KCR Estate in Ravensdale Park (3193/19).
- There is a site on the Vacant Sites Register of DCC in close proximity to the River Poddle located at the side of Riverpark House, in Poddle Park, Kimmage (VS-0751). Being on the Vacant Sites Register, this site is likely to be brought forward for residential development. Under the Urban Regeneration and Housing Act 2015, a levy is payable until such time as it is developed for housing. There are no sites in proximity to the River Poddle on the Vacant Site Register of SDCC.

All other planning applications in the surrounding area were for small-scale works such as extensions to residential properties and leisure and recreation developments.

6 POLICY CONTEXT

6.1 Introduction

This section provides an overview of the policy context at national, regional and local level that pertain to the proposed Flood Alleviation Scheme.

6.2 National Legislation, Policy and Guidance

6.2.1 European Communities (Assessment and Management of Flood Risks) Regulations 2010 and 2015

The EU Floods Directive (2007/60/EC) was transposed into Irish law through the European Communities (Assessment and Management of Flood Risks) Regulations (S.I. No. 122 of 2010 as amended by S.I. 495 of 2015). The Regulations appoint the OPW in Ireland as the Competent Authority under the Directive. The OPW has lead responsibility for devising and implementing measures to deal with flooding in Ireland. In the legislation, other

agencies such as local authorities, Waterways Ireland, ESB and Irish Water are assigned certain duties regarding flood risk within their areas of responsibility.

6.2.2 Arterial Drainage Act (1945) and Arterial Drainage (Amendment) Act 1995

The Arterial Drainage Act, 1945 (S.I. No. 3 of 1945) is the primary piece of legislation with which the OPW have been operating under for the last 70 years. The Act empowers the OPW to undertake catchment wide arterial drainage schemes to reduce flooding with a primary emphasis on the improvement of agricultural land. The Act was amended in 1995 by the Arterial Drainage (Amendment) Act, 1995 (S.I. No. 14 of 1995) which empowered the OPW to undertake localised flood relief schemes to protect and reduce flood risk in individual urban areas.

6.2.3 National Flood Policy (2004)

In line with internationally changing perspectives, the Government adopted a new policy in 2004 that shifted the emphasis in addressing flood risk towards:

- A catchment-based context for managing risk.
- Pro-active flood hazard and risk assessment and management, with a view to avoid or minimise future increases in risk that might arise from development in floodplains.
- Increased use of non-structural and flood impact mitigation measures.

The Catchment Flood Risk Assessment and Management (CFRAM) programme seeks to deliver the National Flood Policy, adopted in 2004, and the requirements of the EU Floods Directive.

6.2.4 National Adaptation Framework (January 2018)

Ireland's National Adaptation Framework (NAF), Planning for a Climate Resilient Ireland¹, was drawn up in accordance with the Climate Action and Low Carbon Development Act (S.I. No. 46 of 2015). Adaptations are measures undertaken to address current and future risks posed by climate change, the aim of which is to reduce the vulnerability of our environment, society and economy to climate change and increase resilience.

Regional climate model simulations were carried out for the Environmental Protection Agency (EPA) for the period 1981 – 2000 and future 2041 – 2060 to predict the local

¹ National Adaptation Framework, Planning for a Climate Resilient Ireland, Department of Communications, Climate Action and the Environment, January 2018 <https://bit.ly/2PjauIs>, [accessed 23/04/19].

effects of climate change in Ireland by 2050.² Projections from the model simulations that relate to the River Poddle Flood Alleviation Scheme include:

- significant projected decreases in mean annual, spring and summer precipitation amounts, and an increase in heavy rainfall events in winter and autumn;
- a decrease in frequency but an increase in intensity of storms; and
- intensification of the hydrologic cycle leading to increased incidence of high and low flow periods.

The NAF sets the context to ensure mitigation and adaptation are mainstreamed into local, regional and national planning and policy making, and will be reviewed every five years. Under the NAF, sectors and lead Government departments, as well as local authorities, are required to prepare statutory sectoral adaptation plans.

Guidelines for preparation of these adaptation plans have been published by the Department of Communications, Climate Action & Environment.³ Under the NAF, Water Resource and Flood Risk Management are within the remit of OPW.

6.2.5 Office of Public Works Climate Change Sectoral Adaptation Plan, Flood Risk Management (2015 – 2019)

This document is the current adaptation plan by the OPW and predates the NAF.⁴ It is high-level and sets out the approach and framework for climate change adaptation by the OPW based on a current understanding of the potential consequences of climate change for flooding and flood risk in Ireland, and the adaptation actions to be implemented. The flood risk management plans of the national Catchment Flood Risk Assessment and Management (CFRAM), which followed this plan, provides a detailed assessment of adaptation for flood risk management measures in particular locations.

6.2.6 Local Authority Adaptation Strategy Development Guidelines (December 2018)

These statutory guidelines describe the planning cycle to be followed by local authorities in developing adaptation strategies, and the resources available from the Department to prepare them.⁵ Following on from these Guidelines, the four Dublin local authorities, DCC, Dún Laoghaire-Rathdown County Council, Fingal County Council and SDCC have each

² "Ensemble of regional climate model projections for Ireland", Paul Nolan, prepared for the Environmental Protection Agency, Research Report No. 159, 2015 <https://bit.ly/2nm8F2d>, [accessed 23/04/19].

³ Sectoral Planning Guidelines for Climate Change Adaptation, Department of Communications, Climate Action & Environment, May 2018, <https://bit.ly/2Yk54Bq>, [accessed 26/07/19].

⁴ Draft for Consultation, Climate Change Sectoral Adaptation Plan, Flood Risk Management (2015 - 2019), Office of Public Works, May 2015, <https://bit.ly/2SDucSo>, [accessed 26/07/19].

⁵ Local Authority Adaptation Strategy Guidelines, Department of Communications, Climate Action & Environment, December 2018, <https://bit.ly/2LJ10sy>, [accessed 26/07/19].

prepared Climate Change Action Plans for the period 2019 – 2024.⁶ Flood resilience and nature-based solutions is one of the action areas in the plans.

6.2.7 National Planning Framework

The National Planning Framework (NPF), published in February 2018, is the Government's high-level strategic plan for shaping the future growth and development of Ireland to the year 2040. The NPF is a region-focused strategy for managing growth, using state lands for certain strategic purposes and supporting this with strengthened, more environmentally focused planning at local level. The NPF is given effect with a 10-year capital investment programme in the National Development Plan 2018 – 2027 (NDP).

6.2.8 National Flood Risk Appraisal

In line with the planning system and Flood Risk Management Guidelines, a high-level flood risk appraisal was carried out for the NPF⁷. It applied the Guidelines to the NPF in accordance with the sequential approach. It identified high level risk and spatial planning issues for the country and set out a policy framework for local authority development plans to address the flood risk issues identified at regional level.

The Flood Risk Appraisal states that Dublin City is constrained by the fact that it is already fully developed, and the principle of avoidance is difficult adjacent to rivers such as the Poddle where there is not always flood free land available for development. The targets for population growth and economic development in the NPF will require the expansion of existing urban areas. Application of the sequential approach set out in the Guidelines will ensure sustainable development by avoiding areas of high flood risk or in exceptional cases fully justifying why development must proceed and putting adequate mitigation in place.

6.3 Regional Planning Policy

6.3.1 Eastern & Midland Regional Spatial and Economic Strategy

The Eastern & Midland Regional Authority (EMRA) recently adopted the Regional Spatial Economic Strategy (RSES). This encompasses Dublin and surrounding counties and replaces the Greater Dublin Area Regional Planning Guidelines.

The principal statutory purpose of the RSES is to support the implementation of the NPF and NDP, while including the economic policies and objectives of the Government by providing a long-term strategic planning and economic framework for development of the Regions.

The EMRA RSES sets out 16 regional strategic outcomes in line with the National Strategic Outcomes of the NPF. The River Poddle Flood Alleviation Scheme is aligned with the regional strategic outcomes on Climate Action, namely sustainable management of water,

⁶ Dublin Climate Change Action Plans, May 2019, <https://bit.ly/2kjQvjC>, [accessed 26/07/19].

⁷ Strategic Flood Risk Assessment Report, Ireland 2040: The National Planning Framework, RPS Group, September 2017 <https://bit.ly/2Gs24Mn>, [accessed 24/03/19].

waste and other environmental resources, building climate resistance, and enhanced green infrastructure.

The Regional Policy Objectives (RPO) related to Flooding are:

- **RPO 7.12:** Future statutory land use plans shall include Strategic Flood Risk Assessment (SFRA) and seek to avoid inappropriate land use zonings and development in areas at risk of flooding and to integrate sustainable water management solutions (such as SUDS, nonporous surfacing and green roofs) to create safe places in accordance with the Planning System and Flood Risk Assessment Guidelines for Local Authorities.
- **RPO 7.13:** EMRA will work with Local Authorities, the OPW and other relevant Departments and agencies to implement the recommendations of the CFRAM programme to ensure that flood risk management policies and infrastructure are progressively implemented.
- **RPO 7.14:** Local Authorities shall take account of and incorporate into the development of local planning policy and decision making the recommendations of the Flood Risk Management Plans (FRMPs), including planned investment measures for managing and reducing flood risk.
- **RPO 7.15:** Local Authorities shall take opportunities to enhance biodiversity and amenities ensuring the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned.

6.3.2 Green Infrastructure

The River Poddle is listed among the Strategic Natural, Cultural and Green Infrastructure Assets in the Region, in Table 7.1 of the RSES. Green Infrastructure is a term that is used in the RSES as a "*strategically planned network of high quality natural and semi-natural areas with other environmental features, which is designed and managed to deliver a wide range of ecosystem services and protect biodiversity in both rural and urban settings*". The ecosystem services that can be provided by green infrastructure include recreation, pollination, coastal protection, microclimate regulation, air quality, noise reduction, carbon sequestration, flood protection and water quality.

6.3.3 Regional Flood Risk Appraisal

The suite of documents in the EMRA RSES included a Regional Flood Risk Appraisal as required by the Flood Risk Management Guidelines.⁸ The River Poddle Flood Alleviation Scheme is mentioned in the Regional Flood Risk Appraisal as a project which will continue to be progressed.

⁸ Eastern & Midland Regional Assembly, Regional Flood Risk Appraisal, RPS Group, 2019, <https://bit.ly/34r9IH4>, [accessed 27/11/19].

6.4 Local Planning Policy

6.4.1 South Dublin County Development Plan

The Core Strategy of the South Dublin County Development Plan 2016 – 2022 (CDP) has two key policies that are relevant to the proposed Flood Alleviation Scheme. These relate to flood risk management and climate change.

Core Strategy

- **Policy 3: Flood Risk:** It is the policy of the Council to continue to incorporate Flood Risk Management into the spatial planning of the County, to meet the requirements of the EU Floods Directive and the EU Water Framework Directive.
- **Policy 8: National Climate Change Strategy:** It is the policy of the Council to support the implementation of the National Climate Change Strategy and the National Climate Change Adaptation Framework: Building Resilience to Climate Change (2012) through the County Development Plan and through the preparation of a Climate Change Adaptation Plan in conjunction with all relevant stakeholders.

Relevant objectives in relation to flood risk are contained in objectives of the **Infrastructure & Environmental Quality (IE) Policy 3 Flood Risk** and include:

- **IE3 Objective 1:** To support and co-operate with the OPW in delivering the CFRAM Programme and ensuring the recommendations of the CFRAM study for the Eastern District are considered in preparing plans and assessing development proposals.
- **IE3 Objective 2:** To support the implementation of the EU Flood Risk Directive (2007/60/EC) and the Flood Risk Regulations (S.I. No 122 of 2010).
- **IE3 Objective 3:** To manage flood risk in the County in accordance with the requirements of the Flood Risk Management Guidelines for Planning Authorities (2009) and Circular PL02/2014 (August 2014), when preparing plans and programmes and assessing development proposals.
- **IE3 Objective 4:** To support and facilitate the delivery of flood alleviation schemes in South Dublin County, including the Poddle, Ballycullen and Whitechurch Flood Alleviation Schemes.

There are policies and objectives throughout the CDP which aim to ameliorate the effects of climate change and introduce resilience to the effects of climate change in support of the implementation of the National Climate Change Strategy 2007-2012, and the National Climate Change Adaptation Framework: Building Resilience to Climate Change.

Green Infrastructure

The CDP recognises the role strategic green infrastructure plays in meeting the obligations under EU Directives and national legislation such as the Water Framework Directive, Strategic Environmental Assessment (SEA), Floods Directive and Birds and Habitats Directives. This is described in **Chapter 8** of the CDP.

The CDP **Green Infrastructure (G) Overarching Policy 1** states *"It is the policy of the Council to protect, enhance and further develop a multifunctional Green Infrastructure network by building an interconnected network of parks, open spaces, hedgerows, grasslands, protected areas, and rivers and streams that provide a shared space for amenity and recreation, biodiversity protection, flood management and adaptation to climate change."*

The proposed Scheme fulfils an objective of **Green Infrastructure (G) Policy 2 Green Infrastructure Network, G2 Objective 2** *"To protect and enhance the biodiversity value and ecological function of the Green Infrastructure Network"* by utilising the existing lake as flood storage and creating an Integrated Constructed Wetland.

G2 Objective 9 is another objective of this Policy which is *"To preserve, protect and augment trees, groups of trees, woodlands and hedgerows within the County by increasing tree canopy coverage using locally native species and by incorporating them within design proposals and supporting their integration into the Green Infrastructure Network."*

The proposed Scheme must also adhere to the objectives of the **Green Infrastructure (G) Policy 3 Watercourses Network** including:

- **G3 Objective 2** which is to maintain a biodiversity protection zone a minimum of 10m from the top of the bank of all rivers in the County.
- **G3 Objective 3** which is to *ensure the protection, improvement or restoration of riverine floodplains and to promote strategic measures to accommodate flooding at appropriate locations, to protect ground and surface water quality and build resilience to climate change*.
- **G3 Objective 5** which is to provide protection measures to watercourses and their banks, including preventing pollution of the watercourse, protecting the river bank from erosion, and the retention and / or provision of wildlife corridors.

Community Infrastructure

Tymon Park, where the main flood storage is to be provided in the Scheme, is classified as a Regional Park in the open space hierarchy of the Council. Regional parks are a key element of the County's green infrastructure through urban areas, containing important features such as watercourses, Sustainable Urban Drainage Systems (SuDS) features such as ponds, marshlands and meadows, woodland areas and hedgerows. The CDP recognises that there are opportunities to strengthen biodiversity corridors from these parks into the adjacent urban areas.

Strategic Flood Risk Assessment

The Strategic Flood Risk Assessment of the South Dublin County Development Plan 2016-2022, prepared in accordance with the Flood Risk Management Guidelines, refers to areas of existing highly vulnerable development in the Poddle catchment at Kimmage and Templeogue as identified in the Eastern CFRAM, and points to an existing housing area at Whitehall Road where development should not be permitted until the planned flood alleviation works are completed.

6.4.2 Dublin City Development Plan

Core Strategy

Climate change adaptation and mitigation is a main pillar in the core strategy of the Dublin City Development Plan 2016 – 2022 (CDP). **Chapter 3 Addressing Climate Change** covers climate change adaptation, of which flooding risk assessment and management is a key part, and mitigation, which refers to actions to reduce emissions of greenhouse gases that contribute to climate change. Under climate change and flood risk, **Policy CC5** is *"To address flood risk at strategic level through the process of strategic flood risk assessment, and through improvements to the City's flood defences (see Appendix 11)."*

Infrastructure

Chapter 9 Sustainable Environmental Infrastructure has planning policies relevant to the proposed project which are paraphrased below.

- **SI9:** To assist the OPW in developing catchment-based Flood Risk Management Plans for rivers, coastlines and estuaries in the Dublin city area and have regard to their provisions/ recommendations.
- **SI10:** To have regard to the Guidelines for Planning Authorities on the Planning System and Flood Risk Management, and Technical Appendices, November 2009, when assessing planning applications and in the preparation of plans both statutory and non-statutory.
- **SI11:** To put in place adequate measures to protect the integrity of the existing flood defence infrastructure in Dublin City Council's ownership and identified in the SFRA. In addition, to ensure that the new developments do not have the effect of reducing the effectiveness or integrity of any existing or new flood defence infrastructure and that flood defence infrastructure has regard also to nature conservation, open space and amenity issues.
- **SI12:** To implement and comply fully with the recommendations of the SFRA prepared as part of the Dublin City Development Plan.
- **SI17:** To require an environmental assessment of all proposed flood protection or flood alleviation works.

Relevant objectives include:

- **SIO11:** To work with neighbouring local authorities when developing cross-boundary flood management work programmes and when considering cross-boundary development.
- **SIO12:** To ensure each flood risk management activity is examined to determine actions required to embed and provide for effective climate change adaptation as set out in the Dublin City Council climate change adaptation policy and in the OPW Climate Change Sectoral Adaptation Plan Flood Risk Management applicable at the time.

Green Infrastructure

In **Chapter 10 Green Infrastructure, Open Space & Recreation** of the CDP the following policies are relevant to the Scheme:

- **GI4:** To co-ordinate open space, biodiversity and flood management requirements, in progressing a green infrastructure network.
- **GI10:** To continue to manage and protect and/or enhance public open spaces to meet the social, recreational, conservation and ecological needs of the city and to consider the development of appropriate complementary facilities which do not detract from the amenities of spaces.

Strategic Flood Risk Assessment

As required by the Flood Risk Management Guidelines, a Strategic Flood Risk Assessment (SFRA) was prepared for the Dublin City Development Plan 2016 – 2022 and is contained in Volume 7 of the Plan. The SFRA assessed four sites along the Poddle River in Dublin and Harold's Cross, applying the Justification Test for development management and development planning. The SFRA states that the proposed flood alleviation works along the River Poddle provide the extra defences required in Mount Argus, St. Martin's Drive, Poddle Park and Ravensdale Park as well as storage in SDCC to provide estimated flood protection to the 100-year flood level.

6.4.3 Local Area Plans

There are no existing or draft local area plans in either local authority area affecting the areas of the proposed development.

6.4.4 Climate Change Action Plans (2019)

Both SDCC's and DCC's Climate Change Action Plans list the Poddle Flood Alleviation Scheme as a flood defence action that is currently ongoing. They also list multiple actions that are included in characteristics of the River Poddle Flood Alleviation Scheme including cross boundary flood management working in conjunction with neighbouring local authorities and the OPW; tree planting for water attenuation; and integrated constructed wetlands for water attenuation and purification. For nature-based solutions, the Climate Change Action Plans see the role of trees as green infrastructure, particularly in public open spaces and parks, to provide mitigation and adaptation to climate change.

7 KEY ISSUES

7.1 Introduction

This Section of the Planning Report sets out the key issues of the proposed Flood Alleviation Scheme that are relevant to a planning assessment of the proposals. This section begins with a discussion on the need for and purpose of the proposed Scheme. It sets out the main impacts arising from the Scheme with respect to:

- Population and Human Health
- Biodiversity

- Landscape and Visual
- Traffic and Transport

The proposed mitigation measures are also discussed for each aspect with reference to the EIAR submitted with the planning application.

7.2 Population and Human Health

An assessment of the likely effects of the proposed Scheme on population and human health in the study area is presented in **Chapter 6 Population & Human Health** of the EIAR.

The assessment addressed impacts of the Scheme during construction and operational phases on the local population, community facilities, accessibility and community severance, amenity, tourism and recreation and transport. The health of the population in local communities will potentially be affected by the proposed Scheme during the construction stage through disruption to traffic, noise and vibration, and dust. Impacts of the proposed Scheme on human health are addressed elsewhere in the EIAR in **Chapter 12 Noise & Vibration** and **Chapter 13 Air Quality**. The impacts of changes to the local landscape and visual amenity of the receiving human community are addressed in **Chapter 10 Landscape & Visual** of the EIAR.

The main impacts of the Scheme on the local population will be during the construction phase where there will inevitably be disruption to users of the parks and green spaces where works are proposed. All effort has been made to maintain access to the parks and green spaces and minimise community severance when planning the Scheme.

In some cases, as with Ravensdale Park, construction of the Scheme will require full closure of the Park, for the duration of the works, in the interests of health and safety. All entrances to the Park from Ravensdale Drive, Ravensdale Park, Kimmage Road, and via the footbridge at the green space from Kimmage Road West will be closed.

In Tymon Park the closure of footpaths is necessary in the interests of health and safety in the areas where the temporary compound, the embankments and the ICW are to be constructed. Access through the eastern and southern part of the Park will be maintained throughout to ensure that there is no severance for the local community to access the Park for leisure and recreation or travelling to and from school.

SDCC and DCC have engaged with local residents and Tymon Park user groups who will be affected by the Scheme, by disruption and disturbance, and have notified them by letter of the proposed works. Advance notice will be given to the receiving communities through regular updates on the project website www.poddlefas.ie and through the use of signage at entry points to parks and green spaces as the construction progresses.

The landscape changes and visual effects brought about by the Scheme are addressed in **Section 7.4** of this Report. The landscape changes will be significant during the construction phase of the Scheme with the loss of trees, woodlands and bankside vegetation in the main works areas. The greatest landscape change will be in Tymon Park, especially with the main flood storage embankment and ICW. The landscape mitigation and tree planting plans propose the replanting of trees and woodland, reinstatement of habitats, and enhancement of the public realm in the main works areas. Through time,

these changes will become part of the local landscape, and barely perceived by the local community.

The introduction of flood walls through the centre of Ravensdale Park is also a significant change which, once completed, could have a positive impact on the local community by providing amenity in seating areas encouraging people to make greater use of the Park.

The impacts on the population and human health as outline above will mainly arise in the construction stage. Any impacts experienced by the local population by community severance, traffic disruption, noise and vibration, and dust will be temporary in duration over 24 months in total.

Overall the positive benefits of the flood alleviation scheme to provide protection in the case of a 1 in 100 year storm event to 921 properties in the Poddle catchment should outweigh any negative impacts, especially during the construction phase.

7.3 Biodiversity

An assessment of the likely effects of the proposed Scheme on biodiversity is contained in **Chapter 7 Biodiversity** of the EIAR. The assessment addressed impacts of the Scheme during construction and operational phases on European sites, habitats, and flora and fauna including rare, invasive and protected species. This chapter recommends mitigation measures for protection of habitat and flora and fauna, and enhancement measures to offset the impacts of the Scheme that will bring added benefits to the receiving environment in the works areas.

The permanent impacts of the Scheme are considered to be unavoidable because the locations for the proposed works, due to the nature of the Scheme, are confined to the River corridor. It would not be possible to implement the Scheme without impacting habitats or felling trees.

7.3.1 Impacts on habitats

The proposed development will have permanent impacts on species-rich dry meadow, broadleaved woodland and treeline habitats, all of which are of Local value. There will also be temporary impacts on species-rich dry meadow, treeline, and recolonising bare ground along the River Poddle, which are also of Local value. In all cases, the extent of impacts will affect only a small proportion of habitats within the study area. All other habitats in the footprint of the proposed development are of Negligible value. There will be no loss of the County value habitats around Tymon Lake.

Once it is established and functioning, the ICW will deliver improved water quality and will enhance the ecology of the area, complementing the species-rich reedbeds and tall-herb swamps around Tymon Lake. Some additional patches of marginal wetland vegetation will also be planted around Tymon Lake.

The re-alignment of the river at Whitehall Park will result in the loss of an existing section of river habitat, and the construction of a new section of channel. There will not be a significant change in the flow rate or dynamics of the watercourse at this location. It will take up to 5 years for the vegetation to fully establish in the new channel, but after this lag period there will be a neutral impact on this habitat.

7.3.2 Impacts on rare and protected flora

No protected or red-listed plant species were encountered during field surveys carried out as part of the EIAR. However, three species that are relatively rare within Dublin city were recorded in the surveys, namely, flowering rush, broad-leaved helleborine and Galingale. The Scheme may have direct impacts on flowering rush in the vicinity of the planned ICW, and broad-leaved helleborine to the rear of Fortfield Road, but any affected plants would be translocated to suitable habitat prior to the commencement of works. There will be no impact on Gallingale, which is present around some of the ponds adjacent to Tymon Lake.

7.3.3 Invasive species

Invasive species at Tymon Park include Giant Rhubarb which was recorded in the west of Tymon Lake, and Nuttall's waterweed which was present in the river channel in the vicinity of the proposed ICW. These species are listed on the third schedule of the *European Communities (Birds and Natural Habitats) Regulations 2011*, under which it is an offence to intentionally cause them to spread. Construction of the proposed Scheme will not impact on Giant Rhubarb, but it is possible that Nuttall's waterweed will be disturbed during the works. Special control measures are proposed for Nuttall's waterweed during construction works, including the removal of plants in the footprint of works.

7.3.4 Protected species

Bat surveys were carried out in September 2018 and August 2019 along the River Poddle and in relation to proposed works areas in the Scheme. Bat activity was relatively low in most of the areas that were surveyed, and almost all records were of species that are common and widespread in Dublin city including soprano pipistrelle, common pipistrelle and Leisler's bats.

Overall, the River Poddle is considered to have relatively low value for bats due to fragmentation effects caused by artificial lighting and gaps in tree cover. The only location in which bats were recorded in significant numbers was at Tymon Lake, where soprano pipistrelles were abundant, with moderate numbers of common pipistrelles, and single records of Leisler's and Daubenton's bats. Small numbers of pipistrelles were recorded in Mount Argus Park, Ravensdale Park, Fortfield Road and Wainsfort Manor Crescent.

There will be no change to the habitats used by bats at Tymon Lake, so there will be no direct or indirect impacts at this location. The ICW is likely to increase the foraging resource for bats at this location and thus could have a Slight positive impact. Some trees will be removed at Ravensdale Park, Wainsfort Manor Crescent and St Martin's Drive, which may partially sever some commuting routes or feeding areas for bats. However, it has been shown that pipistrelle and Leisler's bats will readily cross gaps of several metres, so small-scale tree removal would have an Imperceptible effect on foraging or commuting bats.

No potential roost features were identified within any of the working areas. All the trees in the footprint of works were inspected by the ecologist, and none had any crevices or cavities that would be suitable for roosting bats. Therefore, there will be no direct impacts on bats or bat roosts, and no offence under the *European Communities (Birds and Natural Habitats) Regulations 2011* (as amended) and the *Wildlife Act 1976* (as amended).

7.3.5 Birds and terrestrial mammals

Protected terrestrial mammals such as hedgehogs, stoats, and pygmy shrew are likely to occur at low densities in the scrub and woodland alongside the River. Birds also feed along the river corridor, including riparian species (e.g. grey wagtail, dipper, grey heron, little egret) and a range of common garden birds. Mammals and birds are most vulnerable to impacts during the spring and summer months when nesting and rearing young. Impacts will be avoided by scheduling site clearance works outside the nesting/ breeding season, or by carrying out pre-clearance surveys.

It is highly unlikely that there will be any direct impacts on breeding waterfowl (notably mute swans, mallard, moorhens and coot) around the ponds in Tymon Lake. As a precautionary measure, floating nesting platforms will be provided for swans and other species that nest regularly in the lake. Fluctuating water levels in the main flood storage area at Tymon Lake should not impact over-wintering birds such as wigeon, teal and shoveller.

7.3.6 Mitigation and enhancement measures

Under the *Wildlife Act 1976* (as amended), it is an offence to kill or injure a protected bird or mammal or to disturb their breeding/ resting places. Most birds nest between March and August (inclusive) and the peak breeding period of most small mammals is similar. It is strongly recommended that any tree or shrub removal is carried out between September and February (inclusive). If this is not possible, the project Ecologist will survey relevant vegetation in advance in order to determine the presence of any of protected fauna. If any are encountered, the vegetation clearance will be delayed until they have moved away from the area.

Measures have been taken in the Scheme to mitigate impacts on habitats. Where embankments, access tracks, and the ICW will be constructed on species-rich dry meadows in Tymon Park, the existing topsoil will be stripped, reserved, and re-laid on the surface of the embankments and other excavated areas in Tymon Park and Whitehall Park, allowing the meadow plants to re-establish in these areas.

Rare flora will be protected during construction works, and some plants will be translocated out of the working area. A management plan will be developed to avoid the spread of Nuttall's waterweed during works.

The installation of floating nesting platforms in Tymon Lake for nesting waterfowl are part of the proposals for the Scheme. Biodiversity enhancement measures such as creating nesting sites to attract sand martins and kingfisher (species which are not present in the study area) to Tymon Park are optional, with suitable locations recommended by the project Ecologist. These measures are discussed in the **Chapter 7 Biodiversity** of the EIAR.

7.4 Landscape and Visual

In **Chapter 10 Landscape & Visual** of the EIAR, an assessment is presented of the landscape and visual impacts of the proposed Scheme, with an assessment of their significance, including recommended mitigation and avoidance measures. Photomontages

have been prepared to illustrate the visual effects of the Scheme from important vantage points for sensitive visual receptors such as local residents and park users.

7.4.1 Landscape effects

Tymon Park is considered important in the City's network of parks, open spaces and green infrastructure, and appears to be a valued resource with a sense of openness and naturalness, in contrast to the more confined and built up nature of the river corridor in the lower reaches of the River.

The majority of areas along the river corridor, with trees or vegetation, lends a certain character to the urban area; as naturalistic spaces in built up residential areas along the River such as at Mount Argus, Ravensdale Park, Wainsfort, and the green space between St Martin's Drive and Poddle Park.

The greatest landscape effects of the Scheme will be during the construction phase to create the main flood storage embankment and the ICW in Tymon Park. The proposed changes in this part of Tymon Park are considered of Medium magnitude. This change mainly occurs in the vicinity of the embankment. The use of the Park and Lake for flood storage purposes represents a multi-functional use of an open space by combining flood attenuation with recreation and amenity.

Certain areas such as Ravensdale Park, Whitehall Park/ Wainsfort Manor Crescent and St. Martin's Drive, will undergo landscape changes arising from the removal of landscape elements such as bankside vegetation and trees, and the addition of other elements such as flood defence embankments and walls, and realignment of the River. The magnitude of change in these locations is adjudged to be low.

The Scheme is considered to have a Temporary, Slight to Moderate adverse landscape effect during the construction stage. Effects are expected to be Not Significant to Slight, adverse in most areas and Moderate, adverse in Tymon Park. Over time, it is considered that the landscape effects are considered to remain Slight, and many of these effects will become neutral as vegetation including marginal vegetation around Tymon Lake and the proposed ICW establishes and softens the edges. Replacement trees will also mature.

7.4.2 Visual effects

Construction phase visual effects are expected to be most pronounced in the vicinity of Tymon Lake and the area to the north and east, where the construction compound and ICW are proposed. Machinery will be visible in this area to carry out the earthworks and the construction compound will be fenced and hoarding will be visible. The magnitude of change is considered High.

In other locations, the works will be of a smaller scale and will include earthworks, vegetation removal, and temporary works compounds/ set down areas. The magnitude of change during construction at Whitehall Park and Wainsfort and at Ravensdale Park and St. Martin's Drive is considered Medium to High. The magnitude of change at Fortfield Road and Mount Argus Close is considered Low during construction.

The visual effects are considered to be temporary, but Significantly adverse in the vicinity of Tymon Lake during the construction phase. Visual effects further along the River at

Whitehall Park and Wainsfort and at Ravensdale Park and St. Martin's Drive are temporary, Moderate, and adverse during the construction period. Visual effects at Fortfield Road and Mount Argus Close are Slightly adverse.

Additional works in the city north of the Grand Canal and in the vicinity of South Circular Road, where minor works are proposed, are considered to have a Negligible magnitude of change during construction and no visual effects following the construction phase.

7.4.3 Tree loss

Trees are widespread along the river corridor and are often growing in close proximity to existing retaining walls that require reinforcing or replacement. It is therefore impossible to avoid tree loss in the Scheme. However, the project has been designed with the aim of removing trees only where necessary. This is especially true in Ravensdale Park where alternative designs had to be developed to avoid what initially could have been the loss of 80% of the trees in this Park.

The greatest tree and woodland loss will be in Tymon Park where 23 no. specimen trees and 1,102m² of woodland will be impacted for the construction of the embankment and flow control structure, and approximately 25 no. specimen trees will be impacted to construct the ICW. In total 92 no. specimen trees and 1,075m² of woodland will be re-planted in Tymon Park, as specified in the landscape mitigation plans included as part of the Scheme.

In Ravensdale Park a total of 6 no. trees will be impacted by the works. The landscape mitigation plan provides for 1 no. new tree to be planted to the east of the new flood wall in order to maintain a tree row. The trees to the west of the new flood wall, which are to be removed for construction of the wall, will not be replaced at this location in order to provide open character and improve visibility through the Park.

At St. Martin's Drive approximately 20 no. trees and 3 no. tree groups will be impacted by the proposed flood protection wall at this location. Once the wall is completed, a total of 48 no. trees and 106 no. shrub plants will be planted along it to reduce the effects on visual amenity for the residences, and to re-establish habitats at this location.

Approximately 15 no. trees and 4 no. tree groups will be impacted by the construction of flood walls on the left bank of the River opposite Wainsfort Manor Crescent. There is no intention to re-plant trees within the River channel at this location. Replacement tree planting will be provided either in the green area at Wainsfort Manor Crescent or elsewhere in the Scheme within SDCC area. Possible areas include Tymon Park, where the Project Ecologist has recommended tree planting as part of the reinstatement of temporary spoil storage areas.

Tree protection zones will be marked out for all retained trees and hedgerows in the vicinity of working areas as shown in the tree protection drawings. Mitigation measures including careful excavation by hand or airspade will minimise loss of tree roots in areas such as Ravensdale Park and Mount Argus.

The landscape mitigation plans, which form part of the proposals, include replacement tree planting in Tymon Park, Ravensdale Park and St. Martin's Drive. Replacement planting may not occur in the affected locations due to space constraints but will be planted as

closely as possible in nearby green spaces to benefit the local communities. The locations for replacement tree and woodland planting will be agreed with SDCC and DCC at detailed design stage. All tree species, size and provenance to be agreed in advance with SDCC and DCC. Trees will be assessed by SDCC and DCC before accepting for planting. Consideration will be given to bulb planting/ herbaceous/ pollinator planting in locations to be agreed.

7.4.4 Mitigation and avoidance measures

Mitigation and avoidance measures were incorporated into the project design and proposals for landscape mitigation which include:

- Consideration of alternative construction methods in all locations where walls are proposed to minimise tree and vegetation loss.
- Replacement tree planting for tree loss in public green spaces and parks affected by the works.
- Ravensdale Park: Consideration of alternative design solutions in Ravensdale Park included retention of the current river alignment, and retention of path alignment from Kimmage Lower entrance to minimise loss of trees. Earlier design proposals would have necessitated extensive tree removal and the design was modified to greatly reduce tree removal with the result that very few trees will be removed. The river channel has not been realigned, the wall height was reduced through the design process, and high walls surrounding the park were modified, resulting in a lower wall height to the west of the park and a lower wall which doubles as a seating area, in the centre of the park adjacent to the path.
- St. Martin's Drive: A tree planting and landscaping plan is proposed to reduce the effects of tree removal required by the construction of the flood protection wall in this location.
- Tymon Park: The design process for this area included consideration of alternative pathways in Tymon Park to maintain connectivity as a result of the re-grading of certain areas. Tree removal in Tymon Park was minimised. Proposed grass embankments and path re-grading are tied into the contours, where possible. Embankments are to be seeded with species rich grassland where necessary. Trees and woodlands which are to be removed will be replaced, and additional tree planting areas are to be agreed at detailed design stage.
- An Integrated Constructed Wetland (ICW) is proposed as an enhancement measure for Tymon Park. This is located northeast of Tymon Lake and includes marginal planting and is expected to enhance the area and assist in improving water quality.

7.5 Traffic and Transport

An assessment likely significant impacts of the Scheme with respect to traffic and transport and the measures proposed to mitigate those impacts is contained in **Chapter 14 Traffic & Transport** of the EIAR.

The dominant traffic impact will be during the construction stage. The operational stage will have no discernible increase in traffic from Council staff who will carry out maintenance checks and works. Therefore, the assessment focuses on the traffic impacts associated with the construction phase of the proposed project.

The proposed Scheme is likely to cause disruption at all of the main works areas to traffic and pedestrians; by large vehicle movements at site access locations; by vehicles queueing at site accesses or nearby; by parking on roads by the workers; through additional traffic congestion in the wider area; and by possible lane closures at manhole works. All efforts have been made to ensure the proposed Scheme does not affect bus stops along public transport routes.

The extent of the disruption and significance of effects for each works location are discussed in EIAR Chapter 14 Traffic & Transport. Overall, the most significant impacts relate to traffic delays and disruption caused by queueing of HCVs and HGVs turning into the works sites at Tymon Park off Limekiln Road, at Templeville Road to access the working area at Whitehall Park; and due to lane closures at Poddle Park and Ravensdale Park and along Donore Avenue in the vicinity of St. Teresa's Gardens.

7.5.1 Mitigation measures

Among the mitigation measures proposed are project-specific Traffic Management Plans, which will be agreed between the Contractor and the Client's Representative. These plans may include measures such as minimising construction, maintenance and ancillary vehicle movements to site during peak times such as rush hour and school drop off/ collection times; ensuring daily construction programs will be planned to minimise the number of disruptions to surrounding roads by staggering HGV movements to avoid site queues; and providing traffic safety measures as agreed with the local roads authorities and public transport bodies.

8 PLANNING ASSESSMENT

This Section presents an assessment of the key issues identified for the proposed Scheme in respect of national, regional and local planning policies contained in the Development Plans of SDCC and DCC.

8.1 The need for the Scheme

The flooding issues in the River Poddle catchment are well documented in the Eastern Catchment Flood Risk and Management (CFRAM) Flood Risk Review (December 2011) with significant events recorded in 1986, 1993, 2000, 2008 and 2011. The River has overflowed its banks at several locations posing a risk to property and human life. Residents in the catchment have also reported the under capacity of the drainage network causing flooding on several occasions.

The need for the Scheme was most recently highlighted by the severe flooding along the Poddle on the evening of 24th October 2011 when up to 90mm of rain fell within a 6-hour period. This resulted in major flooding after heavy rainfall which exceeded the 1 in 50 year (2% AEP) total and the 1 in 100 year (1% AEP) measured at gauging locations throughout Dublin. During this event, the River Poddle flooded the entrance and basement of Our

Lady's Hospice at Harold's Cross and numerous premises in Harold's Cross were severely damaged by the flooding, especially Greenmount Avenue and Boyne Court Apartments. A woman drowned when she was trapped in her flooded basement flat on Parnell Road, Harold's Cross. Crumlin was also badly hit as the river burst its banks at Ravenscourt Park.

The CFRAM Poddle Options Report (July 2014) followed the 2011 flooding event. It looked at existing and potential flood risk in the catchment and the alternatives to address it. It included hydraulic modelling and cost benefit analysis of the flood risk management options as well as a Multi-Criteria Analysis and public consultation. It arrived at two viable options that were taken forward for further detailed analysis in the proposed Flood Alleviation Scheme.

The River Poddle is a highly urbanised catchment where the River has been modified to provide a source of power for mills or drinking water for Dublin and culverted for the expansion of the City. Most of the flows into the River Poddle originate from the surface water network, and, being a highly urbanised catchment, there are few opportunities for natural flood plain management other than in the parks and green spaces in the City. Even with a robust maintenance programme in place, the Flood Alleviation Scheme is still needed to protect property and lives as the natural flood plain for the river is so limited.

National, regional and local policy and guidance further confirm the need for the proposed Scheme as follows:

- The recognition of the Scheme in the CFRAM, which delivers the **National Flood Risk Policy**, through inclusion of the Poddle River in the Areas for Action and the further work that was undertaken for the River Poddle Flood Alleviation Scheme.
- The inclusion of the Scheme in the **Climate Change Action Plans** for SDCC and DCC, which have been adopted by Dublin area Councils to implement the **National Adaptation Framework**.
- The recognition of the challenge facing Dublin, which is targeted for growth, but is constrained by a lack of flood free land to expand in the **National Flood Risk Appraisal**, prepared for the National Planning Framework. Providing flood alleviation such as in the River Poddle Flood Alleviation Scheme, will facilitate future sustainable development in Dublin.
- The listing of the River Poddle as a strategic green infrastructure asset in the Region for the ecosystem services it can provide, including flood protection and water quality in the **Eastern & Midland Regional Spatial and Economic Strategy**; and the mention of the Scheme in the **Regional Flood Risk Appraisal** as a project which will continue to be progressed.
- The mention in the **Strategic Flood Risk Assessments** of the **Development Plans** of **South County Dublin** and **Dublin City Council** of the highly vulnerable areas in the Poddle catchment, and the need to limit development in certain areas until the planned flood alleviation works are completed.
- The listing of the River Poddle Flood Alleviation Scheme in Appendix 11 of the **Dublin City Development Plan**, with reference to the Core Strategy Policy of

addressing climate change and flood risk, and the commitment to working with neighbouring local authorities on cross boundary flood management programmes in **Sustainable Environmental Infrastructure Objective SIO11**.

- The commitment in objectives in **Infrastructure & Environmental Quality (IE) Policy 3 Flood Risk** of the **South Dublin County Council Development Plan** to support and facilitate the delivery of flood alleviation schemes, including the Poddle Scheme (**IE3 Objective 1**); and to support and co-operate with the OPW in delivering the CFRAM Programme (**IE3 Objective 4**).

8.2 The purpose of the Flood Alleviation Scheme

The proposed Scheme will prevent fluvial or river flooding from the River Poddle for flood events up to and including the 100-year Return Period event. The Scheme provides flood storage in the upper reaches of the catchment in Tymon Park to hold back water during a 1% AEP event, with additional flood storage at Ravensdale Park, along with linear defences where they are required to prevent the River from overtopping its banks.

The proposed Scheme will provide protection for approximately 921 properties in SDCC and DCC areas where there are currently 1,377 properties at risk from flooding. There will remain some areas within the catchment that will not directly benefit from the fluvial flood defence works. This is referred to as residual flooding and will occur as a result of localised pluvial flooding, where the existing surface water network does not have the capacity to cope with a 1% AEP storm event. It must be noted that the reduction of river levels as a result of the flood storage provided in Tymon Park will have localised benefits for some areas at risk from pluvial flooding by reducing flood depths in a storm event.

The hydraulic modelling undertaken for the River Poddle Flood Alleviation Scheme has identified the areas affected by pluvial flooding, in particular at Whitehall (SDCC), Mount Argus Road (DCC) and The Coombe (DCC) affecting in excess of 200 properties.

SDCC and DCC have committed to undertaking the necessary surveys and investigations to develop solutions for these areas. These works will be subject to separate environmental assessments and statutory consents as may be required.

The proposed Scheme subject of this planning application has as its primary purpose to alleviate fluvial flooding. It is functionally independent of the works which will be required to improve the surface water network. The proposed Scheme can operate successfully in a 1% AEP storm event without improvements to the surface water network. Moreover, through the hydraulic modelling carried out, the proposed Flood Alleviation Scheme has been designed to accommodate future flows from the improved surface water network.

8.3 Local Planning Policy

The Proposed River Poddle Flood Alleviation Scheme is a multi-faceted project in existing green infrastructure that will provide the benefits of flood management and adaptation to climate change, enhanced biodiversity, and improved water quality and in so doing meets with the overarching **Policy 1 Green Infrastructure** of the SDCC CDP and **Green Infrastructure (G) Overarching Policy 1** of the Dublin City Development Plan.

The aim of the proposed Scheme is to prevent river flooding by providing flood storage and flood protection walls along the River to prevent it from topping over its banks. The proposed Scheme includes an ICW in Tymon Park to improve water quality in the River Poddle, with the main attenuation provided at Tymon Lake. The Scheme therefore fulfils **Policy 3: Flood Risk** and **Policy 8: National Climate Change Strategy** in the Core Strategy of the SDCC CDP.

Whilst it is accepted that there will be negative impacts arising from construction of the proposed Scheme, these impacts are temporary in duration. The impacts will be especially significant in Tymon Park where the main flood storage is to be provided along with an ICW. The longer-term benefits provided at Tymon Park will be improved biodiversity, improved water quality, and resilience to the effects of climate change. These are the primary means by which this **Regional Park** can fulfil its role in the **open space hierarchy** of SDCC as **green infrastructure** that will bring positive benefits for the wider community.

This role is further recognised in the SDCC CDP **Green Infrastructure (G) Overarching Policy 1** which is also fulfilled by the plans for the green space at Whitehall Park which, when completed, will be part of the green infrastructure network providing flood protection and enhanced biodiversity.

The proposed Scheme also meets with **G2 Objective 2 of Green Infrastructure (G) Policy 2 Green Infrastructure Network** in the SDCC CDP by utilising the existing lake in Tymon Park as flood storage and creating an ICW.

Objective 9 of the **Green Infrastructure (G) Policy 2 Green Infrastructure Network G2 Objective 9** is met by the replacement tree planting and landscape mitigation proposals of the Scheme for Tymon Park.

Since this is a Flood Alleviation Scheme, which requires works to be undertaken at sections along the Poddle River corridor, including excavations to create the ICW and channel realignment to provide flood protection at Whitehall Park, and the construction of flood walls at other locations downstream, it will not be possible to maintain a biodiversity protection zone a minimum of 10m from the top of the bank as required by **G3 Objective 2 of Green Infrastructure (G) Policy 3 Watercourses Network**. The proposals will, however, be in compliance with **G3 Objective 3** where it calls for "strategic measures to accommodate flooding at appropriate locations". Through the mitigation measures proposed for construction of the Scheme, ground and surface water quality will be protected, pollution of the watercourse will be prevented, and the riverbank will be protected from erosion. Once they have been re-established, the riverine habitats in the works areas will have their function as wildlife corridors restored in line with **Green Infrastructure (G) Policy 3 Watercourses Network, G3 Objective 5**.

The **Green Infrastructure Policy GI4** of the DCC Development Plan relates to Ravensdale Park and open and green spaces at St. Martin's Drive, but to a lesser extent at Mount Argus. The Scheme provides flood protection in the available space in the green infrastructure network of the City to protect properties and people from the effects of flooding. There is a balance to be struck in providing flood protection and meeting the social, recreational, conservation and ecological needs of the City **per Policy GI10**.

Replacement tree planting and enhancements in the public realm at Ravensdale Park are proposed as part of the Scheme as a means to recover that balance.

8.4 Zoning Designations in the Areas of Proposed Works

8.4.1 South Dublin County

The works planned at Tymon North, Tymon Park and at Whitehall Park/ Wainsfort Manor Crescent are located within areas zoned Open Space, which has its objective in the CDP "*To preserve, provide and improve recreational amenity and open space and green networks.*" The proposed works are necessary to provide flood protection to properties nearby in a 1% AEP flood event, and to provide some flood storage. The remainder of the works involve tree removal and replacement or reinforcement of existing walls for flood alleviation in areas that are zoned residential.

8.4.2 Dublin City

The works planned at Ravensdale Park are located within an area zoned Amenity/Open Space Lands/Green Network (Zone Z9) which has its objective "*To preserve, provide and improve recreational amenity and open space and green networks.*" The proposed works are necessary to provide flood storage in a 1% AEP flood event, and alleviate flooding experienced by local residents in Ravensdale. The provision of flood management is a function of open space as green infrastructure which is recognised in Chapter 10 of the Dublin CDP. The remainder of the works involve tree removal and replacement or reinforcement of existing walls for flood alleviation in areas that are zoned residential.

8.5 Trees Policies

In line with both Councils' tree policies, SDCC's **Tree Management Policy** (2015) and DCC's **Tree Strategy** 2016 - 2020, a tree survey has been carried out for key works areas of the proposed Flood Alleviation Scheme, with replacement tree planting and landscaping as part of the proposals. The purpose of the tree survey was to identify the trees and their root protection areas within the areas of proposed works for the Flood Alleviation Scheme at Tymon North, Tymon Park, Wainsfort Manor Crescent, at Fortfield Road south of Kimmage Cross Roads, at Ravensdale Park, and at St. Martin's Drive. The findings from the tree survey assisted in finalising the landscape mitigation plans for the Scheme, also considering the landscape and visual, biodiversity and amenity, and leisure and recreation impacts.

The Tree Survey and Arboricultural Impact Assessment Report is included in **Appendix 5-2** of the EIAR. The drawings accompanying this Report are included in **EIAR Volume 3 Figures and Photomontages**. In this Report, quantities and species of trees and tree groups that will be lost as a result of the Scheme are identified. The areas for replacement tree and woodland planting are shown in the specialist landscape mitigation plans included as part of the proposals (see **EIAR Volume 3**). These areas have been selected in consultation with officials from the Parks and Public Realm Departments of the relevant Councils and the Project Ecologist and are in accordance with the trees policies of both Councils.

9 APPROPRIATE ASSESSMENT (AA)

The Habitats Directive (Council Directive 92/43/EEC) requires that plans and projects be screened for the likelihood of significant effects on European Sites *i.e.* Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

NM Ecology Ltd. prepared an Appropriate Assessment Screening Report for the project to determine the likely significant effects, if any, of the proposed development on European Sites. The screening process concluded that it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on European sites, namely the North Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA. Accordingly, it was concluded that an Appropriate Assessment of the proposed development was required.

A Natura Impact Statement (NIS) of the proposed Poddle River Flood Alleviation Scheme was subsequently prepared by NM Ecology Ltd. The NIS provides information to assist the competent authority, An Bord Pleanála, in undertaking an AA of the proposed development.

North Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA all have distant hydrological connections to the proposed development site. In a worst-case scenario, there is a risk of adverse effects on the integrity of one or more European sites. In response, a series of hydrological mitigation measures have been recommended by the project hydrologist, which will be effective in avoiding and/ or removing risks of adverse effects on the integrity of the above-mentioned European sites.

The NIS concludes that the proposed development will not adversely affect the integrity of any European site, either alone or in-combination with other plans or projects, once the mitigation measures, as detailed in the NIS, are implemented in full and that the competent authority will not need to proceed past Stage 2 of the AA process. The NIS is submitted with the planning application.

10 ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

The process by which the likely significant effects of a project on the environment are assessed is set out in the EU EIA Directive 2011/92/EU on the assessment of the effect of certain public and private projects on the environment (codification) (transposed to Irish law through the Planning and Development Regulations 2001, as amended), as amended by EIA Directive 2014/52/EU (transposed to Irish law through the European Union (Planning and Development) (Environmental Impact Assessment) Regulations S.I. 296 of 2018).

Working closely with a Steering Group formed from SDCC, DCC and the OPW, the Project Manager, Engineers, Planners, and Environmental specialists from NOD led a team of competent experts in the preparation of an Environmental Impact Assessment Report (EIAR). The EIAR has been prepared with consideration of the Environmental Protection Agency's *"Draft Guidelines on the Information to be Contained in Environmental Impact*

Assessment Reports" (August 2017)⁹, and the more recent "*Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment*", Department of Housing, Planning and Local Government (August 2018)¹⁰.

The EIAR provides information to assist the competent authority, An Bord Pleanála, in undertaking an Environmental Impact Assessment of the proposed development.

The EIAR presents the results of the assessment for each environmental aspect with a description of the existing environment, the proposed development, predicted impacts, and an assessment of significance of impacts, mitigation measures where required, and identification of any residual impacts for each environmental aspect. A summary of mitigation measures to be adhered to in the construction and operational phases of the project is provided as a separate chapter in the EIAR. These represent the environmental commitments for the project.

The EIAR concludes that after the application of mitigation measures, the project can be implemented with no significant residual effects on the receiving environment and community.

11 SUMMARY AND CONCLUSION

This Planning Report accompanies an application for planning permission for the River Poddle Flood Alleviation Scheme which is being made to An Bord Pleanála under Part X, Sections 175 and 177AE of the Planning and Development Act 2000, as amended. The Scheme proposes raised earthen embankments, an ICW, flood protection walls, channel re-alignment, manhole rehabilitation or replacement, and all ancillary works and associated development including temporary works. The Scheme extends from Tymon North, Tallaght, to Merchant's Quay, Dublin at several sites along the River Poddle in the administrative areas of SDCC and DCC. The Scheme is promoted by SDCC and DCC with the support of OPW. An EIAR and a NIS have been prepared for the Scheme.

The need for the Scheme was most recently highlighted by the severe flooding which occurred in the catchment in 2011, resulting in the loss of life and damage to properties notably in Harold's Cross and Crumlin. In addition, residents in the catchment have also reported the under capacity of the drainage network causing flooding on several occasions.

The proposed Scheme originated in OPW's Eastern CFRAM project with studies, modelling and analysis carried out for the Poddle River in 2013. Plans for the Scheme have been underway since the publication of the CFRAM Poddle Options Report, and public

⁹ Environmental Protection Agency, Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, Draft August 2017, <https://bit.ly/2kurbam>, [accessed 04/09/19].

¹⁰ Department of Housing, Planning and Local Government, Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment, <https://bit.ly/2SGRjvF>, [accessed 04/09/19].

consultations have been undertaken throughout. Plans for the Scheme are embedded in the RSES and within the development plans of the local authorities SDCC and DCC.

The proposed development was designed after additional surveys, modelling and analysis was carried out by the consultant team. The proposed Scheme will provide protection to 921 properties in the floodplain of the Poddle River in SDCC and DCC areas which are currently vulnerable to flooding. The proposed Scheme will provide replacement tree planting and restoration of landscapes and habitats. It will also deliver added benefits such as biodiversity enhancements in the public parks and green spaces which are affected by the Scheme, improved water quality with the ICW, and public realm improvements for Tymon Park and Ravensdale Park.

The proposed Scheme is a cross-boundary, multi-faceted project that demonstrates co-operation across local authorities to resolve flooding, supported by OPW. The need for the Scheme has been demonstrated and is supported by the following:

- National Flood Policy
- National Climate Change Adaptation Framework
- National Planning Framework's National Flood Risk Appraisal
- The Eastern and Midlands Regional Spatial and Economic Strategy

The proposed Scheme is also compliant with the current Development Plans for SDCC and DCC including their tree strategies and policies. It delivers on policies and objectives on flood protection, climate change, water quality, biodiversity and green infrastructure and, as such relates to the proper planning and sustainable development of the areas.

In light of the foregoing, the applicants look forward to an early and favourable decision from An Bord Pleanála.

