Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

DUBLIN CITY COUNCIL

SANTRY RIVER RESTORATION AND GREENWAY
DRAFT MASTERPLAN

Strategic Environmental Assessment Statement

March 2026

NICHOLAS O'DWYER
an RSK company

DUBLIN CITY COUNCIL

SANTRY RIVER RESTORATION AND GREENWAY PROJECT

PROJECT NO. 20915

STRATEGIC ENVIRONMENTAL ASSESSMENT

STATEMENT

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PROJECT NO. 20915					
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1 INTRODUCTION

Dublin City Council (DCC), together with Fingal County Council (FCC) and the National Transport Authority (NTA), is spearheading the formulation of the Santry River Restoration and Greenway (SRRG) Masterplan. The Masterplan provides a framework for restoration of the Santry River, including naturalisation and flood management measures, and development of a Greenway. The overall focus of the Masterplan is to assist the DCC in complying with physicochemical, ecological and hydro morphological objectives under the Water Framework and Floods Directives; habitat, ecology and biodiversity objectives of the Birds and Habitats Directive; and meet social, recreational and amenity needs of the communities living within the river catchment.

Nicholas O'Dwyer Ltd, in association with Redscape Urbanism and CBEC Ecoengineering Ltd, were commissioned by DCC to prepare the Masterplan and a Strategic Environmental Assessment (SEA) Environmental Report in line with the SEA Directive (2001/42/EC). This Report is the SEA Statement which has been prepared in line with the SEA Directive.

1.1 The SEA Process

SEA aims to ensure a high level of environmental protection and to integrate environmental considerations into the development of plans and programmes. SEA is a systematic evaluation of the potential environmental impacts of proposed plans or programmes that may significantly affect the environment. By doing so, it informs and improves the decision-making process, helping to shape more sustainable outcomes. Additionally, the SEA process encourages greater public participation in strategic-level decisions, fostering transparency and community engagement.

This SEA Statement has been prepared in accordance with EU Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, which is transposed into Irish legislation through the: (i) European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435/2004), as amended by S.I. 200 of 2011 (ii) Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. 436/2004), as amended by S.I. 200 and 201 of 2011 and through reference to relevant guidance documents as follows:

- Environmental Protection Agency. 2025. SEA of Local Authority Land-Use Plans – EPA Recommendations and Resources.
- Environment Protection Agency. 2023. Guidance on Strategic Environmental (SEA) Statements and Monitoring.
- Environmental Protection Agency. 2020. Good Practice Guidance on Cumulative Effects Assessment in Strategic Environmental Assessment.
- Environmental Protection Agency. 2003. Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland.

SEA involves several key stages, as described in **Table 1-1**.

Table 1-1: Stages in the Strategic Environmental Assessment (SEA) Process

Stage	Description
Screening	Determines whether SEA is required for a Plan or Programme in consultation with the designated statutory consultees.
Scoping	Determines the scope and level of detail for the SEA in consultation with the designated statutory consultees.
Environmental Assessment	This refers to a formal and transparent assessment of the likely significant effects on the environment due to implementation of a Plan / Programme including all reasonable alternatives. The output from this stage is an ER which is required to go on public display along with the draft Plan / Programme. This ER presents the Environmental Assessment.
SEA Statement	This summarises the process undertaken and identifies how environmental considerations and consultations have been integrated into the final Plan / Programme.

This SEA Statement presents the last stage in the SEA process, summarising it and identifying how environmental considerations and consultations have been integrated into the final Santry River Restoration and Greenway Masterplan as relevant.

1.2 Implications of SEA for the Masterplan

SEA was carried out and the findings are presented in an Environmental Report which was circulated amongst stakeholders for consultation. The Environmental Report was updated to take account of recommendations contained in submissions as relevant.

1.3 Appropriate Assessment Screening of the Masterplan

The draft Santry River Restoration and Greenway Masterplan was subject to screening for Appropriate Assessment (July 2024), which concluded that, with regard to Article 42 (6) of the *European Communities (Birds and Natural Habitats) Regulations* 2011 (as amended)[1]potential impacts on European sites could not be excluded (i.e. ruled out). The preferred option for the framework plan will need to be assessed at Stage 2 of the Appropriate Assessment (AA) process, so that the impacts can be assessed in detail and that avoidance / mitigation measures can be proposed.

A Natura Impact Statement (NIS) for the draft Masterplan was prepared in November 2024. It identifies potential effects from the following sources:

- pollutants generated during construction works (accidental spills of hydrocarbons and other chemicals) could potentially have negative effects on habitats and birds within the SAC and SPA;

[1] Which transposes the EU Habitats Directive (Council Directive 92/43/EEC) and Birds Directive (2009/147/EC)

- construction works and / or landscaping at some locations could cause displacement / disturbance of birds associated with SPAs; and

- increased activity by people and dogs could cause displacement / disturbance of birds associated with SPAs.

A high-level impact assessment and mitigation strategy is provided in the NIS. The NIS identifies that projects undertaken in implementing the Masterplan will require screening for AA, and that some of these projects or components will themselves require AA to Stage 2. Mitigation measures may be necessary to prevent pollution events or to avoid displacement / disturbance of birds.

Subject to the above, it was concluded at Stage 2 of the AA process that the Masterplan would not be likely to have significant effects on any European sites.

2 HOW ENVIRONMENTAL CONSIDERATIONS WERE INTEGRATED INTO THE MASTERPLAN

2.1 Introduction

The Masterplan objectives relate to river restoration, flood mitigation, sustainable mobility, and amenity development, all in line with environmental protection and enhancement. The Masterplan is thus expected to facilitate environmental management and improvement throughout the plan area. This has been enhanced through various consultation exercises and events as summarised hereunder.

2.2 Engagement by DCC and FCC during Masterplan Development

DCC and FCC in collaboration with the Masterplan team, led a series of consultations and outreach activities to inform, engage, and gather input from communities, residents, schools, and other stakeholders along the Santry River catchment. An iterative approach was undertaken

2.3 Consultation with Environmental Authorities

Early and ongoing consultation with environmental authorities on SEA and AA related legislation was carried out throughout the process. Meetings were held with the EPA and IFI from an early stage in the process. Written submissions and recommendations made at the meetings, helped in the development and refinement of the Masterplan and the scope of the SEA and AA. Refer to Section 3 of this Statement for a description of the consultation and engagements undertaken and how the submissions and observations were considered in the Masterplan.

2.4 Consideration of Alternatives

The process of identifying alternatives was informed by technical assessments, environmental constraints and stakeholder consultation. The alternatives were assessed against the environmental objectives to determine the alternative that will result in the most beneficial effects. This process determined that an integrated approach of carrying out intervention where most needed was identified, e.g., river restoration, as well as noting where less intervention is required to deliver significant beneficial effects, e.g., in relation to flood defence at Santry Lake, thereby avoiding other potential effects in relation to construction of infrastructure. Refer to Section 4 of this Statement for a description of the alternatives considered and how the Masterplan preferred option was identified

2.5 Iterative approach in preparation of the Masterplan and the SEA process

The SEA identified environmental constraints and considerations of these constraints into the Masterplan process through the SEA and AA.

The Masterplan was drafted in consultation with the environmental assessment team. In accordance with the EPA's SEA Land Use Recommendations Guidance (EPA, 2025), the Masterplan development team worked closely with the environmental assessment team, in the development of the Masterplan, integrating recommendations to improve the environmental performance of the Masterplan and minimise or avoid negative effects. This ranged from discussions on wider policy context to spatial considerations in relation to sensitive receptors. Key integrated aspects include:

- **Sustainability principles and measures**
    - Hard flood defences were avoided where possible in favour of green infrastructure alternatives where these can provide the necessary defence.
    - Permeable materials will be used where possible in the construction of the Greenway to minimise interruptions to localised carbon and water cycles and impacts on biodiversity.
    - The Greenway will incorporate SUDS to reduce runoff and filter pollutants before they reach the river.
    - Circular economy principles to apply throughout the development of the Masterplan, such as reuse of excavated materials, sustainable sourcing, and provision of adequate waste bins.
- **Ecological protection and enhancement**
    - During design of interventions along the river, the design was updated to set the pathway back from the riverbank, avoiding risk of loss or disturbance to sensitive habitats.
    - A 15-metre riparian setback will be maintained at Sillogue and airport lands. Where possible, this setback distance will be applied throughout to maintain connectivity, reduce fragmentation, and avoid potential impacts on the aquatic environment, which is also a pathway to downstream European sites.
    - Physical buffers will be created between paths and playing fields at St Malachy's FC and Kilmore FC to protect winter geese from disturbance.
    - Lighting in Santry Park was excluded.
    - Tree planting will be of native trees with Irish provenance.
    - Tree removal is earmarked as needed to retain open areas for geese (in consultation with an ecologist).
    - Areas with recorded protected fauna activity such as badger or otter sites were excluded from interventions.
- **Optimal Greenway performance**
    - Design principles prioritise access, safety and clear separation of active travel modes e.g., pedestrian and cycling paths will optimise the beneficial effects identified.
    - The Greenway route is designed to avoid known archaeological sites.
- **Inclusion of a Delivery Plan and a Monitoring Framework**

3 SUBMISSIONS & OBSERVATIONS

This chapter describes the approach adopted in the SEA, and the consultation process.

3.1 SEA Scoping Consultation & Submissions

In accordance with Article 6 of the SEA Directive, the Scoping Report was issued to statutory environmental authorities:

- Environmental Protection Agency (EPA)
- Department of Housing, Local Government and Heritage (DHLGH)
- Department of Agriculture, Food and the Marine (DAFM)
- Department of Department of Environment, Climate and Communications (DECC)

Non-statutory stakeholders were also included in the SRRG Masterplan consultation process. The Scoping Report was also made available online for the general public.

Submissions were received from the EPA, DHLGH (including DAU), Inland Fisheries Ireland (IFI) and Transport Infrastructure Ireland (TII). The submissions were considered in the development of the Environmental Report and the Masterplan and, in summary included:

- SEA to ensure all stages of the process are implemented in accordance with guidelines.
- SEA to ensure that the Masterplan complies with relevant legislation.
- Ensuring that the necessary derogation licences, potentially for otter, bats and St John's wort are applied for to the National Parks and Wildlife Services (NPWS) prior to commencement of works in certain areas.
- Care in ensuring that the greenway does not result in significant adverse ecological effects.
- Masterplan and SEA to ensure that biodiversity value is maintained and enhanced in the Santry corridor.
- Inclusion of specific SEA environmental objectives for the protection of archaeological heritage.
- Inclusion of measures to enhance fish ecology including nature-based solutions.
- SEA and Masterplan development to ensure consultation with relevant authorities and contractors as required.

3.2 SEA Environmental Report Consultation & Submissions

The Environmental Report was shared in the same way and with the same consultees as for the Scoping Report.

Submissions were received from the EPA, IFI (to state there were no further comments), Geological Survey Ireland (GSI) and IDA Ireland.

Based on comments received, a second draft of the Environmental Report has been prepared whereby the following updates were made:

- Section 5.4 describing soils, geology and land use was updated to include relevant details on geo-heritage in the area. The addition did not affect the relevant SEA environmental objective or the assessment.
- Section 9 presenting a monitoring framework has been updated to include target/threshold at which interventions would be needed in the case of adverse effects. It is noted that positive effects were mainly identified.

Comments made by the IDA were directed to the plan-maker for consideration in developing greenway design in the Coolock/Clonshaugh area, and the business park.

4 ALTERNATIVE MASTERPLAN SCENARIOS CONSIDERED

In the Masterplan, four alternative scenarios were considered:

- **Scenario 1**: No Intervention (Do Nothing): assumes that no interventions are undertaken within the Santry River corridor.

- **Scenario 2**: Low Intervention (Do Minimum): focuses on prioritising flood mitigation while providing low-intervention river restoration and amenity measures. Interventions focus on the fluvial flood risk areas of Santry Lake and Raheny Village. At Santry Lake, the existing penstock at Santry Demesne will be regulated, which would control water levels upstream of Santry Lake through operational adjustments rather than physical construction. In Raheny Village, the construction of flood walls are proposed to provide the required level of flood protection. River restoration under Scenario 2 involves passive and low-intervention measures, such as riparian planting, minor de-culverting of short, culverted sections and the removal of hard bank protection where feasible. These actions aim to provide ecological improvements without major alterations to the river channel. In terms of the Greenway, Scenario 2 involves the delineation of an almost continuous route along existing paths that will be upgraded to a standard suitable for Greenway use.

- **Scenario 3**: High Intervention (Do Something): maximises measure delivery across all pillars of the Masterplan, including for flood protection measures, a combination of passive, assisted and active river restoration, and Greenway designed to TII standards. Flood mitigation measures at Raheny are the same as for Scenario 2. Scenario 3 then includes for the construction of flood walls at Santry Lake to maximise water storage at the lake. River restoration measures in this scenario would include active, passive, and assisted interventions, such as channel re-alignment, construction of wetland habitats, installation of large wood features to enhance flow and habitat diversity, riparian planting and thinning, creation of two-stage channels, and re-establishment of floodplain connections. Under Scenario 3, the Greenway would be delivered as a high-quality, integrated route, prioritising alignment with the Santry River, thereby enhancing user experience and supporting increased access and amenity. A comprehensive assessment of Greenway route options was carried out using the NTA Project Appraisal Guidelines, informed by detailed studies on connectivity, multimodal transport links, neighborhood permeability, heritage, ecology, flood management, traffic and land use planning. The assessment process combined professional judgment, technical surveys, and feedback from public engagement, and considered the potential for urban regeneration through improved access to green spaces.

- **Scenario 4**: Integrated Approach (Combination of Do Minimum & Do Something): covers most of the same level of intervention as Scenario 3, with the exception of the flood mitigation measure at Santry Lake. For flood mitigation at Santry Lake and Raheny Village, Scenario 4 includes regulation of the penstock at Santry Demesne (presented in Scenario 2) and the construction of flood walls in Raheny Village (presented in Scenario 2 and 3).

The river restoration measures under Scenario 4 are as presented in Scenario 3, where active, passive, and assisted interventions are proposed. These measures include channel re-alignment, construction of wetland habitats, installation of large wood features to enhance flow and habitat diversity, riparian planting and thinning, creation of two-stage channels, and re-establishment of floodplain connections. The Greenway design under Scenario 4 is as presented in Scenario 3, whereby the Greenway would be delivered as a high-quality, integrated route, prioritising alignment with the Santry River, thereby enhancing user experience and supporting increased access and amenity.

4.1 Findings of the Alternatives Assessment

Scenario 1 provides no contribution to strategic environmental objectives. In the absence of the Masterplan, this scenario reflects a continuation of existing pressures and vulnerabilities on the River Santry, yielding no environmental, social, or heritage benefits.

Scenario 2 is in line with SEA objectives, resulting in neutral to positive effects, with expected improvements in river function, public access and flood mitigation. The use of passive river restoration techniques such as riparian planting and selective removal of hard infrastructure begins to address some hydro morphological pressures and should result in some improvement in water quality. The use of existing paths for a Greenway provides both access and connectivity which supports active travel and partially aligns with SEA objectives for population and human health, particularly improving amenity and encouraging walking and cycling. The penstock regulation at Santry Lake, while non-structural, provides a low-cost flood mitigation solution in line with the Floods Directive, and adheres to natural water retention principles. In Raheny, the inclusion of flood walls would provide essential protection to properties, thereby contributing to SEA objectives around flood risk, human health, and the protection of material assets. This scenario aligns with several SEA objectives, particularly those related to air quality (through promotion of active travel), water quality, and climate adaptation (in a limited capacity). However, it does not fully address ecological connectivity, long-term resilience to climate change or significant habitat creation and makes only minimal contributions to landscape enhancement or cultural heritage goals.

Scenario 3 includes for the design of a bespoke Greenway that runs through the Masterplan area resulting in significant improvements in relation to connectivity, supporting sustainable transport, and enhancing public amenity. It would result in significant positive impacts in relation to SEA objectives around population and human health and air quality, through the promotion of active travel modes, i.e., walking and cycling. The river restoration measures proposed under this scenario comprise a combination of active, assisted, and passive interventions, such as channel re-alignment, wetland creation, large wood placement, and riparian planting. Significant positive effects are expected in line with several SEA objectives including for biodiversity, water and flooding, landscape, population and human health, soil and geology and material assets. For flood mitigation, the construction of flood walls upstream of Santry Lake and in Raheny would provide robust protection for people and property, fully aligning with the Floods Directive and SEA objectives for water, climate change resilience and the protection of material assets. However, as the option to regulate the penstock at Santry Demesne (as described for Scenario 2) will provide the level of flood mitigation required, the construction of new flood walls proposed under this scenario may bring additional pressures such as damage to existing habitats, erosion of riverbeds / banks, impediment

of natural flows of water, fragmentation of habitats, impacts on water quality during construction and landscape impacts.

As described, **Scenario 4** entails all the proposed measures presented under Scenario 3 with the exception of the flood risk management measure for Santry Lake. The proposal for Santry Lake in Scenario 4 is the same as that proposed in Scenario 2, i.e., regulation of the existing penstock. This is because this flood mitigation measure provides an adequate level of flood protection in this area, avoiding the need for flood walls and associated environmental effects, including construction and landscape effects.

Given the relative extent of positive environmental effects identified compared to other scenarios, **Scenario 4** was deemed the preferred option.

4.2 Summary of Assessment on the Masterplan (preferred option)

The assessment indicates that the river restoration and flood relief Masterplan objectives are substantially aligned with SEA objectives, presenting opportunities for significant positive outcomes.

Restoration and nature-based flood relief measures addressing Masterplan Objectives 1-4 offer multiple prospects for enhancing biodiversity by providing additional and improved habitats throughout the Masterplan area, including woodlands, riparian zones, aquatic environments, and associated micro-habitats. Notably, the assessment underscores the necessity of clearly identifying suitable locations for proposed interventions during the design phase, adopting a holistic implementation approach. Other recommendations include developing a landscaping plan, an invasive species management strategy, and continued consultation with the team ecologist. The assessment identifies beneficial (positive) impacts on water quality, air quality, landscape value, flood resilience, and the long-term capacity for carbon sequestration within the system. Hard flood defences have predominantly been avoided, except at Raheny, where existing wall infrastructure was deemed to minimise amenity and landscape impacts. Adverse (negative) effects related to land acquisition and construction activities were identified. Mitigation measures implemented at the project level are required to prevent significant negative outcomes during the construction phase.

Potential significant adverse effects were noted in relation to sustainable mobility, in relation to the development of the Greenway envisaged under Masterplan Objective 5. Key concerns included potential habitat fragmentation, excessive artificial lighting, and increased visitor access to ecologically sensitive sites. To address these risks, the assessment advises meticulous route planning and design strategies, such as setting the pathway back from the riverbank, avoiding sensitive habitats, and implementing a code of conduct. Positive impacts were identified on the local community and visitors, through the promotion of active travel, supporting healthier lifestyles, and enhanced connectivity throughout the Masterplan area. The Greenway is anticipated to visually enhance the local landscape, strengthen connections between open spaces, and highlight important recreational and ecological features. When considered alongside restoration efforts, the combined impact on landscape is assessed as significantly positive.

Masterplan Objective 6 focuses on stakeholder engagement, representing a soft measure that aligns with the SEA objective of fostering community involvement; no further SEA objectives pertain to this aspect.

Masterplan Objective 7 aims to enhance ecosystem services, fully aligning with SEA objectives and yielding notable positive effects across all environmental parameters. The assessment highlights anticipated improvements to regulatory (e.g., water infiltration), cultural (e.g., recreational amenities, community engagement), and supporting (e.g., habitat creation) ecosystem services resulting from the Masterplan's implementation.

Masterplan Objective 8 addresses the preservation, protection, and promotion of archaeological and heritage sites throughout the catchment. While the Masterplan generically supports eco-tourism based on the natural and cultural heritage of the Santry Riverpark, the assessment notes the absence of specific protective measures for cultural heritage. Regarding archaeology, in situ preservation of artefacts remains a priority. Additional initiatives, such as establishing heritage trails and maintaining appropriate setbacks from monuments, could further support preservation efforts. Consequently, a neutral to positive impact has been identified.

5 MONITORING

Monitoring potential significant environmental effects resulting from the implementation of the Masterplan is an important aspect of the SEA process as this will make it possible to identify corrective actions and establish how well the Masterplan conforms to SEA objectives.

The European Commission *Guidance on the implementation of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment* (2003) suggests that SEA monitoring activities and reporting can be integrated into the regular planning cycle or may coincide with the regular revision of a plan. Other SEA guidance indicates that the existing monitoring arrangements of the plan, and monitoring undertaken for other plans, can be used to obtain the required information. **Table 5-1** lists sources of data gathered as part of existing monitoring regimes that can be used to inform the SEA and Masterplan monitoring plan. In addition to these data sources, data gathered at lower tier environmental assessment and consent will feed into the monitoring plan as relevant.

SEA Topic	Scope	Data Sources
Biodiversity, Flora & Fauna	Information pertaining to designated sites and their qualifying features of interests. Data regarding protected habitats and species in the general area. Current threats to biodiversity including invasive species	Aerial photography National Parks and Wildlife Service (NPWS) Environmental Protection Agency (EPA) portal National Biodiversity Data Centre (NBDC) Inland Fisheries Ireland (IFI) Bat Conservation Ireland BirdWatch Ireland Tailte Éireann GeoHive Map Viewer Local authority data – FCC and DCC
Population & Human Health	Population density and distribution, perceived health	Central Statistics Office (CSO) database Local authority data – FCC & DCC Health Service Executive Pobal Tailte Éireann GeoHive Map Viewer
Geology, Soils & Land-use	Geological and soil features including bedrock, aquifers, soil and subsoil type / vulnerability, geological heritage sites and soil contamination. Land-use designations within the Scheme area	Geological Survey of Ireland (GSI) Office of Public Works (OPW) EPA Portal County Development Plans Corine landcover and land-use database Teagasc Soil information
Water	Location & status of waterbodies. Flood risk and management. Water quality and usage.	Water Framework Directive (WFD) data EPA database / reports Integrated Water Quality Reports National Catchment Flood Risk Assessment and Management Programme (CFRAM) Catchments.ie OPW (floodinfo.ie) IFI Local authority data – FCC & DCC
Air, Noise & Vibration	Air quality data. Noise and vibration data and information.	EPA Portal/database Strategic Noise Maps & Action Plans Local authority database– FCC & DCC
Climatic factors	General climatic information and trends. Carbon emissions from construction activities	National and International reports on climate change EPA Greenhouse Gas Emission RSES
Material Assets, Infrastructure	Number and type of infrastructure (Transport, telecommunications, energy)	Transport Infrastructure Ireland (TII) EPA & WFD data

SEA Topic	Scope	Data Sources
	Resources and waste	EPA Local authority data – FCC & DCC
Cultural, Archaeological & Architectural Heritage	Location and status of protected sites, monuments	Local authority data – FCC & DCC National Inventory of Architectural Heritage National Monuments Service Historic Environment Viewer for Archaeological and Architectural Heritage The Heritage Council
Landscape & Visual Amenity	Landscape character areas and sensitive landscape areas.	Local authority data – FCC & DCC Landscape Conservation Areas Landscape Character Areas Sensitive Landscapes

Table 5-2 summarises the proposed monitoring plan. The selected indicators are designed to help understand whether positive impacts have been realised and whether negative impacts have been successfully mitigated. It is recommended that an annual report will be drawn up to present the data gathered. Trends will be analysed and any need for additional actions based on data gathered will be highlighted in order to meet the SEA objectives and ensure mitigation is implemented successfully. It is also recommended that an action plan will be developed in relation to Masterplan implementation. This will be a live document that will be updated as necessary following issuance of the monitoring data report. The action plan will define actions needed based on monitoring results and includes timeframes and responsibilities for implementation.

Table 5-1: Monitoring data sources

SEA Topic	Scope	Data Sources
Biodiversity, Flora & Fauna	Information pertaining to designated sites and their qualifying features of interests. Data regarding protected habitats and species in the general area. Current threats to biodiversity including invasive species	Aerial photography National Parks and Wildlife Service (NPWS) Environmental Protection Agency (EPA) portal National Biodiversity Data Centre (NBDC) Inland Fisheries Ireland (IFI) Bat Conservation Ireland BirdWatch Ireland Tailte Éireann GeoHive Map Viewer Local authority data – FCC and DCC
Population & Human Health	Population density and distribution, perceived health	Central Statistics Office (CSO) database Local authority data – FCC & DCC Health Service Executive Pobal Tailte Éireann GeoHive Map Viewer
Geology, Soils & Land-use	Geological and soil features including bedrock, aquifers, soil and subsoil type / vulnerability, geological heritage sites and soil contamination. Land-use designations within the Scheme area	Geological Survey of Ireland (GSI) Office of Public Works (OPW) EPA Portal County Development Plans Corine landcover and land-use database Teagasc Soil information
Water	Location & status of waterbodies. Flood risk and management. Water quality and usage.	Water Framework Directive (WFD) data EPA database / reports Integrated Water Quality Reports National Catchment Flood Risk Assessment and Management Programme (CFRAM) Catchments.ie OPW (floodinfo.ie) IFI Local authority data – FCC & DCC
Air, Noise & Vibration	Air quality data. Noise and vibration data and information.	EPA Portal/database Strategic Noise Maps & Action Plans Local authority database– FCC & DCC
Climatic factors	General climatic information and trends. Carbon emissions from construction activities	National and International reports on climate change EPA Greenhouse Gas Emission RSES

SEA Topic	Scope	Data Sources
Material Assets, Infrastructure	Number and type of infrastructure (Transport, telecommunications, energy) Resources and waste	Transport Infrastructure Ireland (TII) EPA & WFD data EPA Local authority data – FCC & DCC
Cultural, Archaeological & Architectural Heritage	Location and status of protected sites, monuments	Local authority data – FCC & DCC National Inventory of Architectural Heritage National Monuments Service Historic Environment Viewer for Archaeological and Architectural Heritage The Heritage Council
Landscape & Visual Amenity	Landscape character areas and sensitive landscape areas.	Local authority data – FCC & DCC Landscape Conservation Areas Landscape Character Areas Sensitive Landscapes

Table 5-2: Monitoring Plan

Environmental Factor	Potential significant effects	Monitoring indicators	Monitoring frequency and Responsibilities	Target/Threshold
Biodiversity, Flora & Fauna	Measure the success of implementation of river restoration and nature-based solutions measures to enhance biodiversity in the Masterplan area. Implementation of the various restoration and flood management, nature-based solutions can be monitored against the indicators as listed in the next column.	• Extent of habitats of conservation significance • Species richness • Populations of species of conservation significance • Invasive alien species populations • Extent of riparian habitat • Extent of hedgerows / verges • Number of features introduced to create habitat (e.g. nesting boxes for birds, ledges and artificial holts for otters, etc.) • Extent of grassland managed as mosaic habitats • Number of barriers causing fragmentation, e.g., to otter mobility, removed	Indicators related to habitats and species will be collected bi-seasonally annually during implementation and every three years following implementation by DCC. Indicators relating directly to implementation of measures will be collected annually by DCC.	Integrity of habitats and conservation status of species as per the requirements of the EU Habitats Directive (92/43/EEC) is maintained or improved. Increase in biodiversity.

Environmental Factor	Potential significant effects	Monitoring indicators	Monitoring frequency and Responsibilities	Target/Threshold
		• Number/extent of green/blue infrastructure included		
Population & Human Health	Use of the site following implementation of measures shall be monitored and adjustment to certain activities as relevant will be made if monitoring results indicate a need.	• Number of community events (e.g. educational visits, clean ups, environmental and cultural festivals, cultural tours, etc) held annually within the Masterplan area • Number / extent of cycling and walking routes • Extent of areas opened up for public use • Extent of areas protected from flooding	Annually during implementation by DCC.	Increased public/recreational use of Masterplan area Flood protection of Masterplan area.
Soil & Geology	Soil stabilisation is expected through some of the measures, monitoring to determine the extent of this will be required.	• Number of actions, such as planting of specific habitat, that also target / will result in improvements to soil quality and contribute to soil conservation. • Soil extent • Soil quality	DCC to collect every 6 months during implementation.	Avoidance of soil erosion. Any indication of soil erosion will require implementation of additional stabilisation measures.

Environmental Factor	Potential significant effects	Monitoring indicators	Monitoring frequency and Responsibilities	Target/Threshold
Water Quality & Flooding	As improvement to water quality is expected as well as flooding. Data has already been collected by the relevant Competent Authority in line with WFD requirements.	• Biological status (Q-values) • Water chemistry • Extent of river restored to more natural conditions • Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC • Compliance of relevant lower tier assessments and decision making with the Flood Risk Management Guidelines	Uisce Eireann/DCC/FCC Bi-annually.	Water Framework Directive (2000/60/EC) – enhancement of status of the river Santry Floods Directive (2007/60/EC)
Material Assets	Protection of material assets is expected and an emphasis on nature-based solutions should be presented.	• Extent of built/amenity assets and infrastructure protected from flooding • Use of Greenway • Use of sustainable drainage systems	DCC/FCC every 6 months	Green infrastructure
Air	Positive changes to air quality identified.	• Air quality indicators: • NO_2 concentrations	EPA data from nearest ambient air quality monitoring stations. Annually.	Defined hourly/daily/ monthly and annual thresholds, as set in the various EU air quality

Environmental Factor	Potential significant effects	Monitoring indicators	Monitoring frequency and Responsibilities	Target/Threshold
		• Particulate matter concentrations		directives (e.g., CAFE Directive 2008/50/EC)
Climatic Factors and Climate Change	Improved flood risk resilience.	• Extent of structures/sites with enhanced flood protection • Extent of river restored to more natural conditions • GHG emissions trends over time	DCC/FCC to measure indicators directly related to implementation. GHG emissions data to be obtained from EPA. Annually.	Floods Directive (2007/60/EC)
Landscape	Landscape and visual amenity are expected to be enhanced.	• Landscape condition in line with the Landscape Character Assessment of the Santry River, 2023	DCC/FCC when LCA is carried out as part of Development Plan requirements.	Landscape Character Assessment of the Santry River
Cultural Heritage	Insofar as possible, impacts on cultural heritage will be avoided and existing mitigation will be explored as necessary.	• Number of measures targeting the improvement of the cultural landscape	DCC/FCC to collect annually.	Maintenance and enhancement of cultural landscape and features in situ