

STRATEGIC ENVIRONMENTAL ASSESSMENT

Non-Technical Summary

Proposed Variation No:2

South Dublin County Development Plan 2022-2028

Prepared under the Planning and Development (Strategic Environmental Assessment)
Regulations 2004 (S.I. 435/2004) as amended

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1 Non-Technical Summary of SEA ER: Proposed Variation No 2 of South Dublin County Development Plan 2022 -2028

1.1 Background and Purpose of Proposed Variation and SEA

South Dublin County Council (SDCC) has prepared a Proposed Variation to the South Dublin County Development Plan (CDP) 2022-2028. The Proposed Variation to the South Dublin CDP 2022 -2028 seeks to respond to the recent changes in National planning policy, namely the publication of the National Planning Framework (NPF) First Revision and the publication of Guidelines for Planning Authorities issued under Section 28 of the Planning and Development Act, 2000 (as amended):

- NPF Implementation: Housing Growth Requirements, 2025 ('the 2025 Guidelines'), and
- Sustainable Residential Development and Compact Settlement Guidelines, 2024 ('the Compact Settlement Guidelines').

Policies and objectives of the 2025 Guidelines require that local authorities reflect the new housing growth requirements in their city or county development plan and that the objectives of the 2025 Guidelines are incorporated within development plans as quickly as possible through the variation of the current adopted development plan.

The Proposed Variation seeks to zone / re-zone additional lands to provide for residential uses for up to an additional c.7,300 dwellings to accommodate the anticipated shortfall of the baseline housing growth requirements to 2028 and utilise the maximum allowable "additional provision" of 50% land above the baseline requirements, as provided for in the 2025 Guidelines. Therefore, the additional land proposed to be zoned/re-zoned to allow for residential uses as part of the Proposed Variation to facilitate this scale of development amounts to c.156 hectares.

The 2025 Guidelines also require planning authorities to consider how to address zoning and phasing over a longer-timeframe of the subsequent 10-year development plan. In this regard, the Proposed Variation identifies suitable locations for long-term housing delivery as Future Strategic Long-Term Development Areas, subject to future rezoning. They are identified for future development to enable the commencement of preparatory work by SDCC, utility providers, landowners and other key stakeholders to prepare a plan-led approach for release of these lands as the need arises during the subsequent 10-year development plan (post-2030).

The Proposed Variation also includes other changes to reflect SPPRs of the Compact Settlement Guidelines and other policy measures to facilitate to release of currently zoned land.

The selection of suitable lands for zoning/re-zoning to residential uses has followed a criteria-based assessment. The assessment criteria are broadly set within the consideration of planning, sustainability, infrastructure, deliverability, environmental/heritage sensitivities, physical constraints and social infrastructure.

1.2 Strategic Environmental Assessment

Strategic Environmental Assessment (SEA) is a systematic process of predicting and evaluating environmental effects of a plan's implementation. The steps involved in SEA are as follows:

- Screening (determining whether or not SEA is required).
- Scoping (determining the range of environmental issues to be covered by the SEA).
- ***The preparation of an Environmental Report (current stage)***
- The carrying out of consultations.
- The integration of environmental considerations into the Plan or Programme.
- The publication of information on the decision (SEA Statement).

1.3 Consultation on scoping stage

The purpose of the SEA Scoping report is to identify the scope of the SEA and ensure that relevant data and environmental topics are included in the SEA. SDCC prepared a SEA Scoping Report and issued this to the prescribed environmental authorities on 19th November 2025 to 9th December 2025 for three weeks consultation period. Submissions were received from the Environmental Protection Agency, the Department of Housing, Heritage and Local Government and an acknowledgement from Kildare County Council. Submissions received at scoping stage have all informed the scope of this SEA. Chapter Two of the SEA ER presents this in more detail.

1.4 Relationship to other plans and programmes

It is a requirement of the SEA to review and assess how the Proposed Variation may interact with other plans and programme. Arising from the review, Table 1 highlights key implications from this review and how it relates to the UN sustainable development goals and the EPA State of Ireland's Environment (2024). The Strategic Environmental Objectives in the table below are used in the SEA process to assist in the assessment and identification of significant environmental effects.

Table 1 Key principles and implications for the SEA of the Variation to Dublin CDP 2022 -2028 and EPA Ireland's Environment 2024.

SDCC Development Plan Strategic Environmental Objectives (SEOs)		EPA Ireland's Environment 2024	UN Sustainable Development Goals
Biodiversity (Flora & Fauna) (B)	(B_1) Preserve, protect, maintain and where appropriate, restore the terrestrial, aquatic and soil biodiversity, of international, EU and nationally designated sites, protected species and habitats.	Nature 1. The Irish landscape is heavily modified by humans. Many of the few remaining natural and semi-natural habitats are in a poor or bad state.	Goal 3: Ensure healthy lives and promote well-being for all at all ages.
	(B_2) Ensure no adverse effects on the integrity of any European site, regarding its qualifying interests, associated conservation status, structure and function.		Goal 6: Ensure availability and sustainable management of water and sanitation for all.
	(B_3) Maintain and where appropriate, enhance the biodiversity value of local designated and non-designated ecological and heritage areas, which function as stepping-stones for migration, dispersal and genetic exchange of wild species.		Goal 13: Take urgent action to combat climate change and its impacts. Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
	(B_4) Enhance biodiversity in line with the National Biodiversity Strategy and its targets.		Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Population & Human Health (PHH)	(PHH_1) Provide high quality residential, community, working and recreational environments with access to sustainable transport options	Environment, Health and Wellbeing 1. Our health and wellbeing is inextricably linked to our surrounding environment. The health benefits of a vibrant natural world are countless, providing us with breathable air, drinkable water, productive soils and spaces for us to spend time in and enjoy, enhancing both our physical and mental health and wellbeing. 2. The harmful environmental exposures causing disease and	Goal 3: Ensure healthy lives and promote well-being for all at all ages.
	(PHH_2) Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection.		Goal 6: Ensure availability and sustainable management of water and sanitation for all.
	(PHH_3) Ensure that existing population and planned growth is linked with the required infrastructure and the services		Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all.
	(PHH_4) Protect human health and well-being from environment-related pressures.		Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation. Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Goal 12: Ensure sustainable consumption and production patterns.

SDCC Development Plan Strategic Environmental Objectives (SEOs)		EPA Ireland's Environment 2024	UN Sustainable Development Goals
		early death are modifiable. Reducing pollution, adapting to and mitigating climate impacts, and restoring ecosystems can have enormous benefits for our health and wellbeing. 3. The impacts of environmental hazards and exposures are not equal across society.	Goal 13: Take urgent action to combat climate change and its impacts. Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Land, Soils & Geology (SG)	<p>(LSG_1) Safeguard sensitive soil, resources and geological heritage sites against pollution and degradation.</p> <p>(LSG_2) Promote the sustainable use of infill and brownfield sites over the use of greenfield within the city.</p>	Soils 2. The protection of soils lacked a legal and policy framework until recently and the publication of the EU Soil Strategy in 2021 and the proposed soil monitoring law in 2023 are significant. Ireland faces challenges in achieving the objectives of the EU Soil Strategy and in implementing the proposed soil monitoring law. However, getting this right would significantly advance the protection of Ireland's soil health.	Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Goal 12: Ensure sustainable consumption and production patterns. Goal 13: Take urgent action to combat climate change and its impacts. Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
Water Quality (W)	<p>(W_1) Protect and where necessary improve and maintain water quality and the management of watercourses and groundwater and coastal waters in compliance with the requirements of the Water Framework Directive objectives and measures.</p> <p>(W_2) Avoid inappropriate development in areas at risk of flooding and areas that are vulnerable to current and future erosion.</p>	Water 2. We need to see full implementation of existing environmental legislation and high compliance rates across all regulated activities. 4. It is essential to build climate resilience into water quality management and into water services.	Goal 6: Ensure availability and sustainable management of water and sanitation for all. Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Goal 13: Take urgent action to combat climate change and its impacts. Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

SDCC Development Plan Strategic Environmental Objectives (SEOs)		EPA Ireland's Environment 2024	UN Sustainable Development Goals
	(W_3) Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals.		Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
Air Quality & Noise (AN)	<p>(AN_1) To avoid, prevent or reduce harmful effects on human health and the environment, resulting from emissions to air from all sectors- with particular reference to emissions from transport, residential heating and industry.</p> <p>(AN_2) Minimise travel related emissions and encourage a modal change from car to more sustainable forms of transport.</p> <p>(AN_3) Minimise noise emissions associated with traffic and transport and other noise and wind related industry etc.</p>	<p>Air: 2. Currently, Ireland is not meeting the guidelines set by WHO for multiple pollutants including fine particulate matter and nitrogen dioxide. We can actively improve our local air quality by changing to more sustainable forms of transport and heating.</p> <p>Noise 1 : Environmental noise is the second biggest environmental cause of health problems in the EU. In Ireland, over 1 million people are likely to be exposed to noise levels above the mandatory reporting threshold</p>	<p>Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all.</p> <p>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.</p> <p>Goal 13: Take urgent action to combat climate change and its impacts.</p>
Climate Change (CC)	<p>(CC_1) Minimise contribution to Climate Change by adopting mitigation and adaptation measures.</p> <p>(CC_2) Integrate sustainable design solutions into the city's infrastructure (e.g. energy efficient buildings; green infrastructure).</p> <p>(CC_3) Contribute towards the reduction of greenhouse gas emissions in line with national targets.</p>	<p>Climate change</p> <p>1. The science is clear – climate change is already having an impact on people, animals and plants in Ireland. The evidence is unequivocal, Ireland is being affected by climate change now, and the severity of the impacts is</p>	<p>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.</p> <p>Goal 12: Ensure sustainable consumption and production patterns.</p> <p>Goal 13: Take urgent action to combat climate change and its impacts.</p>

SDCC Development Plan Strategic Environmental Objectives (SEOs)		EPA Ireland's Environment 2024	UN Sustainable Development Goals
	<p>(CC_4) Encourage and promote development resilient to the effects of climate change.</p> <p>(CC_5) Promote the use of renewable energy, energy efficient development and increased use of public transport.</p>	<p>likely to increase significantly in the coming years.</p> <p>2. Ireland needs to be resilient to ongoing and future climate change impacts.</p> <p>3. Ireland is not currently projected to achieve its 2030 emissions reduction targets or to meet national or EU reduction targets. Despite Irish climate action ambitions, significantly faster progress is needed to decarbonise all sectors of Ireland's economy and implement adaptation actions to deliver a resilient and sustainable future for the benefit of all society.</p> <p>4. It is critical that people and communities are supported to achieve the changes required to address climate change.</p>	
Cultural Heritage (CH)	(CH_1) Protect places, features, buildings and landscapes of cultural, archaeological and / or architectural heritage from adverse impact from development	1. Our health and wellbeing is inextricably linked to our surrounding environment.	Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Goal 13: Take urgent action to combat climate change and its impacts.
Landscape & Visual (LV)	(LV_1) Protect and maintain the special qualities of the landscape character, especially with regard to areas of high amenity, the Dublin Mountain Area, and the River Liffey and River Dodder Valleys.	Land 2. We cannot make more land, so must use our land wisely. Part of this challenge is to understand how best to use our land for social and economic benefit in a way that supports, rather than damages, the	Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Goal 13: Take urgent action to combat climate change and its impacts.

SDCC Development Plan Strategic Environmental Objectives (SEOs)	EPA Ireland's Environment 2024	UN Sustainable Development Goals
	<p>environment. The national land use review has a vital role to play in identifying land use opportunities and constraints.</p> <p>Land 3. Land use offers natural, social and economic benefits. We can use our land in ways that support climate action, nature restoration, protection of water quality and a sustainable economy through implementing a multiple benefits approach.</p>	
<p>Material Assets (MA)</p> <p>(MA_1) Make best use of existing infrastructure, promote the sustainable development of new infrastructure to match population distribution and protect existing assets, to meet the needs of South Dublin's population.</p> <p>(MA_2) Promote the circular economy, reduce waste, and increase energy efficiencies.</p> <p>(MA_3) Ensure there is adequate sewerage and drainage infrastructure in place to support new development.</p> <p>(MA_4) A reduction in energy demand from the transport sector and support moves to electrification of road and rail transport modes</p>	<p>Transport:</p> <p>1. The transport sector is a major consumer of energy and material resources and is a source of environmental pollution, particularly greenhouse gases, air pollutants and noise.</p> <p>2. A sustainable, accessible and efficient transport system is not only important for the environment and wellbeing but is also a key enabler for the economy.</p> <p>3. High-level integration between land use planning and transport planning is needed to achieve more compact development, incentivise a move away from private cars, and move trips to rail, bus, cycling and walking.</p>	<p>Goal 6: Ensure availability and sustainable management of water and sanitation for all.</p> <p>Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all.</p> <p>Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.</p> <p>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.</p> <p>Goal 12: Ensure sustainable consumption and production patterns.</p> <p>Goal 13: Take urgent action to combat climate change and its impacts.</p> <p>Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</p>

SDCC Development Plan Strategic Environmental Objectives (SEOs)	EPA Ireland's Environment 2024	UN Sustainable Development Goals
	<p>Energy:</p> <p>1. Established technologies, such as wind energy, solar photovoltaics and bioenergy, will be key in meeting short-term emission reduction targets (i.e. 2030), whereas significant growth in offshore wind infrastructure is expected to be the key essential element of future energy systems.</p> <p>2. Growing demand for electricity is an anticipated by-product of the expected electrification of the heat and transport sectors. However, additional and rapidly increasing electricity demand growth from large energy users is putting pressure on energy systems.</p> <p>Circular Economy and Waste</p> <p>1. Ireland has a damaging linear economy characterised by the overconsumption of materials. Current trends pose a high risk of not meeting mandatory recycling targets. The challenge for Ireland is to reverse these trends and significantly reduce waste production.</p> <p>2. Ireland's capacity to collect and treat waste is vulnerable and underperforming, with an over-reliance on other countries to treat</p>	

SDCC Development Plan Strategic Environmental Objectives (SEOs)	EPA Ireland's Environment 2024	UN Sustainable Development Goals
	our recycling materials, general municipal and hazardous wastes	

2 Describing the current environment.

Baseline data has been gathered to present information on the current environment within the area and this is summarised below in Table 2. A series of maps relevant to the baseline resources of South County Dublin are also presented.

Table 2 Designated Ecological Sites and Protected Species:

Topic	Summary
Biodiversity, Flora and Fauna	The County includes a number of designated sites for wildlife and habitats; These include Glensamole Valley SAC in the southern part of the county and proposed Natural Heritage Areas including the Liffey Valley and Grand Canal pNHAS. Other important features contribute to wildlife and biodiversity including habitats by rivers, hedgerows and semi natural habitats such as calcareous grassland.
Population and Human health	The total population of South Dublin was 301,075 persons according to the 2022 Census. South Dublin is identified by the Eastern and Midland Regional Assembly Regional Spatial and Economic Strategy (RSES) 2019-2031 as being part of the Dublin Metropolitan Area. The main population settlements within the county are Dublin City and Suburbs, Saggart, Rathcoole and Newcastle In terms of human health, where people live has a huge impact on their quality of life and health in terms of air quality, light, noise, water, access to services and community, social facilities.
Climate Change	The South Dublin County Council <i>Climate Action Plan 2024-2029</i> sets out three targets that are interdependent: <ul style="list-style-type: none"> • A 51% reduction in greenhouse gas emissions in line with our National Climate Objective by 2030, while striving for neutrality before 2050 as per South Dublin County's participation in the EU Mission for 100 Climate Neutral and Smart Cities (Net Zero Cities). • A Climate Resilient City prepared for the known and unknown impacts of climate change • A Just Transition meaning that the actions we take do not cause harm. Addressing impacts of climate change including extreme weather events through adaption and mitigation of these impacts is a key priority of the above plan.
Water including flooding	The EU Water Framework Directive (WFD) (2000/60/EC) establishes a framework for the protection of both surface and groundwater. Transposing legislation outlines the water protection and water management measures required in Ireland to maintain high status of waters where it exists and to prevent any deterioration in existing water status. The plan area is located within the Liffey and Dublin Bay catchment. Water quality varies in the plan area, with only one river of high status, 10 of good status, 8 moderate status and 8 poor statuses. A strategic flood risk assessment has been undertaken as part of the Proposed Variation; this has identified flood risk in or close to the Proposed Lands.
Soil and Geology	Within the plan area, built land is identified as 'made soils', these are soils which have been disturbed, transported or manipulated by activity in the urban environment. Outside the urban lands, soils are limestone based with

Topic	Summary
	poorer draining soils associated with the foothills and hills which are underlain by shale and granite bedrock predominantly.
Material Assets	Material assets include transport infrastructure, power generation plants and supply networks, water supply, wastewater treatment infrastructure and waste disposal sites. As part of the Variation process a planning assessment was undertaken to evaluate potential lands suitable for residential zonings.
Landscape	The landscape of the county is varied, ranging from alluvial river valleys to fertile fields, ancient monastic settlement villages surrounded by suburban residential and office parks, to mixed farming and forestry in the mountainous uplands. Significant features of the Plan area include the Dublin mountains offering ecological and biodiversity interest with panoramic views over Dublin Bay and its glacial features of Glenasmole Valley; the Liffey Valley to the north of the county; the historical and tourism amenity of the linear landscape corridor of the Grand Canal; and the urbanised lowlands playing host to much of the county's population.
Cultural heritage	<p>There are 376 Recorded Monuments within the Plan area reflecting sites of archaeological importance. Six extensive zones of archaeological potential in the Plan area are located at Tallaght, Newcastle, Clondalkin, Lucan, Saggart and Rathcoole. The most visible examples of archaeological heritage are the street patterns which remain in the monastic settlements of Clondalkin and Tallaght. Other areas of archaeological potential include prehistoric monuments and sites, church sites, burial ground, holy wells and medieval structures.</p> <p>In relation to built heritage, buildings, gardens, and designed landscapes are all reflected in the National Inventory of Architectural Record of protected structures record buildings and features of architectural significance and at settlement level, Architectural Conservation Areas encompass significant streetscapes.</p>

Figure 1 Designated sites for nature conservation

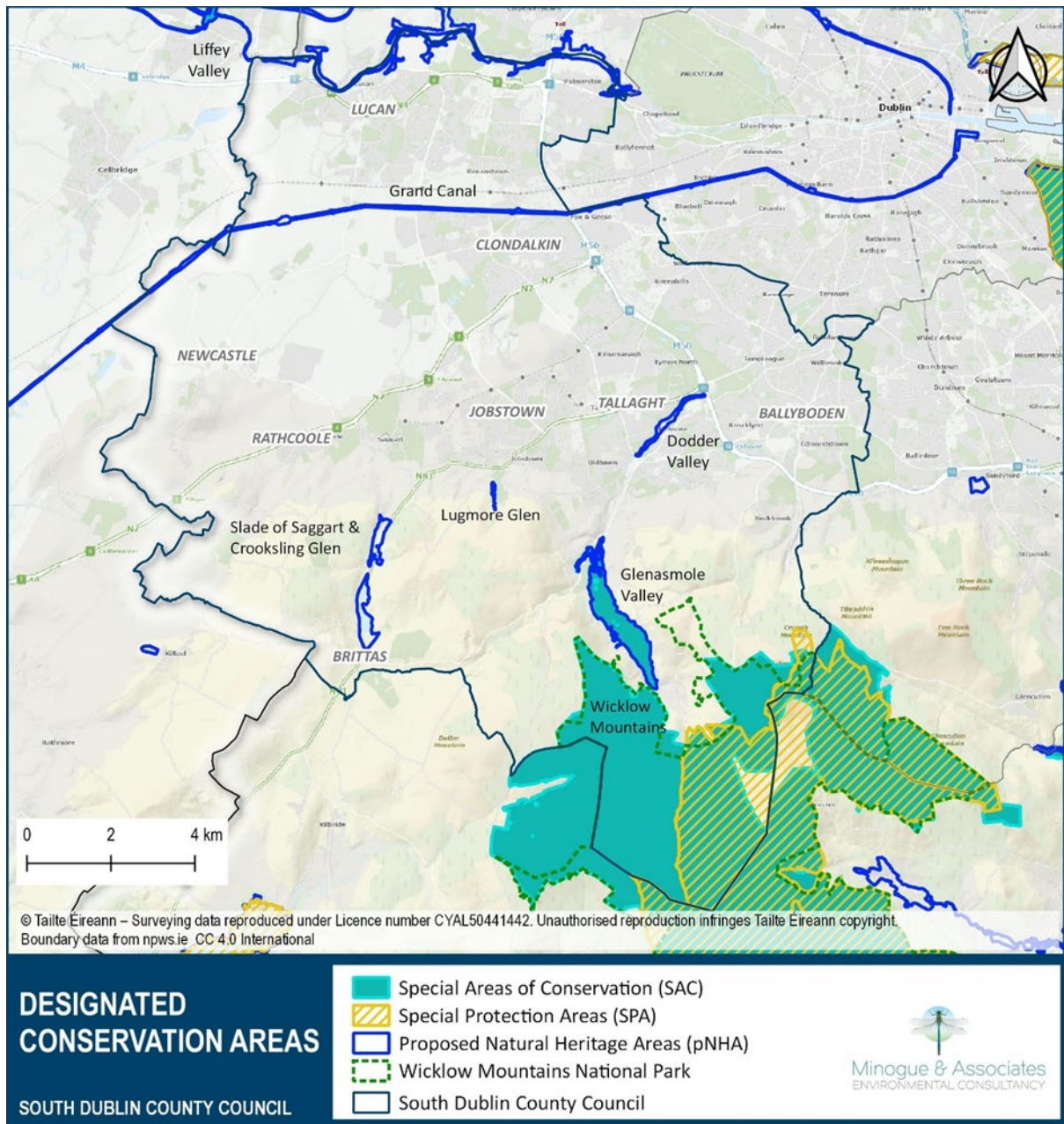


Figure 2 Population density

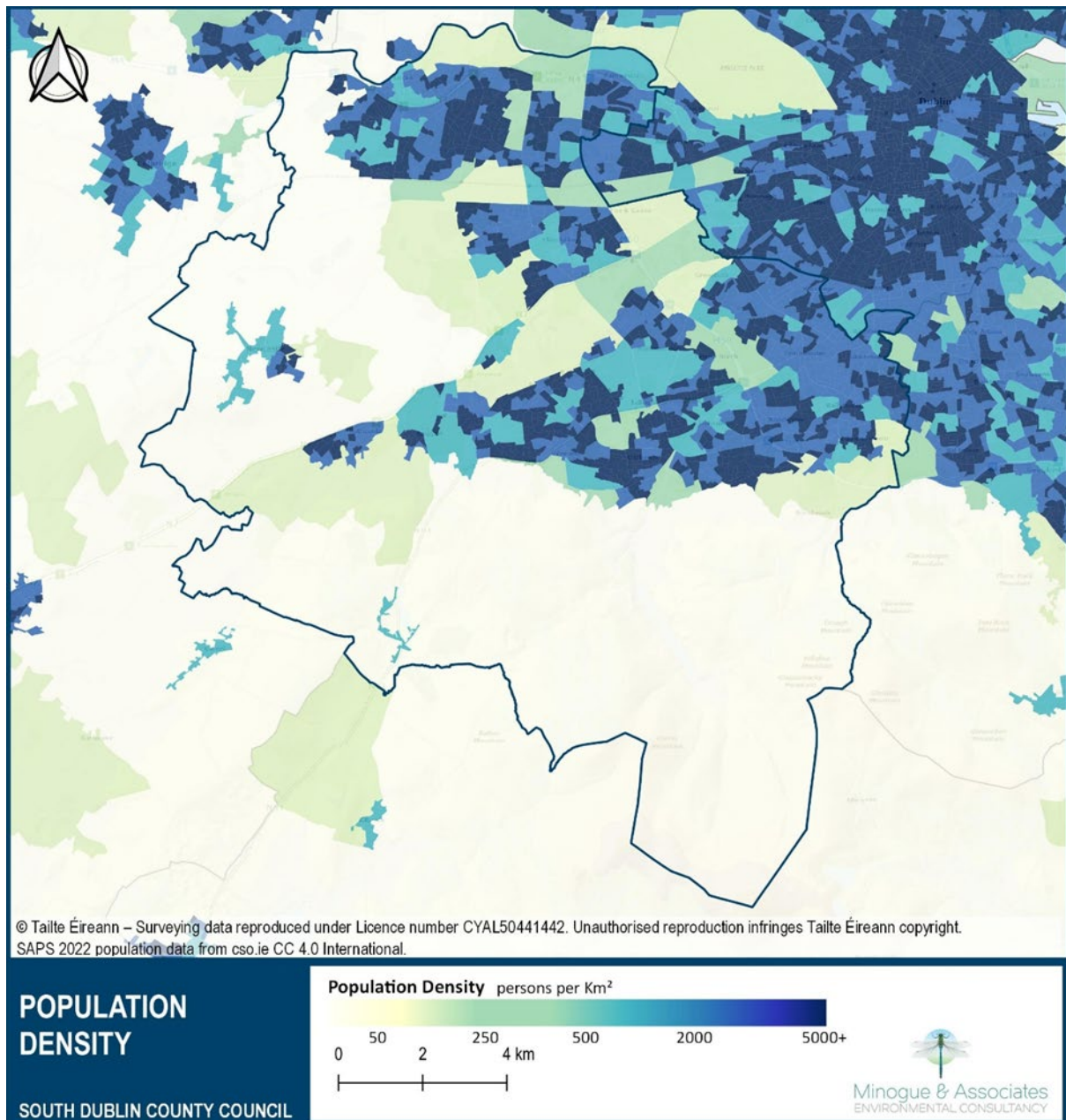


Figure 3 Surface water quality

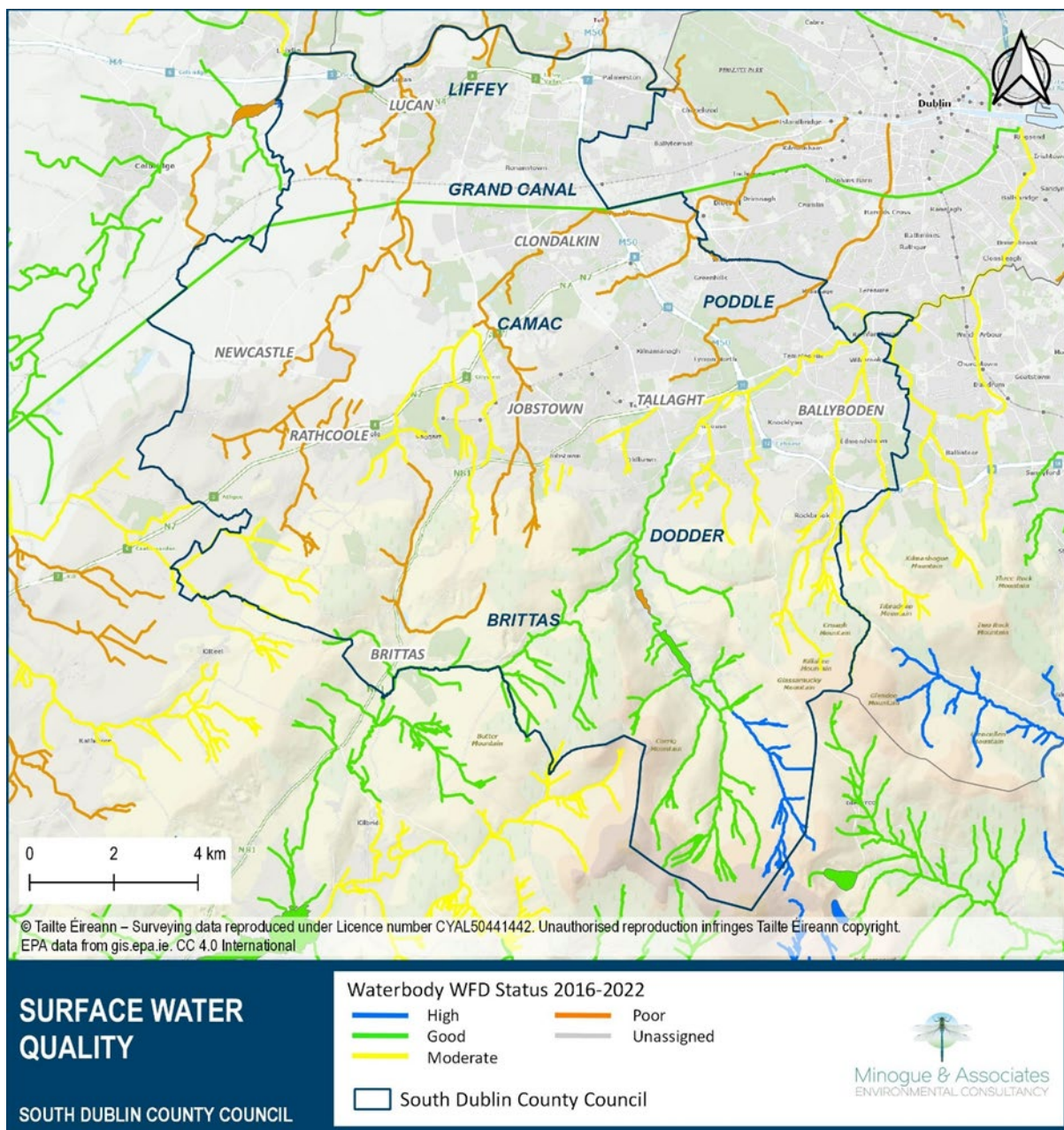


Table 3 and 4 overleaf summarise some of the key environmental issues for each of the above topics.

Table 3: Summary of Key Environmental Issues per SEA Topic

SEA topic	Key environmental issues
Biodiversity, Flora and Fauna	<ul style="list-style-type: none"> • Enhance existing natural environment in and around the plan area, • Potential impacts to European and Nationally designated sites • Recreational and development pressure on habitats and landscapes • Managing and controlling alien invasive plant and animal species. • Supporting ecological connectivity and avoiding fragmentation of habitats at county scale.
Population and Human health	<ul style="list-style-type: none"> • Housing- social, mix of housing, density- achieving Core Strategy and residential units • Services including childcare, amenity, open space • Noise and air emissions and potential impact on human health • Placemaking and creation of sense of place •
Water resources including flooding	<ul style="list-style-type: none"> • Responding and adapting to increasing extreme weather effects and effects on water resources. • Control/avoid introduction of alien and invasive species • Reversing trends in water quality in the plan area, contributing to improving water quality. •
Air Quality and Climate	<ul style="list-style-type: none"> • Implementation of South Dublin Climate Action Plan 2024 via measures at plan level • Addressing impacts of climate change and ensuring where possible mitigation to climate change impacts are designed to provide co benefits via nature based solutions.
Soil and Geology	<ul style="list-style-type: none"> • Reuse of brownfield sites • Reuse of materials where possible via circular economy approaches to construction •
Landscape and townscape	<ul style="list-style-type: none"> • Public realm measures • Placemaking and creation of sense of place for new residential landuse zonings • Good design and permeability •)
Cultural Heritage	<ul style="list-style-type: none"> • Protection and enhancement of built heritage • Recognising relationship between natural and cultural heritage • Promotion of heritage features.
Material Assets	<ul style="list-style-type: none"> • Provision of a permeable pedestrian and cycling network • Encouraging sustainable use of resources. • Energy efficiency across material assets and infrastructure

A requirement of the SEA Directive is to discuss how the environment may evolve in the absence of the Proposed Variation; Table 4 below summarises this discussion.

Table 4 Evolution of the environment in the absence of the Proposed Variation

SEA topic	Evolution of same
Biodiversity, Flora and Fauna	Flora and fauna, habitats and ecological connectivity would be protected under existing provisions at legal and policy level. The South Dublin CDP 2022-2028 remains the primary statutory land use framework for the county, specific measures identified to support green and blue infrastructure plus modal shifts with localised improvements in noise and emissions may not be realised; as well as specific measures for longer term actions.
Population, Human health	The Proposed Variation responds to the NPF and to achieve Compact Growth, Accessibility, Sustainable Mobility, Climate Action and a transition to a low carbon climate resilient society. In the absence of the Variation the identification of additional lands based on the planning assessment approach would not be achieved. However, the need for additional residential housing lands would remain. This could result in less optimum locations or under capacity for lands zoned residential with accompanying effects on population and human health. In combination, effects relating to human health and air quality, water quality and climate change would not be fully availed of.
Air Quality and Climate	In the absence of the Proposed Variation, existing legal and policy commitments will apply however, there would be fewer opportunities at scale to support transport-based actions to address climate change and to embed climate change adaptation measures through the plan area.
Water Resources including flood risk	Statutory and legal provisions would remain through the Water Framework Directive and South Dublin CDP 2022-2028.
Soil and Geology	Legislation relating to soil and geology related activities would apply.
Material Assets	Existing objectives that relate to this parameter would apply. The current legislation which provides for the protection and enhancement of the water resources and quality at the European, National, Regional and County level will protect and maintain existing water bodies in the Plan area. The planning assessment has highlighted transport led development where optimum and this may not be advanced in such a holistic manner in the absence of the Proposed Variation
Landscape	Existing objectives that relate to this parameter would apply.
Cultural Heritage	Legislation and guidance from international and national level afford both the architectural and archaeological elements a high level of protection. As above for Landscape, the potential for wider benefits around place making and setting of existing cultural heritage features may not be fully realised.

The SEA Directive requires that the interrelationship between the SEA environmental topics must be considered. All SEA topics interact with each other to an extent. However, significant interactions are presented below in Table 5 at strategic scale.

Table 5 Inter relationships

BFF	•	•	•	•	•	•		•
PHH	•	•	•		•	•	•	•
W	•	•	•	•	•	•		•
G & S	•	•	•		•	•		•
AQ C	•	•	•		•	•	•	•
L	•	•	•		•	•		•
CH	•	•	•		•	•		•
MA	•	•	•	•	•	•	•	•
	BFF	PHH	W	G&S	AQ C	L	CH	MA

3 Consideration of alternatives

The SEA Directive requires that reasonable alternatives be assessed to demonstrate how the preferred strategy performs against other forms of action. Alternatives must be developed, described and assessed within the SEA process, with the results presented in the Environmental Report.

A number of alternatives were considered, and certain alternatives were not reasonable or practical so the more detailed evaluation focused on the following three alternatives:

- Alternative 1: Sequential development across all settlements: all existing settlements including settlements in more rural areas would be identified for additional residential land rezoning, on a sequential basis, where lands are, or could be serviced.
- Alternative 2: Brownfield and underutilised lands within the built-up footprint of Dublin City and suburbs.
- Alternative 3: Focus on large-scale Transport Orientated Development only at existing or planned high-capacity public transport rail and light-rail nodes as planned.

Following the evaluation and assessment of the alternatives above against the SEOs, the preferred strategic alternative for the approach to the Proposed Variation was a combination of Alternative 2 and Alternative 3.

By combining these two alternatives, the principle of transport orientated development and where possible a focus on brownfield and underutilised lands within Dublin City and suburbs, at strategic scale this combined alternative performs best with the SEOs. At strategic scale this combined alternative meets the objectives of the statutory provisions, and performs the strongest environmentally, subject to further refinement via lands proposed for rezoning and appropriate mitigation measures, including where relevant, site-specific measures. Thus, the planning authority has had regard to the potential alternatives as explored above, and this preferred alternative at strategic scale is being advanced and seeks to avoid and minimise adverse effects on environmental resources.

4 Assessment of significant environmental effects

A summary of the significant environmental effects is shown below. The SEA ER also considered in combination effects across other plans and programmes and within plan elements.

Population and human health

Land use planning impacts on the everyday lives of people and can either hinder or help promote healthy sustainable environments and communities. The maintenance, protection and enhancement of water quality are important and are closely allied to human health generally. For some of the lands proposed for rezoning, buffer zones at rivers and riparian corridors will be required to ensure water quality protection, with co-benefits for soil and geology SEOs, and biodiversity SEOS. The South Dublin CDP 2022-2028 has identified riparian corridors on maps and has an associated policy on same (See Chapter 8).

Biodiversity, Flora and Fauna

A review of the aerial imagery for all the lands has classified at high level the habitats present on site. This was supported by a search for protected species from the National Biodiversity Centre Database for the Proposed Variation. Following from the above, whilst several lands may be considered brownfield, the reuse and conversion to residential lands is positive for soil and geology SEOs and reduces greenfield conversion. Aligned with this is the identification of the presence of hedgerows and treelines on several preferred lands, some are present on the 1st Edition Ordnance Survey map which reflects their ecological and historical significance. Mitigation measures are recommended for such lands and can be seen in Annex A. (loss of these features represents a permanent impact)

Cumulatively the erosion or fragmentation of ecological corridors will require mitigation and retention of such features at project level. Infrastructure has the potential to generate adverse impacts on biodiversity, with key potential impacts relating to disturbance, disruption, fragmentation and loss of habitats.

Climate Change

Overall, the Proposed Variation will contribute positively to climate change adaptation and mitigation through the following:

- Integration of land use and transport as reflected in the methodology
- Integration of plan actions and measures in the South Dublin Climate Action Plan 2024 -2029
- Focus on public transport as a key criterion should encourage modal shifts if delivered successfully and reliably.
- New housing will be energy efficient

- Soil sealing associated with conversion of grassland to built land represents a local loss of carbon sinks and a long-term impact. Measures to integrate additional buffers of natural vegetation, good quality landscape plans and SuDs assist at strategic scale to address such impacts.

Water Resources including flooding

Potential effects on water resources (and frequently biodiversity) in the absence of mitigation include:

- A reduction in water quality in groundwater, springs and watercourses associated with the construction phase of new developments (short to medium term impacts)
- Surface water runoff from impermeable surfaces leading to reduced water quality in groundwater springs or surface waters affecting qualifying habitats and species downstream (impacts can range from short to long term).
- While High End Future Scenario (HEFS) extents are not used to delineate Flood Zones, they provide valuable information to inform zoning decisions, particularly where development is proposed in areas that may be vulnerable under more extreme climate scenarios. Therefore, the HEFS flood extents have been used as part of the Justification Test appraisal of the opportunity sites undertaken in Appendix A of the SFRA that accompanies the Proposed Variation
- Riparian corridors are identified and mapped in the South Dublin CDP 2022-2028 with associated policy these will provide for appropriate protection and co benefits for relevant lands.

Soil and Geology

Soil quality and function may be enhanced through measures associated with water quality and land use and achieving the Water Framework Directive Objectives. The quality of groundwater is directly related to soil quality and land use, and abstraction of geological and soil resources can also affect the water table over time. The most significant potential soil and geology effect identified relates to new build development on greenfield lands representing a permanent loss of soil. Soil sealing and increased risk of surface run off are addressed largely by identification of brownfield lands, SUDs measures, and reuse of existing brownfield lands also creates positive effects for Geology and Soil SEOs.

Material Assets

For transport, lands proposed for rezoning perform well in terms of the infrastructural audit generally and this will create positive impacts for a number of SEOs including population and human health, air quality and climate and sustainable transport. More sustainable transport options with cumulative and in combination positive impacts relating to human health, biodiversity and air quality are identified.

Currently as stated in Section 4.7.1 wastewater is treated at Ringsend WWTP. Water supply and wastewater capacity and demands are addressed in conjunction with Uisce Éireann. The key element in relation to this is ensuring the implementation of the residential lands are in line with capacity to treat wastewater and water supply services.

Additionally, provision is made in the South Dublin CDP 2022 -2028 for surface water measures which contribute to overall surface water management, contribution to green and blue infrastructure and climate adaptation.

Application of Flood Risk guidelines is consistent with SEOS and avoids potential adverse effects arising from inappropriate development and land use activities. Additional information is provided in terms of the review of the land use zonings of the Proposed Variation in the accompanying SFRA and Annex A of this report.

Landscape

Recognition and protection of landscape and habitat features including linear features such as hedgerows, treelines and rivers are detailed in the County LCA and Green Infrastructure chapter of the South Dublin CDP; full adherence and implementation of these policies should minimise loss of local character.

Interactions with other environmental parameters including water, biodiversity and cultural heritage could result in positive or adverse impacts on landscape character at landscape scale.

Cultural heritage

Potential cultural heritage impacts arise in relation to built development, though existing development management control and policies/objectives of the South Dublin CDP will ensure sufficient protection and oversight.

The erosion or loss of vernacular features such as farm gates or local walls would result in permanent loss of such features and the physical representation of local craftwork and history.

5 Mitigation Measures

This section outlines the mitigation measures that will prevent, reduce, and offset as much as possible any significant adverse effects on the environment of the plan area resulting from the implementation of the variation. Mitigation measures can be generally divided into those that:

- Avoid effects;
- Reduce the magnitude or extent, probability and/or severity of effect;
- Repair effects after they have occurred, and
- Compensate for effects, by balancing out negative impacts with positive ones.

The iterative process of the plan preparation has facilitated the integration of environmental considerations into the plan. In addition, potential positive effects of implementing the plan have been and will be maximized and potential adverse effects have been and will be avoided, reduced or offset.

Proposals for development which are deemed contrary to the environmental objectives contained in the South Dublin County Development Plan 2022 -2028 will not normally be permitted, and if permitted, not without the appropriate site and development specific mitigation measures.

Table 6 below presents some of the specific mitigation measures identified for the Proposed Variation through the SEA and AA process and relate to the Specific Local Objectives for lands identified for the Proposed Variation. Such mitigation measures reflect the issues identified in the SEA and AA assessments and are presented in blue font.

Table 6 SEA and AA Mitigation integrated to the Proposed Variation.

CS7 SLO2:

Development on RES-N zoned lands at St. Edmundsbury, Lucan Road shall comply with the following:

1. The development of a park within the Liffey Valley (zoning objective HA-LV) with enhanced recreational amenity and accessibility of the area while protecting the valley's biodiversity and enhancing the green infrastructure network shall be provided for in tandem with, or prior to, residential development of the adjoining Res-N zoned lands. The park shall include lands within the HA-LV zoning objective to the north and west of the Res-N zoned lands extending to the River Liffey, including to the north and west of St. Patrick's Hospital grounds, and including connections westwards to Lucan Village and Chapel Hill. A detailed proposal to achieve this shall be agreed with the planning authority in advance of submission of a planning application for residential development on the Res-N zoned lands.
2. A masterplan for the lands shall be prepared by the planning authority or in consultation with, and approved by, the planning authority, in advance of the submission of a planning application for residential development informed by and addressing, inter alia:

- a. An Ecological Impact Assessment to ascertain usage of the site and surrounding lands by mobile species,
- b. Retention and enhancement of the east-west hedgerow and tree line in the north of the site as recorded on 1st Edition OS maps,
- c. A Local landscape and historical character assessment,
- d. Transport and Traffic Assessment detailing the impact of the proposed development and measures to alleviate its impact, and
- e. A Design Statement outlining how the proposal responds to the setting and special interest of the Protected Structures and their curtilage.

CS7 SLO3:

Development on RES zoned lands at Finnstown Castle shall comply with the following:

1. Development may not commence until Dart+ Southwest has commenced construction.
2. An infrastructure masterplan shall be submitted to the planning authority as part of a planning application for residential development, addressing the water and wastewater network upgrades as necessary to serve the subject lands while demonstrating that the needs of zoned lands in the surrounding area, including Clonburris SDZ, are not compromised. To be agreed with Uisce Éireann in advance of submission of a planning application.
3. Through appropriate studies or otherwise and having regard to the cumulative development potential around and including the subject lands, planning applications for residential development on the subject lands shall be informed by and address, inter alia:
 - a. Retention and enhancement of the hedgerow and tree line on the north-western boundary of the site as recorded on 1st Edition OS maps,
 - b. A Social Infrastructure Audit and provision within development proposals to address any needs identified,
 - c. A Transport and Traffic Assessment detailing the impact of the proposed development and measures to alleviate its impact,
 - d. A Design Statement outlining how the proposal responds to the setting and special interest of the Protected Structure and its curtilage,
 - e. A Public Open Space Audit to inform proposals for public open space and recreational facilities, and
 - f. Provision for direct active travel connections from the subject lands into Adamstown SDZ.

6 Monitoring

The monitoring programme will consist of an assessment of the relevant indicators and targets against the data relating to each environmental component. The full monitoring table is shown in Chapter 9 of the SEA ER that identifies data sources and responsible agencies. A summary monitoring table is presented overleaf.

Table 7 Summary of Monitoring Programme

Strategic Environmental Objectives (SEOs) from the South Dublin County Development Plan 2022-2028		Targets	Indicators
Biodiversity (Flora & Fauna) (B)	(B_1) Preserve, protect, maintain and where appropriate, restore the terrestrial, aquatic and soil biodiversity, of international, EU and nationally designated sites, protected species and habitats.	Preparation and implementation of a Green Infrastructure strategy for the county. <ul style="list-style-type: none"> • Preparation and implementation of actions in the SDCC Biodiversity Action Plan. • Implementation of actions in the SDCC Pollinator Plan. • That biodiversity is integrated into all decision making across the Plan. • Submission of Screening Report or Natura Impact Statement for proposed developments with planning applications in / and / or near European Sites. • No loss of protected habitats and species during the lifetime of the Plan. • Prevent the introduction or spread of invasive or alien species. 	Number of actions implemented in the SDCC Green Infrastructure strategy. <ul style="list-style-type: none"> • Number of actions implemented in the SDCC Biodiversity Action Plan. • Number of actions implemented in the SDCC Pollinator Plan. • Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted. • The findings from SEA and AA (as relevant) for policies, plans, programmes etc. • Designation of additional areas due to biodiversity and / or geological value. • Number / percentage of developments in / near Natura 2000 network. • Percentage of unique habitats and species lost in designated sites through trending of annual surveys • Number, type and location of invasive species identified.
	(B_2) Ensure no adverse effects on the integrity of any European site, regarding its qualifying interests, associated conservation status, structure and function.		
	(B_3) Maintain and where appropriate, enhance the biodiversity value of local designated and non-designated ecological and heritage areas, which function as stepping stones for migration, dispersal and		

Strategic Environmental Objectives (SEOs) from the South Dublin County Development Plan 2022-2028		Targets	Indicators
	genetic exchange of wild species.		
	(B_4) Enhance biodiversity in line with the National Biodiversity Strategy and its targets.		
Population & Human Health (PHH)	<p>(PHH_1) Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection.</p> <p>(PHH_2) Provide high quality residential, community, working and recreational environments with access to sustainable transport options.</p> <p>(PHH_3) Ensure that existing population and planned growth is linked with the required infrastructure and the services</p> <p>(PHH_4) Protect human health and well-being from</p>	<ul style="list-style-type: none"> • Development within the residential and employment growth areas identified in the MASP. • Progress on implementation of extant planning permissions, delivery rate of units per neighbourhood within the overall settlement. • Lands for Employment monitor uptake of employment lands using land capacity study baseline. • Number of sites added and or removed from the 'Vacant Sites Register'. • Progression of works forming part of the Parks & Open Space Strategy Progression of roll out of Teen Space Programme 2021 and Sports Pitch Strategy. • Improved trends in quality of life related to these matters. • No significant deterioration in human health as a result of environmental factors. • Implementation of Cycle South Dublin Programme implementation of permeability projects arising from Sustainable Movement Studies; achievement of County Mode Split Targets for Walking and Cycling; 	<ul style="list-style-type: none"> • Number / percentage of units delivered within overall settlements. • Implementation of Plan measures relating to the promotion of economic growth and employment. • Number of buildings listed on 2020 vacant and derelict site registers now in use. • Number of actions implemented in the Parks & Open Space Strategy / Sports Pitch Strategy. • Any occurrence of spatially concentrated deterioration in human health. • Number / area of green spaces and amenities available to the public

Strategic Environmental Objectives (SEOs) from the South Dublin County Development Plan 2022-2028		Targets	Indicators
	environment-related pressures.	number of schools participating in School Streets and Green Schools initiatives.	
Soils & Geology (SG)	<p>(SG_1) Safeguard sensitive soil, resources and geological heritage sites against pollution and degradation.</p> <p>(SG_2) Promote the sustainable use of infill and brownfield sites over the use of greenfield within the city.</p> <p>(SG_3) Safeguard designated geological sites</p>	<ul style="list-style-type: none"> • Reduce the use of greenfield land by encouraging the reuse of brownfield sites. • Achieve the 40% target for growth on infill as per NPF. • Ensure sustainable extraction of non-renewable sand, gravel and rock deposits and the reuse and recycling of construction and demolition waste. • No incidences of soil contamination 	<ul style="list-style-type: none"> • Number / percentage of new developments on brownfield sites. • Percentage of brownfield land developed over the Plan period. • Percentage of total greenfield land developed. • Volume of contaminated material generated from brownfield and infill. • Volume of construction and demolition waste recycled, in comparison with previous year/s. • Excessive land-filling of quality soils. • Incidences of soil contamination.
Water Quality (W)	(W_1) Protect and where necessary improve and maintain water quality and the management of watercourses and groundwater and coastal waters in compliance with the requirements of the Water Framework Directive and Marine Strategy Framework Directive objectives and measures.	<ul style="list-style-type: none"> • All waters within the Plan area to achieve the requirements of the WFD and the relevant River Basin Management Plan by 2027. • Surface and groundwater - Number of permissions for new developments which include and on-site wastewater treatment facilities. • Not to permit development where it would result in a WWTP exceeding the terms of its discharge license. • Encourage future population growth in areas served by urban WWTP and public water supplies. 	<ul style="list-style-type: none"> • The status of water quality in the county's waterbodies and the proportion of 'good' and 'high' status waterbodies above 2020 baseline. • Number of households served by urban wastewater treatment plants / septic tanks / individual WWTP or other systems. • Number of households served by public water supplies.

Strategic Environmental Objectives (SEOs) from the South Dublin County Development Plan 2022-2028		Targets	Indicators
	<p>(W_2) Avoid inappropriate development in areas at risk of flooding and areas that are vulnerable to current and future erosion.</p> <p>(W_3) Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals.</p>	<ul style="list-style-type: none"> • Sustainable Water Management - compliance of relevant planning applications. • Progression of the flood relief schemes approved in the ten year Programme of Investment in Flood Relief Measures. • Compliance with the Flood Risk Management Guidelines at site and plan level 	<ul style="list-style-type: none"> • Number of developments granted planning permission that incorporate SUDs. • Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk. • Completion / progression of approved flood relief scheme
Air Quality & Noise (AN)	(AN_1) To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating and industry.	<ul style="list-style-type: none"> • Provide for increased use of public transport. • Increase number of cycle lanes and pedestrian routes in the plan area. • Improve ambient air quality trends, particularly in relation to transport-related emissions of NOx and particulate matter through reduction of private vehicle usage. • An increase in the percentage of the population travelling to work or school by public transport or non- mechanical means. 	<ul style="list-style-type: none"> • Uses of public transport. • Number of cycle lanes and pedestrian routes provided in the Plan area. • Air quality indicators. • Percentage compliance with EPA emission limits for sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter. • Percentage population within the Plan area travelling to work or school by public transport or non mechanical means, above 2016 CSO figures. • Number of grants given for insulation works; energy efficiency of new buildings - energy rating figures.
	(AN_2) Minimise travel related emissions and encourage a modal change from car to more sustainable forms of transport.	<ul style="list-style-type: none"> • To promote reduced energy consumption and support the uptake of renewable retrofitting of buildings (including heating systems). 	
	(AN_3) Aim to meet Air Quality Directive standards		

Strategic Environmental Objectives (SEOs) from the South Dublin County Development Plan 2022-2028		Targets	Indicators
	for the protection of human health - Air Quality Directive.		
	(AN_4) Significantly decrease noise emissions associated with traffic and transport and other noise related industry etc.		
Climate Change (CC)	(CC_1) Minimise contribution to Climate Change by adopting mitigation and adaptation measures.	<ul style="list-style-type: none"> • Implementation of South Dublin Climate Action Plan 2019-2024. • Achieve transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. 	<ul style="list-style-type: none"> • Number of actions implemented in the SDCC Climate Action Plan. • Implementation of Plan measures relating to climate reduction targets as provided for by Plan provisions.
	(CC_2) Integrate sustainable design solutions into the city's infrastructure (e.g. energy efficient buildings; green infrastructure).	<ul style="list-style-type: none"> • Increased density and penetration of the public transport network including frequency of service - e.g. for urban and rural bus services. 	<ul style="list-style-type: none"> • Number of new bus services or routes and new cycle lanes.
	(CC_3) Contribute towards the reduction of greenhouse gas emissions in line with national targets.	<ul style="list-style-type: none"> • Increase in the proportion of people resident in the county reporting regular cycling / walking to school and work above 2016 CSO figures. 	<ul style="list-style-type: none"> • Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures.
	(CC_4) Encourage and promote development resilient to the effects of climate change.	<ul style="list-style-type: none"> • Decrease in the proportion of journeys made by residents of the county using private fossil fuel-based car compared to 2016 levels. • Contribute towards the target of the Renewable Energy Directive (2009/28/EC), for all Member States to reach a 10% share of renewable energy in transport by 2020. 	<ul style="list-style-type: none"> • Percentage population within the Plan area travelling to work or school by public transport or no mechanical means, above 2016 CSO figures. • A competitive, low-carbon, climate-resilient and environmentally sustainable economy.

Strategic Environmental Objectives (SEOs) from the South Dublin County Development Plan 2022-2028		Targets	Indicators
	(CC_5) Promote the use of renewable energy, energy efficient development and increased use of public transport.	<ul style="list-style-type: none"> • Contribute towards the target of aggregate reduction in carbon dioxide (CO2) emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors. • To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating. 	<ul style="list-style-type: none"> • Energy consumption, the uptake of renewable options and solid fuels for residential heating. • Number of grants given for insulation works; energy efficiency of new buildings - energy rating figures
Cultural Heritage (CH)	(CH_1) Protect places, features, buildings and landscapes of cultural, archaeological and / or architectural heritage from impact as a result of development	<ul style="list-style-type: none"> • No permitted development which involves loss of cultural heritage, including protected structures, archaeological sites, Architectural Conservations Areas and landscape features. • To increase the number of uninhabited and derelict structures that are restored 	<ul style="list-style-type: none"> • Number of developments permitted during the lifetime of the Plan which will result in the loss or partial loss of protected structures or sites of archaeological status. • Number of additions to the list of Protected Structures and Architectural Conservation Areas. • Number of uninhabited and derelict structures that are restored. • Number of planning applications for demolition and redevelopment of vacant and derelict site
Landscape & Visual (LV)	(LV_1) Protect and maintain the special qualities of the landscape character of South Dublin County, especially with regard to areas of high amenity - River Liffey, Royal Canal, Grand Canal and coastline.	<ul style="list-style-type: none"> • Ensure no significant disruption of significant natural or historic / cultural landscapes and features through objectives of the Plan. • Compliance with the Landscape Character Assessment and policies across all sections the Plan. • Permissions granted demonstrating compliance with Chapter 13 of the Plan. 	<ul style="list-style-type: none"> • Number of developments permitted and their impacts on cultural / historic landscapes. • Number of developments located within a high landscape area that disrupt views (based on LCA).

Strategic Environmental Objectives (SEOs) from the South Dublin County Development Plan 2022-2028		Targets	Indicators
Material Assets (MA)	(MA_1) Make best use of existing infrastructure, promote the sustainable development of new infrastructure to match population distribution and protect existing assets, to meet the needs of South Dublin County's population.	<ul style="list-style-type: none"> • Reduction in the quantities of waste sent to landfill. • Increase in the quantities of waste sent for recycling. • Waste - Review standard planning conditions in relation to waste management policy • Delivery of strategic water and wastewater infrastructure and improvements to existing water and wastewater infrastructure. • Rail / Bus / Public transport - implementation of public transport improvements; Achievement of County Mode Split Targets for public Transport. 	<ul style="list-style-type: none"> • Percentage of waste going to landfill and recycling when compared with 2020 figures. • Percentage of waste used for energy production when compared with 2020 figures. • Number of critical infrastructural projects identified in the Plan completed.
	(MA_2) Promote the circular economy, reduce waste, and increase energy efficiencies	<ul style="list-style-type: none"> • Traffic / Transport - implementation of mobility management plans for large proposals; carrying out of traffic studies. 	<ul style="list-style-type: none"> • Number of upgrades to water treatment plants and wastewater treatment plants undertaken within the Plan area.
	(MA_3) Ensure there is adequate sewerage and drainage infrastructure in place to support new development.	<ul style="list-style-type: none"> • An increase in provision of cycle lanes and pedestrian routes. 	<ul style="list-style-type: none"> • Number of public transport improvement works / projects.
	(MA_4) A reduction in energy demand from the transport sector and support moves to electrification of road and rail transport modes.		<ul style="list-style-type: none"> • Number of new bus services or routes and new cycle lanes.