

AA CONCLUSION STATEMENT

IN SUPPORT OF THE
APPROPRIATE ASSESSMENT

OF THE
**POOLBEG WEST SDZ
PLANNING SCHEME
(SI No. 279 OF 2016)**

IN ACCORDANCE WITH THE REQUIREMENTS OF
ARTICLE 6(3) OF THE EU HABITATS DIRECTIVE

for: **Dublin County Council**

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APRIL 2019

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Section 1 Introduction and Background

1.1 Introduction

This is the Appropriate Assessment (AA) Conclusion Statement for the Poolbeg West SDZ Planning Scheme (SI No. 279 of 2016).

The obligation to undertake AA derives from Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC as transposed into Irish legislation by the European Communities (Birds and Natural Habitats) Regulations 2011 and the Planning and Development Act 2000, as amended. AA is a focused and detailed impact assessment of the implications of a strategic action (such as a plan or programme) or project, alone and in combination with other strategic actions and projects, on the integrity of any European Site in view of its conservation objectives.

This AA Conclusion Statement should be read in conjunction with the following documents which accompany the Statement:

- Strategic Environmental Report;
- Strategic Flood Risk Assessment; and
- Natura Impact Report (NIR), including Appendix I 'Summary details of European sites considered during the Appropriate Assessment' & Appendix II 'Conservation Objective of the European Sites identified within the Zone of Influence.'

1.2 Legislative Requirements in relation to AA

In carrying out the AA for the Poolbeg West SDZ, the Part XAB of the Planning and Development Act 2000, as amended, requires, inter alia, that the Council take into account the matters arrayed in the first column on Table 1.1 below. The second column identifies how these issues have been addressed.

Table 1-1 Matters taken into account by the AA

Matter specified by the Regulations	How addressed by AA
(a) the NIR	A NIR accompanies this AA Conclusion Statement and the Strategy
(b) any other plans or projects that may, in combination with the plan or project under consideration, adversely affect the integrity of a European Site (see Section 2)	Throughout the NIR, particularly Section 3.4 of the NIR, as well as Section 2.4
(c) any supplemental information furnished in relation to any such report or statement	This AA Conclusion Statement supplements the NIR which is also accompanied by an Appendix (NIR Appendix I & II) which provides additional detail on European Sites
(d) if appropriate, any additional information sought by the authority and furnished by the applicant in relation to a Natura Impact Report	The Natura Impact Report has taken into account submissions received during the Plan/AA preparation process – see Section 2 of this Statement
(e) any information or advice obtained by the public authority	
(f) if appropriate, any written submissions or observations made to the public authority in relation to the application for consent for proposed plan or project	
(g) any other relevant information	

In addition to the above, the regulations require that the Council makes available for inspection a determination regarding the outcome of the assessment with respect to effects on the integrity of European Sites (such a determination is provided at Section 4 of this document).

1.3 AA Conclusion Statement

The Department of Arts, Heritage and the Gaeltacht's Non-Statutory AA guidance states that (Section 4.14) it "*is recommended that planning authorities include a clear and discrete AA Conclusion Statement as a distinct section in the written statement of the plan separate to the SEA statement.*"

This guidance recommends that the following issues are addressed by the AA:

- Summary of how the findings of the AA were factored into the plan
- Reasons for choosing the plan as adopted, in the light of other reasonable alternatives considered as part of the AA process;
- A declaration that the plan as adopted will not have an adverse effect on the integrity of European Sites; and
- The Natura Impact Report.

As recommended, this AA Conclusion Statement addresses the above issues.

Section 2 How the findings of the AA were factored into the Plan

Various environmental sensitivities and issues have been communicated to the Council through the SEA and the AA. By integrating all related recommendations into the Plan, the Council have ensured that both the beneficial environmental effects of implementing the Plan have been and will be maximised and that potential adverse effects have been and will be avoided, reduced or offset.

Integration of AA considerations into the Plan was achieved through the:

1. Consultations

The SDZ Planning Scheme is the subject of a statutory consultation process. However, in order to inform the preparation of the Scheme an extensive pre-draft consultation exercise has been carried out over 6 months since July 2016, following the designation by the Government.

This consultation has included meetings with the business community, the local residential community and a range of statutory bodies and service providers. The Elected Representatives for the area have also been engaged in the preparation of the Planning Scheme by way of regular updates and feedback. Statutory consultees were engaged such as the Environmental Protection Agency (EPA) and the National Parks and Wildlife Services (NPWS). Meetings with these consultees informed the preparation of the Planning Scheme with concerns or issues raised during the consultation process addressed. Responses received during SEA scoping and subsequent consultation of the Planning Scheme have informed the content and scope of the AA.

2. Consideration of alternatives

Consideration of and integration of environmental considerations into alternatives, including sequencing, and ultimately into the Plan will contribute towards the protection and management of the environment over the lifetime of the Plan (see Section 3 of this Statement).

3. Integration of individual AA-related provisions into the Plan

Various provisions have been integrated into the text of the Plan through the iterative Plan-preparation with SEA and AA processes. These include AA-related measures that are part the Strategic Environmental Report. Objectives and policies within the Poolbeg West SDZ Planning Scheme (SI No. 279 of 2016) that will act to protect European Sites include the following:

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
Biodiversity and Flora and Fauna	<ul style="list-style-type: none"> • Arising from both construction and operation of development and associated infrastructure: loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna. • Habitat fragmentation and deterioration, including patch size and edge effects. • Disturbance and displacement of protected species. 	<p>Measures from the Planning Scheme:</p> <p><i>Key Principle: Protect Dublin Bay</i> Key principle: Ensure that all measures are taken to mitigate against any potential impacts on Dublin Bay and its environs.</p> <p>CD3 To support the expansion and growth of existing sports, libraries and leisure facilities, in particular water based sports (consistent with nature conservation policy), in recognition of the waterside context of the SDZ, and the strong maritime traditions of the Ringsend/Irishtown area for the benefit of the local community and in particular programmes that encourage engagement by younger people.</p> <p>IU 13. To ensure the protection of surface and ground water quality in the plan area and surrounding areas, and the protection of protected habitats and species including designated national and international conservation sites in implementing the plan and to meet the requirements of the Water Framework Directive and the provisions of the relevant River Basin Management Plan</p> <p>IU 14. To require that each significant planning application be accompanied by a Construction and Environmental Management Plan, which shall include information on construction traffic routes, hours of operation, control of noise, and environmental effects and associated, detailed mitigation including that relating to the excavation of material and the storage, transport, treatment and disposal of wastes. Where landowners collaborated and prepared a coordinated environmental management plan, this could be submitted with each application for development as appropriate.</p> <p>G11 To develop a hierarchy of inter-connected open spaces, recreation areas and green landscaped areas, via walking and cycling routes, through the SDZ and ensure that ecosystem functions and existing amenity uses are not compromised and existing biodiversity and heritage is protected and enhanced.</p> <p>G12 To incorporate open space into the green infrastructure of the SDZ, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>G13 To require the provision of green landscaping, including tree planting where practical, on key streets within the SDZ and to improve amenity, increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation.</p> <p>G14 To respect the integrity of designated nature areas and seek to achieve favourable conservation status of the habitats in these designated areas.</p> <p>G15 All developments in the SDZ should incorporate the relevant mitigation measures set out in the Strategic Environmental Assessment Environmental Report.</p> <p>G16 To require that all development proposals, including internal courtyards, maximise the opportunities for ecological and biodiversity enhancement</p> <p>G17 To ensure that in new residential developments, public and communal open space is provided which is sufficient in quantity and distribution to meet the requirements of the projected population and includes play facilities for children.</p> <p>G18 To seek the development of Coastal Park, Village Green and Port Park in the SDZ area offering new amenities and recreational activities and to support the upgrade of existing parks and amenity areas adjoining the SDZ</p> <p>G19 To require Sustainable Urban Drainage Systems (SUDS) in all developments, incorporating a sequence of SUDS techniques that work together in series to control the flow, volume and frequency of runoff as well as preventing or treating pollution as water flows through the development (Management Train).</p> <p>G10 To integrate new green infrastructure solutions into new developments and in the public realm to boost biodiversity and improve surface water management within the SDZ area, include the use of permeable materials for surfaces, planted roofs, living walls, swales, retention basin/ponds and provision of storm water tree trenches.</p> <p>G11 Any plan or project with the potential to give rise to significant direct, indirect or secondary impacts on a Natura 2000 site(s) shall be subject to an Appropriate Assessment in accordance with Article (3) of the Habitats Directive.</p> <p>G12 To promote environmental stewardship by managing invasive species and human-wildlife conflicts with birds' species and to improve water quality.</p> <p>Public Realm Aim: Environmental protection and enhancement:</p> <ul style="list-style-type: none"> • To protect the SDZ area's existing natural reserves and amenity, and enhance its biodiversity through the creation of new parks, green infrastructural routes and corridors. • To improve the environmental quality of the SDZ through new water management proposals using SUDS, swales and water attenuation where appropriate to mitigate against flooding. • To plant native flora to support and develop natural habitats for land/water based fauna. • To create green buffers between new development in the SDZ and the surrounding industrial landscape to soften their visual impact. • To provide green landscaping including tree planting on streets within the SDZ area to increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation. • To encourage the use of green roofs and vertical greenery on buildings where appropriate. <p>US3 To distribute land uses throughout Poolbeg West site in a manner that responds to surrounding constraints, protects sensitive areas and residential amenities and creates a series of focal points for residents and workers.</p> <p>US4 To create a varied open space/green infrastructure network that protects the coastal area, integrates with Sean Moore Park and provides a series of ecological and visual connections across Poolbeg West.</p>

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>Also included but not as a numbered provision:</p> <ul style="list-style-type: none"> • Lighting columns and other fixtures can have a significant effect on the appearance of buildings, the environment and the coastal ecological area. Where proposals for new lighting require planning permission, Dublin City Council will ensure that they are carefully and sensitively designed. Lighting fixtures should provide only the amount of light necessary for personal safety and should be designed so as to avoid creating glare or emitting light above a horizontal plane. Lighting fixtures should also have minimum environmental impact and protect light sensitive species such as bats. • To encourage the use of green roofs and vertical greenery on buildings where appropriate. The design of green roofs shall consider whether nesting birds may be attracted and, where conflicts between usage and bird protection are identified, the use of 'swift bricks' and nest boxes should be explored. <p>City Development Plan Measures:</p> <p>Policy G11: To develop a green infrastructure network through the city, thereby interconnecting strategic natural and semi-natural areas with other environmental features including green spaces, rivers, canals and other physical features in terrestrial (including coastal) and marine areas.</p> <p>Policy G12: That any plan/project, either individually or in combination with other plans or projects that has the potential to give rise to significant effect on the integrity of any European site(s), shall be subject to an appropriate assessment in accordance with Article 6(3) and 6(4) of the EU Habitats Directives.</p> <p>Policy G13: To develop linear parks, particularly along waterways, and to link existing parks and open spaces in order to provide green chains throughout the city. Where lands along the waterways are in private ownership, it shall be policy in any development proposal to secure public access along the waterway.</p> <p>Policy G19: To incorporate open space into the green infrastructure network for the city, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>Policy G110: To continue to manage and protect and/or enhance public open spaces to meet the social, recreational, conservation and ecological needs of the city and to consider the development of appropriate complementary facilities which do not detract from the amenities of spaces.</p> <p>Policy G116: To protect and improve the unique natural character and ecological value of all rivers within and forming boundaries to the administrative area of Dublin City Council, in accordance with the Eastern River Basin District management plan.</p> <p>Policy G117: To develop sustainable coastal, estuarine, canal and riverine recreational amenities to enhance appreciation of coastal natural assets in a manner that ensures that any adverse environmental effects are avoided, remedied or mitigated.</p> <p>Policy G119: To ensure a co-ordinated approach to the management of Dublin Bay with other State and semi-State agencies through the Dublin Bay Biosphere Partnership to develop a Biosphere Strategy for the sustainable development of Dublin Bay.</p> <p>Policy G121: To support initiatives to reduce marine pollution in Dublin Bay in partnership with other organisations and to raise awareness by Bay users and the general public and also to have regard to the Marine Strategy Framework Directive (2008/56/EC.)</p> <p>Policy G123: To protect flora, fauna and habitats, which have been identified by Articles 10 and 12 of Habitats Directive, Birds Directive, Wildlife Acts 1976-2012, the Flora (Protection) Order 2015 S.I No. 356 of 2015, European Communities (Birds and Natural Habitats) Regulations 2011 to 2015.</p> <p>Policy G124: To conserve and manage all Natural Heritage Areas, Special Areas of Conservation and Special Protection Areas designated, or proposed to be designated, by the Department of Arts, Heritage, Regional, Rural and Gaeltacht.</p> <p>Policy G125: To make provisions for habitat creation/maintenance and facilitate biodiversity by encouraging the development of linear parks, nature trails, wildlife corridors, urban meadows and urban woodlands.</p> <p>Policy G126: To have regard to the conservation and enhancement of significant non-designated areas of ecological importance in accordance with development standards set out in this plan.</p> <p>Policy G128: To support the implementation of the Dublin City Tree Strategy, which provides the vision for the long-term planting, protection and maintenance of trees, hedgerows and woodlands within Dublin City.</p> <p>Policy G130: To encourage and promote tree planting in the planning and development of urban spaces, streets, roads and infrastructure projects.</p> <p>Policy S15: To promote the enhancement of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems.</p>

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
Population and Human Health	<ul style="list-style-type: none"> • Interactions if effects arising from industrial hazards of unsuitable/incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils) are not mitigated. • Interactions if effects upon environmental vectors such as water and air are not mitigated. 	<p>Measures from the Planning Scheme: Policy Section 8.4.7: SEVESO III Sites: It is policy of Dublin City Council to have regard to the provisions of the Major Accidents Directive relating to the control of major accident hazards involving dangerous substances. Its objectives are to prevent major accidents and limit the consequences of such accidents. Dublin City Council will have regard to the provisions of the Directive and recommendations of the HSA in the assessment of all planning applications located within the consultation distance of such sites.</p> <p>City Development Plan Measures: Policy SI28: To have regard to the provisions of the Major Accidents Directive (2012/18/EU), relating to the control of major accident hazards involving dangerous substances and its objectives are to prevent major accidents and limit the consequences of such accidents. Dublin City Council will have regard to the provisions of the Directive and recommendations of the HSA in the assessment of all planning applications located on or impacted by such sites.</p>
Soil	<ul style="list-style-type: none"> • Loss of soil function. • Issues arising on other environmental components if potentially contaminated soils were not managed appropriately – both during construction and longer term. 	<p>Measures from the Planning Scheme: IU 11. That all undeveloped sites be remediated to internationally accepted standards which shall be consistent with the land use types set out in the Planning Scheme. Developers will be required to carry out a full contaminated land risk assessment and to implement a contamination interception, monitoring and mitigation management system. All applications shall be accompanied by a report from a qualified, expert consultant detailing compliance with the remediation measures as outlined in the Remediation Measures Report. The remediation shall incorporate international best practice and expertise on innovative ecological restoration techniques including specialist planting and green initiatives that create aesthetically improved sites, healthy environments and contribute to the provision of new green open spaces as integral parts of newly created areas. Treatment/management of any contaminated material shall comply as appropriate with the Waste Management Act 1996 (waste licence, waste facility permit) and under the EPA Act 1992 (Industrial Emissions licensing, in particular the First Schedule, Class 11 Waste).</p> <p>City Development Plan Measures: Policy SI23: All potentially contaminated sites shall be remediated to internationally accepted standards prior to redevelopment. Any unearthed contaminants will require some form of remediation measures which may require a licence from the Environmental Protection Agency (EPA).</p>
Water	<ul style="list-style-type: none"> • Adverse impacts upon the status of water bodies¹ arising from changes in quality, flow and/or morphology. • Interactions with flood risk. 	<p>Measures from the Planning Scheme: IU 1. To require all proposed developments to carry out a site specific Flood Risk Assessment (SSFRA) that shall demonstrate compliance with:</p> <ul style="list-style-type: none"> • The Planning System and Flood Risk Management, Guidelines for Planning Authorities (Department of the Environment, Heritage and Local Government, November 2009, as may be revised/updated). • The prevailing Dublin City Development Plan. • Recommendations contained within Section 4 of the Strategic Flood Risk Assessment for the Poolbeg West Planning Scheme. <p>Such assessments shall:</p> <ul style="list-style-type: none"> • Pay particular emphasis to residual flood risks, site-specific mitigation measures, flood resilient design and construction, and any necessary management measures (Appendix B4 of the above mentioned national guidelines refers). • Give attention (in the SSFRA and in building design) to creating a successful interface with the public realm through good design that addresses flood concerns but also maintains appealing and functional streetscapes • Consider and mitigate any pluvial flood risk, having regard to Pluvial Flood Risk Maps from the Dublin Pluvial Study • Take into account potential increase in flood risk arising from subsidence in areas that have been infilled. • Ensure that Strategic Flood Risk Assessments and site-specific Flood Risk Assessments consider and provide information on the implications of climate change with regard to flood risk in relevant locations. The 2009 OPW Draft Guidance on Assessment of Potential Future Scenarios for Flood Risk Management (or any superseding document) shall be in this regard. • Assess flood risk for all parts of the development including any proposals for underground parking and storage areas, recognising that no underground offices or residential units (whether temporary or permanent) will be allowed. • Demonstrate that relevant development management measures detailed in the Dublin City Development Plan 2016-2022 SFRA have been integrated into the development proposal.

¹ Including the Dublin Urban Groundwater body and the River Liffey Estuary Lower Estuary and the Dublin Bay Coastal Water Body within the Liffey and Dublin Bay Catchment in the Eastern River Basin District.
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Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>IU 3. That all new developments shall be required to comply with the standards set out in the Greater Dublin Strategic Drainage Study (GSDSDS)</p> <p>IU 4. To achieve best practice and innovations in SUDS design as part of the planning scheme, including the successful coordination of surface water management with ecology and amenity functions of open space and landscaped areas. All planning applications shall be accompanied by a surface water drainage plan which will include proposals for the management of surface water within sites, protecting the water quality of the existing water bodies and ground water sources, and retrofitting best practice SUDS techniques on existing sites, where possible. Such a plan shall demonstrate that surface water runoff will be limited to current values, as required by the Dublin City Development Plan 2016-2022. Where a planning application depends upon any pipes draining to the sea, such pipes should be fitted with non-return valves in order to prevent back flow from sea where relevant.</p> <p>IU 13. To ensure the protection of surface and ground water quality in the plan area and surrounding areas, and the protection of protected habitats and species including designated national and international conservation sites in implementing the plan and to meet the requirements of the Water Framework Directive and the provisions of the relevant River Basin Management Plan</p> <p>IU 14. To require that each significant planning application be accompanied by a Construction and Environmental Management Plan, which shall include information on construction traffic routes, hours of operation, control of noise, and environmental effects and associated, detailed mitigation including that relating to the excavation of material and the storage, transport, treatment and disposal of wastes. Where landowners collaborated and prepared a coordinated environmental management plan, this could be submitted with each application for development as appropriate.</p> <p>G12 To incorporate open space into the green infrastructure of the SDZ, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>G13 To require the provision of green landscaping, including tree planting where practical, on key streets within the SDZ and to improve amenity, increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation.</p> <p>G19 To require Sustainable Urban Drainage Systems (SUDS) in all developments, incorporating a sequence of SUDS techniques that work together in series to control the flow, volume and frequency of runoff as well as preventing or treating pollution as water flows through the development (Management Train).</p> <p>G110 To integrate new green infrastructure solutions into new developments and in the public realm to boost biodiversity and improve surface water management within the SDZ area, include the use of permeable materials for surfaces, planted roofs, living walls, swales, retention basin/ponds and provision of storm water tree trenches.</p> <p>Public Realm Aim: Environmental protection and enhancement:</p> <ul style="list-style-type: none"> • To improve the environmental quality of the SDZ through new water management proposals using SUDS, swales and water attenuation where appropriate to mitigate against flooding. • To provide green landscaping including tree planting on streets within the SDZ area to increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation. <p>Also included but not as a numbered provision:</p> <ul style="list-style-type: none"> • A Strategic Flood Risk Assessment (SFRA), as required by 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009), has been undertaken alongside the preparation of the SEA and the preparation of this Planning Scheme. This assessment considers available information on flood risk indicators and delineates flood risk zones. All developments must comply as relevant with the measures included within Section 4 "Recommendations" of the SFRA. <p>City Development Plan Measures:</p> <p>Policy SI4: To promote and maintain the achievement of at least good status in all water bodies in the city.</p> <p>Policy SI6: To promote the protection and improvement of the aquatic environment, including through specific measures for the progressive reduction or cessation of discharges and emissions.</p> <p>Policy SI7: To promote the progressive reduction of pollution of groundwater and prevent its further pollution.</p> <p>Policy G116: To protect and improve the unique natural character and ecological value of all rivers within and forming boundaries to the administrative area of Dublin City Council, in accordance with the Eastern River Basin District management plan.</p> <p>Policy G119: To ensure a co-ordinated approach to the management of Dublin Bay with other State and semi-State agencies through the Dublin Bay Biosphere Partnership to develop a Biosphere Strategy for the sustainable development of Dublin Bay.</p> <p>Policy G120: To seek continued improvement in water quality, bathing facilities and other recreational opportunities in the coastal, estuarine and surface waters in the city, having regard to the sensitivities of Dublin Bay and to protect the ecology and wildlife of Dublin Bay.</p> <p>Policy G121: To support initiatives to reduce marine pollution in Dublin Bay in partnership with other organisations and to raise awareness by Bay users and the general public and also to have regard to the Marine Strategy Framework Directive (2008/56/EC.)</p>

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>Policy CC5: To address flood risk at strategic level through the process of strategic flood risk assessment, and through improvements to the city's flood defences.</p> <p>Policy S18: To mitigate the effects of floods and droughts subject to environmental assessments.</p> <p>Policy S19: To assist the Office of Public Works in developing catchment-based Flood Risk Management Plans for rivers, coastlines and estuaries in the Dublin city area and have regard to their provisions/recommendations.</p> <p>Policy S110: To have regard to the Guidelines for Planning Authorities on the Planning System and Flood Risk Management, and Technical Appendices, November 2009, published by the Department of the Environment, Community, and Local Government as may be revised/updated when assessing planning applications and in the preparation of plans both statutory and non-statutory.</p> <p>Policy S111: To put in place adequate measures to protect the integrity of the existing Flood Defence Infrastructure in Dublin City Councils ownership and identified in the Strategic Flood Risk Assessment and to ensure that the new developments do not have the effect of reducing the effectiveness or integrity of any existing or new flood defence infrastructure and that flood defence infrastructure has regard also to nature conservation, open space and amenity issues.</p> <p>Policy S112: To implement and comply fully with the recommendations of the Strategic Flood Risk Assessment prepared as part of the Dublin City Development Plan.</p> <p>Policy S113: That development of basements or any above-ground buildings for residential use below the estimated flood levels for Zone A or Zone B will not be permitted.</p> <p>Policy S114: To protect the Dublin City coastline from flooding as far as reasonably practicable, by implementing the recommendations of the Dublin Coastal Flood Protection Project and the Dublin Safer Project.</p> <p>Policy S115: To minimise the risk of pluvial (intense rainfall) flooding in the city as far as is reasonably practicable and not to allow any development which would increase this risk.</p> <p>Policy S116: To minimise the flood risk in Dublin City from all other sources of flooding, including fluvial, reservoirs and dams and the piped water system.</p> <p>Policy S117: To require an environmental assessment of all proposed flood protection or flood alleviation works.</p> <p>Policy S118: To require the use of Sustainable Urban Drainage Systems in all new developments, where appropriate, as set out in the Greater Dublin Regional Code of Practice for Drainage Works. The following measures will apply:</p> <ul style="list-style-type: none"> • The infiltration into the ground through the development of porous pavement such as permeable paving, swales, and detention basins • The holding of water in storage areas through the construction of green roofs, rainwater harvesting, detention basins, ponds, and wetlands • The slow-down of the movement of water. <p>Policy G14: To co-ordinate open space, biodiversity and flood management requirements, in progressing a green infrastructure network.</p> <p>Policy G19: To incorporate open space into the green infrastructure network for the city, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>Objective SIO8: All development proposals shall carry out, to an appropriate level of detail, a Site Specific Flood Risk Assessment (SSFRA) that shall demonstrate compliance with:</p> <ul style="list-style-type: none"> • The Planning System and Flood Risk Management, Guidelines for Planning Authorities, Department of the Environment, Community and Local Government, November 2009, as may be revised/updated and the Strategic Flood Risk Assessment (SFRA) as prepared by this Development Plan. • The site-specific flood risk assessment (SSFRA) shall pay particular emphasis to residual flood risks, site-specific mitigation measures, flood-resilient design and construction, and any necessary management measures (the SFRA and Appendix B4 of the above mentioned national guidelines refer). Attention shall be given in the site-specific flood risk assessment to building design and creating a successful interface with the public realm through good design that addresses flood concerns but also maintains appealing functional streetscapes. All potential sources of flood risk must be addressed in the SSFRA. <p>Objective SIO9: Proposals which may be classed as 'minor development', for example small-scale infill, small extensions to houses or the rebuilding of houses or paving of front gardens to existing houses, most changes of use and small-scale extensions to existing commercial and industrial enterprises in Flood Zone A or B, should be assessed in accordance with the Guidelines for Planning Authorities on the Planning System and Flood Risk Management & Technical Appendices, November 2009 as may be revised/updated, with specific reference to Section 5.28 and in relation to the specific requirements of the Strategic Flood Risk Assessment. The policy shall be not to increase the risk of flooding and to ensure risk to the development is managed.</p> <p>Objective SIO10: That recommendations and flood maps arising from the Fingal-East Meath CFRAM Study, the Dodder CFRAM Study and the Eastern CFRAM Study are taken into account in relation to the preparation of statutory plans and development proposals. This will include undertaking a review of the Strategic Flood Risk Assessment for Dublin city following the publication of the Final Eastern CFRAM Study, currently being produced by the OPW.</p> <p>Objective SIO11: To work with neighbouring Local Authorities when developing cross-boundary flood management work programmes and when considering cross-boundary development.</p>

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>Objective SIO12: To ensure each flood risk management activity is examined to determine actions required to embed and provide for effective climate change adaptation as set out in the Dublin City Council climate change adaptation policy and in the OPW Climate Change Sectoral Adaptation Plan Flood Risk Management applicable at the time.</p> <p>Objective SIO13: To provide additional and improved surface water networks to both reduce pollution and allow for sustainable development.</p> <p>Objective SIO14: To require that any new paving of driveways or other grassed areas is carried out in a sustainable manner so that there is no increase in storm water run-off to the drainage network.</p> <p>Objective GIO28: To identify opportunities for new tree planting to ensure continued regeneration of tree cover across the city, taking account of the context within which a tree is to be planted and planting appropriate tree species for the location.</p> <p>Objective GIO29: To encourage trees to be incorporated in (a) the provision of temporary green spaces (e.g. pop-up parks) either planted into the soil or within moveable containers as appropriate and (b) within sustainable urban drainage systems (SUDS), as appropriate.</p> <p>Policy G114: To promote the development of soft landscaping in public open spaces, where feasible, in accordance with the principles of Sustainable Urban Drainage Systems.</p>
<p>Material Assets (it is the function of Irish Water to provide for water services needs)</p>	<ul style="list-style-type: none"> • Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). • Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). • Increases in waste levels 	<p>Measures from the Planning Scheme:</p> <p>IU 2. To require all large development proposals to include water conservation and demand management measures</p> <p>IU 5. To ensure that development is permitted in tandem with available waste water, surface water and water supply, and to manage development, so that new schemes are permitted only where adequate water supply resources exist or will become available within the life of a planning permission. Developers shall prepare and implement local network plans for water supply and wastewater treatment in accordance with the requirements and subject to the approval of Irish Water.</p> <p>Provision shall be made within Strategic Development Zone lands for an easily accessible below ground wastewater pumping station and associated above ground kiosk, with flexibility as to the precise location, subject to the approval of Irish Water and designed in accordance with Irish Water standards.</p> <p>The build out of the Planning Scheme shall ensure that all critical infrastructure is not built over and appropriate clearance is made available to facilitate maintenance.</p> <p>IU 9. That all developments shall be District Heating enabled and this shall be demonstrated through compliance with the Dublin City document “Dublin District Heating System – Technical Information Pack for Developers”, (February, 2018) and future updated versions of this document. All streets from initial construction shall have outgoing and ingoing district heating pipes with connections for each development as part of a wider district heating network.</p> <p>IU 10. To investigate the feasibility of providing a district heating boiler station in the eastern/industrial portion of the SDZ area.</p> <p>IU 12. That all developments will comply with the waste policy as set out in the Dublin City Development Plan 2016-2022</p> <p>IU 14. To require that each significant planning application be accompanied by a Construction and Environmental Management Plan, which shall include information on construction traffic routes, hours of operation, control of noise, and environmental effects and associated, detailed mitigation including that relating to the excavation of material and the storage, transport, treatment and disposal of wastes. Where landowners collaborated and prepared a coordinated environmental management plan, this could be submitted with each application for development as appropriate.</p> <p>Various Land Use and Phasing provisions (Chapter 9)</p> <p>City Development Plan Measures:</p> <p>Policy S11: To support and facilitate Irish Water in the provision of high-quality drinking water, water conservation, and in the development and improvement of the water and wastewater systems to meet anticipated demands for clean and resilient water supplies and wastewater requirements for the city and region, all in accordance with the recommendations set out in the ‘Greater Dublin Water Supply Strategic Study’ and ‘The Greater Dublin Strategic Drainage Study’.</p> <p>Policy S12: To support and facilitate Irish Water to ensure the upgrading of wastewater infrastructure, in particular the upgrading of the Ringsend Wastewater Treatment Plant, and to support the development of the Greater Dublin Regional Wastewater Treatment Plant, the North Docklands Sewage Scheme, the Marine Outfall and orbital sewer to be located in the northern part of the Greater Dublin Area to serve the Dublin region as part of the Greater Dublin Strategic Drainage Strategy.</p> <p>Policy S13: To ensure that development is permitted in tandem with available water supply and wastewater treatment and to manage development, so that new schemes are permitted only where adequate capacity or resources exists or will become available within the life of a planning permission.</p> <p>Policy S119: To support the principles of good waste management and the implementation of best international practice in relation to waste management in order for Dublin city and the region to become self-reliant in terms of waste management.</p> <p>Policy S120: To prevent and minimise waste and to encourage and support material sorting and recycling.</p> <p>Policy S121: To minimise the amount of waste which cannot be prevented and ensure it is managed and treated without causing environmental pollution.</p> <p>Policy S122: To ensure that effect is given as far as possible to the “polluter pays” principle.</p>

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>Objective SIO15: To provide for municipal/public recycling and recovery facilities in accessible locations throughout the city.</p> <p>Objective SIO16: To require the provision of adequately-sized recycling facilities in new commercial and large-scale residential developments, where appropriate.</p> <p>Objective SIO19: To implement the Eastern-Midlands Waste Management Plan 2015-2021 and achieve the plan targets and objectives.</p>
<p>Air and Climatic Factors/ Sustainable mobility and associated effects (energy usage and emissions to air including noise and greenhouse gases)</p>	<ul style="list-style-type: none"> Emissions to air including greenhouse gas emissions and other emissions. 	<p>Measures from the Planning Scheme:</p> <p>MV1 To promote a high level of use of sustainable forms of transport including walking, cycling and public transport use having regard to the City Development Plan and national level policies.</p> <p>MV2 To provide an improved public transport services to the area including a core bus link to the City Centre via the proposed Dodder Bridge, enhanced/extended bus services along existing routes, and in the longer term, to provide for delivery of Luas to Poolbeg as part of the planned Red line extension under the National Transport Authority Strategy 2016-2035.</p> <p>MV3 To actively pursue the delivery of the Dodder (or 'Gut') bridge to facilitate the full build-out of the planning scheme in accordance with the Phasing programme as set out in the Land-Use and Phasing chapter. This bridge shall be designed to facilitate public transport and walking/cycling.</p> <p>MV4 To protect the route of the proposed Southern Port Access Route and Eastern Bypass in accordance with the objectives of Transport Infrastructure Ireland and the National Transport Authority Strategy for the Greater Dublin Area 2016-2035. As an interim measure it is proposed to provide a separate road access to the south port area via a new link located north of the existing Seán Moore Roundabout.</p> <p>MV5 To seek the upgrading of roads and junctions in the immediate vicinity of the SDZ to accommodate improved public transport priority and active modes. These works will include new signalised junctions at the Sean Moore Road/ South Bank Road Roundabout, at the Beach Road/ Sean Moore Road junction. A new pedestrian and cycle link across the River Liffey, located immediately parallel to the East link Bridge will also be prioritised.</p> <p>MV7 To promote the development of an improved cycle network in accordance with the NTA's Cycle Network Plan, and to seek (inter alia) the following cycle connections in cooperation with the National Transport Authority:</p> <ul style="list-style-type: none"> Pigeon house Road to John Rogerson's Quay via proposed Dodder Bridge. Bremen Road to Bridge Street (R802) via Ringsend Park. Greenway link from Sean Moore Park to the end of Poolbeg Peninsula, integrated with the proposed coastal promenade walking/cycling route. <p>The above shall link to existing and proposed primary routes including the East Coast trail along Beach Road and both the Liffey and Canal Greenway.</p> <p>MV8 To promote the redirection of port and port-related heavy traffic away from South Bank Road. This will be achieved through provision of alternative routes for such traffic and HGVs and also through traffic management, thereby ensuring a high level of amenity for those occupying non-port commercial and residential buildings.</p> <p>MV9 That all applications for urban blocks are accompanied by Travel Plans demonstrating how commuter based car use can be minimised and other sustainable modes of travel provided in accordance with best practice mobility management (see Appendix 4 of the Dublin City Development Plan)</p> <p>MV10 To provide the cycle routes (including Coastal Greenway) indicated in Figure 6.2.</p> <p>IU 7. To maintain good air quality in accordance with national and EU policy directives on air quality and where appropriate promote compliance with established targets</p> <p>IU 8. To minimise the adverse impacts of noise to all sensitive receptors and promote a good quality of life for the existing and future residents of the plan area, through the effective management of noise in line with the Dublin Agglomerations Noise Action Plan</p> <p>IU 14. To require that each significant planning application be accompanied by a Construction and Environmental Management Plan, which shall include information on construction traffic routes, hours of operation, control of noise, and environmental effects and associated, detailed mitigation including that relating to the excavation of material and the storage, transport, treatment and disposal of wastes. Where landowners collaborated and prepared a coordinated environmental management plan, this could be submitted with each application for development as appropriate.</p> <p>IU 15. To promote energy efficiency, energy conservation, and the increased use of renewable energy in the SDZ.</p> <p>Public Realm Aim: Connectivity and Movement:</p> <ul style="list-style-type: none"> To provide improved connectivity between the Poolbeg SDZ, its surrounding urban villages, and beyond to the city itself (see Figure 10.1). To prioritise the design of the public realm for pedestrians, cyclists and public transport, to minimise the use of cars and other vehicular traffic. To promote universal access for the disabled and mobility impaired to live a full life free from discrimination through the design of an 'enabling' environment. To provide legible, safe connections for all ages and user groups within and through the SDZ area. <p>US5 To create a distinctive and varied built environment that reinforces the urban structure, promotes a strong sense of place, minimises the impacts of overshadowing and ameliorates wind conditions.</p>

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>City Development Plan Measures:</p> <p>Policy SI24: To monitor and improve air quality in accordance with national and EU policy directives on air quality and, where appropriate, promote compliance with established targets.</p> <p>Policy SI25: To seek to preserve and maintain air and noise quality in the city in accordance with good practice and relevant legislation.</p> <p>Objective SIO20: To promote sustainable design and construction to help reduce emissions from the demolition and construction of buildings.</p> <p>Policy CC1: To prioritise measures to address climate change by way of both effective mitigation and adaptation responses in accordance with available guidance and best practice.</p> <p>Policy CC2: To mitigate the impacts of climate change through the implementation of policies that reduce energy consumption, reduce energy loss/wastage, and support the supply of energy from renewable sources.</p> <p>Policy CC3: To promote energy efficiency, energy conservation, and the increased use of renewable energy in existing and new developments.</p> <p>Policy G19: To incorporate open space into the green infrastructure network for the city, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>Policy MT2: Whilst having regard to the necessity for private car usage and the economic benefit to the city centre retail core as well as the city and national economy to continue to promote modal shift from private car use towards increased use of more sustainable forms of transport such as cycling, walking and public transport, and to co-operate with the NTA, Transport Infrastructure Ireland (TII) and other transport agencies in progressing an integrated set of transport objectives. Initiatives contained in the Government's 'Smarter Travel' document and in the NTA's Draft Transport Strategy are key elements of this approach.</p> <p>Objective SIO22: To maintain and manage a Dublin ambient air quality monitoring network and to make available to the public the resulting air quality measurements.</p> <p>Objective SIO23: To implement the Dublin Agglomeration Environmental Noise Action Plan (2013 – 2018) in co-operation with the other local authorities in Dublin and the Irish Aviation Authority.</p> <p>Objective SIO25: To support new technologies and practices as a power source in transport to reduce noise.</p> <p>Objective SIO26: To protect residents of mixed-use developments from noise emanating from other uses such as shops, offices, nightclubs, late night busking, public houses and other night time uses through the planning system.</p> <p>Objective SIO27: To give careful consideration to the location of noise-sensitive developments, including the horizontal and vertical layout of apartment schemes, so as to ensure they are protected from major noise sources where practical.</p> <p>Objective SIO28: To support and facilitate the monitoring and enforcement by the environmental health department of noise reduction measures in areas experiencing excess noise.</p> <p>Objective SIO29: To take cognisance of the Dublin Agglomeration Environmental Noise Action Plan 2013-2018 during the development and implementation of any policies for the city and before any major planning developments commence within Dublin.</p>
Landscape /Amenities	<ul style="list-style-type: none"> • Occurrence of adverse impacts upon and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks. 	<p>Measures from the Planning Scheme:</p> <p>G11 To develop a hierarchy of inter-connected open spaces, recreation areas and green landscaped areas, via walking and cycling routes, through the SDZ and ensure that ecosystem functions and existing amenity uses are not compromised and existing biodiversity and heritage is protected and enhanced.</p> <p>G12 To incorporate open space into the green infrastructure of the SDZ, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>G13 To require the provision of green landscaping, including tree planting where practical, on key streets within the SDZ and to improve amenity, increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation.</p> <p>G14 To respect the integrity of designated nature areas and seek to achieve favourable conservation status of the habitats in these designated areas.</p> <p>G15 All developments in the SDZ should incorporate the relevant mitigation measures set out in the Strategic Environmental Assessment Environmental Report.</p> <p>G16 To require that all development proposals, including internal courtyards, maximise the opportunities for ecological and biodiversity enhancement</p> <p>G17 To ensure that in new residential developments, public and communal open space is provided which is sufficient in quantity and distribution to meet the requirements of the projected population and includes play facilities for children.</p> <p>G18 To seek the development of Coastal Park, Village Green and Port Park in the SDZ area offering new amenities and recreational activities and to support the upgrade of existing parks and amenity areas adjoining the SDZ</p> <p>G19 To require Sustainable Urban Drainage Systems (SUDS) in all developments, incorporating a sequence of SUDS techniques that work together in series to control the flow, volume and frequency of runoff as well as preventing or treating pollution as water flows through the development (Management Train).</p>

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>GI10 To integrate new green infrastructure solutions into new developments and in the public realm to boost biodiversity and improve surface water management within the SDZ area, include the use of permeable materials for surfaces, planted roofs, living walls, swales, retention basin/ponds and provision of storm water tree trenches.</p> <p>GI11 Any plan or project with the potential to give rise to significant direct, indirect or secondary impacts on a Natura 2000 site(s) shall be subject to an Appropriate Assessment in accordance with Article (3) of the Habitats Directive.</p> <p>GI12 To promote environmental stewardship by managing invasive species and human-wildlife conflicts with birds' species and to improve water quality.</p> <p>Public Realm Aim: Environmental protection and enhancement:</p> <ul style="list-style-type: none"> • To protect the SDZ area's existing natural reserves and amenity, and enhance its biodiversity through the creation of new parks, green infrastructural routes and corridors. • To improve the environmental quality of the SDZ through new water management proposals using SUDS, swales and water attenuation where appropriate to mitigate against flooding. • To plant native flora to support and develop natural habitats for land/water based fauna. • To create green buffers between new development in the SDZ and the surrounding industrial landscape to soften their visual impact. • To provide green landscaping including tree planting on streets within the SDZ area to increase opportunities for wildlife and contribute to improvements in air and water quality and water attenuation. • To encourage the use of green roofs and vertical greenery on buildings where appropriate. <p>US3 To distribute land uses throughout Poolbeg West site in a manner that responds to surrounding constraints, protects sensitive areas and residential amenities and creates a series of focal points for residents and workers.</p> <p>US4 To create a varied open space/green infrastructure network that protects the coastal area, integrates with Sean Moore Park and provides a series of ecological and visual connections across Poolbeg West.</p> <p>Various Public Realm and Urban Structure provisions, including those relating to height.</p> <p>City Development Plan Measures:</p> <p>Policy GI6: To support and implement the objectives of the National Landscape Strategy.</p> <p>Policy GI7: To continue to protect and enhance landscape, including existing green spaces through sustainable planning and design for both existing community and for future generations in accordance with the principles of the European Landscape Convention.</p> <p>Policy SC17: To protect and enhance the skyline of the inner city, and to ensure that all proposals for mid-rise and taller buildings make a positive contribution to the urban character of the city, having regard to the criteria and principles set out in chapter 15 (Guiding Principles) and Chapter 16 (development standards). In particular, all new proposals must demonstrate sensitivity to the historic city centre, the river Liffey and quays, Trinity College, the cathedrals, Dublin Castle, the historic squares and the city canals, and to established residential areas, open recreation areas and civic spaces of local and citywide importance.</p> <p>Policy SC18: To promote a co-ordinated approach to the provision of tall buildings through local area plans, strategic development zones and the strategic development and regeneration areas principles, in order to prevent visual clutter or cumulative negative visual disruption of the skyline.</p> <p>Policy GI7: To continue to protect and enhance landscape, including existing green spaces through sustainable planning and design for both existing community and for future generations in accordance with the principles of the European Landscape Convention.</p> <p>Policy GI8: To protect and enhance views and prospects which contribute to the appreciation of landscape and natural heritage.</p> <p>Policy GI17: To develop sustainable coastal, estuarine, canal and riverine recreational amenities to enhance appreciation of coastal natural assets in a manner that ensures that any adverse environmental effects are avoided, remedied or mitigated.</p> <p>Objective GIO17: To seek the continued improvement of water quality, bathing facilities and other recreational opportunities in the coastal, estuarine and surface waters in the city and to It is an Objective of Dublin City Council: 150 protect the ecology and wildlife of Dublin Bay.</p> <p>Objective GIO18: To protect and improve the natural character of watercourses, including the Dodder, and to promote access, walkways, cycleways and other compatible recreational uses along them, having regard to environmental sensitivities. Objective GIO19: To maintain beaches at Dollymount, Sandymount, Merrion and Poolbeg/Shelly Banks to a high standard, and to develop their recreational potential as a seaside amenity, in order to bring them to 'Blue Flag' standard subject to Article 6 Assessment of the Habitats Directive.</p>

Section 3 Consideration of Alternatives with Reference to AA

3.1 Summary Description of Alternatives

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme) are identified, described and evaluated for their likely significant effects on the environment.

3.1.1 Alternative Scenario 1: *A High Quantum of Development*

This alternative maximises the quantum of built development across the site by using the greatest possible surface area and densities for both commercial/employment and residential development, taking into account minimal higher-level planning and legislative requirements.

The heights of buildings are maximised on all plots, throughout the SDZ.

No land is provided for community uses additional to those already existing in the vicinity of the site.

Minimal buffers are provided outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure.

Development Plan Standards with respect to Open Space are largely met using lands that are incidental to new commercial/employment and residential blocks.

There is limited space for non-essential linkages through the site or for public transport services, such as cycling.

3.1.2 Alternative Scenario 2: *A Medium Quantum of Development*

This alternative provides for a medium quantum of built commercial/employment and residential development across the site, at medium densities.

Heights of buildings provide for a medium use of the site, commensurate with its strategic location. Heights provided for are higher in the north of the site and lower in the south.

Lands are provided for community uses in the west of the site, adjacent to existing community uses to the southwest of the SDZ.

Buffers are provided outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure.

Development Plan Standards with respect to Open Space are met and exceeded with a network of multiple linear parks linking together open space to the south of the site, a village green and square in the centre of the site and the shore to the east of the site.

Infiltration of a rapid bus loop into the site is provided for. The various linear parks are utilised to provide linkages for walking and cycling while there is sufficient space for public transport services, such as cycling.

3.1.3 Alternative Scenario 3A: *A Low Quantum of Development (mixed uses)*

This alternative provides for a low quantum of built development across the site at lower densities. There is a mix of commercial/employment and residential development.

Heights of buildings are consistent with those of surrounding development.

Lands are provided for community uses in the west of the site, adjacent to existing community uses to the southwest of the SDZ.

More than adequate buffers are provided outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure.

Development Plan Standards with respect to Open Space are met and exceeded with a network of multiple linear parks linking together various new pocket parks, open space to the south of the site, a village green and square in the centre of the site and the shore to the east of the site. The amount of Open Space provided for by this alternative is significantly higher than by the other alternatives.

Infiltration of a rapid bus loop into the site is provided for. The various linear parks are utilised to provide linkages for walking and cycling while there is sufficient space for public transport services, such as cycling.

3.1.4 Summary Evaluation of Alternatives

A number of potentially significant adverse environmental effects that are common to all alternatives and are described on the Table below taken from the SEA.

Table 3-1 Potentially Significant Adverse Environmental Effects common to all alternatives

Environmental Component	(Potential) Likely Significant Effect, if unmitigated
Biodiversity and Flora and Fauna	<ul style="list-style-type: none"> o Arising from both construction and operation of development and associated infrastructure: loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna. o Habitat loss, fragmentation and deterioration, including patch size and edge effects. o Disturbance and displacement of protected species.
Population and Human Health	<ul style="list-style-type: none"> o Interactions if effects arising from industrial hazards of unsuitable/incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils) are not mitigated. o Interactions if effects upon environmental vectors such as water and air are not mitigated.
Soils	<ul style="list-style-type: none"> o Loss of soil function. o Issues arising on other environmental components if potentially contaminated soils were not managed appropriately – both during construction and longer term.
Water	<ul style="list-style-type: none"> o Adverse impacts upon the status of water bodies² arising from changes in quality, flow and/or morphology. o Interactions with flood risk.
Material Assets (it is the function of Irish Water to provide for water service's needs)	<ul style="list-style-type: none"> o Failure to provide adequate and appropriate wastewater treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). o Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity ensures the mitigation of potential conflicts). o Increases in waste levels.
Air and Climatic Factors	<ul style="list-style-type: none"> o Emissions to air including greenhouse gas emissions and other emissions.
Cultural Heritage	<ul style="list-style-type: none"> o Effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
Landscape/Amenities	<ul style="list-style-type: none"> o Occurrence of adverse impacts upon and conflicts with the usage of and access to amenities including parklands, playing fields and shore-sidewalks.

² Including the Dublin Urban Groundwater body and the River Liffey Estuary Lower Estuary and the Dublin Bay Coastal Water Body within the Liffey and Dublin Bay Catchment in the Eastern River Basin District.

Table 3-2 Comparative Evaluation of Alternative Development Strategies

	Likely to Improve status of SEOs	Likely to Potentially Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be fully mitigated
<p>Alternative Scenario 1</p> <p>A High Quantum of Development</p>	<p>Direct interactions as a result of providing for development on the site: C1 S1 M1 M2 M3</p> <p>Indirect interactions as a result of significantly reducing the need for development elsewhere within the Dublin Region: B1 B2 B3 PHH1 PHH2 C1 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</p>	<p>Potential conflicts to be mitigated: B1 B2 B3 CH1 CH2 W1 W2 W3 M1 M2 M3</p>	<p>Conflicts as a result of the high quantum of development: B2 B3 PHH1 PHH2 C1 L1</p>
<p>Alternative Scenario 2</p> <p>A Medium Quantum of Development</p>	<p>Direct interactions as a result of integrating environmental considerations into the Plan: B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</p> <p>Indirect interactions as a result of significantly reducing the need for development elsewhere within the Dublin Region: B1 B2 B3 PHH1 PHH2 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</p>	<p>Potential conflicts to be mitigated: B1 B2 B3 PHH1 PHH2 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1</p>	
<p>Alternative Scenario 3A</p> <p>A Low Quantum of Development (mixed uses)</p>	<p>Direct interactions as a result of providing for a low quantity of development on the site: B1 B2 B3 PHH1 PHH2 S1 C1 CH1 CH2 L1</p>	<p>Potential conflicts to be mitigated: B1 B2 B3 PHH1 PHH2 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</p> <p>Indirect interactions as a result of not significantly reducing the need for development elsewhere within the Dublin Region: B1 B2 B3 PHH1 PHH2 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</p>	<p>Conflicts as a result of the low quantum of development: S1 C1</p>
<p>Alternative Scenario 3B:</p> <p>A Low Quantum of Development (100% residential uses)</p>	<p>Direct interactions as a result of providing for a low quantity of development on the site (with less journeys by sustainable modes of transports likely): B1 B2 B3 PHH1 PHH2 S1 C1 CH1 CH2 L1</p>	<p>Potential conflicts to be mitigated: B1 B2 B3 PHH1 PHH2 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</p> <p>Indirect interactions as a result of not significantly reducing the need for development elsewhere within the Dublin Region: B1 B2 B3 PHH1 PHH2 W1 W2 W3 M1 M2 M3 CH1 CH2 L1</p>	<p>Conflicts as a result of the low quantum of development: S1 C1</p>

3.2 Considerations of Cumulative Impacts/In-Combination Effects

Both the SEA and NIR account for potential interactions with other Plans and Projects. These include interactions resulting from the Plan and Projects such as:

- Other land use Plans (e.g. Dublin City Development Plan 2016-2022);
- Water services, transport and energy infrastructure plans (e.g. the National Transport Authority's Greater Dublin Area Transport Strategy 2016-2035, Irish Water's Water Services Strategic Plan and associated Capital Investment Plan 2014-2016 and Grid25 and associated Implementation Programme) and the Dublin City Local Economic and Community Plan; and
- Environmental protection and management plans (e.g. Eastern River Basin District Management Plan and Eastern CFRAMS Flood Risk Management Plan).

A variety of the issues referred to by the Planning Scheme provisions are City or regional issues which are considered: by the City Development Plan 2016-2022; at Regional Assembly level, in the Regional Planning Guidelines for the Greater Dublin Area 2010-2022; and by planning authorities across the Region. Examples of such issues include transport projects around the Docklands and Poolbeg Peninsula:

- Sustainable transport initiatives within the Docklands area (Dublin City Development Plan);
- Integrated transport strategy for the entire Docklands area (Dublin City Development Plan);
- Cycling infrastructure along the wider coastline including the Sutton to Sandycove cycleway (National Cycle Framework, National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan, land use plans of adjoining planning authorities) and the proposed cycle and walkway along the waterfront around the Docklands, around the Poolbeg Peninsula and linking the City with the South Bull Wall (Dublin City Development Plan);
- Extension of the Luas to Poolbeg (National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan);
- Dodder Bridge between Grand Canal Dock and Ringsend (National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan, Planning Scheme for Grand Canal Dock and North Lotts); and
- The eastern bypass and southern port access route (National Transport Authority's Transport Strategy for the Greater Dublin Area 2016- 2035, Dublin City Development Plan, land use plans of adjoining planning authorities).

Interactions with plans and projects on foot of the Planning Scheme could arise. Such potential effects include the following (note that mitigation measure and provisions to account for these effects have been integrated into the Plan):

- Contributions towards reductions in travel related greenhouse gas and other emissions to air (in combination with plans and programmes from all sectors, including transport and land use planning) as a result of facilitating sustainable mobility/a shift from motorised transport modes to more sustainable and non-motorised transport modes.
- Contributions towards travel related greenhouse gas and other emissions to air (in combination with plans, programmes and existing and new developments from all sectors, including transport and land use planning) as a result of facilitating development which will result in an extent of car-based and other motorised travel.
- Contributions towards emissions to air including dust and particulate matter (in combination with plans, programmes and existing and new developments from all sectors, including transport and land use planning) and associated potential interactions with human health.
- Facilitation of new development which is accompanied by appropriate levels of water services thereby contributing towards environmental protection.
- Need for and use of water and wastewater treatment capacity arising from new developments and associated potential adverse effects.
- Potential cumulative effects upon the status of water bodies as a result of new development.
- Potential cumulative effects (habitat damage, enhancing ecological connectivity, contributing towards sustainable mobility) arising from linear developments within the SDZ, including potential effects along the wider coastline;

- Potential effects on flood risk to new development where appropriate sustainable urban drainage systems are not employed;
- In combination with plans and programmes from all sectors potential adverse effects on all environmental components arising from new development. The type of these effects are consistent with those described on Table 3.3. These plans and programmes from other sectors undergo SEA, AA and SFRA as appropriate and comply with environmental legislation while projects are subject to EIA and AA, as relevant.

3.3 Emerging Preferred Option

The Alternative Scenario for the development of Poolbeg West which has emerged from the planning process is Scenario 2 – this Scenario contributes towards the protection and management of the environment and conforms with high level planning objectives.

Alternative Scenario 2 was developed by the Planning Team, adopted by the Council and approved by An Bord Pleanála having regard to both:

1. The environmental effects which were identified by the SEA and are detailed above; and
2. Planning including social and economic effects relating to the site's potential.

By complying with appropriate mitigation measures - including those which have been integrated into the Planning Scheme - potential adverse environmental effects which could arise as a result of implementing this scenario would be likely to be avoided, reduced or offset.

Table 3.3 details the overall findings of the assessment with respect to this preferred and selected alternative scenario.

By complying with appropriate mitigation measures - including those which have been integrated into the Plan – potentially significant adverse environmental effects which could arise as a result of implementing the Planning Scheme would be likely to be avoided, reduced or offset.

Table 3.3 Overall Findings – Effects arising from the Preferred Alternative Scenario for the Plan

Environmental Component	Significant Positive Effect, likely to occur	Potential Significant Adverse Effect, if unmitigated	Residual Non-Significant Adverse Effects
Biodiversity and Flora and Fauna	<ul style="list-style-type: none"> • Facilitates lower overall effects on ecology (including designated sites, ecological connectivity, habitats) – due to utilisation of already developed but vacant lands and use of existing utilities. • Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas, would mitigate conflicts with ecological resources (habitats) along the southern boundary. • Facilitates protection of ecology with respect to the provision of water services. • Facilitates contribution towards the protection of ecology as a result of contributing towards the protection of environmental vectors, including water. 	<ul style="list-style-type: none"> • Arising from both construction and operation of development and associated infrastructure: loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna. • Habitat loss, fragmentation and deterioration, including patch size and edge effects. • Disturbance and displacement of protected species. 	<ul style="list-style-type: none"> • Loss of an extent of non-protected habitats and species arising from the replacement of semi-natural land covers with artificial surfaces.

Environmental Component	Significant Positive Effect, likely to occur	Potential Significant Adverse Effect, if unmitigated	Residual Non-Significant Adverse Effects
Population and Human Health	<ul style="list-style-type: none"> • Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure, would mitigate: <ul style="list-style-type: none"> ○ Potential exposure of dwellings/schools/hospitals/nursing homes to industrial hazards of unsuitable/incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils); and ○ Loss of and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks, especially in the east and south of the site. • The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas. • Facilitates protection of human health with respect to the provision of water services and the provision of transport infrastructure integrated with land use planning – and associated interactions with sustainable mobility, emissions and energy usage. • Facilitates contribution towards the protection of human health as a result of contributing towards the protection of environmental vectors, including water. 	<ul style="list-style-type: none"> • Interactions if effects arising from industrial hazards of unsuitable/incompatible land-uses (such as heavy vehicle traffic, emissions or contaminated soils) are not mitigated. • Interactions if effects upon environmental vectors such as water and air are not mitigated. 	<ul style="list-style-type: none"> • Potential interactions with residual effects on environmental vectors. This has been mitigated by provisions which have been integrated into the Planning Scheme, including those relating to sustainable mobility and infrastructural provision.
Soil	<ul style="list-style-type: none"> • Facilitates lower overall effects on soil – due to utilisation of already developed but vacant lands and use of existing utilities. • Facilitates management of potentially contaminated soils. 	<ul style="list-style-type: none"> • Loss of soil function. • Issues arising on other environmental components if potentially contaminated soils were not managed appropriately – both during construction and longer term. 	<ul style="list-style-type: none"> • Losses of soil function on made ground.
Water	<ul style="list-style-type: none"> • Facilitates lower effects on ground and surface waters due to utilisation of already developed but vacant lands and use of existing utilities. 	<ul style="list-style-type: none"> • Adverse impacts upon the status of water bodies³ arising from changes in quality, flow and/or morphology. • Interactions with flood risk. 	<ul style="list-style-type: none"> • Any increase in loadings as a result of development (these would be in compliance with River Basin Management Plans). • Development to both: avoid areas of elevated flood risk; and not increase areas of elevated flood risk.
Material Assets (it is the function of Irish Water to provide for water services needs)	<ul style="list-style-type: none"> • Provides for planned infrastructure including water services infrastructure and transport infrastructure. • Make use of existing water services. 	<ul style="list-style-type: none"> • Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). • Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). • Increases in waste levels. 	<ul style="list-style-type: none"> • Residual wastes (these would be disposed of in line with higher level waste management policies).

³ Including the Dublin Urban Groundwater body and the River Liffey Estuary Lower Estuary and the Dublin Bay Coastal Water Body within the Liffey and Dublin Bay Catchment in the Eastern River Basin District.

Environmental Component	Significant Positive Effect, likely to occur	Potential Significant Adverse Effect, if unmitigated	Residual Non-Significant Adverse Effects
Air and Climatic Factors/ Sustainable mobility and associated effects (energy usage and emissions to air including noise and greenhouse gases)	<ul style="list-style-type: none"> Facilitates contribution towards a shift from car to more sustainable and non-motorised transport modes. Facilitates contribution towards reducing increases in travel related greenhouse gas and other emissions to air that would occur as a result of developing sites that are further from the City and less well served. A network of multiple linear parks would contribute towards efforts to encourage walking and cycling and the infiltration of a rapid bus loop into the site is provided for. Efforts to improve sustainable mobility and associated interactions (energy usage and emissions to air including noise and greenhouse gases) would be further contributed towards by the provision of community uses in the west of the site. 	<ul style="list-style-type: none"> Emissions to air including greenhouse gas emissions and other emissions. 	<ul style="list-style-type: none"> An extent of travel related greenhouse gas and other emissions to air. This has been mitigated by provisions which have been integrated into the Plan, including those relating to sustainable mobility.
Cultural Heritage	<ul style="list-style-type: none"> Contribution towards the protection of cultural heritage by facilitating compliance with protection legislation. 	<ul style="list-style-type: none"> Effects on protected and unknown archaeology and protected architecture arising from construction and operation activities. 	<ul style="list-style-type: none"> Potential alteration to the context and setting of architectural heritage (this would occur in compliance with legislation). Potential alteration to the context and setting of archaeological heritage (this would occur in compliance with legislation). Potential loss of unknown archaeology however this loss will be mitigated by measures integrated into the Planning Scheme.
Landscape /Amenities	<ul style="list-style-type: none"> Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas, would mitigate loss of and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks, especially in the east and south of the site. The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas. 	<ul style="list-style-type: none"> Occurrence of adverse impacts upon and conflicts with the usage of and access to amenities including parklands, playing fields and shore-side walks. 	<ul style="list-style-type: none"> The Planning Scheme contributes towards the protection of amenities. These semi natural amenities will change overtime as a result of natural changes in vegetation cover combined with new developments.

Section 4 Determination⁴

**Appropriate Assessment Determination under:
the Planning and Development Act 2000 (as amended)
for the:
Poolbeg West SDZ Planning Scheme (SI No. 279 of 2016)**

An Appropriate Assessment (AA) determination has been made by Dublin City Council regarding the Material Alterations to the Poolbeg West SDZ Planning Scheme.

Section 169 (4) (ba) of the Planning and Development Act 2000, requires, inter alia, a determination to be made as to whether the Poolbeg West SDZ Planning Scheme warrant the undertaking of AA. An Appropriate Assessment determination [pursuant to Article 6(3) of the Habitats Directive as to whether or not a plan or project would adversely affect the integrity of a European site and the Planning and Development Act 2000 (as amended)] is being made by Dublin City Council.

In carrying out this Appropriate Assessment, the Council is taking into account the relevant matters specified under Part XAB of the Planning and Development Act 2000 (as amended), including:

- Written submissions made on the Plan and associated documents while they were placed on public display;
- The SEA Statement and Determination; and
- The Natura Impact Report (which considers other plans and projects and has taken into account changes arising from submissions and observations received during public display).

It is determined that the risks to the safeguarding and integrity of the qualifying interests, special conservation interests and conservation objectives of all European Sites have been addressed by the inclusion of achievable mitigation measures within the Poolbeg West SDZ. These prioritise the avoidance of effects in the first place and will reliably mitigate these effects where these cannot be avoided. In addition, any lower level plans and projects arising through the implementation of the Planning Scheme will themselves be subject to relevant stages of Appropriate Assessment when further details of design and location are known.

Having incorporated these mitigation commitments; it is considered that the the Poolbeg West SDZ Planning Scheme is not foreseen to have any likely significant effects on the ecological integrity of any European Site⁵.

⁴ Following adoption of the Scheme by Dublin City Council on 2nd October 2017, the Scheme was appealed to An Bord Pleanála who subsequently approved it, following an Oral Hearing and subject to modifications, on 1st April 2019. An Bord Pleanála's Direction identified that: *"The Board considered the modifications below and determined that these modifications do not constitute material changes and would not constitute a change in the overall objectives of the Planning Scheme. It is also considered that the extent and character of any modification would not be likely to have a significant effect on the environment (within the meaning of Annex II of Directive 2001/42/EC) or on any European Site."*

⁵ Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:

- a) no alternative solution available,
- b) imperative reasons of overriding public interest for the plan to proceed; and
- c) Adequate compensatory measures in place.