

SEA STATEMENT

FOR THE

STRATEGIC DEVELOPMENT ZONE PLANNING SCHEME

FOR

POOLBEG WEST

(SI No. 279 of 2016)

STRATEGIC ENVIRONMENTAL ASSESSMENT

for: Dublin City Council

Civic Offices
Wood Quay
Dublin 8



Dublin City Council
Comhairle Cathrach Bhaile Átha Cliath

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Section 1 Introduction

1.1 Terms of Reference

This is the SEA Statement for the Strategic Development Zone (SDZ) Planning Scheme for Poolbeg West (SI No. 279 of 2016) Strategic Environmental Assessment (SEA).

1.2 SEA Definition and Legislation

SEA is a systematic process of predicting and evaluating the likely environmental effects of implementing a plan, or other strategic action, in order to ensure that these effects are appropriately addressed at the earliest appropriate stage of decision-making on a par with economic and social considerations.

Directive 2001/42/EC of the European Parliament and of the Council, of 27 June 2001, on the assessment of the effects of certain plans and programmes on the environment, referred to hereafter as the SEA Directive, introduced the requirement that SEA be carried out on plans and programmes which are prepared for a number of sectors, including land use planning. The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Statutory Instrument Number (SI No. 435 of 2004) and the Planning and Development (SEA) Regulations 2004 (SI No. 436 of 2004). Both sets of Regulations became operational on 21 July 2004. The Regulations have been amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (SI No. 200 of 2011) and the Planning and Development (SEA) (Amendment) Regulations 2011 (SI No. 201 of 2011).

The Planning and Development (SEA) Regulations 2004, as amended, require that SEA is undertaken for the preparation of Planning Schemes. Where SEA is undertaken, the Regulations require that a Statement is made available to the public and the competent environmental authorities after the adoption of a

LAP. This Statement is referred to as an SEA Statement¹.

1.3 Content of the SEA Statement

The SEA Statement is required to include information summarising:

- a) how environmental considerations have been integrated into the Scheme;
- b) how the following have been taken into account during the preparation of the Draft Scheme:
 - the environmental report,
 - submissions and observations made to the planning authority on the Draft Plan and Environmental Report, and
 - any transboundary consultations [this is not relevant to this SEA]
- c) the reasons for choosing the Scheme in the light of the other reasonable alternatives dealt with; and
- d) the measures decided upon to monitor the significant environmental effects of implementation of the Scheme.

1.4 Implications of SEA for the Planning Scheme

The Planning and Development (SEA) Regulations 2004, as amended, require that SEA is undertaken for the preparation of Planning Schemes. The findings of the SEA are expressed in the Environmental Report that takes account of recommendations contained in submissions that were made throughout the Scheme-preparation process and changes that were made to the Planning Scheme on foot of submissions.

The Elected Members of Dublin City Council took account of the findings of the SEA during their consideration of the Draft Planning Scheme and before its adoption. An Bord Pleanála also took into account the findings of the SEA before they approved the Scheme, with modifications.

¹ Department of Environment, Heritage and Local Government (2004) Implementation of SEA Directive (2001/42/EC): Guidelines for Regional Authorities and Planning Authorities, Dublin: Government of Ireland.

Section 2 How Environmental Considerations were integrated into the Planning Scheme

2.1 Introduction

Environmental considerations were integrated into the Planning Scheme through:

- Consultations with environmental authorities;
- Early and strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development; and
- Communication of environmental sensitivities through the SEA and associated Appropriate Assessment (AA), Strategic Flood Risk Assessment (SFRA) and Contamination and Remediation Assessment (CRA) processes; and
- Integration of individual SEA, AA, SFRA and CRA provisions into the text of the Planning Scheme

2.2 Consultations with Environmental Authorities

As environmental authorities identified under the Planning and Development (SEA) Regulations, as amended, the following authorities were sent SEA scoping notices indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the environmental report could be made to the Council.

Two submissions on the scope of the SEA were received and these were taken into account during the formulation of the scope of the SEA. Further detail on these submissions is provided under Section 3.2.

In addition, submissions were made on the Draft Planning Scheme and SEA Environmental Report while they were on public display that resulted in various changes (see Section 1.1).

2.3 Early and strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development

Far in advance of both the submission of the placing of the Draft Planning Scheme (and associated SEA, AA, SFRA and CRA documents) on public display, Dublin City Council undertook various works in order to inform the preparation of the Planning Scheme. This included beginning the SEA, AA, SFRA and CRA processes as early in the process as possible so that these assessments could inform every aspect of the Planning Scheme. It also included the undertaking of background work in relation to various issues covered by the Planning Scheme including community, public transport, open space, drainage, land uses, block locations, phasing areas and height.

The findings of this strategic work have been integrated into the Planning Scheme and will be implemented, contributing towards both environmental protection and management and sustainable development within the County.

Many of the features of this work can be identified from the Planning Scheme's Concept Plan detailed at Figure 2.1 overleaf.

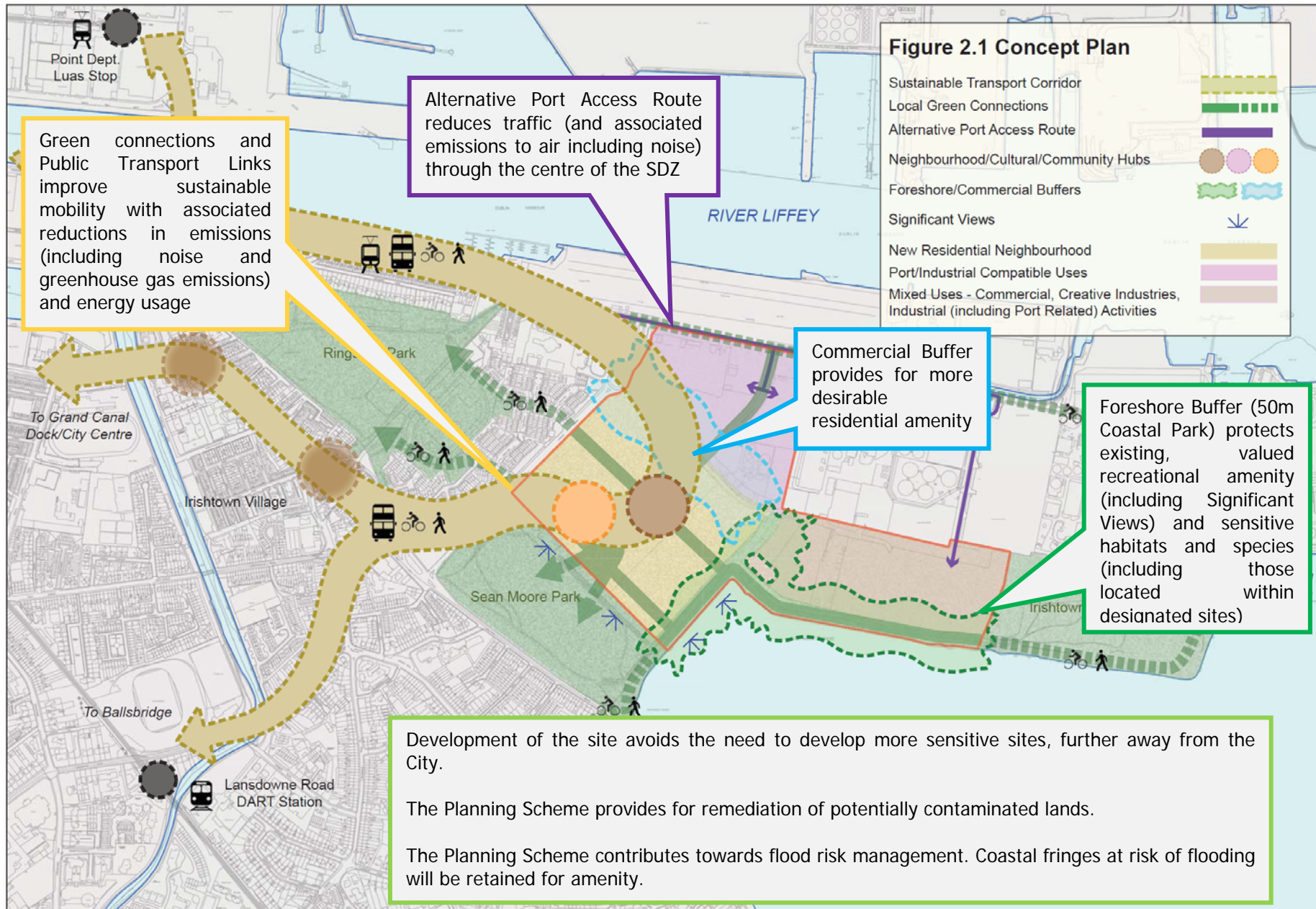


Figure 2.1 Mitigation by Avoidance: How Environmental Considerations have been integrated into the Planning Scheme

2.4 Communication of environmental sensitivities

2.4.1 Overview

Environmental considerations were integrated into the Draft Planning Scheme before it was placed on public display.

The sensitivities considered by the SEA, AA, SFRA and CRA within the Strategic Development Zone (SDZ) and in the wider region include the following:

- Local Biodiversity and Flora and Fauna (see Figure 2.2);
- European Sites – candidate Special Areas of Conservation (SAC) and Special Protection Areas (SPA);
- Proposed Natural Heritage Areas (pNHAs);
- Qualitative Risk Assessment from the SDZ Contamination and Remediation Assessment (see Figure 2.3);
- COMAH² establishments in the Dublin Port area and their Consultation Zones³ (see Figure 2.4);
- North Bull Island County Geological Site;
- Transitional Waterbody Water Framework Directive (WFD) Status 2010-2015;
- Coastal Waterbody WFD Status 2010-2015;
- Areas of Elevated Flood Risk: Flood Risk Zones A and B (see Figure 2.5); and

² The Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015) (the “COMAH Regulations”), implement the Seveso III Directive (2012/18/EU).

³ Consultation zones of the closest sites are primarily concerned with containing contaminants or pollutants that have the potential to cause harm to environmental vectors such as water (as opposed to direct effects on human health/loss of life). A worst case scenario could involve an accident with potential environmental consequences. There is tertiary containment on these sites with material contained most immediately by a tank, then by a bund then by a berm/other containment.

The HAS were consulted as part of the Planning Scheme preparation process and identified that: any accident would be expected to be contained on the relevant sites; and SEVESO III sites do not pose particular risks with respect to the emerging provision of new housing development in the south/west of the SDZ.

- Cultural Heritage (including architectural and archaeological heritage) (see Figure 2.6).

In order to identify where most sensitivities within the town occur, a number of the environmental sensitivities listed above were weighted and mapped overlapping each other. Figure 2.7 provides an overlay of environmental sensitivities for the SDZ and surrounding area. The occurrence of environmental sensitivities does not preclude development; rather it flags at a strategic level that the mitigation measures - which have already been integrated into the Planning Scheme - will need to be complied with in order to ensure that the implementation of the Planning Scheme contributes towards environmental protection.

The colour scheme gives an indication of the relative sensitivity of the environment with darker red indicating high sensitivity and greys representing areas better able to absorb change. While it is acknowledged that there are limitations and an element of subjectivity to the overlay mapping, where there is a concentration of sensitive areas or overlap it becomes readily apparent where increased development in such areas could cause deterioration of the environment without appropriate mitigation measures being complied with.

Within the SDZ, the environmental sensitivity factors that influence the combined sensitivity shown on Figure 2.7 the most are:

- The COMAH establishments Consultation Zones in the north and west of the SDZ; and
- The risk areas established by the CRA (see Section 2.4.4).

Many of the areas surrounding the SDZ are not included within the Consultation Zones of COMAH establishments. Furthermore, the Contamination and Remediation Assessment was undertaken on the SDZ only – as a result there is no information on relative risk of areas beyond the SDZ. Consequently, many of the areas are identified on Figure 2.7 as having a lower combined sensitivity rating relative to the SDZ lands.

Around the SDZ's coastal edge there are a number of different sensitivity levels identified on Figure 2.7. These differences arise due to:

- Differences in the areas subject to SPA, SAC and pNHA designations (see Figure 2.2); and
- The presence of Flood Risk Zones A and B along parts of the coastal edge (see Figure 2.5).

To the north of the SDZ there is a long, rectangular area of elevated sensitivity stretching from the east of the map to the west. This sensitivity is linked to the area covered by the RMP Zone of Notification (see Figure 2.6).

2.4.2 Appropriate Assessment

There are two ecologically designated European Sites located closest to the SDZ: South Dublin Bay Special Area of Conservation (SAC), directly adjacent to the SDZ and designated for various habitats; and South Dublin Bay and River Tolka Estuary Special Protection Area (SPA), located marginally within the SDZ and designated for various species of birds.

Appropriate Assessment (AA) Screening and Stage 2 AA have been undertaken alongside the Planning Scheme. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The Stage 2 AA concluded that the Planning Scheme will not affect the integrity of the Natura 2000 network of designated sites⁴.

The preparation of the Planning Scheme, SEA and AA has taken place concurrently and the findings of the AA have informed both the Planning Scheme and the SEA. Various provisions have been integrated into the Planning Scheme through the AA process.

2.4.3 Strategic Flood Risk Assessment

A Strategic Flood Risk Assessment (SFRA) has been undertaken alongside the Planning Scheme. The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009).

The preparation of the Planning Scheme, SEA and SFRA has taken place concurrently and the findings of the SFRA have informed both the Planning Scheme and the SEA.

2.4.4 Contamination and Remediation Assessment

All of the SDZ consists of man-made fill placed over estuarine deposits. Some of these sites have been resolved (former Glass Bottle Site) some are still used for, or are adjacent to, potentially contaminating activities. It should be assumed that there is potential to encounter sites of historical contamination throughout the unresolved portions of the site. The Irishtown Nature Park at the eastern extremity is also a former landfill.

In the absence of mitigation, contaminated materials have the potential to adversely impact upon human health, water quality and habitats and species.

A Contamination and Remediation Assessment (CRA) was undertaken that provides a review of available documentation on contamination, a conceptual site model for the area of the Planning Scheme and a high-level qualitative risk assessment to establish low, medium and high risk areas. It also includes outline remediation measures including requirements relating to detailed site-specific investigations and contaminated land risk assessments at project level.

⁴ 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/project to proceed; and
(c) adequate compensatory measures in place.

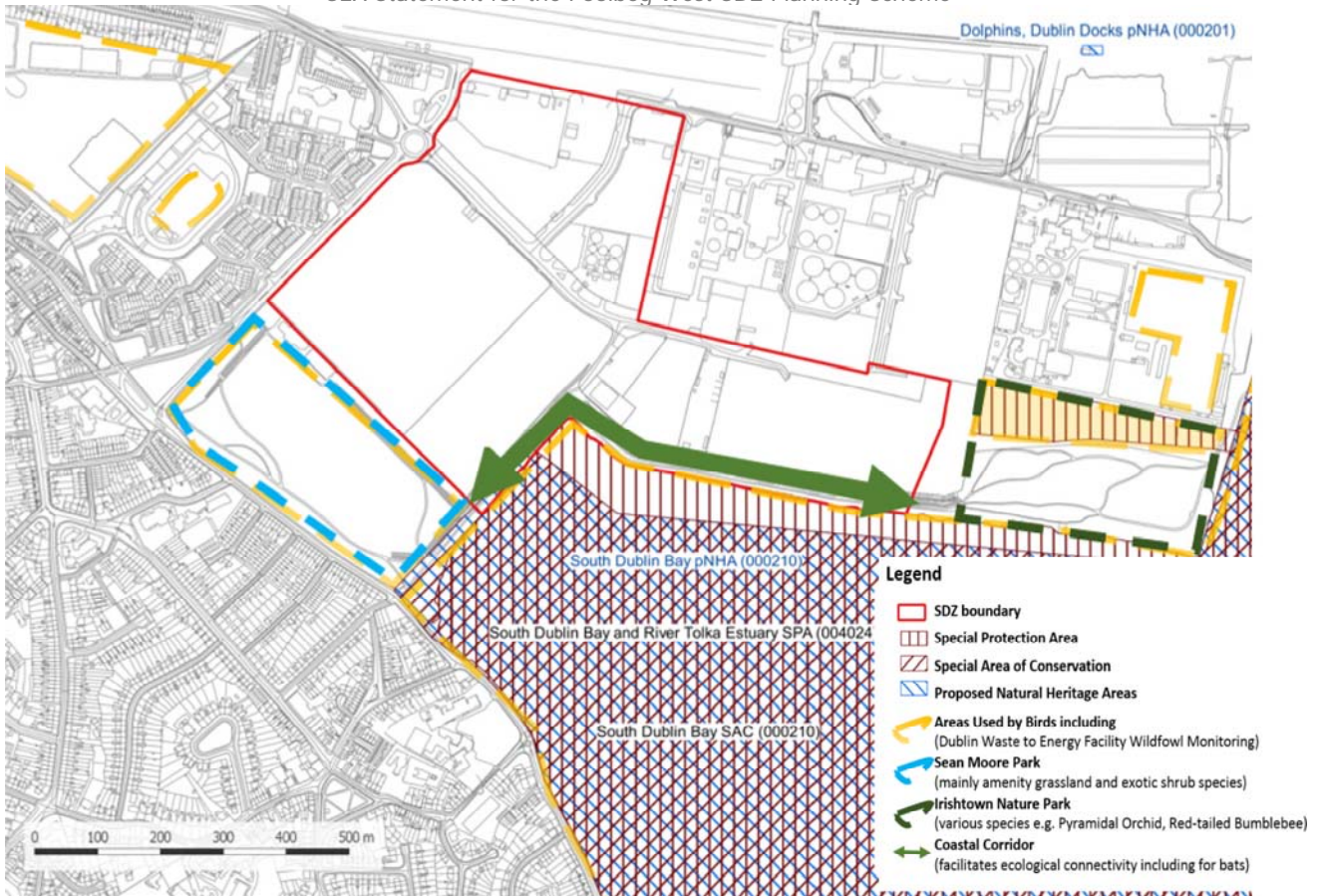


Figure 2.2 Local Biodiversity and Flora and Fauna
CAAS for Dublin City Council (2016)

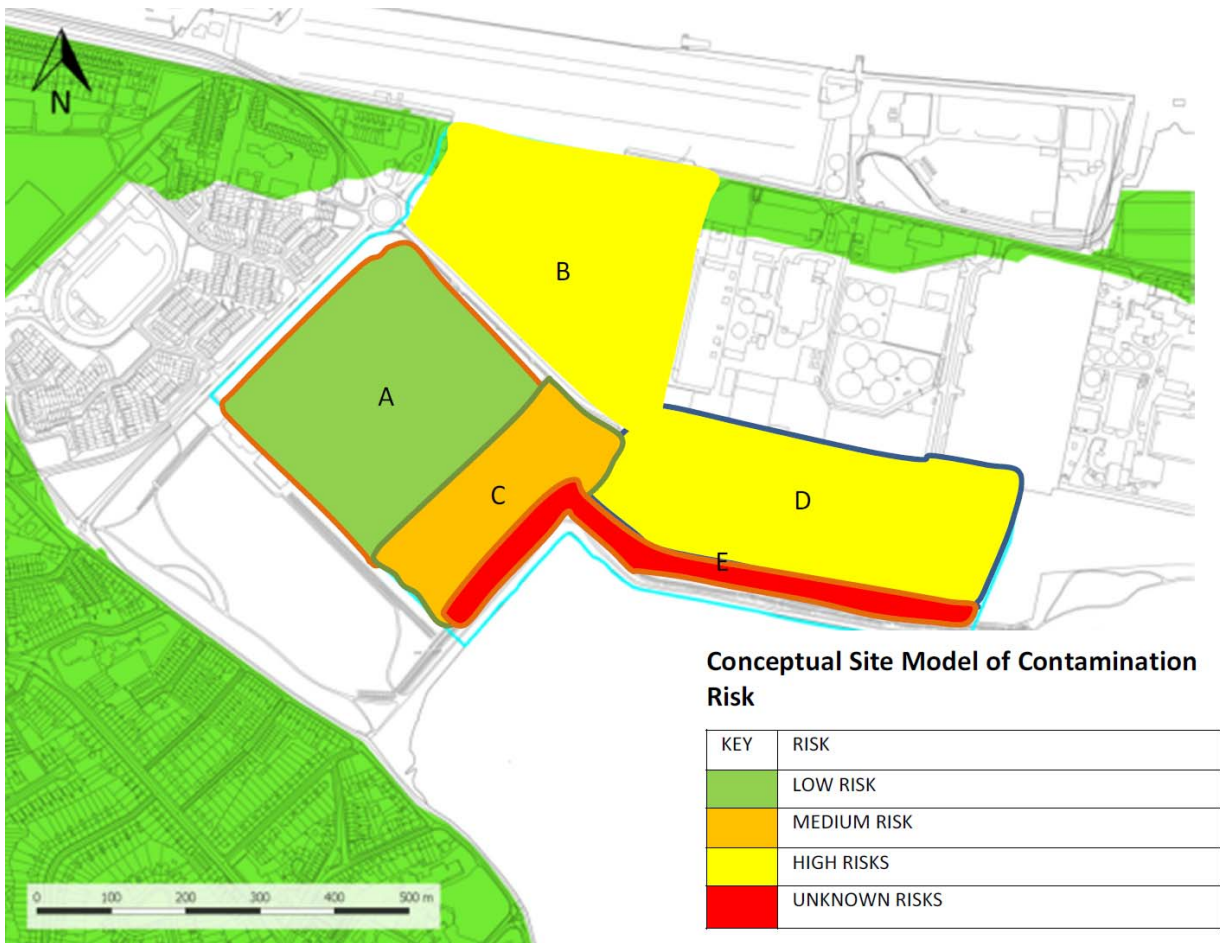


Figure 2.3 Qualitative Risk Assessment from the Contamination and Remediation Assessment
Source: CAAS for Dublin City Council (2016)

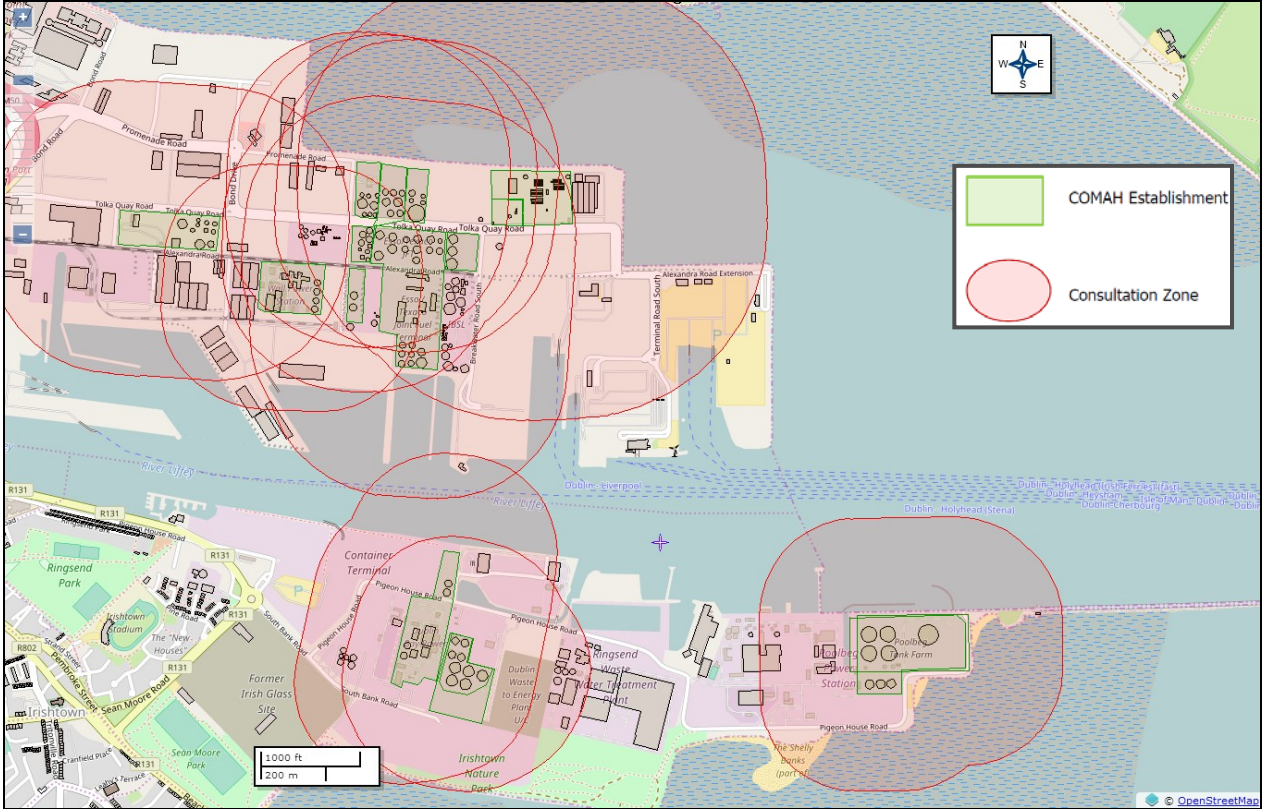


Figure 2.4 COMAH establishments in the Dublin Port area and their Consultation Zones

Source: Dublin City Council (2016)

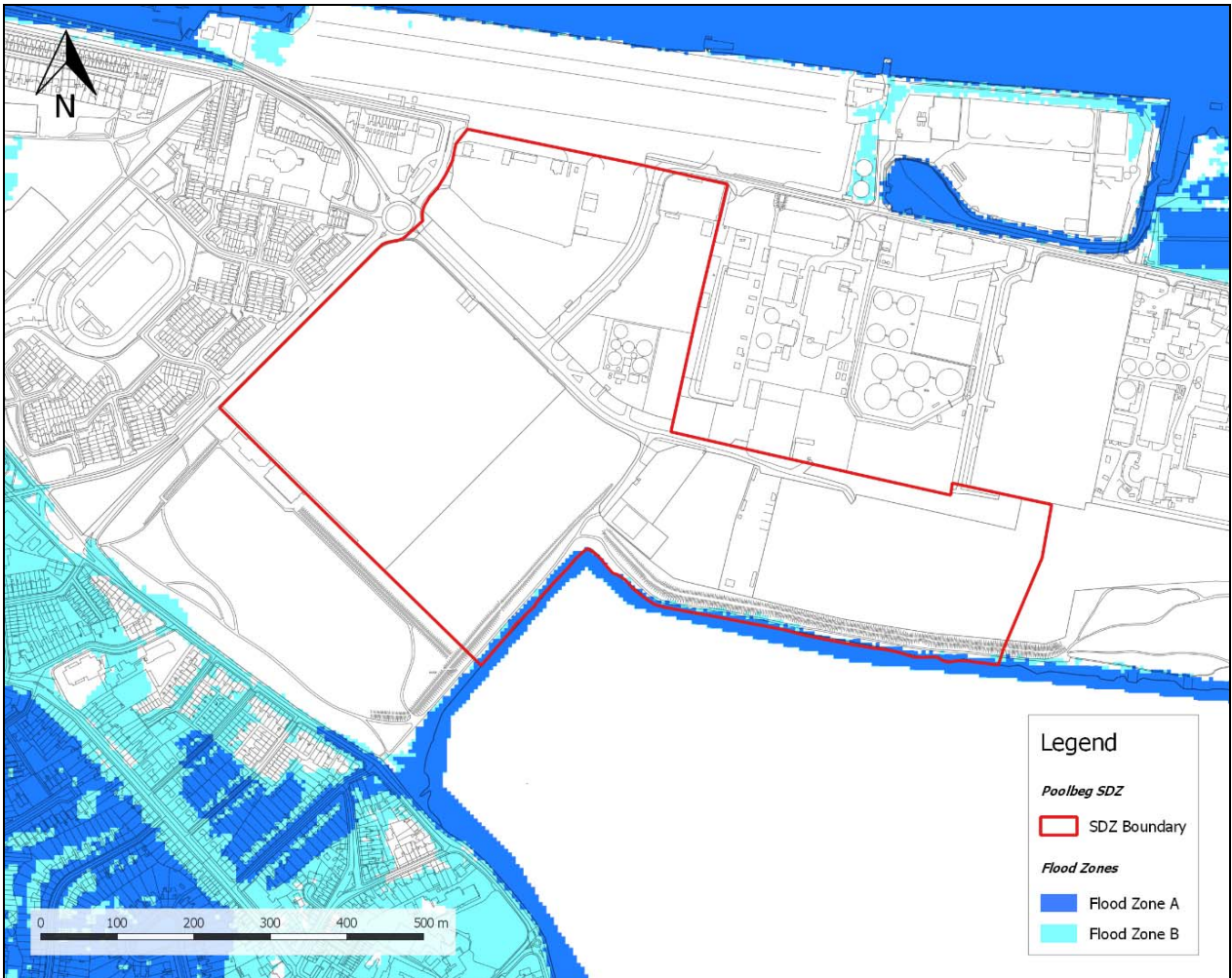


Figure 2.5 Areas of Elevated Flood Risk: Flood Risk Zones A and B

Source: CAAS (2016)

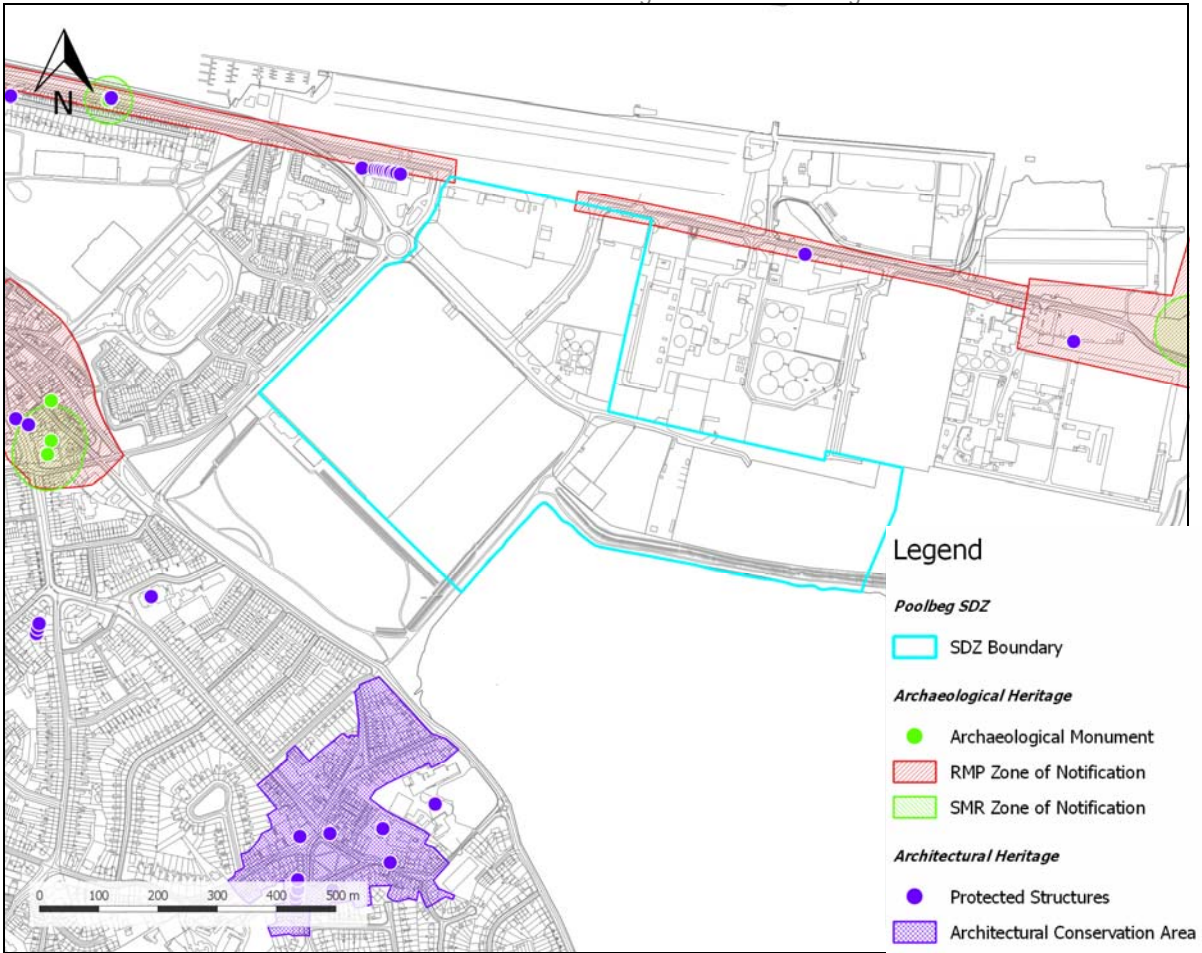


Figure 2.6 Cultural Heritage (including architectural and archaeological heritage)

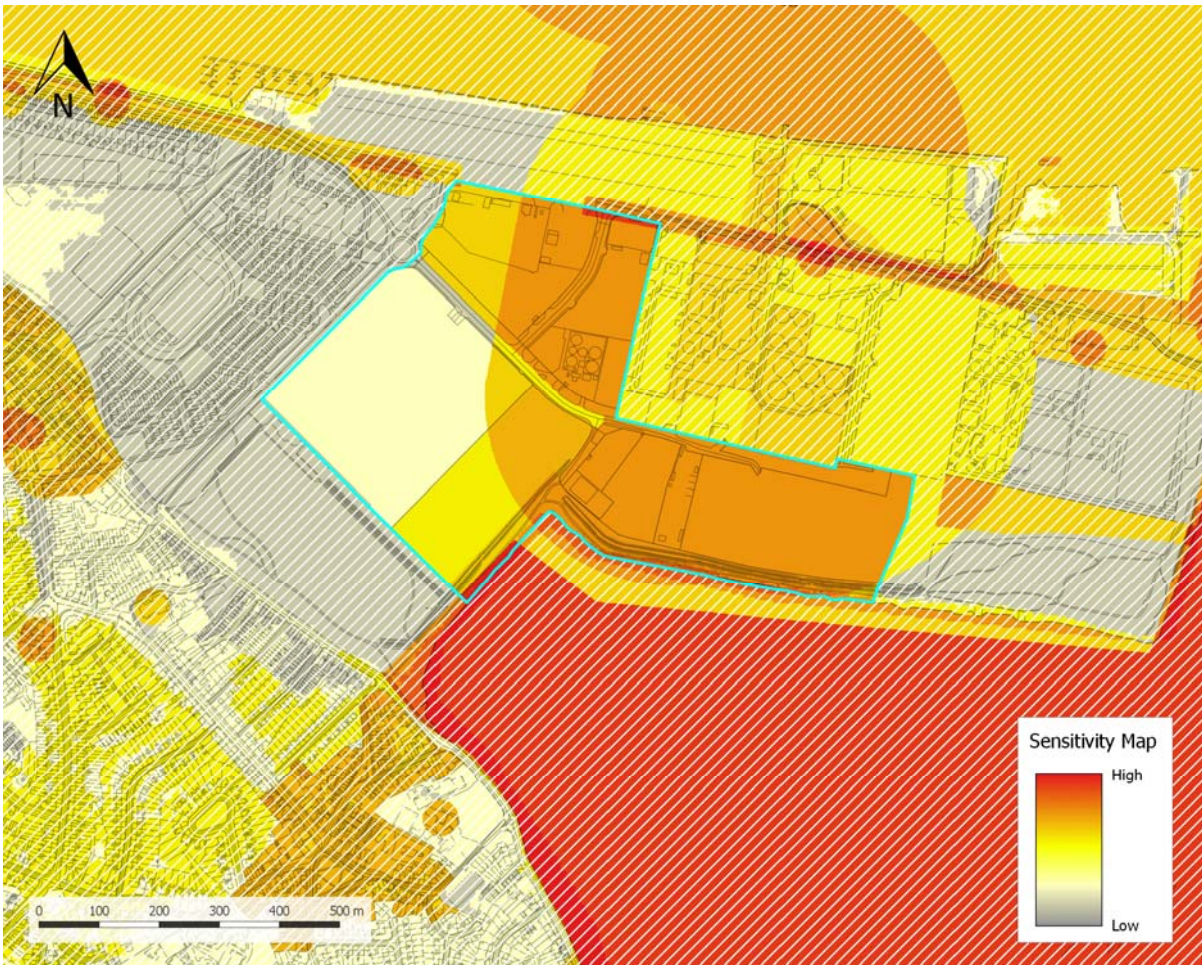


Figure 2.7 Combined Environmental Sensitivity Mapping

2.5 Integration of individual SEA, AA, SFRA and CRA provisions into the text of the Planning Scheme

Various provisions have been integrated into the text of the Planning Scheme through the Planning Scheme-preparation and SEA, AA, SFRA and CRA processes. Both the Planning and the assessment teams contributed towards the mitigation which was developed over multiple iterations and was informed by, inter alia, various communications through the different assessment processes.

In addition to the mitigation measures that have been integrated into the Planning Scheme, Section 12 of the Planning Scheme states that:

'Where policies, objectives, principles or standards are not specifically addressed in the SDZ Planning Scheme (e.g. apartment size standards) those in the City Development Plan shall apply.'

Table 2.1 links key mitigation measure(s) to the potential adverse effects of implementing the Planning Scheme, if unmitigated.

The measures include those from the Planning Scheme as well as those from the City Development Plan.

The measures generally benefit multiple environmental components i.e. a measure providing for the protection of biodiversity, flora and fauna could beneficially impact upon the minimisation of flood risk and the protection of human health, for example.

Table 2.1 Mitigation Measures

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 loss, fragmentation and deterioration, including patch size and edge effects. • Disturbance and displacement of protected species. 	<p>Please also refer to the relevant measures under the environmental components of Water and Landscape.</p> <p>Measures from the Planning Scheme: <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>G111 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>G112 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.

SEA Statement for the Poolbeg West SDZ Planning Scheme

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<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>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>

SEA Statement for the Poolbeg West SDZ Planning Scheme

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>Please also refer to the relevant measures under the environmental components of Soil, Water and Air and Climatic Factors.</p> <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>Please also refer to the relevant measures under the environmental component of Population and Human Health and Water.</p> <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 bodies⁵ arising from changes in quality, flow and/or morphology. • Interactions with flood risk. 	<p>Please also refer to the relevant measures under the environmental components of Population and Human Health, Soil, Biodiversity and Flora and Fauna.</p> <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.

⁵ 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.
CAAS for Dublin City Council

SEA Statement for the Poolbeg West SDZ Planning Scheme

Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<ul style="list-style-type: none"> • 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. • All development shall be capable of withstanding a two metre rise in sea level from 2017 average sea levels. <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</p>

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Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>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 GI21: 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 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 SI8: To mitigate the effects of floods and droughts subject to environmental assessments.</p> <p>Policy SI9: 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 SI10: 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 SI11: 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 SI12: 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 SI13: 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 SI14: 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 SI15: 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 SI16: 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 SI17: To require an environmental assessment of all proposed flood protection or flood alleviation works.</p> <p>Policy SI18: 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 GI4: To co-ordinate open space, biodiversity and flood management requirements, in progressing a green infrastructure network.</p> <p>Policy GI9: 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</p>

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Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>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> <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. 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 SI1: 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 SI2: 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 SI3: 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 SI19: 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>

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Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>Policy SI20: To prevent and minimise waste and to encourage and support material sorting and recycling.</p> <p>Policy SI21: To minimise the amount of waste which cannot be prevented and ensure it is managed and treated without causing environmental pollution.</p> <p>Policy SI22: To ensure that effect is given as far as possible to the “polluter pays” principle.</p> <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>Please also refer to the relevant measures under the environmental component of Water and Population and Human Health.</p> <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.

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Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<ul style="list-style-type: none"> 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> <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>
Cultural Heritage	<ul style="list-style-type: none"> Effects on protected and unknown archaeology and protected architecture arising from construction and operation activities. 	<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>LP7 Where possible, proposals for development within Block B1 of the SDZ (port lands) shall include proposals for the conservation/enhancement of the historic South Bull Wall.</p> <p>Also included but not as a numbered provision:</p> <p>Applications for development shall: be informed by a pre-application archaeological assessment undertaken by a suitably qualified archaeologist; and have regard to the Wreck Inventory of Ireland Database maintained by the National Monuments Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p> <p>US8 The Development Agency shall prepare an overarching Architectural Concept Statement for Poolbeg West and shall require individual 'Architectural Design Statements' to be submitted with all planning applications to ensure a holistic and coherent architectural design approach for all buildings and streets in Poolbeg West. Architectural Design Statements shall be prepared in cooperation with adjoining applications within an individual block and within the context of all blocks within a street to forge an individual street identity with emphasis on vertical features and own door access.</p>

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Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>City Development Plan Measures:</p> <p>Policy CHC1: To seek the preservation of the built heritage of the city that makes a positive contribution to the character, appearance and quality of local streetscapes and the sustainable development of the city.</p> <p>Policy CHC2: To ensure that the special interest of protected structures is protected. Development will conserve and enhance Protected Structures and their curtilage and will:</p> <p>(a) Protect or, where appropriate, restore form, features and fabric which contribute to the special interest</p> <p>(b) Incorporate high standards of craftsmanship and relate sensitively to the scale, proportions, design, period and architectural detail of the original building, using traditional materials in most circumstances</p> <p>(c) Be highly sensitive to the historic fabric and special interest of the interior, including its plan form, hierarchy of spaces, structure and architectural detail, fixtures and fittings and materials</p> <p>(d) Not cause harm to the curtilage of the structure; therefore, the design, form, scale, height, proportions, siting and materials of new development should relate to and complement the special character of the protected structure</p> <p>(e) Protect architectural items of interest from damage or theft while buildings are empty or during course of works</p> <p>(f) Have regard to ecological considerations for example, protection of species such as bats. Changes of use of protected structures, which will have no detrimental impact on the special interest and are compatible with their future long-term conservation, will be promoted.</p> <p>Policy CHC4: To protect the special interest and character of all Dublin's Conservation Areas (11.1.5.4). Development within or affecting all conservation areas will contribute positively to the character and distinctiveness; and take opportunities to protect and enhance the character and appearance of the area and its setting, wherever possible.</p> <p>Enhancement opportunities may include:</p> <ol style="list-style-type: none"> 1. Replacement or improvement of any building, feature or element which detracts from the character of the area or its setting 2. Re-instatement of missing architectural detail or other important features 3. Improvement of open spaces and the wider public realm, and re-instatement of historic routes and characteristic plot patterns 4. Contemporary architecture of exceptional design quality, which is in harmony with the Conservation Area 5. The repair and retention of shop and pubfronts of architectural interest <p>Development will not:</p> <ol style="list-style-type: none"> 1) Harm buildings, spaces, original street patterns or other features which contribute positively to the special interest of the conservation area 2) Involve the loss of traditional, historic or important building forms, features, and detailing including roofscapes, shopfronts, doors, windows and other decorative detail 3) Introduce design details and materials, such as uPVC, aluminium and inappropriately designed or dimensioned timber windows and doors 4) Harm the setting of a conservation area 5) Constitute a visually obtrusive or dominant form <p>Changes of use will be acceptable where, in compliance with the zoning objective, they make a positive contribution to the character, function and appearance of conservation areas and their settings. The council will consider the contribution of existing uses to the special interest of an area when assessing change of use applications and will promote compatible uses which ensure future long-term viability.</p> <p>Policy CHC5: To protect Protected Structures and preserve the character and the setting of Architectural Conservation Areas.</p> <p>The City Council will resist the total or substantial loss of:</p> <ul style="list-style-type: none"> • Protected structures in all but exceptional circumstances (and will require the strongest justification, including professional input with specialist knowledge so that all options receive serious consideration). • Non-protected structures, which are considered to make a positive contribution to the character and appearance of an Architectural Conservation Area unless it can be demonstrated that the public benefits of the proposals outweigh the case for retention of the building. Demolition behind retained facades, may be considered on non-protected structures, depending on the significance of the structures; where it will secure the retention of facades which make a significant contribution to local townscape; where it will maintain the scale of original rooms behind principal facades and where the demolition is considered otherwise acceptable having regard to the above policy considerations. Where an existing structure is considered to make a neutral or negative contribution to an Architectural Conservation Area, the City Council will encourage: <ol style="list-style-type: none"> 1. Its demolition and replacement with a high-quality building with enhanced environmental performance, or 2. Where appropriate, its improvement, re-cladding or refurbishment to improve both its appearance and environmental performance.

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Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>In all cases, demolition will only be permitted where:</p> <ol style="list-style-type: none"> 1. Any replacement building will be of exceptional design quality and deliver an enhancement to the area and improvement in environmental performance on-site, taking into account whole life cycle energy costs. 2. Firm and appropriately detailed proposals for the future re-development of the site have been approved and their implementation assured by planning condition or agreement. <p>Policy CHC6: To ensure a sustainable future for historic and other buildings subject to heritage protection. The City Council will encourage and support works to upgrade the environmental performance of the existing building stock that incorporates good standards of design and appearance. Where these works involve historic buildings subject to protection (this includes buildings referenced on the Record of Protected Structures and non-protected structures in an Architectural Conservation Area), the works shall not adversely affect the special interest of the structure and thus a sensitive approach will be required, taking into account:</p> <ul style="list-style-type: none"> • The significance of the structure, and • The extent of intervention, including impact on historic fabric, traditional construction, visibility, siting and design. <p>The installation of renewable energy measures and equipment will be acceptable where sited and designed to minimise the visual impact and does not result in any significant loss of historic fabric or otherwise affect the significance of the structure.</p> <p>Policy CHC9: To protect and preserve National Monuments.</p> <ol style="list-style-type: none"> 1. To protect archaeological material in situ by ensuring that only minimal impact on archaeological layers is allowed, by way of the re-use of buildings, light buildings, foundation design or the omission of basements in the Zones of Archaeological Interest. 2. That where preservation in situ is not feasible, sites of archaeological interest shall be subject to 'preservation by record' according to best practice in advance of redevelopment. 3. That sites within Zones of Archaeological Interest will be subject to consultation with the City Archaeologist and archaeological assessment prior to a planning application being lodged. 4. That the National Monuments Service will be consulted in assessing proposals for development which relate to Monuments and Zones of Archaeological Interest. 5. To preserve known burial grounds and disused historic graveyards, where appropriate, to ensure that human remain are re-interred, except where otherwise agreed with the National Museum of Ireland. 6. That in evaluating proposals for development in the vicinity of the surviving sections of the city wall that due recognition be given to their national significance and their special character. 7. To have regard to the Shipwreck inventory maintained by the DAHG. Proposed developments that may have potential to impact on riverine, inter-tidal and sub-tidal environments shall be subject to an underwater archaeological assessment in advance of works. 8. To have regard to DAHG policy documents and guidelines relating to archaeology. <p>Policy CHC10: To continue to preserve, and enhance the surviving sections of the City Wall and city defences, a National Monument, according to the recommendations of the City Walls Conservation Plan 2015, with reference to the National Policy on Town Defences, adopted by the Department of the Environment in 2008.</p> <p>Policy CHC15: To preserve, repair and retain in situ, historic elements of significance in the public realm including railings, milestones, city ward stones, street furniture, ironmongery, and any historic kerbing and setts identified in Appendices 7 and 8 of the Development Plan, and promote high standards for design, materials and workmanship in public realm improvements. Works involving such elements shall be carried out in accordance with the Department of Arts Heritage and the Gaeltacht Advice Series: Paving, the Conservation of Historic Ground Surfaces.</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</p>

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Environmental Component	Potential Significant Effect, if unmitigated	Mitigation Measure
		<p>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>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>G111 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>G112 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 G16: To support and implement the objectives of the National Landscape Strategy.</p> <p>Policy G17: 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 G17: 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 G18: To protect and enhance views and prospects which contribute to the appreciation of landscape and natural heritage.</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>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 Environmental Report and Submissions & Observations

3.1 Overview

The Poolbeg West Draft Planning Scheme was prepared in accordance with the Planning and Development Act 2000 (as amended).

The following assessments were undertaken alongside the preparation of the Scheme: Strategic Environmental Assessment (SEA); Appropriate Assessment (AA); Strategic Flood Risk Assessment (SFRA) and Contamination and Remediation Assessment (CRA).

The SEA was undertaken in order to comply with the SEA Directive and transposing Regulations, and the SEA Environmental Report that accompanied the Draft Planning Scheme contained the findings of this assessment. SEA facilitates the integration of environmental considerations into plans/schemes etc. through the systematic evaluation of the likely significant environmental effects of implementing a plan/scheme before a decision is made to adopt it.

The (Stage 2) AA was undertaken to comply with the EU Habitats Directive (Directive 1992/43/EEC). AA is a focused and detailed impact assessment of the implications of a strategic action or project, alone and in combination with other strategic actions and projects, on the integrity of a European Site⁶ in view of its conservation objectives. An AA Natura Impact Report was prepared that contains the findings of this assessment.

The SFRA was undertaken to comply with the 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009) and identifies areas that are at elevated levels of flood risk within and adjacent to the Strategic Development Zone. The SFRA also includes recommendations that have been integrated into the Planning Scheme that will contribute towards flood risk management.

⁶ European, or Natura 2000, sites comprise Special Areas of Conservation (designated and protected under the Habitats Directive) and Special Protection Areas (designated and protected under the Habitats Directive). Together these sites form the Natura 2000 network.

The CRA was undertaken to provide a review of available documentation on contamination, a conceptual site model for the area of the Planning Scheme and a high-level qualitative risk assessment to establish low, medium and high-risk areas. The CRA also includes outline remediation measures including requirements relating to detailed site-specific investigations and contaminated land risk assessments at project level.

The Draft Planning Scheme was placed on public display from Tuesday 24th January to Wednesday 8th March 2017, accompanied by the reports of the various environmental assessments. In total, 109 submissions/observations were received on the Draft Planning Scheme and associated documents and each submission was fully considered and summarised in the Chief Executives Report (April 2017). As the Chief Executive was preparing responses and recommendations in relation to submissions received as part of the public display of the Draft Planning Scheme and associated documents, CAAS provided an environmental assessment of these emerging recommendations. This assessment was provided in an "Environmental Assessment Report on foot of Submissions Received" (April 2017).

As Chief Executive Recommendations were being made in respect of Motions received from the Elected Members on foot of submissions received during public display of the Draft Planning Scheme and associated documents, CAAS provided an environmental assessment of these emerging recommendations. This assessment was provided in an "Environmental Assessment Report on Chief Executive's Recommendations on Councillor Motions" (May 2017).

The Council agreed Proposed Material Alterations that were examined by the SEA and AA processes with SEA and AA Determinations prepared and, alongside the Proposed Material Alterations, placed on public display from Wednesday 14th June 2017 to Wednesday 12th July 2017. In total, 60 submissions/observations were received on the Draft Planning Scheme

and associated documents and each submission was fully considered and summarised in the Chief Executives Report (August 2017).

As Chief Executive Recommendations were being made in respect of Motions received from the Elected Members on foot of submissions received during public display of the Proposed Material Alterations and associated documents, CAAS provided an environmental assessment of these emerging recommendations. This assessment was provided in an “Environmental Assessment Report on Chief Executive’s Recommendations on Councillor Motions” (September 2017).

The Planning Scheme was adopted by Dublin City Council on 2nd October 2017.

The SEA Environmental Report, AA Natura Impact Report, SFRA and CRA documents were updated to take account of changes made the original Draft Planning Scheme that was placed on public display and submissions made on the environmental assessment documents at each stage of the process. This SEA Statement was prepared as was an AA Conclusion Statement.

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.”*

Following the approval of the Scheme by the Board, the SEA, AA, SFRA and CRA documents were updated to take account of the modifications made the Planning Scheme by the Board. The updated documents are available alongside the approved Scheme.

3.2 SEA Scoping Submissions

3.2.1 Introduction

In consultation with the relevant authorities, the scope of environmental issues to be dealt with by the SEA together with the level of detail to which they are addressed was broadly decided upon taking into account the collection of environmental baseline data and input from environmental authorities. Scoping allowed the SEA to become focused upon key issues relevant to the environmental components which are specified under the SEA Directive⁷.

As the Planning Scheme is not likely to have significant effects on the environment in another Member State transboundary consultations as provided for by Article 7 of the SEA Directive were not undertaken.

3.2.2 Scoping Notices

All relevant environmental authorities identified under the SEA Regulations as amended, were sent SEA scoping notices by the Council indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the environmental report could be made to the Council⁸.

3.2.3 Submissions and Responses

Submissions were made by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Environmental Protection Agency during the SEA Scoping/Planning Scheme-preparation process. These submissions influenced the scope of the assessments as detailed in the final SEA Scoping Report. Table 3.1 details how the issues raised in the scoping submissions from the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Environmental Protection Agency were taken into account by the assessments.

⁷ These components comprise biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

⁸ Environmental authorities notified included the Environmental Protection Agency, Department of Communications, Energy and Natural Resources, Department of Agriculture, Food and Marine, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Dublin Port.

Table 3.1 How SEA Scoping Submissions were taken into account by the SEA

Submission made/Issued raised	How taken into account by the SEA
Submission from The Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs	
<p>Archaeology The Department notes that the Poolbeg West SDZ is located on reclaimed ground and has high potential for the survival of buried archaeological features and structures including jetties, piers, fish traps, wrecks and other features of archaeological potential. The Wreck Inventory of Ireland Database lists numerous wrecks for Poolbeg and its environs, which are subject to statutory protection under section 3 of the 1987 National Monuments (Amendment) Act. Given the location of the proposed development it is possible that wrecks buried under the reclaimed land of the Poolbeg SDZ may be impacted by any potential future development of the site. It is also noted that the Poolbeg West SDZ is located adjacent to a zone of archaeological potential established around the South Bull Wall, Recorded Monument DU 019-029 & DU018-066, which is subject to statutory protection in the Record of Monuments and Places, established under section 12 of the National Monuments (Amendment) Act 1994. In addition, the Department notes that the SDZ area is large in scale. Given the location and scale of the proposed development it is possible that both terrestrial and buried wreck sites may be impacted by future development works.</p>	The SEA considers potential impacts in relation to the known and unknown archaeology at the SDZ lands.
The National Monuments Service (NMS) of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs is the Environmental Authority in relation to Strategic Environmental Assessment (SEA) for archaeology.	Noted.
<p>The Scoping Issues Paper for the SEA has failed to include cultural heritage and in particular the archaeological heritage as a baseline environmental issue to be considered as part of the SEA process.</p> <p>The Department therefore recommends that a comprehensive archaeological assessment be completed by a suitably qualified archaeologist as part of the environmental report of the proposed SEA.</p>	<p>Noted. The Scoping Report which was prepared after receipt of this submission included cultural heritage, including archaeological heritage, as an issue that was to be considered by the SEA. Cultural heritage is one of the key environmental components that is taken into account by the SEA Environmental Report.</p> <p>The consideration of archaeological issues as part of the strategic assessment has been informed by information from a number of sources that has been gathered by archaeologists. Provisions have been integrated into the Planning Scheme and previously adopted City Development Plan that require project level archaeological assessments that are typically undertaken by archaeologists.</p>
Once the draft SEA is completed and forwarded to the Department for review, the Department can make a more detailed submission in relation to archaeological heritage if required	Noted – such comments are responded to in the Chief Executive's report on submissions.
The Plan/SDZ and SEA should take into account of the Biodiversity Convention, the Ramsar Convention, the EC Habitats Directive, the EC Birds Directive, the Wildlife Acts of 1976 to 2012, the European Communities (Birds and Natural Habitats) Regulations 2011-2015. The Planning Authority should also refer to the relevant circular letters which have been circulated to the Local authorities.	The Planning Scheme and SEA have taken into account these issues and relevant legislation has been be integrated into the Planning Scheme and previously adopted City Development Plan provisions.
The Plan/SDZ should include a natural heritage section. All designated sites within or adjoining the plan/SDZ area should be listed and mapped, including, if applicable, candidate Special Areas of Conservation (cSAC) designated under the Habitats Directive, Special Protected Areas (SPA) designated under the Birds Directive, Natural Heritage Areas (NHA), Proposed Natural Heritage Areas (pNHA), Nature Reserves, and Refuges for Fauna, designated under the Wildlife Acts. Details of these sites are available on www.npws.ie . All such sites should be zoned appropriately and policies and objectives should be devised to ensure their protection. The SDZ/Plan should take cognisance of boundary changes to sites made during the lifetime of the SDZ/Plan. For information on Geological and Geomorphological NHAs the Geological Survey of Ireland should be consulted. Where designated sites are within more than one Planning Authority area the relevant Planning Authorities should ensure they do not have conflicting policies for such a site.	Provisions have been integrated into the Planning Scheme that will contribute towards the protection and management of natural heritage and associated designations.
In accordance with article 10 of the Habitats Directive, Plans should include provisions to encourage the management of features of the landscape which are of major importance to wild flora and fauna. This includes linear landscape features which act as ecological corridors, such as watercourses (rivers, streams, canals, ponds, drainage channels etc.) woodlands, hedgerows and	Provisions have been integrated into the Planning Scheme that will contribute towards the management of features of the landscape that are of major importance to wold flora and fauna. Hedgerows and bat roosts are relevant

Submission made/Issued raised	How taken into account by the SEA
<p>road and railway margins, and features which act as stepping stones, which include marshes and woodlands. These provide pathways for the dispersal and genetic exchange of wild species and can help improve the coherence of the Natura 2000 network. Such features should be maintained and, where possible, enhanced. Hedgerows form important wildlife corridors and provide areas for birds to nest in. In addition badger setts may be present. If suitable trees are present bats may roost there and they use hedgerows as flight routes. Hedgerows also provide a habitat for woodland flora. Where a hedgerow forms a townland or other historical boundary it generally is an old hedgerow. Such hedgerows will contain more biodiversity than a younger hedgerow. Hedgerows should be maintained where possible. Where trees or hedgerows have to be removed there should be suitable planting of native species in mitigation. Where possible hedgerows and trees should not be removed during the nesting season (i.e. March 1st to August 31st). Birds' nests can only be intentionally destroyed under licence issued under the Wildlife Acts of 1976 and 2000.</p> <p>Bat roosts may be present in trees, buildings and bridges. Bat roosts can only be destroyed under licence under the Wildlife Acts and derogation under the Habitats Regulations and such a licence would only be given if suitable mitigation measures were implemented.</p>	<p>to various provisions have been integrated into the Planning Scheme and previously adopted City Development Plan.</p>
<p>Rivers and Wetlands Wetland habitats such as rivers are important source of biodiversity and contain species such as otters (<i>Lutra lutra</i>), Salmon (<i>Salmo salar</i>), Kingfishers (<i>Alcedo atthis</i>), Crayfish (<i>Austropotamobius pallipes</i>) and Lamprey species, all protected under Wildlife Acts of 1976 to 2012 and/or listed on the annexes of wetland habitats and ensure that such sites are protected. Flood plains, if present should be identified in the Plan/SDZ and left undeveloped to allow for protection of these valuable habitats and provide areas for flood water retention. The plan should take account of the guidelines for Planning Authorities entitled 'The Planning System and Flood Risk Management' and published by the Department of the Environment, Heritage and Local Government in November 2009. Inland Fisheries Ireland (IFI) should be consulted with regards impacts to fish species and the local Authority may find it useful to consult their publication entitled 'Planning for watercourses in the urban Environment'.</p>	<p>Provisions have been integrated into the Planning Scheme that will contribute towards compliance with legislation relating to the protection of waters and their associated habitats and species. Furthermore, the previously adopted City Development Plan includes various provisions in this regard.</p>
<p>Water Ground and surface waters should be protected from pollution and the Planning Authority should ensure that adequate sewage treatment facilities are or will be in place prior to any development proposed in the Plan. The Planning Authority should also ensure that adequate water supplies are present prior to development. Care should be taken to ensure that any proposed water abstractions or waste water discharges do not negatively impact on Natura 2000 sites.</p>	<p>Provisions have been integrated into the Planning Scheme that will contribute towards the protection of waters and the provision of appropriate levels of water services infrastructure. Furthermore, the previously adopted City Development Plan includes various provisions in this regard.</p>
<p>Roads Where roads are listed for improvement and upgrading in the SDZ/Plan the opportunity, if relevant should be taken to address inadequate existing mitigation measures or impeded passage (e.g. include mammal underpasses or dry ledges where there is poor culvert design). In making provision at plan level for transport, including reserving lands and integrating or upgrading routes, this should be based on information on ecological constraints, and should allow sufficient flexibility for impacts to be avoided or mitigated.</p>	<p>The need for all types of development under the Planning Scheme to take into account ecological constraints has been integrated into Planning Scheme provisions. Furthermore, the previously adopted City Development Plan includes various provisions in this regard.</p>
<p>Alien invasive species Alien invasive species such as Japanese knotweed and Giant Hogweed can be damaging to local biodiversity. The plan-SDZ should have a policy to protect against the accidental introduction of such species during development.</p>	<p>Provisions have been integrated into the Planning Scheme that will contribute towards the management of invasive species.</p>
<p>Amenity Developments Negative impacts on biodiversity and designated sites, particularly in the mountains, by the coast and along rivers, can occur as a result of development such as walking routes, cycleways, seating, lighting, loss of riparian zone and mowing of riparian zone, and can lead to erosion and added disturbance by humans and dogs. Such developments along waterways, for example, could impact on species such as otters and bats which are strictly protected under the Habitats Directive and Kingfishers listed on Annex I of the Birds Directive. One of the main threats identified in the threat response plan for otter is habitat destruction and further information on this is accessible at http://www.npws.ie/sites/default/files/publications/pdf/2009_Otter_TRP.pdf. In addition a 10m riparian buffer on both banks of a waterway is considered to comprise part of the otter habitat. Any proposed walkways, cycletracks or greenways marked on the Plan maps along rivers should therefore be a suitable distance from the water's edge. In general, pedestrian and cycle routes need ecological assessment in their planning and design and should</p>	<p>The need for all types of development under the Planning Scheme to take into account ecological constraints has been integrated into Planning Scheme provisions. Furthermore, the previously adopted City Development Plan includes various provisions in this regard.</p>

Submission made/Issued raised	How taken into account by the SEA
<p>not target sensitive ecological sites or parts of sites, as such routes have potential for disturbance to habitats and species, including as a result of noise, lighting, etc. Otherwise their development may not be consistent with nature conservation objectives and legal compliance requirements.</p> <p>From a Biodiversity point of view it is important to take note of the EU Green Infrastructure Strategy. Care should be taken to ensure that green infrastructure involves greening existing infrastructure rather than adding built infrastructure to existing biodiversity corridors.</p>	
<p>SEA Integrated assessment</p> <p>It is particularly important that the appropriate assessment procedure, commencing with stage 1 screening, should take place in consultation with the teams working on the draft Plan and SEA as each process can help inform the other to ensure that the objectives and policies in the draft Plan will have no significant effects on any Natura 2000 site. The appropriate assessment should examine the effects of policies, objectives and any indicative maps or zonings, as well as cumulative impacts with other plans and projects both within and outside of the Plan area.</p>	<p>The SEA has been informed by the findings of the AA and follows elements of Integrated Biodiversity Assessment with reference made to the EPA's 2013 <i>Integrated Biodiversity Impact Assessment - Streamlining AA, SEA and EIA Processes: Practitioner's Manual</i>. The Planning Scheme and associated SEA and AA documents have been prepared in an iterative manner whereby multiple revisions of each documents have informed subsequent iterations of the others.</p>
<p>Legislation</p> <p>The SEA should take account of the Biodiversity Convention, the Ramsar Convention, The Birds and Habitats Directives, the Wildlife Acts of 1976 to 2012, and the European Communities (Birds and Natural Habitats) Regulations, 2011 to 2015.</p>	<p>This legislation has been taken into account by the SEA and AA.</p>
<p>Baseline Data</p> <p>With regard to the scope of baseline data, details of designated sites can be found at www.npws.ie. For flora and fauna in the SEA, the data of the NPWS should be consulted at www.npws.ie. Where further detail is required on any information on the website a data request form should be submitted. This can be found at https://www.npws.ie/maps-and-data/request-data. Other sources of information relating to habitats and species include that of the National Biodiversity Data Centre (www.biodiversityireland.ie), Inland Fisheries Ireland (www.fisheriesireland.ie), Birdwatch Ireland (www.birdwatchireland.ie) and Bat Conservation Ireland (www.batconservationireland.org). Data may also exist at a County level within the Planning Authority.</p>	<p>These sources of information have been considered in undertaking the SEA and AA.</p>
<p>SEOs</p> <p>The Department recommends that the Biodiversity SEOs in the SEA cover habitats and species both within and outside of designated sites as below were applicable;</p> <ul style="list-style-type: none"> • Natura 2000 sites, i.e. Special Areas of Conservation (SAC) designated under the EC Habitats Directive (Council Directive 92/43/EEC) and Special Protection Areas designated under the EC Birds Directive (Directive 2009/147 EC), • Other designated sites, or sites proposed for designation, such as Natural Heritage Areas and proposed Natural Heritage Areas, Nature Reserves and Refuges for Fauna or Flora, designated under the Wildlife Acts 1976 to 2012, • Species protected under the Wildlife Acts including protected flora, • 'Protected species and natural habitats', as defined in the Environmental Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations, 2008, including Birds Directive – Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur) and Habitats Directive – Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places (wherever they occur), • Important bird areas such as those as identified by Birdlife International, • Features of the landscape which are of major importance for wild flora and fauna, such as those with a "stepping stone" and ecological corridors function, as referenced in Article 10 of the Habitats Directive, • Other habitats of ecological value in a national to local context (such as those identified as locally important biodiversity areas within Local Biodiversity Action Plans and County Development Plans), • Red data book species, and biodiversity in general. <p>With regard to the SEOs for Water in the SEA it is important that the needs of protected species such as freshwater pear mussels, crayfish, salmon and lamprey species, all protected under the annexes of the EC habitats Directive, are considered in relation to water quality. The SEOs and targets should be also complete with relevant River Basin Management Plans.</p>	<p>These aspects of biodiversity and flora and fauna and water have been encompassed by the SEOs and targets.</p>

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Submission made/Issued raised	How taken into account by the SEA
<p>Water Issues and wetland habitats</p> <p>The impact of any water abstraction and waste water discharge schemes that result from the Plan should be fully assessed. Impacts on surface water or groundwater should be assessed on a catchment or aquifer basis. In addition where a proposed policy would result in a development in or alongside a river or other waterway the cumulative impact on species and habitats would need to be assessed cumulatively on a catchment basis.</p>	<p>The SEA fully assesses all provisions of the Planning Scheme, including those relating to water services. Impacts on surface water, groundwater, species and habitats are considered at a catchment/aquifer level and considers cumulative effects.</p>
<p>Indicators, targets and monitoring</p> <p>Indicators, targets and monitoring should be realistic, measurable and achievable.</p>	<p>Indicators, targets and monitoring are realistic, measurable and achievable.</p>
<p>Appropriate Assessment</p> <p>Guidance</p> <p>The draft plan should be screened for appropriate assessment (AA) and if necessary a Natura Impact Report (NIR) produced. It is noted that this proposed SDZ/plan is adjacent to South Dublin Bay SAC (site code 000210) and South Dublin Bay and River Tolka Estuary (SPA) (Site code 004024) and the SDZ/plan and AA screening/JNIS must be taken into account.</p>	<p>AA has been undertaken alongside the preparation of the Planning Scheme that has taking into account the cited Guidance.</p>
<p>Conservation Objectives</p> <p>In order to carry out the appropriate assessment screening and/or prepare a NIR, information about the relevant Natura 2000 sites including their conservation objectives will need to be collected. Details of designated sites, species and conservation objectives can be found on http://www.npws.ie/. Site-specific, as opposed to generic, conservation objectives are now available on the web site for some sites. Each conservation objective for a qualifying interest (QI) is defined by a list of attributes and targets and is often supported by further documentation. Where these are not available for a site, an examination of the attributes that are used to define site-specific conservation objectives for the same QIs in other sites can be usefully used to ensure the full ecological implications of a proposal for a site's conservation objective and its integrity are analysed and assessed. It is advised, as per the notes and guidelines in the site-specific conservation objectives that any reports quoting conservation objectives should give the version number and date, so that it can be ensured and established that the most up-to-date versions are used in the preparation of Natura Impact Statements and in undertaking appropriate assessments.</p>	<p>Conservation objectives have been integrated into the AA.</p>
<p>Integrated Assessment</p> <p>It is particularly important that the appropriate assessment procedure, commencing with stage 1 screening, should take place in consultation with the teams working on the draft Plan and SEA as each process can help inform the other to ensure that the objectives and policies in the draft Plan will have no significant effects on any Natura 2000 site. The appropriate assessment should examine the effects of policies, objectives and any indicative maps or zonings, as well as cumulative impacts with other plans and projects both within and outside of the Plan area.</p>	<p>The Planning Scheme and associated SEA and AA documents have been prepared in an iterative manner whereby multiple revision of each documents have informed subsequent iterations of the others. The AA examines the effects – including cumulative effects – of Planning Scheme provisions.</p>
<p>Other relevant Local Authorities should be consulted to determine if there are any projects or plans which, in combination with this proposed Plan, could impact on any Natura 2000 sites.</p> <p>A rule of thumb often used is to include all Natura 2000 sites within a distance of 15km. It should be noted however that this will not always be appropriate. In some instances where there are hydrological connections a whole river catchment or a groundwater aquifer may need to be included. Similarly, where bird flight paths are involved the impact may be on an SPA more than 15 km away.</p>	<p>Cumulative and ex-situ impacts are covered by the AA.</p>
<p>Submission from the Environmental Protection Agency</p>	
<p>I refer to and acknowledge your correspondence, dated 19th September 2016, in relation to the SEA scoping of the Poolbeg West SDZ planning Scheme. We acknowledge the identification of key issues to be considered in preparing the SEA and the Plan, contained in the Scoping Issues Paper. The Plan should provide appropriate mitigation measures to address these potential environmental issues and remain consistent with the Dublin City Development Plan and Regional Planning Guidelines for the Greater Dublin Area.</p>	<p>Noted. These issues have been integrated into the Planning Scheme and previously adopted City Development Plan.</p>

Submission made/Issued raised	How taken into account by the SEA
<p>SEA WebGIS Search and Reporting Tool</p> <p>The EPA's web-based GIS application for the purposes of SEA allows users to explore, interrogate and produce an indicative report on key aspects of the environment in specific geographic areas. These reports are indicative and will provide an overview of key aspects of the environment within a specific plan area and may be used to inform the SEA scoping stage for the Plan. It may be accessed via www.edenireland.ie</p> <p>The EPA also maintains an inventory of spatial datasets which can be used to inform the Environmental Report and associated environmental assessment. Data sources include Air Quality, Climate, Biodiversity, Flora, Fauna, Geology, Soils, Hydrology and Water Quality. The inventory is available on the EPA website at:</p> <p>www.epa.ie/pubs/advice/ea/seaspatialinfomationsourcesjune2016.html</p> <p>In addition, the EPA has recently launched a new website Catchments.ie which has been developed by the EPA in collaboration the DHPCLG and the Local Authority Waters and Communities Office (LAWCO). This website provides detailed information on water quality assessments and trends for the 46 catchments, 583 sub-catchments and 4829 water bodies nationally.</p>	<p>These information sources were considered during the undertaking of the SEA and some are cited in the SEA Environmental Report.</p>
<p>Specific Comments to be Considered</p> <p>A number of key aspects to be considered are outlined below and should be taken into account in the preparation of the Plan and SEA:</p> <p>Water Framework Directive</p> <p>The Plan should provide for the protection of surface and groundwater resources in compliance with the Water Framework Directive (WFD), including adjacent designated nutrient sensitive areas and bathing waters. A clear commitment should be included in the Plan to integrating and implementing the relevant aspects of the second cycle of River Basin Management Plans and associated Programme of Measures currently being prepared by the DHPCLG.</p> <p>Critical water-related Infrastructure</p> <p>The Plan should ensure that development proposals and associated population increases within the Plan area are aligned with the ability to provide the required water related infrastructure (drinking SCP160902.1EPA SEA Scoping Submission Poolbeg West SDZ 17.10.2016 Water, wastewater). A clear commitment should be provided, to collaborate with Irish Water and other key stakeholders in order to ensure the sustainable development of the Plan area.</p>	<p>Measures contributing towards compliance with legislation relating to the protection of waters and the provision of appropriate levels of water services infrastructure have been integrated into the Planning Scheme and previously adopted City Development Plan.</p>
<p>Designated nature conservation areas</p> <p>There are a large number of designated national, European and international conservation areas adjacent to the Plan area (SPAs, SACs, NHAs, UNESCO Biosphere site). The SEA should consider the potential effects on all designated sites within and adjacent to the Plan area. In particular consideration should be given to the potential for cumulative/ in-combination effects arising from the implementation of the Plan together with the influence of other plans and programmes.</p>	<p>Possible effects on designated sites have been considered and the protection of designated sites has been integrated into the Planning Scheme and previously adopted City Development Plan.</p>
<p>Non-designated Biodiversity</p> <p>The Plan should commit to protecting and, where possible, enhancing biodiversity outside of designated areas, including ecological corridors/linkages, hedgerows and wetlands within and adjacent to the plan area. Where possible, existing green/blue infrastructure should be retained and integrated into the Plan to help maintain and conserve important ecological corridors and associated species and habitats.</p>	<p>Measures to protect non-designated biodiversity, ecological linkages and wetlands have been integrated into the Planning Scheme and previously adopted City Development Plan.</p>
<p>Floods Directive</p> <p>The Plan should take into account the relevant aspects of the Eastern CFRAM Flood Risk Management Plan for the Liffey/Dublin Bay (UoM09), as well as including a commitment to meeting the requirements of the Planning System and Flood Risk Management – Guidelines for Planning Authorities (DEHLG/OPW, 2009).</p>	<p>A Strategic Flood Risk Assessment (SFRA), as required by 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009) and issues arising have been taken into consideration during the preparation of the Planning Scheme. The SFRA has taken into account the relevant aspects of the Eastern CFRAM Flood Risk Management Plan for the Liffey/Dublin Bay (UoM09).</p>
<p>Traffic Management</p> <p>The Plan should take into consideration the recommendations of the Greater Dublin Area Draft Transport Strategy, as appropriate and relevant. The plan should establish an integrated traffic management plan that includes adequate provision of public transport and should seek to facilitate and promote walking, cycling and public transport over car travel to ensure the sustainable development of the Plan area.</p>	<p>Noted. The Planning Scheme has taken into consideration the recommendations of the Greater Dublin Area Draft Transport Strategy and considered issues relating to integrated traffic management, provision of public transport, facilitation of walking and cycling.</p>
<p>Landscape Character& Visual Amenity</p> <p>The Plan should commit to protecting areas of designated landscape character within/adjacent to the Plan area (including seascape, coast-scape, urban-scape where relevant) and seek to enhance visual amenity along the northern</p>	<p>Provisions have been integrated into the Scheme that will contribute towards the protection of the use of and access to amenities including parklands, playing fields and shore-</p>

SEA Statement for the Poolbeg West SDZ Planning Scheme

Submission made/Issued raised	How taken into account by the SEA
and north-western boundaries of the Plan area.	side walks. The Planning Scheme also contributes towards the protection of visual amenity.
<p>Waste Management</p> <p>The Plan, in developing the area, should ensure that adequate and appropriate remediation of contaminated lands occurs to facilitate development of these lands. Commitments should be given to integrate the National Hazardous Waste Management Plan and Eastern Midlands Regional Management Plan into the Plan as relevant and appropriate in the management of wastes and associated infrastructure over the lifetime of the Plan.</p>	<p>A Contamination and Remediation Assessment (CRA) has been undertaken alongside the preparation of the Planning Scheme. The CRA incorporates a qualitative risk assessment and establishes low, medium and high risk and, based on the risk assessment, remediation measures are outlined for medium and high risk sites. Measures contributing towards compliance with higher level waste management provisions have been integrated into the Planning Scheme and previously adopted City Development Plan.</p>
<p>Air Quality</p> <p>EPA air quality monitoring and assessment data is available at www.epa.ie/air/quality/data/ and should be integrated as relevant and appropriate into the Plan and SEA.</p>	<p>Air quality issues have been integrated into the SEA Environmental Report.</p>
<p>Cumulative Effects</p> <p>In preparing the Plan and SEA, particular consideration should be given to assessing the potential for cumulative effects on the environment as a result of implementing the Plan, in combination with other and relevant plans, programmes and significant projects. Where there is potential for significant cumulative adverse environmental effects, this should be acknowledged in the SEA Environmental Report and also reflected in the Plan.</p>	<p>The potential for cumulative effects on the environment to arise as a result of implementing the Planning Scheme have been assessed and adjacent Plans have been taken into account.</p>
<p>Climate Change Mitigation and Adaption</p> <p>The Plan should seek to mitigate and adapt to the effects of climate change. The Draft Strategy Towards Climate Change Action Plans for the Dublin Local Authorities, currently being prepared by the four Dublin local authorities, should be considered and integrated into the Plan as appropriate. In addition, the recently published Local Authority Adaptation Strategy Development Guideline (EPA, 2016) and guidance on Integrating Climate Change into SEA in Ireland (EPA, 2015) should be taken into account as appropriate.</p>	<p>Climate change adaptation issues have been integrated into the SEA Environmental Report and SFRA and have been integrated into the Planning Scheme and previously adopted City Development Plan.</p>
<p>Environmental Authorities</p> <p>Under the SEA Regulations (S.I. No. 436 of 2004), as amended by S.I. No. 201 of 2011, notice should also be given to the following: The Minister for the Environment, Community and Local Government (now the Minister for Housing, Planning, Community and Local Government); Minister for Agriculture, Food and the Marine, and the Minister for Communications Energy and Natural Resources (now the Minister for Communications, Climate Action and Environment), where it appears to the planning authority that the plan or programme, or modification of the plan or programme, might have significant effects on fisheries or the marine environment; where it appears to the competent authority that the plan or programme, or amendment to a plan or programme, might have significant effects in relation to the architectural heritage or to nature conservation, the Minister for Arts, Heritage and the Gaeltacht (now the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs), and any adjoining planning authority whose area is continuous to the area of a planning authority which prepared a draft plan, proposed variation or local area plan.</p>	<p>Scoping notices have already been sent to the relevant environmental authorities.</p>
<p>Further comment will be provided by the Agency upon receipt of the Draft Environmental Report and Planning Scheme and associated documents during the next statutory consultation phase of the SEA Process.</p>	<p>Noted – comments are responded to in the Chief Executive's Report on submissions.</p>

3.3 Submissions on the Draft Planning Scheme and Environmental Report

A number of submissions were made on the Draft Planning Scheme and associated environmental assessments (SEA, AA, SFRA and CRA) documents SEA Environmental Report while these documents were on public display and these resulted in various updates being made.

Table 3.2 sets out these updates as a result of, inter alia, submissions from the Environmental Protection Agency (EPA) and the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRGA).

Table 3.2 Updates made on foot of Submissions on Draft Planning Scheme and associated Environmental Assessment documents

No.	Report	Update
1	SEA ER	<p>Insert the following text into Section 2.4 Relationship with other relevant Plans and Programmes' and Appendix I "Relationship with Legislation and Other Plans and Programmes":</p> <p>The Masterplan provided that it would be subject to periodic reviews, based primarily on changes in the demand for the use of port facilities. The first review of the Dublin Port Masterplan 2012 – 2040 will take account of changes in port operations, logistics, trade developments and relevant policies impacting on Dublin Port as it continues to plan for the future. The review is intended to update and refine the infrastructure development options for Dublin Port and, in doing so, ensure that the Masterplan continues to provide the best solution for the future sustainable development of Dublin Port through to 2040. To help guide the consultation, in early 2017, Dublin Port Company published a Masterplan Review 2017 Consultation Paper and an Environmental Report Consultation Paper. This Dublin Port Company is currently considering submissions made during the consultation period.</p>
2	SEA ER	<p>Insert the following into Section 3.5.3 'Submissions and Responses':</p> <p>Table 3.1 details how the issues raised in the scoping submissions from the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Environmental Protection Agency were taken into account by the assessments.</p> <p>Table 3.1 How SEA Scoping Submissions were taken into account by the SEA (see Table 3.1 in this SEA Statement)</p>
3	SEA ER	<p>To update Section 4.3.1 'Overview' as follows:</p> <p>4.3.1 Overview⁹ Poolbeg is a man-made peninsula comprising of fill that has been placed over estuarine deposits.</p> <p>The SDZ lands at Poolbeg West are located to the east of Ringsend and Irish Town, to the west of Irishtown Nature Park, to the north of Sean Moore Park and Sandymount Strand, and to the south of the River Liffey.</p> <p>Most of the SDZ lands have been covered by artificial surfaces and some patches are covered by semi-natural habitats. The most valuable part of the SDZ lands to biodiversity is the corridor that is found along the southern part of the SDZ, between a vegetated embankment and the coast. This corridor area provides for ecological connectivity and is adjacent to shoreline habitats, many of which are designated, as well as facilitating amenity usage. The coastal corridor has potential to be used by bats, in particular, for movement between foraging and roosting areas.</p> <p>The Peninsula supports bird and wildlife as well as a variety of common flora and fauna typically associated with an urban environment.</p> <p>Various species are known to utilise the SDZ and/or the areas surrounding the SDZ including the wider Poolbeg peninsula, Dublin Bay, Sandymount Strand and the Rivers Liffey and Dodder.</p> <p>Birds include Brent Geese, Oystercatchers Black-tailed Godwits, Curlews, Redshank and Black-headed Gulls. Areas used by the birds include: Compensatory Grassland to the south of the wastewater treatment plant, Sean Moore Park East, Sean Moore Park West, Irishtown Stadium, Ringsend Park, Ringsend wastewater treatment plant storm tanks and South Dublin Bay intertidal sand and mudflats¹⁰.</p> <p>Two areas of note close to the SDZ are Irishtown Nature Park (a former landfill) and Sean Moore Park (which comprises mainly amenity grassland and exotic shrub species). As detailed in the Dublin City Biodiversity Action Plan 2015-2020, Irishtown Nature Park supports Pyramidal Orchid, Red-tailed Bumblebee, and a rare beetle¹¹.</p> <p>Kestrels and Peregrine falcons have been observed hunting on the peninsula and many of the buildings present in the wider peninsula may be suitable for roosting bats.</p> <p>There are mooring dolphins located to the north of Poolbeg that provide a nesting site for terns – these are designated as part of the South Dublin Bay and River Tolka Special Protection Area (SPA) and Dolphins, Dublin Docks proposed Natural Heritage Area (pNHA).</p> <p>The wider Dublin Bay area is among the most highly designated locations in the country for biodiversity. The zone of influence¹² of the Planning Scheme beyond the area to which it relates with respect to impacts upon ecology via surface waters upon ecological resources – including designated ecology – can be estimated through a precautionary approach to include areas within 15km of the SDZ boundary, although different features of the Planning Scheme would have differing zones of influence.</p> <p>Despite its location surrounded by a city, Dublin Bay is an internationally significant wildlife reserve, principally on account of wading birds that over-winter in the area, including internationally important numbers of light bellied</p>

⁹ Areas referred to below are indicated on Figure 4.1

¹⁰ Sourced from Dublin Waste to Energy Facility Wildfowl Monitoring Reports prepared in response to An Bord Pleanála 2007 planning approval Condition 13.

¹¹ Sourced from Dublin City Council's Dublin City Biodiversity Action Plan 2015-2020.

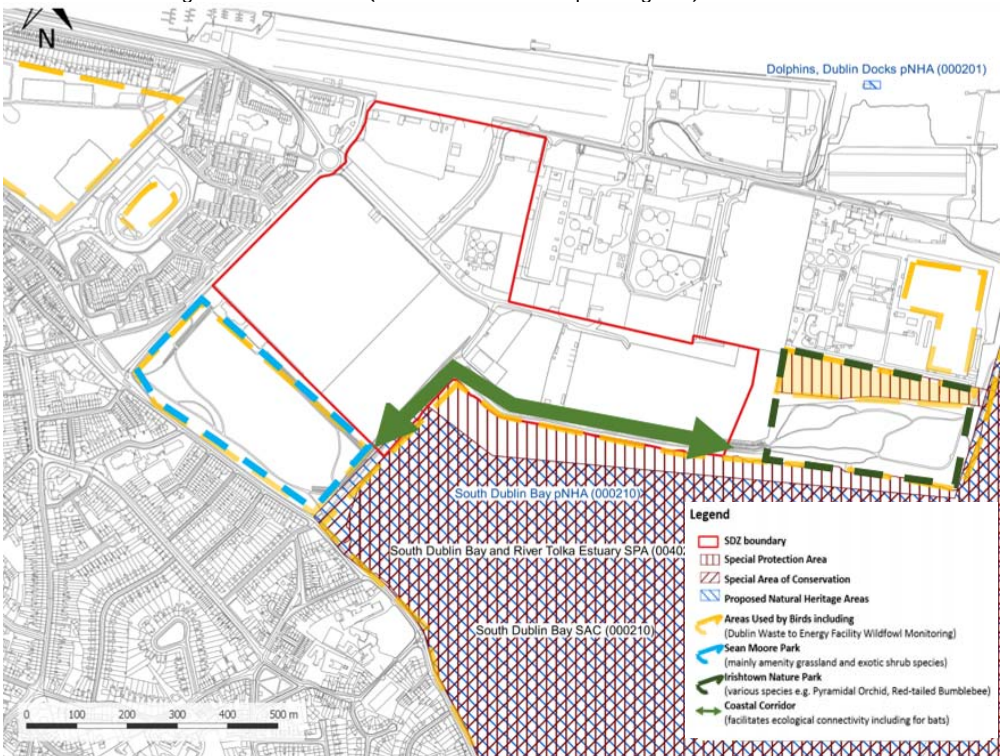
¹² Following the Source-Pathway-Receptor model the Zone of Influence (ZOI) is determined based on the characteristics of the development and the foreseen distribution of likely effects through the pathways identified.

No.	Report	Update																								
		<p>Brent geese and other species. These birds have complex requirements that include feeding areas and areas to roost (rest) when the strands are covered by high tide. The water birds also use some grassland sites within the Planning Scheme area during the winter months.</p> <p>Sightings of Otters and a Stoat in the area have been reported and they are known to use the Liffey and Dodder. Frogs have been found in the past at the ESB-owned pitch and putt course. The shore areas and Irishtown Nature Park also contain locally significant bird and wildlife resources that have additional significance on account of their location at the heart of the City.</p> <p>Ecological designations within/adjacent to the SDZ include: Candidate Special Areas of Conservation¹³ (cSACs) and Special Protection Areas¹⁴ (SPAs);</p> <ul style="list-style-type: none"> • Certain entries to the Water Framework Directive Register of Protected Areas; and • Proposed Natural Heritage Areas (pNHAs). <p>Protected Species include:</p> <ul style="list-style-type: none"> • Annex IV (Habitats Directive) species of flora and fauna, and their key habitats (i.e. breeding sites and resting places), which are strictly protected wherever they occur, whether inside or outside the above sites, e.g. otter and bats; • Other species of flora and fauna and their key habitats which are protected under the Wildlife Acts, 1976-2000, wherever they occur; and • 'Protected species and natural habitats' as defined in the European Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations, 2008, including: Birds Directive – Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur) and Habitats Directive – Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places (wherever they occur). <p>Both the Planning Scheme and the City Development Plan include a significant number of policies and objectives that must be complied with at project level and that will ensure that the protection and management of biodiversity and flora and fauna is contributed towards¹⁵.</p> <p>The rare plants database was not directly consulted with as part of this Strategic Environmental Assessment. The information contained within this database would not determine the allocation of Land Use Zoning Objectives. Compliance with the various provisions relating to biodiversity and flora and fauna will include consulting relevant databases (such as the rare plants database) and undertaking appropriate levels of field investigations.</p>																								
4	SEA ER	<p>Update Section 4.3.2, 4.3.3 and 4.3.4 as follows:</p> <p>4.3.2 Candidate Special Areas of Conservation</p> <p>South Dublin Bay Special Areas of Conservation (SACs) and proposed Natural Heritage Area (Site Code: 000210) is directly adjacent to the SDZ and has been designated for habitats including mudflats and sandflats not covered by seawater at low tide; Annual vegetation of drift lines; Salicornia and other annuals colonising mud and sand and Embryonic shifting dunes. The following 11 Special Areas of Conservation (SACs) have been identified within 15km of the SDZ the wider area of which the SDZ is part:</p> <table border="1" data-bbox="375 1256 1082 1585"> <thead> <tr> <th>Site Code</th> <th>Site Name</th> </tr> </thead> <tbody> <tr> <td>000199</td> <td>Baldoyle Bay SAC</td> </tr> <tr> <td>000202</td> <td>Howth Head SAC</td> </tr> <tr> <td>000205</td> <td>Malahide Estuary SAC</td> </tr> <tr> <td>000206</td> <td>North Dublin Bay SAC</td> </tr> <tr> <td>000210</td> <td>South Dublin Bay SAC</td> </tr> <tr> <td>000713</td> <td>Ballyman Glen SAC</td> </tr> <tr> <td>000725</td> <td>Knocksink Wood SAC</td> </tr> <tr> <td>001209</td> <td>Glenasmole Valley SAC</td> </tr> <tr> <td>002122</td> <td>Wicklow Mountain SAC</td> </tr> <tr> <td>002193</td> <td>Irelands Eye SAC</td> </tr> <tr> <td>003000</td> <td>Rockabill to Dalkey Island SAC</td> </tr> </tbody> </table> <p>Figure 4.2 Figure 4.1 maps SACs (and SPAs) within 15km of the SDZ. Figure 4.1 maps this designation at the local scale.</p> <p>4.3.3 Special Protection Areas</p> <p>South Dublin Bay and River Tolka Estuary Special Protection Area (SPA) (Site Code: 004024) is located marginally within the SDZ and is designated for Light-bellied Brent Goose, Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Redshank, Black-headed Gull, Roseate Tern, Common Tern, Arctic Tern and Wetland and Waterbirds.</p> <p>The following 8 Special Protection Areas (SPAs) SPAs have been identified the wider area of which the SDZ is part within 15km of the SDZ:</p>	Site Code	Site Name	000199	Baldoyle Bay SAC	000202	Howth Head SAC	000205	Malahide Estuary SAC	000206	North Dublin Bay SAC	000210	South Dublin Bay SAC	000713	Ballyman Glen SAC	000725	Knocksink Wood SAC	001209	Glenasmole Valley SAC	002122	Wicklow Mountain SAC	002193	Irelands Eye SAC	003000	Rockabill to Dalkey Island SAC
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¹³ Designated under the Habitats Directive (Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora).

¹⁴ Designated under the Birds Directive (EC Directive 200/147/EC on the conservation of wild birds)

¹⁵ This includes, for example, City Development Plan Policy GI23: 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.

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5	SEA ER	<p data-bbox="359 1279 1070 1303">Insert the a new Figure 4.1 as follows (and renumber subsequent figures):</p>  <p data-bbox="359 2056 1233 2083">Figure 4.1 Biodiversity and Flora and Fauna – areas referred to under Section 4.3</p> <p data-bbox="359 2083 560 2107">Source: CAAS (2016)</p>																																																																				

No.	Report	Update
6	SEA ER	<p>To update Section 4.4.4 'Existing Problems' as follows:</p> <p>4.4.4 Existing Problems Radon</p> <p>The greatest health risk from radiation in Ireland is caused by radon. The presence of radon gas, a naturally occurring radioactive gas that originates from the decay of uranium in rocks and soils, occurs across the country. It accounts for more than half of the total radiation dose received by the Irish population. As a known carcinogen, in the same category as tobacco smoke and asbestos it is a cause of lung cancer. Exposure to radon for long periods or at high concentrations can lead to lung cancer.</p> <p>Between one and five per cent of the homes in vicinity of the SDZ are estimated to be above a set Reference Level, which is a relatively low percentage when compared with other areas across the country¹⁶.</p> <p>The Planning Scheme requires that all habitable ground floor areas be located above an undercroft/basement to enable ventilation beneath each building. This ventilation will mitigate against any potential build-up of Radon within buildings on the site.</p> <p>4.4.5 Existing Problems</p> <p>In the absence of mitigation, human health has the potential to interact with environmental problems identified under other sections including at Sections 4.5.3 Contamination and Remediation Assessment, 4.6.6 Flooding, 4.7.2 Ambient Air Quality, 4.7.3 Odour and 4.7.4 Noise</p>
7	SEA ER	<p>To update Section 4.7.3 'Odour' as follows:</p> <p>4.7.3 Odour</p> <p>The Ringsend Wastewater Treatment Works was completed in 2003 and contributes towards cleaner water in Dublin Bay.</p> <p>Historically, there were odour associated problems with the Ringsend Waste Water Treatment Works. Having completed short-term odour abatement measures in 2007, significant works were undertaken in 2008. These included permanent covering of the primary tanks with provision of associated odour control units and installation of new high capacity combustion chambers to all three dryers. These works were completed in November 2008 after which there was a drop off in complaints.</p> <p>In 2009, significant work was carried out on the odour abatement equipment leading to a raised level of complaints in April and June of that year. This work has resulted in improved effectiveness and increased capacity of the odour abatement system. The plant operators provide a twenty four hour maintenance service and any breakdowns in odour equipment are addressed as quickly as possible.</p> <p>Dublin City Council has formalised an Odour Monitoring Programme that encompasses continuous on-site monitoring and, on foot of complaints, speedy investigation of sources of odour.</p> <p>Dublin City Council applied to An Bord Pleanála and in 2012 received permission to carry out upgrade and expansion works at the plant, including works to significantly improve odour abatement measures on site. Works identified¹⁷ as part of the upgrade include:</p> <ul style="list-style-type: none"> • The capture and treatment of the ventilation air from both dryer buildings; • The provision of 50 % additional capacity for the Main Odour Control Unit; • The capture and treatment of the ventilation air from the Screenings Building; and • The enclosure of the Grit Storage skips and provision of odour control for them. <p>The upgrade works and the Council's Odour Monitoring Programme will ensure both the avoidance of foreseeable odour issues and the prompt remediation of unforeseeable events.</p>
8	SEA ER	<p>To insert Section 4.11 as follows:</p> <p>4.11 Combined Environmental Sensitivity Mapping</p> <p>In order to identify where most sensitivities within SDZ and surrounding area occur, a number of the environmental sensitivities described in the baseline section described above were weighted and mapped overlapping each other. Figure 4.12 provides a combined environmental sensitivity map.</p> <p>It is emphasised that the occurrence of environmental sensitivities does not preclude development; rather it flags at a strategic level that the mitigation measures - which have already been integrated into the Planning Scheme - will need to be complied with in order to ensure that the implementation of the Planning Scheme contributes towards environmental protection.</p> <p>Environmental sensitivities are indicated by colours which range from acute vulnerability (brown), extreme vulnerability (red) to high vulnerability (dark orange) to elevated vulnerability (light orange) to moderate vulnerability (yellow) to low vulnerability (green). Only low and moderate levels of vulnerability occur within and adjacent to the SDZ. Where the mapping shows a concentration of environmental sensitivities there is an increased likelihood that development will conflict with these sensitivities and cause environmental deterioration.</p> <p>A weighting system applied through Geographical Information System (GIS) software was used with high sensitivity environmental factors attributed a score of 3 points, medium sensitivity environmental factors attributed a score of 2 points and low sensitivity environmental factors attributed a score of 1 point as follows:</p>

¹⁶ Mapping available at <http://www.epa.ie/radiation/radonmap>

¹⁷ Dublin City Council (2012) *Ringsend Wastewater Treatment Works Environmental Impact Statement*

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		<p>The colour scheme gives an indication of the relative sensitivity of the environment with darker red indicating high sensitivity and greys representing areas better able to absorb change. While it is acknowledged that there are limitations and an element of subjectivity to the overlay mapping, where there is a concentration of sensitive areas or overlap it becomes readily apparent where increased development in such areas could cause deterioration of the environment without appropriate mitigation measures being complied with.</p> <p>High sensitivity factors (3 points)</p> <ul style="list-style-type: none"> • Special Areas of Conservation • Special Protection Areas • COMAH establishments in the Dublin Port area • Unknown and High Risk Areas from the Contamination and Remediation Assessment (CRA) • Flood Risk Zone A • Archaeological Monument; Zones of Notifications for Entries to the Record of Monuments and Places and Sites and Monument Record • Protected Structures • Architectural Conservation Areas • Water Framework Directive (WFD) overall status for surface waters: Moderate <p>Medium Sensitivity Factors (2 points)</p> <ul style="list-style-type: none"> • Proposed Natural Heritage Areas • Consultation Zones for COMAH establishments in the Dublin Port area • Medium Risk Areas from the CRA • Flood Risk Zone B • WFD overall status for surface and groundwater: Good <p>Low Sensitivity Factors (1 points)</p> <ul style="list-style-type: none"> • Low Risk Areas from the CRA • Flood Risk Zone C <p>Within the SDZ, the environmental sensitivity factors that influence the combined sensitivity shown on Figure 4.12 the most are:</p> <ul style="list-style-type: none"> • The COMAH establishments Consultation Zones¹⁸ in the north and west of the SDZ (these are mapped on Figure 4.4); and • The risk areas established by the Contamination and Remediation Assessment¹⁹ (these are mapped on Figure 4.6). <p>Many of the areas surrounding the SDZ are not included within the Consultation Zones of COMAH establishments. Furthermore, the Contamination and Remediation Assessment was undertaken on the SDZ only – as a result there is no information on relative risk of areas beyond the SDZ. Consequently many of the areas are identified on Figure 4.12 as having a lower combined sensitivity rating relative to the SDZ lands.</p> <p>Around the SDZ's coastal edge there are a number of different sensitivity levels identified on Figure 4.12. These differences arise due to:</p> <ul style="list-style-type: none"> • Differences in the areas subject to SPA, SAC and pNHA designations (these ecological designations are visible on Figure 4.1); and • The presence of Flood Risk Zones A and B along parts of the coastal edge (these zones are mapped on Figure 4.10). <p>To the north of the SDZ there is a long, rectangular area of elevated sensitivity stretching from the east of the map to the west. This sensitivity is linked to the area covered by the RMP Zone of Notification (see Figure 4.11).</p>

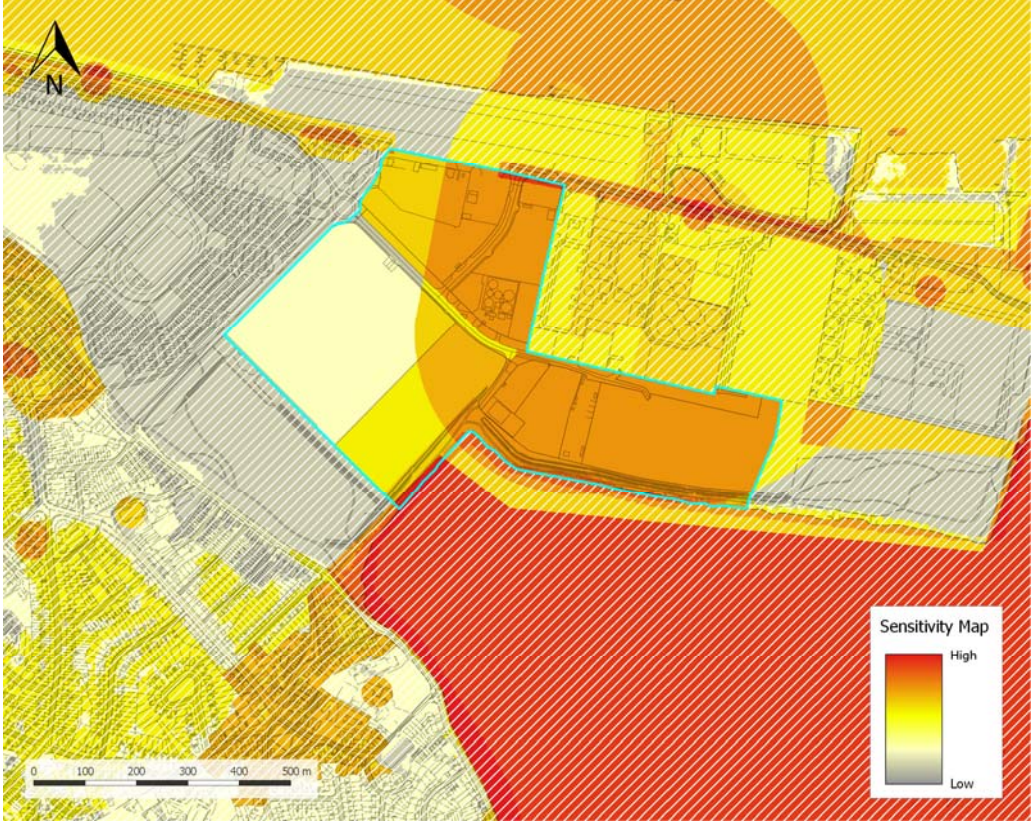
¹⁸ Consultation zones of the closest sites are primarily concerned with containing contaminants or pollutants that have the potential to cause harm to environmental vectors such as water (as opposed to direct effects on human health/loss of life). A worst case scenario could involve an accident with potential environmental consequences. There is tertiary containment on these sites with material contained most immediately by a tank, then by a bund then by a berm/other containment.

The HAS were consulted as part of the Planning Scheme preparation process and identified that: any accident would be expected to be contained on the relevant sites; and SEVESO III sites do not pose particular risks with respect to the emerging provision of new housing development in the south/west of the SDZ.

¹⁹ All of the SDZ consists of man-made fill placed over estuarine deposits. Some of these sites have been resolved (former Glass Bottle Site) some are still used for, or are adjacent to, potentially contaminating activities. It should be assumed that there is potential to encounter sites of historical contamination throughout the unresolved portions of the site. The Irishtown Nature Park at the eastern extremity is also a former landfill.

In the absence of mitigation, contaminated materials have the potential to adversely impact upon human health, water quality and habitats and species.

A Contamination and Remediation Assessment (CRA) was undertaken that provides a review of available documentation on contamination, a conceptual site model for the area of the Planning Scheme and a high-level qualitative risk assessment to establish low, medium and high risk areas. It also includes outline remediation measures including requirements relating to detailed site-specific investigations and contaminated land risk assessments at project level.

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		 <p data-bbox="359 974 981 1016">Figure 4.12 Combined Environmental Sensitivity Mapping Source: CAAS (2016)</p>
9	SEA ER	<p data-bbox="359 1016 1444 1075">To add the following indicator and target to Section 5 ‘Strategic Environmental Objectives’ and Section 10 ‘Monitoring’ for the environmental component of cultural heritage:</p> <p data-bbox="359 1097 1444 1153">CH1(ii): Number of proposed developments that may significantly impact the ancient river or seabed levels that are subject to an archaeological impact assessment in advance of works taking place.</p> <p data-bbox="359 1153 1444 1205">CH1(ii): All proposed developments that may significantly impact the ancient river or seabed to be subject to an archaeological impact assessment in advance of works taking place.</p>
10	SEA ER	<p data-bbox="359 1205 1444 1332">To update the following potential likely significant effect, if unmitigated, of implementing the Planning Scheme as identified on Table 7.3 “Potentially Significant Adverse Environmental Effects common to all alternatives”, Table 8.4 “Overall Findings – Effects arising from the Preferred Alternative Scenario for the Draft Planning Scheme” and Section 8.5.1 “Chapter 2: Vision and Key Principles” and Table 9.1 “Integration of Environmental Considerations into the Draft Plan”.</p> <ul data-bbox="406 1355 1444 1406" style="list-style-type: none"> o Adverse impacts upon the status of water bodies²⁰ arising from changes in quality, flow and/or morphology.
11	SEA ER	<p data-bbox="359 1406 1404 1444">To insert the following text as a source into Table 10.1 “Selected Indicators, Targets and Monitoring Sources”:</p> <p data-bbox="359 1456 1444 1512">Information from the Dublin Waste to Energy Facility Wildfowl Monitoring Reports prepared in response to An Bord Pleanála 2007 planning approval Condition 13</p>
12	AA NIR	<p data-bbox="359 1512 1085 1545">To update Section 3.2 “Identification of Relevant European Sites” as follows:</p> <p data-bbox="359 1556 1444 1691">This section of the screening process describes the European Sites which exist within the Zone of Influence of the site. The DoEHLG (2009) Guidance on Appropriate Assessment recommends a 15km buffer zone be considered around the site. It is not foreseen that in the absence of significant hydrological links the characteristics of this plan (detailed above) will impose impacts beyond this Zone of Influence. The coastal nature of the site limits the level of groundwater interactions present.</p> <p data-bbox="359 1713 1444 1803">Those European Sites that occur within 15km of the Planning Scheme area or that were identified to have hydrological linkages to the Planning Scheme Area are listed in Table 3 1 and illustrated in Figure 1 below. None of the sites identified are vulnerable to groundwater effects.</p> <p data-bbox="359 1825 1444 1926">In order to determine the potential for effects from the Planning Scheme, information on the qualifying features, known vulnerabilities and threats to site integrity pertaining to any potentially affected European Sites was reviewed. Background information on threats to individual sites and vulnerability of habitats and species that was used during this assessment included the following:</p> <ul data-bbox="359 1948 1444 2020" style="list-style-type: none"> • Ireland’s Article 17 Report to the European Commission “Status of EU Protected Habitats and Species in Ireland” (NPWS, 2013). • Site Synopses.

²⁰ 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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		<p>• NATURA 2000 Standard Data Forms.</p> <p>Since the conservation objectives for the European Sites focus on maintaining the favourable conservation condition of the QI's/SCI's of each site, the screening process concentrated on assessing the potential implications of the Poolbeg West SDZ against the QI's/SCI's of each site. The attributes and targets associated with the conservation objectives for each site were considered in the assessment. In general terms, these related to habitat extent or population trends of designated features and the maintenance or improvement of habitat quality or population trends.</p> <p>Table 3.1 European Sites within the 15km Zone of Influence of the Poolbeg West SDZ Planning Scheme, or that have been identified with significant hydrological links to the Poolbeg West SDZ area.</p> <table border="1"> <thead> <tr> <th>Site Code</th> <th>Site Name</th> <th>Distance (km)</th> </tr> </thead> <tbody> <tr> <td>004024</td> <td>South Dublin Bay and River Tolka Estuary SPA²¹</td> <td>Within SDZ Boundary</td> </tr> <tr> <td>000210</td> <td>South Dublin Bay SAC²²</td> <td>0 – Directly Adjacent</td> </tr> <tr> <td>004006</td> <td>North Bull Island SPA²³</td> <td>2.6</td> </tr> <tr> <td>000206</td> <td>North Dublin Bay SAC²⁴</td> <td>2.69</td> </tr> <tr> <td>003000</td> <td>Rockabill to Dalkey Island SAC²⁵</td> <td>7.37</td> </tr> <tr> <td>000202</td> <td>Howth Head SAC²⁶</td> <td>7.76</td> </tr> <tr> <td>000199</td> <td>Baldoyle Bay SAC²⁷</td> <td>8.13</td> </tr> <tr> <td>004016</td> <td>Baldoyle Bay SPA²⁸</td> <td>8.13</td> </tr> <tr> <td>004172</td> <td>Dalkey Island SPA²⁹</td> <td>9.49</td> </tr> <tr> <td>004113</td> <td>Howth Head Coast SPA³⁰</td> <td>10.13</td> </tr> <tr> <td>004117</td> <td>Irelands Eye SPA³¹</td> <td>11.28</td> </tr> <tr> <td>002193</td> <td>Irelands Eye SAC³²</td> <td>11.48</td> </tr> <tr> <td>000205</td> <td>Malahide Estuary SAC³³</td> <td>11.67</td> </tr> <tr> <td>002122</td> <td>Wicklow Mountain SAC³⁴</td> <td>11.9</td> </tr> <tr> <td>004040</td> <td>Wicklow Mountains SPA³⁵</td> <td>12.15</td> </tr> <tr> <td>004025</td> <td>Broadmedow/Swords Estuary SPA³⁶</td> <td>12.35</td> </tr> <tr> <td>001209</td> <td>Glenasmole Valley SAC³⁷</td> <td>13.46</td> </tr> <tr> <td>000725</td> <td>Knocksink Wood SAC³⁸</td> <td>13.78</td> </tr> <tr> <td>000713</td> <td>Ballyman Glen SAC³⁹</td> <td>14.41</td> </tr> </tbody> </table>	Site Code	Site Name	Distance (km)	004024	South Dublin Bay and River Tolka Estuary SPA ²¹	Within SDZ Boundary	000210	South Dublin Bay SAC ²²	0 – Directly Adjacent	004006	North Bull Island SPA ²³	2.6	000206	North Dublin Bay SAC ²⁴	2.69	003000	Rockabill to Dalkey Island SAC ²⁵	7.37	000202	Howth Head SAC ²⁶	7.76	000199	Baldoyle Bay SAC ²⁷	8.13	004016	Baldoyle Bay SPA ²⁸	8.13	004172	Dalkey Island SPA ²⁹	9.49	004113	Howth Head Coast SPA ³⁰	10.13	004117	Irelands Eye SPA ³¹	11.28	002193	Irelands Eye SAC ³²	11.48	000205	Malahide Estuary SAC ³³	11.67	002122	Wicklow Mountain SAC ³⁴	11.9	004040	Wicklow Mountains SPA ³⁵	12.15	004025	Broadmedow/Swords Estuary SPA ³⁶	12.35	001209	Glenasmole Valley SAC ³⁷	13.46	000725	Knocksink Wood SAC ³⁸	13.78	000713	Ballyman Glen SAC ³⁹	14.41
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13	AA NIR	<p>To update the list of Other Plans and Programmes included in Section 3.4 “Other Plans and Programmes” as follows:</p> <ul style="list-style-type: none"> • Fingal County Development Plan 2017-2023 • South Dublin County Development Plan 2016-2022 • Dún Laoghaire-Rathdown County Development Plan 2016 -2022 																																																												

²¹ NPWS (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. NPWS, DAHG.

²² NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. NPWS, DAHG.

²³ NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. NPWS, DAHG.

²⁴ NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. NPWS, DAHG.

²⁵ NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. NPWS, DAHG.

²⁶ NPWS (2016) Conservation Objectives: Howth Head SAC 000202. Version 1. NPWS, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

²⁷ NPWS (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. NPWS, DAHG.

²⁸ NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. NPWS, DAHG.

²⁹ NPWS (2016) Conservation objectives for Dalkey Islands SPA [004172]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

³⁰ NPWS (2016) Conservation objectives for Howth Head Coast SPA [004113]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs

³¹ NPWS (2016) Conservation objectives for Ireland's Eye SPA [004117]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

³² NPWS (2017) Conservation Objectives: Ireland's Eye SAC 002193. Version 1. NPWS, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

³³ NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205. Version 1. NPWS, DAHG.

³⁴ NPWS (2016) Conservation objectives for Wicklow Mountains SAC [002122]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

³⁵ NPWS (2016) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

³⁶ NPWS (2013) Conservation Objectives: Malahide Estuary SPA 004025. Version 1. NPWS, DAHG.

³⁷ NPWS (2016) Conservation objectives for Glenasmole Valley SAC [001209]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

³⁸ : NPWS (2016) Conservation objectives for Knocksink Wood SAC [000725]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

³⁹ NPWS (2016) Conservation objectives for Ballyman Glen SAC [000713]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

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		<ul style="list-style-type: none"> • Dublin City Development Plan 2016 -2022 • Dublin Port Master Plan 2012-2040 • Dublin Dockland Masterplan 2008 • North Lotts Grand Canal Dock SDZ Planning Scheme (2013) • Grangegorman SDZ Planning Scheme (2012) • Dublin Port National Development Plan study 2009 • The Dublin Port 6-year Dredge Plan • North Bull Island Management Plan • Dublin City Biodiversity Action Plan 2015-2020 • The Dublin Waste to Energy Facility project • Eastern River Basin District (ERBD) Management Plan 2009-2015 • S2S – Dolly mount promenade and flood protection project • S2S – Cycleway and Footway Interim works 2013 project • North City Arterial Watermain and Clontarf Flood defences project • Dublin Eastern Bypass project • Wastewater Treatment Plan Extension works at Ringsend • Alexandra Basin Redevelopment Project • Water Supply Project Eastern and Midland Region • Greater Dublin Cycle Network 																		
14	AA NIR	<p>To add the following two rows to Table 3.3 “Plans or projects within the Zone of Influence of the Poolbeg West SDZ Planning Scheme that may have in-combination effects European Sites”:</p> <table border="1" data-bbox="360 696 1441 1693"> <thead> <tr> <th data-bbox="360 696 483 813">Plan or project</th> <th data-bbox="483 696 596 813">Status</th> <th data-bbox="596 696 831 813">Overview</th> <th data-bbox="831 696 970 813">Possible significant effects from plan or project</th> <th data-bbox="970 696 1177 813">Possible significant in-combination effects</th> <th data-bbox="1177 696 1441 813">Is there a risk of significant in-combination effects with the Poolbeg West SDZ Planning Scheme</th> </tr> </thead> <tbody> <tr> <td data-bbox="360 813 483 1149">North Lotts & Grand Canal Dock SDZ Planning Scheme</td> <td data-bbox="483 813 596 1149">Published</td> <td data-bbox="596 813 831 1149">This SDZ provides for strategic development within the city; it provides link pathways within the city such as the Dodder Bridge between Grand Canal Dock and Ringsend.</td> <td data-bbox="831 813 970 1149">Yes Appropriate Assessment has been undertaken (Stage 2 NIS)</td> <td data-bbox="970 813 1177 1149">No Mitigation measures have been put in place to minimise effects.</td> <td data-bbox="1177 813 1441 1149">The effects arising from the development are considered by the NIS which concluded there will be no significant adverse effects. This SDZ will have in-combination effects with hydraulically linked sites; mitigation measures will be put in place to ensure any in combination effects will not significant affect the ecological integrity of any European Site.</td> </tr> <tr> <td data-bbox="360 1149 483 1693">Greater Dublin Area Cycle Network Plan</td> <td data-bbox="483 1149 596 1693">Published</td> <td data-bbox="596 1149 831 1693">Consolidate and ensure coordination of cycle network plans. The Urban Cycle Network at the Primary, Secondary and Feeder level; The Inter-Urban Cycle Network linking the relevant sections of the Urban Network and including the elements of the National Cycle Network within the GDA. It shall also include linkages to key transport locations outside of urban areas such as airports and ports; and the Green Route Network being cycle routes developed predominately for tourist, recreational and leisure purposes.</td> <td data-bbox="831 1149 970 1693">Yes Appropriate Assessment carried out</td> <td data-bbox="970 1149 1177 1693">No Mitigation policies put in place to minimise impacts.</td> <td data-bbox="1177 1149 1441 1693">This is a high-level plan which encompasses the S2S Projects listed above, which will have the greatest level of interactions with this SDZ. The in-combination effects beyond these projects will not be significant.</td> </tr> </tbody> </table>	Plan or project	Status	Overview	Possible significant effects from plan or project	Possible significant in-combination effects	Is there a risk of significant in-combination effects with the Poolbeg West SDZ Planning Scheme	North Lotts & Grand Canal Dock SDZ Planning Scheme	Published	This SDZ provides for strategic development within the city; it provides link pathways within the city such as the Dodder Bridge between Grand Canal Dock and Ringsend.	Yes Appropriate Assessment has been undertaken (Stage 2 NIS)	No Mitigation measures have been put in place to minimise effects.	The effects arising from the development are considered by the NIS which concluded there will be no significant adverse effects. This SDZ will have in-combination effects with hydraulically linked sites; mitigation measures will be put in place to ensure any in combination effects will not significant affect the ecological integrity of any European Site.	Greater Dublin Area Cycle Network Plan	Published	Consolidate and ensure coordination of cycle network plans. The Urban Cycle Network at the Primary, Secondary and Feeder level; The Inter-Urban Cycle Network linking the relevant sections of the Urban Network and including the elements of the National Cycle Network within the GDA. It shall also include linkages to key transport locations outside of urban areas such as airports and ports; and the Green Route Network being cycle routes developed predominately for tourist, recreational and leisure purposes.	Yes Appropriate Assessment carried out	No Mitigation policies put in place to minimise impacts.	This is a high-level plan which encompasses the S2S Projects listed above, which will have the greatest level of interactions with this SDZ. The in-combination effects beyond these projects will not be significant.
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15	AA NIR	<p>To update the text included in Section 4.3.1.2 “Fragmentation” as follows:</p> <p>Habitat and species fragmentation can occur through the breaking up of or loss of habitats resulting in interference with existing ecological units. Fragmentation can also result from impediments to the natural movements of species. This is relevant where important corridors for movement or migration are likely to be disrupted such as along river corridors when construction introduces a barrier to the free movement of species from one area of habitat to another.</p> <p>Given the highly-urbanized profile of the receiving environment the land surrounding the development is expected to have low ecological value. The European Sites which have been identified are all coastal, these coastal habitats will remain intact. The only barrier to movement across the landscape which may be imposed to the area is through noise pollution. Given the urbanised nature of the area and the characteristics of the scheme this effect will be low. Barriers to species movement will be temporary, during construction phase.</p>																		
16	AA NIR	<p>To update rows from Table 4.3 “Characterisation of Potentially Impacted from the Planning Scheme to the Qualifying Interests/Special Conservation Interests of the European Sites brought forward from Stage 1” as</p>																		

SEA Statement for the Poolbeg West SDZ Planning Scheme

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		<p>follows:</p> <table border="1"> <thead> <tr> <th data-bbox="360 203 491 271">European Site</th> <th data-bbox="491 203 619 271">Distance</th> <th data-bbox="619 203 874 271">Qualifying Interest/Special Conservation Interests</th> <th data-bbox="874 203 1078 271">Characterisation of Potential Effects</th> <th data-bbox="1078 203 1225 271">Significant Effects</th> <th data-bbox="1225 203 1393 271">Mitigation Required</th> </tr> </thead> <tbody> <tr> <td data-bbox="360 271 491 1149">North Bull Island SPA 004006</td> <td data-bbox="491 271 619 1149">2.6km</td> <td data-bbox="619 271 874 1149"> Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Teal (<i>Anas crecca</i>) [A052] Pintail (<i>Anas acuta</i>) [A054] Shoveler (<i>Anas clypeata</i>) [A056] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Turnstone (<i>Arenaria interpres</i>) [A169] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Wetland and Waterbirds [A999] </td> <td data-bbox="874 271 1078 1149"> There are no direct effects foreseen to the qualifying interests of the Baldoyle Bay SPA as a result of the implementation of the Planning Scheme. 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17	All	In all documentation, to replace any "Biosphere" abbreviation with the full "UNESCO Biosphere Reserve" term where appropriate.						
18	Scheme	<p>To insert the following additional objective into the Planning Scheme (suggested Section 8 Green Infrastructure):</p> <p>Applications for development shall: be informed by a pre-application archaeological assessment undertaken by a suitably qualified archaeologist; and have regard to the Wreck Inventory of Ireland Database maintained by the National Monuments Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>						
19	Scheme	<p>To add the following text to Planning Scheme Section 10 'Public Realm', 10.2 'Ambition & Aims', Environmental protection and enhancement:</p> <p>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>						
20	Scheme	<p>To make the following edit:</p> <p>Planning Scheme Objective 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>						
21	Scheme	<p>The following update⁴⁰ to Planning Scheme Objective IU 11 takes account of this part of the submission (point 7) and point 10 below:</p> <p>That all undeveloped sites be remediated to internationally accepted standards prior to redevelopment. 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. Soil remediation measures shall require a licence from the EPA under the Waste Management Act 1996. 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>These measures will ensure that contaminated material will be managed in a manner that removes any risk to human health and ensures that the end use will be compatible with any risk.</p>						
22	Scheme	<p>To update Planning Scheme Objective IU 14 as follows:</p> <p>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>						

⁴⁰ The Objective IU 11 that was adopted by the Council was modified by An Bord Pleanála at their approval of the Scheme. The final Objective IU 11 is as follows (additional modified text inserted at approval in bold, deleted text in ~~strike through~~): 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** prior to redevelopment. **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).

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24	Scheme	<p>Suggest updating Planning Scheme Objective G15 as follows:</p> <p>All developments in the SDZ should have regard to incorporate the relevant mitigation measures set out in the Strategic Environmental Assessment Environmental Report.</p>
25	Scheme	<p>To edit para no. 3 of Section 7.6 Flood Management as follows:</p> <p>A Strategic Flood Risk Assessment (SFRA), as required by 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009), has been is being undertaken alongside the preparation of the SEA and the preparation of this Planning Scheme. This assessment will considers available information on flood risk indicators and will delineates flood risk zones. All developments must comply as relevant with the measures included within Section 4 "Recommendations" of the SFRA.</p>
26	Scheme	<p>To insert the following into Chapter 12 of the Planning Scheme SDZ:</p> <p>The SEA Environmental Report (Section 10) details the measures which will be used in order to monitor the likely significant effects of implementing the Planning Scheme. Any reporting on the implementation of the Planning Scheme will be informed by reporting on the likely significant effects of implementing the Planning Scheme.</p>

⁴¹ The Objective IU 11 that was adopted by the Council was modified by An Bord Pleanála at their approval of the Scheme. The final Objective IU 11 is as follows (additional modified text inserted at approval in **bold**, deleted text in ~~strikethrough~~): 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** ~~prior to redevelopment~~. **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).

These measures will ensure that contaminated material will be managed in a manner that removes any risk to human health and ensures that the end use will be compatible with any risk.

Section 4 Alternatives and the Plan

4.1 Introduction

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.

4.2 Description of Alternatives

4.2.1 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.

4.2.2 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.

4.2.3 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.

4.2.4 Alternative Scenario 3B: *A Low Quantum of Development (100% residential uses)*

This alternative is as Alternative 3A but with all built development being residential.

4.3 Evaluation of Alternatives

4.3.1 Significant Positive Effects Common to all Alternatives

The Poolbeg Peninsula is located near to the established neighbourhoods to the east and south of Ringsend, Sandymount and Irishtown while O'Connell Bridge lies within two kilometres.

The peninsula lies within Dublin Bay – at the estuary of the Dodder and Liffey. The Bay is a nationally significant amenity and an internationally significant wild bird site.

With substantial areas of already developed but vacant land, it has significant potential to contribute towards meeting Dublin's growing development needs.

In addition to being served by walking and cycling infrastructure and bus routes, it is expected that the site will be served in the longer term by the Luas via a stop located on the Séan Moore Road.

The SDZ lands themselves contain relatively low levels of environmental sensitivities and designations, however there are a number of issues arising from adjacent environmental sensitivities and challenges posed by existing uses at the lands that would need to be considered by any new development.

By providing for growth and development in this area, each of the alternative scenarios would be likely to contribute towards a reduced need to develop more sensitive, undeveloped areas elsewhere in the Dublin region that are further from the City and less well serviced. This would be likely to result in significant positive environmental effects on the following environmental components:

- Biodiversity and flora and fauna
- Population and human health
- Soil (especially soil on greenfield lands)

- Water (status of rivers and groundwater)
- Flood risk
- Sustainable mobility and associated effects (energy usage and emissions to air including noise and greenhouse gases)
- Material Assets (provision of adequate and appropriate wastewater and drinking water services and waste management)
- Cultural Heritage (architectural and archaeological heritage)
- Amenities

Although significant positive environmental effects would occur under each of the alternatives, the extent to which they would occur varies across each of the alternatives and this is addressed under the evaluation of each of the alternatives below.

4.3.2 Potentially Significant Adverse Effects Common to all Alternatives

All of the alternatives provide for the development of the site to some extent. Such development would have the potential to conflict with environmental components – to different degrees. Potentially significant adverse environmental effects arising from this conflict are common to all alternatives and are described on Table 4.1. For the Planning Scheme, these effects will be mitigated by measures that have been integrated into the Planning Scheme.

Although potentially significant adverse environmental effects would occur under each of the alternatives, the extent to which they would occur varies across each of the alternatives and this is addressed under the evaluation of each of the alternatives below.

Table 4.1 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"> ○ 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.
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.
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.
Water	<ul style="list-style-type: none"> ○ Adverse impacts upon the status of water bodies⁴² arising from changes in quality, flow and/or morphology. ○ 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"> ○ Failure to provide adequate and appropriate wastewater treatment (water services infrastructure and capacity ensures 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 ensures the mitigation of potential conflicts). ○ Increases in waste levels.
Air and Climatic Factors	<ul style="list-style-type: none"> ○ Emissions to air including greenhouse gas emissions and other emissions.
Cultural Heritage	<ul style="list-style-type: none"> ○ Effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
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.

⁴² 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.

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

By maximising the quantum of built development across the site, this alternative scenario would be likely to contribute towards a significant reduction in the need to develop more sensitive, undeveloped areas elsewhere in the Dublin region that are further from the City and less well serviced (this would result in significant positive environmental effects that are detailed under Section 4.3.1).

By only providing minimal buffers outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure this alternative would be likely to lead to the greater conflicts with human health and amenities, many of which would be unlikely to be fully mitigated:

- 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);
- 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; and
- Conflicts with ecological resources (habitats) along the southern boundary due to proximity, height and lack of buffering.

The size and height of buildings throughout the site there would further contribute towards loss of amenity, especially in surrounding coastal areas.

The alternative would conflict with sustainable mobility and associated interactions (energy usage and emissions to air including noise and greenhouse gases), with many of the effects unlikely to be fully mitigated. This is because: there would be limited space for non-essential linkages through the site or for public transport services, such as cycling; and no community uses would be provided for.

Other potential conflicts (see Section 4.3.2) to be mitigated occur as a result of development of the site which is provided for by this alternative.

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

By providing for a medium quantum of mixed use built development across the site, at medium densities, this alternative scenario would be likely to contribute towards a significant reduction in the need to develop more sensitive, undeveloped areas elsewhere in the Dublin region that are further from the City and less well serviced (this would result in significant positive environmental effects that are detailed under Section 4.3.1).

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.

Buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure, would mitigate:

- 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);
- 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; and
- Conflicts with ecological resources (habitats) along the southern boundary.

The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas.

Other potential conflicts (see Section 4.3.2) to be mitigated occur as a result of development of the site which is provided for by this alternative.

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

This alternative would contribute towards a failure to realise the potential of the site for reducing the need to develop more sensitive, undeveloped areas elsewhere in the Dublin region that are further from the City and less well serviced. This is because of the low quantum of built development provided across the site at lower densities.

More greenfield development would be required in more sensitive, undeveloped areas elsewhere in the Dublin region. Such greenfield development has a greater potential to result in higher levels of direct effects as a result of developing semi-natural lands – such effects include loss of ecology (including non-designated ecology and ecological corridors and stepping stones), visual impacts, the sealing of greenfield soils and threats to the status of waters (which has the potential to interact with aquatic ecology and human health). Greenfield development is less likely to facilitate sustainable mobility and greenfield areas further from the City and less well serviced. Greenfield development is also less likely to facilitate the enhancement of cultural (archaeological and architectural) heritage and its context in urban areas.

A network of multiple linear parks would contribute towards efforts to encourage walking and cycling and infiltration of a rapid bus loop into the site is provided for. However, this alternative would conflict with sustainable mobility and associated interactions (energy usage and emissions to air including noise and greenhouse gases), with many of the effects unlikely to be fully mitigated, as the quantum of development provided for would not realise the full potential of this Dublin City site.

More than adequate buffers provided, including those outside of existing industrial/public utility sites and along shoreline amenity areas and transport infrastructure, would mitigate:

- 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);
- 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; and
- Conflicts with ecological resources (habitats) along the southern boundary.

The heights of buildings would contribute towards the protection of amenity, especially in surrounding coastal areas.

Other potential conflicts (see Section 4.3.2) to be mitigated occur as a result of development of the site which is provided for by this alternative.

4.3.6 Alternative Scenario 3B: *A Low Quantum of Development (100% residential uses)*

The evaluation for this alternative scenario would be as is for Alternative 3A except in relation to sustainable mobility. As Alternative 3B provides 100% residential uses, less journeys by sustainable modes of transports would be likely. Therefore, this scenario would provide for less improvements in sustainable mobility.

4.3.7 Summary Evaluation against Strategic Environmental Objective

Table 4.2 provides a comparative evaluation of the environmental effects of alternative development strategies against Strategic Environmental Objectives⁴³. This is supported by the subsections above.

	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
Alternative Scenario 1 A High Quantum of Development	✓	✓	✓
Alternative Scenario 2 A Medium Quantum of Development	✓	✓	
Alternative Scenario 3A A Low Quantum of Development (mixed uses)	✓	✓	✓
Alternative Scenario 3B: A Low Quantum of Development (100% residential uses)	✓	✓	✓

Table 4.2 Comparative Evaluation of Alternative Development Strategies

⁴³ **B1** To ensure compliance with the Habitats and Birds Directives with regard to the protection of European Sites and Annexed habitats and species

B2 To ensure compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function act as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species

B3 To avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites and to ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of listed species

PHH1 To protect populations and human health from exposure to incompatible landuses such as those arising from heavy vehicle traffic, emissions or contaminated soils

PHH2 (and L1) To protect use of and access to amenities including parklands, playing fields and shore-side walks

S1 To maximise the re-use of brownfield land thereby avoiding the need to develop greenfield land elsewhere

W1 To maintain and improve, where possible, the quality and status of surface waters

W2 To prevent pollution and contamination of ground water

W3 To comply as appropriate with the provisions of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG, 2009)

C1 To contribute towards sustainable mobility and help to facilitate the achievement of higher level targets relating to air pollution greenhouse gas emission targets

M1 To serve new development with adequate and appropriate waste water treatment

M2 To serve new development with adequate drinking water that is both wholesome and clean

M3 To reduce waste volumes, minimise waste to landfill and increase recycling and reuse

CH1 To protect archaeological heritage including scheduled entries to the Record of Monuments and Places and/or their context

CH2 To protect architectural heritage including entries to the Record of Protected Structures and Architectural Conservation Areas and their context

L1 (and PHH2) To protect use of and access to amenities including parklands, playing fields and shore-side walks

4.4 Reasons for choosing the Planning Scheme in light of the other alternatives dealt with

The Alternative Scenario for the development of Poolbeg West that 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.

Section 5 Monitoring Measures

5.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This section details the measures which will be used in order to monitor the likely significant effects of implementing the Planning Scheme. Monitoring can enable, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action.

5.2 Indicators and Targets

Monitoring is based around indicators which allow quantitative measures of environmental trends and progress over time. Each indicator to be monitored is accompanied by target(s) which are identified with regard to relevant strategic actions. Table 5.1 shows the indicators and targets which have been selected for monitoring the likely significant environmental effects of implementing the Planning Scheme, if unmitigated. The Monitoring Programme may be updated to deal with specific environmental issues - including unforeseen effects - as they arise. Such issues may be identified by the Council or identified to the Council by other agencies.

5.3 Sources

Measurements for indicators generally come from existing monitoring sources. Existing monitoring sources include those maintained by the Council and the relevant authorities e.g. the Environmental Protection Agency and the National Parks and Wildlife Service.

Internal monitoring of the environmental effects of grants of permission in the Council will provide monitoring of various indicators and targets on a *grant of permission*⁴⁴ basis.

⁴⁴ The likely significant effects of development proposals on environmental sensitivities are further determined during the development management process. By documenting this determination (e.g. whether a proposed development will impact upon water quality or whether a proposed development can be adequately served with water services) while granting permissions, or at a later date, the requirement to monitor the effects of implementing the Planning Scheme can be achieved.

Where significant effects - including positive, negative, cumulative and indirect - have the potential to occur upon, for example, entries to the RMP, entries to the RPS or ecological networks as a result of the undertaking of individual projects or multiple individual projects such instances should be identified and recorded and should feed into the monitoring evaluation.

5.4 Reporting

A Monitoring Report on the significant environmental effects of implementing the Planning Scheme will be prepared on an annual basis following the approval of the Planning Scheme. This report will address the indicators set out below. The Planning Department at Dublin City Council is responsible for the ongoing review of indicators and targets, collating existing relevant monitored data, the preparation of monitoring evaluation report(s), the publication of these reports and, if necessary, the carrying out of corrective action. The preparation of environmental monitoring evaluation reports for the Planning Scheme will be informed by available information from the Dublin Port Masterplan environmental monitoring process including that which relates to the Dublin Port Company's Dublin Bay Birds Project.

5.5 Thresholds

Thresholds at which corrective action will be considered include:

- Incidences of unauthorised pollution;
- Fish kills;
- Complaints from the National Parks and Wildlife Service;
- The occurrence of flood events;
- Court cases taken by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs regarding impacts upon archaeological heritage;
- Complaints received from statutory consultees regarding avoidable environmental impacts resulting from development which is granted permission under the Scheme.

Table 5.1 Selected Indicators, Targets and Monitoring Sources

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source (Frequency)
Biodiversity, Flora and Fauna	B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1: Maintenance of favourable conservation status for all habitats and species protected under National and International legislation to be unaffected by implementation of the Planning Scheme ⁴⁵	<ul style="list-style-type: none"> • Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). • Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs' report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years). • Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs' National Monitoring Report for the Birds Directive under Article 12 (every 3 years). • Consultations with the NPWS (at monitoring evaluation - see Section 5.4). • Information from the Dublin Waste to Energy Facility Wildfowl Monitoring Reports prepared in response to An Bord Pleanála 2007 planning approval Condition 13
	B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Planning Scheme	B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for by the Planning Scheme	
	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Planning Scheme	B3i: Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Planning Scheme	
	B3ii: Number of significant impacts on the protection of listed species	B3ii: No significant impacts on the protection of listed species	
Population and Human Health	PHH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Planning Scheme, as identified by the Health Service Executive and Environmental Protection Agency	PHH1: No spatial concentrations of health problems arising from environmental factors as a result of implementing the Planning Scheme	<ul style="list-style-type: none"> • Consultations with EPA and Health Service Executive (at monitoring evaluation - see Section 5.4).
	PHH2 (and L1): Disruption to use of and access to amenities including parklands, playing fields and shore-side walks	PHH2 (and L1): To avoid and minimise disruption to use of and access to amenities including parklands, playing fields and shore-side walks	
Soil	S1: Area of brownfield land available for re-use	S1: To maximise the re-use of available brownfield land	<ul style="list-style-type: none"> • Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).

⁴⁵ 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/project to proceed; and
- (c) adequate compensatory measures in place.

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Environmental Component	Selected Indicator(s)	Selected Target(s)	Source (Frequency)
Water	W1: Classification of Overall Status (comprised of ecological and chemical status) under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009)	W1: Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status'	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Data issued under the Water Framework Directive Monitoring Programme for Ireland (multi-annual).
	W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	W2: Not to affect the ability of groundwaters to comply with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	
	W3: Number of incompatible developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	W3: Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk in compliance with <i>The Planning System and Flood Risk Management Guidelines for Planning Authorities</i>	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).
Air and Climatic Factors	C1: Percentage of resident and employment populations travelling to work, school or college by public transport or non-mechanical means	C1: Maximise the percentage of the resident and employment populations travelling to work, school or college by public transport or non-mechanical means	<ul style="list-style-type: none"> CSO Area Population Data (every c. 5 years). Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).
Material Assets	M1: Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Planning Scheme	M1: All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Planning Scheme	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).
	M2: Number of non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Planning Scheme	M2: No non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Planning Scheme	<ul style="list-style-type: none"> EPA The Provision and Quality of Drinking Water in Ireland reports (multi-annual). EPA Remedial Action List (every quarter).
	M3: Total collected and brought household waste	M3: Minimise increases in and, where possible, reduce household waste generation	<ul style="list-style-type: none"> EPA National Waste Reports
Cultural Heritage	CH1(i): Percentage of entries to the Record of Monuments and Places - including Areas of Archaeological Potential and Significance (and the context of the above within the surrounding landscape where relevant) - protected from significant adverse effects arising from new development granted permission under the Planning Scheme	CH1(i): Protect entries to the Record of Monuments and Places - including Areas of Archaeological Potential and Significance (and their context of the above within the surrounding landscape where relevant) from significant adverse effects arising from new development granted permission under the Planning Scheme	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Consultation with Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (at monitoring evaluation - see Section 5.4).
	CH1(ii): Number of proposed developments that may significantly impact the ancient river or seabed levels that are subject to an archaeological impact assessment in advance of works taking place.	CH1(ii): All proposed developments that may significantly impact the ancient river or seabed to be subject to an archaeological impact assessment in advance of works taking place.	
	CH2: Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Planning Scheme	CH2: Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Planning Scheme	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Consultation with Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (at monitoring evaluation - see Section 5.4).
Landscape	PHH2 (and L1): Disruption to use of and access to amenities including parklands, playing fields and shore-side walks	PHH2 (and L1): To avoid and minimise disruption to use of and access to amenities including parklands, playing fields and shore-side walks	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Consultation with Parks Department (at monitoring evaluation - see Section 5.4).