

1.0 INTRODUCTION.

1.1 Background.

1.1.1 This Environmental Impact Statement (EIS) has been prepared by Cunnane Stratton Reynolds Ltd, with the assistance and co-operation of a team of consultants covering a broad range of disciplines and expertise and is to accompany the Draft Planning Scheme for Poolbeg Peninsula placed on public display. Both documents have been prepared on behalf of the Dublin Docklands Development Authority (DDDA).

1.2 Statutory Context.

1.2.1 The DDDA was established under the *Dublin Docklands Development Act 1997 (as amended)* with the statutory responsibility to oversee: the social and economic regeneration of the Docklands Area on a sustainable basis; the improvement of the Docklands' physical environment; and the continued development of the Custom House Docks Area for services of, for, in support of, or ancillary to, the financial sector of the economy.

1.2.2 Under Section 24 of the *Dublin Docklands Development Act 1997 (as amended)* the DDDA is obliged to prepare, every five years, a Master Plan for the Docklands Area. The *2008 Dublin Docklands Master Plan* and its accompanying *Environmental Report* have recently been adopted. Comments received on the 2008 Master Plan and Environmental Report following completion of its recent public display have been considered in this EIS.

1.2.3 Under Section 25 of the *DDDA Act 1997 (as amended)*, the DDDA may prepare a Draft Planning Scheme for particular areas within the Docklands Area, for submission to the Minister for the Environment, Heritage and Local Government for statutory approval. In preparing a Draft Planning Scheme, the DDDA is obliged to have regard to its Master Plan, consult with Dublin City Council and other relevant statutory bodies, have regard to the Dublin City Development Plan, and arrange for submissions by interested parties. The Draft Planning Scheme is then submitted to the Minister who, following consultation with the Minister for Finance and consideration of any objections from Dublin City Council may approve it with or without modification.

- 1.2.4 In February 2007 the Authority applied to the Minister for the Environment, Heritage and Local Government for the powers to prepare a Draft Planning Scheme for a designated area of the Poolbeg Peninsula. A draft Order was laid before the Houses of the Oireachtas seeking resolutions approving the Order. The Order was approved and the powers to prepare a Planning Scheme were conferred to the DDDA via Statutory Instrument 297/2007.
- 1.2.5 Where the DDDA is of the opinion that the development proposed in such a Draft Planning Scheme is likely to have significant effects on the environment, Section 26 of the *Dublin Docklands Development Authority Act 1997 (as amended)* requires the DDDA to prepare a statement of the likely effects on the environment of that development. Given the potential of the development within the Draft Planning Scheme for the Poolbeg Peninsula, the sensitivity of adjoining areas such as Dublin Bay and the River Liffey, and the potential impact on neighbouring communities, the DDDA have considered it necessary to carry out a *process* involving an Environmental Impact Assessment (EIA) on the Draft Planning Scheme for the Poolbeg Peninsula to inform that Draft Planning Scheme and to assess its likely environmental impacts. It is intended that ultimately both the Environmental Impact Statement (EIS) *document*, which is the culmination of this Assessment (EIA) *process* and emerging Draft Planning Scheme will be submitted to the Minister of the Environment for approval.
- 1.2.6 The recently adopted *2008 Master Plan*, its accompanying *Strategic Environmental Assessment (SEA)* and other relevant documents have informed the form and content of the Draft Planning Scheme for the Poolbeg Peninsula and this EIS.
- 1.2.7 The Draft Planning Scheme has been prepared within the context of the policies and objectives of the Dublin City Development Plan 2005-2011.

1.3 Purpose of the EIS.

- 1.3.1 An Environmental Impact Assessment (EIA) is defined as:

“The process of examining the environmental effects of development – from consideration of environmental aspects at design stage through to preparation of an Environmental Impact Statement, evaluation of the EIS by a competent

authority and the subsequent decision as to whether the development should be permitted to proceed, also encompassing public response to that decision”.

(Glossary of Terms: Guidelines for Environmental Impact Statements 2002)

1.3.2 The EIA process can involve the following procedures and stages:

1. *Screening* - identification of whether or not the proposed project requires an EIS*¹;
2. *Scoping* – identification of the likely key issues and concerns which need to be evaluated and the methods to be used for that evaluation;
3. *Impact assessment and evaluation* – assessment of key environmental issues and determination of their likely impact upon the receiving environment;
4. *Impact mitigation* – identification of measures to avoid, reduce and/or remedy any potential negative impacts;
5. *Statutory & Non-Statutory Consultation* – consultation with statutorily prescribed bodies and the general public / interest groups; and
6. *Review of the finalised EIS.*

1.3.3 The cumulative result of the above processes is this Environmental Impact Statement (EIS).

1.3.4 This EIS will describe the following:

- the proposed development;
- the existing receiving environment;
- the impacts of the proposed development, including direct, indirect, secondary, cumulative, short, medium and long term permanent, temporary, positive and negative effects as well as impact interactions;
- the measures to mitigate against identified adverse impacts; and
- a non-technical summary of the EIS’s main conclusions.

1.3.5 The level of detail afforded a Draft Planning Scheme is the equivalent, broadly speaking, to that of an outline planning application. The level of detail on potential impacts can only be ascertained therefore commensurate with this level of detail and

¹ * A screening process was not required as Section 16 of the Dublin Docklands Act 1997 (as amended) requires an assessment of environmental impact (EIS) for a planning scheme.

not as one would expect for an EIA accompanying a detailed planning application. Further assessment of impacts upon the environment where necessary will also be undertaken at the stage where developers submit S25 Certificate Applications to the DDDA or Dublin City Council.

1.4 Scoping.

- 1.4.1 Scoping may be defined as *'the process which identifies the significant issues which should be addressed by a particular Environmental Impact Assessment'* (EPA Guidelines 2002).
- 1.4.2 The prior identification of the environmental issues that are to be addressed in either an EIS or the Environmental Report of a Strategic Environmental Assessment (SEA) is one of the most important yet challenging stages of the EIA process. The principle purpose of scoping is to develop an understanding of the impact on the environment that may be affected and the key measures proposed to set a framework for identifying and evaluating the impact of the measures on the environment. Scoping ensures that the competent authority remains focused upon the important environmental issues during the EIA process.
- 1.4.3 Scoping may be carried out formally or informally. The formal preparation of a Scoping Report is not a legal requirement of either an EIA or SEA but is considered good practice as identified in the Environmental Protection Agency's *Guidelines on the Information to be contained in Environmental Impact Statements*. Within the formal scoping process the competent authority is asked to consult with relevant statutory agencies to draw upon an opinion about the scope of the coverage required.
- 1.4.4 The DDDA, and their consultant team have undertaken an extensive scoping exercise exceeding their statutory responsibilities in this regard under the DDDA Act 1997 (as amended). In summary this scoping has involved:
- (1) Pre Statutory distribution of a draft scoping report to the statutory authorities identified in the Environmental Protection Agency's *Advice on Current Practice (in the preparation of Environmental Impact Statements) 2003*.
 - (2) Comments from the public and interested parties during non-statutory walk-in

sessions held locally on 5th, 6th and 7th June 2008.

- (3) Comments from the public during presentations and subsequent workshops held on 30th May, 25th July 2008 and on 5th September 2008.
- (4) Views of a specially convened 'Special Interest Group' dealing with environmental concerns which have met on a relatively regular and ongoing basis from August 2008 until the middle of January 2009.

1.4.5 A revised scoping report is attached as Appendix 1.1.

1.5 Consultation.

1.5.1 The following prescribed Government and public bodies were provided with copies of an earlier draft Scoping Report, and a copy of this EIS and the latest scoping report, which is publicly available, for their consideration and comment:

- Dept of Environment, Heritage and Local Government including *National Monuments Section, National Parks and Wildlife Section*.
- Department of Communications, Energy and Natural Resources.
- Dublin City Council including the *Planning, Archaeology, Conservation, Roads, Water / Drainage and Parks Sections*.
- Health and Safety Authority.
- Environmental Protection Agency.
- The Heritage Council.
- Eastern Regional Fisheries Board.
- An Taisce.
- Failte Ireland.
- The Arts Council.
- Office of Public Works.
- Department of Transport.
- Railway Procurement Agency.
- Dublin Transportation Office.
- National Roads Authority.
- Dublin Port Company.
- Electricity Supply Board (ESB).

- An Bord Pleanála.
- Department of Agriculture and Food.
- Department of Arts, Sports and Tourism.
- Department of Enterprise, Trade and Employment.
- Department of Community, Rural and Gaeltacht Affairs.
- Department of Equality, Justice and Law Reform.
- Irish Aviation Authority.
- Commission for Electricity Regulation.
- Dublin Airport Authority.
- Health Service Executive.
- Dublin Regional Authority.
- Dublin Bay Taskforce.

1.5.2 Consultation, on the scoping report, and the emerging Draft Planning Scheme and environmental issues, was also undertaken with various non-statutory groups, interested parties including the specially formed Special Interest Group and the public in general through a number of means. These are set out and summarised below.

Public Presentations/Workshops

1.5.3 An initial pre-statutory presentation and follow on workshops were held on 30th May 2008 to allow local residents, public representatives of the Ringsend, Irishtown and Sandymount areas and interested members of the public to express their views on the potential challenges of developing within the peninsula. The EIS consultants made themselves available to answer queries at this event. The issues addressed in the initial workshops were grouped under the following headings.

- Introduction
- Planning
- Environment
- Transport
- Sustainability
- Community

1.5.4 Key environmental issues raised during these initial workshops on 30th May included:

- Impact of additional traffic
- Air Quality
- Impact on archaeological remains of the historic fort site.
- Potential impact of smoke stacks of the proposed incinerator on taller buildings proposed within any planning scheme.
- Shoreline fumigation.
- Requirement for enhancement of ecological and landscape areas.
- Existing nature park to be sensitively and appropriately enhanced.
- Any proposals for the southern shoreline should take account of Sandymount resident's sensitivities to the area's designations.

1.5.5 A number of walk-in sessions, information evenings and mornings were held with local residents and interested groups over the period Thursday 5th, Friday 6th and Saturday 7th June and attended by members of the EIS team. The key environmental issues raised at these were:

- Issue of water supply to facilitate development and adequacy of drainage needs to be addressed.
- The feasibility / acceptability of the development on contaminated lands was queried.
- Reference to the Water Framework Directive document needs to be made.
- Building at sea level was inadvisable given global warming.
- There are numerous toxic sites and use of Benzonite is unsuitable in this ecologically sensitive location.
- Effect of properly draining development or changing the existing drainage regime on the SPA and SAC. Existing water mark is currently at surface level.
- A query on whether building at 4.1 OD was sufficient? A level closer to 5 metres OD has been suggested.
- Concern raised over rezoning of areas 7 and 7a in the emerging Docklands Master Plan.
- Previous survey and analysis of air quality is deficient and issue of air quality needs to be reconsidered.
- Rare birds and their designations need to be protected. A Conservation Plan for

their needs should be drawn up.

- Whether there is a need or plan for a barrage?
- Sandymount and Merrion Resident's Association (SAMRA) needs to be consulted.
- Whether flooding at Sandymount can be mitigated; if the level of the peninsula is raised what effect will that have on water levels / flooding at Sandymount and Booterstown? What are the likely consequences of storm surges?
- The peninsula recycles for all of Dublin. What will happen if these activities leave?
- Handling and transporting of toxic materials is an issue.
- Reference made to release of toxins from a channel. What and where is this channel?
- Need for a Baseline Report on toxins.
- Baseline report to emphasise air quality and toxins issues.
- Flooding effect on River Liffey, and consequently Rivers Dodder and Tolka.
- Sea wall at Marine Drive is not high enough. If it is raised, what is the significance elsewhere of doing this?
- Perception that Irishtown Nature Park is being substantially altered.
- Check proposal to seek Blue Flag beach status for Sandymount Strand and potential implications for development.
- Against building roads on the Causeway.
- Concern whether the Sutton to Sandycove (S2S) cycle route is feasible and the implications for the planning scheme.

1.5.6 A second pre-statutory public workshop was held on the Friday 25th July 2008 to report back to the public on the development of the Draft Planning Scheme and the environmental challenges to be faced. From this workshop several key environmental issues were raised including:

- Water supply and existing shortages.
- Adequacy of existing drainage capacity.
- Air Quality.
- Road congestion from additional traffic.
- Impact on existing environment and ecology.
- Implications on flood prevention and protection.

- 1.5.7 One suggestion at the second pre-statutory presentation and follow on workshop was the creation of a Special Interest Group which would undertake further dialogue between the various interest groups and the DDDA, their team and especially the EIS consultants on local environmental concerns. This has been undertaken.
- 1.5.8 A third pre-statutory presentation and follow on workshop was held on Friday 5th September. The key issues raised at this were:
- The potential for development on lands adjacent to the Special Protection Area (SPA) having an effect on that SPA, the protected birds and their habitats.
 - The requirement for a study on the Brent Geese and other protected species.
 - An Air Quality Monitoring Plan was requested.
 - Further analysis of any proposed reprofiling of the rock armour with particular attention on the potential for contamination, likely effect on the high tide level, the SPA, wildlife generally and flooding.
 - Clarification was sought on the position with regard to the Eastern By Pass.
 - Potential impact of port development and the infilling of the River Liffey in that context.
 - A full flooding investigation was requested .
 - Impact of Luas on residents.
 - Impact on the local community of construction.
 - Potential impact of Draft Planning Scheme's retail component on existing local shopping centres.

Special Interest Group Meetings.

- 1.5.9 The Terms of Reference agreed by the Special Interest Group itself is as follows:
1. EIS Scoping Report.
 2. Protection of Designated Areas
 3. Wildlife/Ecology/Bio-diversity
 4. Flooding/Climate Change
 5. Sustainability: Waste/Resources/Recycling/Water Conservation
 6. Current Air Quality
 7. Sandymount Strand/Water Quality
 8. Contaminated Ground
 9. Impact on the surrounding villages

10. Urban Design and Impact on the community
11. Shadow Analysis
12. Transport and Traffic
13. Making of Recommendations on the Planning Scheme

1.5.10 A number of Special Interest Group Meetings were held over the months of August, through to January, prior to the EIS and Draft Planning Scheme going on public display in February 2009. A great number of issues were raised over these meetings. These included briefly:

- Concern at encroachment of development into Irishtown Nature Park.
- Surface water discharge into the Dodder and Liffey Rivers and Dublin Bay and distribution of freshwater into the saline aquatic environment.
- Concern at the robustness of any air quality assessment based on evidence produced at both the An Board Pleanala and EPA License hearings for the incinerator.
- Lack of publicly available baseline data.
- Ratio of open space to development both before and as a result of any planning scheme proceeding.
- Carrying capacity of the peninsula to accommodate development.
- High tides not necessarily caused by climate change.
- Concern at the effect of raising levels to accommodate development and impact of flooding elsewhere.
- Effect of the proposal on oceanography of the Bay.
- Concern that later phases of development would happen before Luas is provided.
- Heights of proposed buildings
- Impact of development on the proposed Special Protection Area and in the Brent Geese feeding area in particular
- The setting of the Coast Guard Houses
- The impact of development on the setting of the protected Pigeon House building
- Landownership.
- The potential for conflict between the DDDA's roles as developer and local authority promoting the Draft Planning Scheme.
- Proximity of development to existing and proposed Seveso sites.

- The retention of the Pitch and Putt facility if this is possible.
- Potential impact of “Fly and bottom” ash from operations of the energy plant and the proximity of the plant to proposed development
- Adequacy of car parking.
- The effect of traffic generated by proposed Draft Planning Scheme on the already congested local road network.
- Status of the proposed bridge over the River Dodder.
- The likelihood of Luas being extended to Poolbeg and the likely route that Luas could take and its effect upon the environment and amenity of the area.
- Existing odour levels on the peninsula.
- Existing levels of noise.
- The management and viability of any proposed district heating system.
- Validation of developer performance against the Sustainability Toolkit.
- Contamination of existing made ground and viability and potential cost and impact of basement car parking.
- The potential impact of the then proposed rock armour.
- The construction of non-permeable structures and surfaces would exacerbate flooding in the Sandymount area because of the high water table.
- Potential for severance caused by Luas should it be routed by the Coastguard Cottages.
- Concern at the traveller situation on the peninsula.
- Concern at the accuracy of the boundaries of the Fabrizia site.
- Concern at provision of schools and community facilities
- Potential impact of climate change on the proposed planning scheme.
- Potential impact on health and safety.
- Impact in terms of shadowing on nearby residents.

1.5.11 The above list is not a definitive list of concerns expressed at the SIG meetings and these meetings will continue throughout the period that both the Draft Planning Scheme and EIS are placed on display. These meetings have been extremely useful in identifying local residents concerns and in adding to the consultants knowledge of the peninsula and the receiving environment generally.

1.5.12 In addition to the Special Interest Group, a scoping consultation exercise was also undertaken with several non-statutory bodies including:

- Clanna Gael / Fontenoy GAC.
- Dublin GAA County Board.
- Ringsend and Irishtown Combined Residents.
- Sandymount Resident's Association.
- Friends of the Irish Environmental Forum.
- Owners of Fabrizia and IGB sites.
- Marine Institute.
- National Museum of Ireland.
- BirdWatch Ireland.
- Bat Conservation Ireland.
- Irish Whale and Dolphin Group.
- Irish Wildlife Trust.
- Coastwatch Ireland.
- Star of the Sea Primary School.
- St. Matthews Primary School.
- Ringsend Community College.
- Poolbeg Yacht and Boat Club.
- Gardai Siochana.
- Young Peoples Forum.
- Senior Citizens Forum.
- Ringsend, Irishtown and Sandymount Environmental Group.

1.5.13 A revised scoping report is available following comments received both from the pre-draft statutory consultation process and from the Special Interest Group Meetings.

1.6 EIS Structure.

1.6.1 This EIS is structured as follows:

Section	2.0	-	The Proposed Planning Scheme
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Section	3.0	-	Alternatives Considered
Section	4.0	-	Specific Information and Forecasting
Sections	5.0–22.0	-	Effects on the Environment including Mitigation
Section	23.0	-	Interaction of the Foregoing
Section	24.0	-	Construction Phases
Glossary of Terms			

1.6.2 The main impact chapters (no. 5 – 22) generally have the following sub structure where practical.

- Introduction
- Assessment Methodology
- Receiving Environment
- Relevant Characteristics of the Draft Planning Scheme
- Likely Impact of the Draft Planning Scheme
- Mitigation
- References

Where appendices are necessary to assist the assessment of each likely impact these are located at the end of each chapter.

Appendix 1.1
Revised Scoping Report

Appendix 1.1

Scoping Report

1.0 INTRODUCTION.

1.1 Executive Summary.

1.1.1 Under the *Dublin Docklands Development Authority Act 1997* (as amended) the Dublin Docklands Authority (DDDA) are preparing a draft mixed use planning scheme for the Poolbeg Peninsula. Cunnane Stratton Reynolds Ltd. has been appointed by the DDDA as lead consultants to carry out an Environmental Impact Assessment (EIA) of the Draft Planning Scheme and to subsequently prepare an Environmental Impact Statement (EIS) to accompany the scheme which will be submitted for Ministerial approval in due course following public display, receipt and consideration of comments. As part of the preparation of the EIS the following scoping report has been prepared.

Section 1 - Introduction sets out the legislative background to the Draft Planning Scheme and the purpose of the scoping report and consultation process.

Section 2 - Description of the Scope of the Draft Planning Scheme outlines the policy context within which the Draft Planning Scheme is being prepared and describes the scope of the Draft Planning Scheme itself.

Section 3 – Scope of Environmental Assessment describes the technical, spatial and temporal scope of the environmental assessment undertaken.

Section 4 - Scope of Potential Main Environmental Impacts sets out the estimated scope of potential main impacts in relation to key components of the Draft Planning Scheme.

Section 5 - Proposed Methodologies for Assessing Environmental Impacts outlines the methodologies used to assess each of the key environmental impacts and to identify any necessary mitigation.

Section 6 – Content of the EIS sets out the purpose and content of each key section of the EIS document.

1.2 Legislative Context.

- 1.2.1 The Dublin Docklands Development Authority (DDDA) was established under the *Dublin Docklands Development Act 1997 (as amended)* with the statutory responsibility to oversee the social and economic regeneration of the Docklands Area on a sustainable basis; the improvement of the Docklands' physical environment; and the continued development of the Custom House Docks Area of services of, for, in support of, or ancillary to, the financial sector of the economy.
- 1.2.2 Under Section 24 of the *Dublin Docklands Development Act 1997 (as amended)* the DDDA is obliged to prepare, every five years, a Master Plan for the Docklands Area. The *Dublin Docklands Master Plan 2008* and its accompanying *Strategic Environmental Assessment (SEA)* report were both recently adopted by the DDDA and have informed not only the Draft Planning Scheme but also the Environmental Impact Assessment of the Draft Scheme.
- 1.2.3 Under Section 25 of the *DDDA Act 1997 (as amended)*, the DDDA may prepare a Draft Planning Scheme for particular areas within the Docklands Area, for submission to the Minister for the Environment, Heritage and Local Government for statutory approval. In preparing a Draft Planning Scheme, the Authority is obliged to have regard to its Master Plan, consult with Dublin City Council and other relevant statutory bodies, have regard to the Dublin City Development Plan, and arrange for submissions by interested parties. The Draft Scheme is then submitted to the Minister who, following consultation with the Minister for Finance and consideration of any objections from Dublin City Council, may approve it with or without modification.
- 1.2.4 In February 2007 the Authority applied to the Minister for the Environment, Heritage and Local Government for the powers to prepare a Draft Planning Scheme for a designated area of the Poolbeg Peninsula. A draft Order was laid before the Houses of the Oireachtas seeking resolutions approving the Order. The Order was approved and the powers to prepare a Planning Scheme were conferred to the Authority via Statutory Instrument 297/2007.
- 1.2.6 Where the DDDA is of the opinion that the development proposed in an Draft Planning Scheme is likely to have significant effects on the environment, Section 26 of the *Dublin Docklands Development Authority Act 1997 (as amended)* requires the DDDA to prepare a statement of the likely effects on the environment of that development. Given the potential of the development within the Draft Planning Scheme for the Poolbeg Peninsula, the sensitivity of adjoining areas such as Dublin Bay and the River Liffey, and the potential impact on neighbouring communities, the

DDDA have considered it necessary to carry out an Environmental Impact Assessment (EIA) on the Draft Planning Scheme for the Poolbeg Peninsula to inform the Draft Planning Scheme. It is intended that ultimately both the Environmental Impact Statement (EIS) and Draft Planning Scheme will be submitted to the Minister of the Environment for approval following a period of public display for both respective documents.

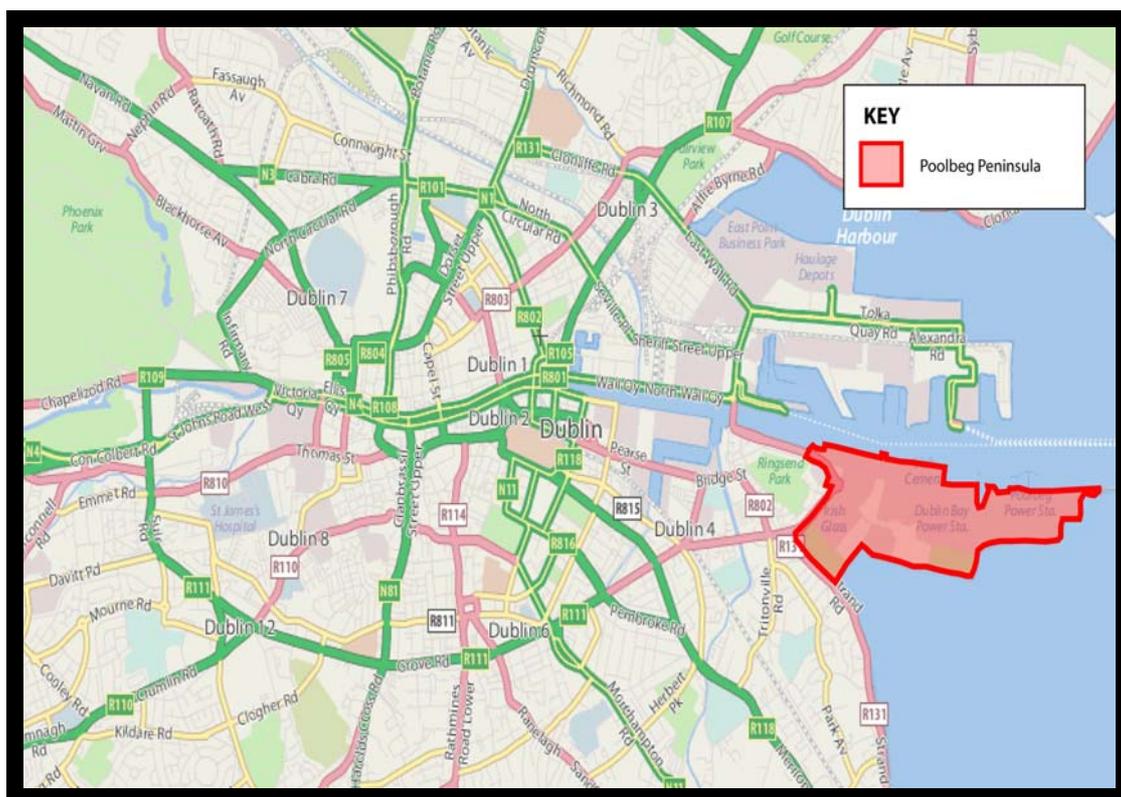
1.2.7 The adopted *Dublin Docklands Master Plan 2008*, its accompanying *Strategic Environmental Assessment (SEA)* and other relevant documents have informed the form and content of the Draft Planning Scheme for the Poolbeg Peninsula and consequently both this Scoping Report and the EIS.

1.2.8 The Draft Planning Scheme has also been prepared within the context of the policies and objectives of the Dublin City Development Plan 2005-2011.

1.3 The Draft Planning Scheme Area.

1.3.1 The Poolbeg Peninsula is unique in terms of its physical, topographical and ecological character, through existing land uses and land ownership patterns, its cultural context, connections and relationship with the city.

1.3.2 The Poolbeg Peninsula encompasses approximately 112 hectares of land to the east of the city centre (see Figure 1 below).

Figure 1 – Location of Poolbeg Peninsula.

- 1.3.3 The Draft Planning Scheme Area comprises lands principally located on the Poolbeg Peninsula to the east of Sean Moore Road and west of the South Bull Wall.
- 1.3.4 Specifically, the Draft Planning Scheme Area begins at Thorncastle Street extending eastwards along York Road and Pigeon House Road. The subject area also includes lands east of Sean Moore Road and to the north of Beach Road to the intersection with Marine Drive. All lands on the peninsula to the north of the South Dublin Bay high water mark on the peninsula's southern shoreline extending to the high water mark at Dublin Harbour on the peninsula's northern shoreline (east of the South Bull Wall) are included in the Draft Planning Scheme Area unless otherwise specified below and indicated on Figure 2 overleaf.
- 1.3.5 Thus, Sean Moore Park, the former ESB Pitch and Putt Course and Irishtown Nature Park are included within the Draft Planning Scheme Area. The Draft Planning Scheme Area also includes the Synergen Power Plant's cooling pond, the Waste Water Treatment Plant's overflow tanks, Pigeon House Dock and the Pigeon House Power Station.
- 1.3.6 The Draft Planning Scheme Area does not include existing utilities on the peninsula such as the ESB Power Station, Dublin Port's Load on/Load off (LoLo) facility and the Waste Water Treatment Plant.

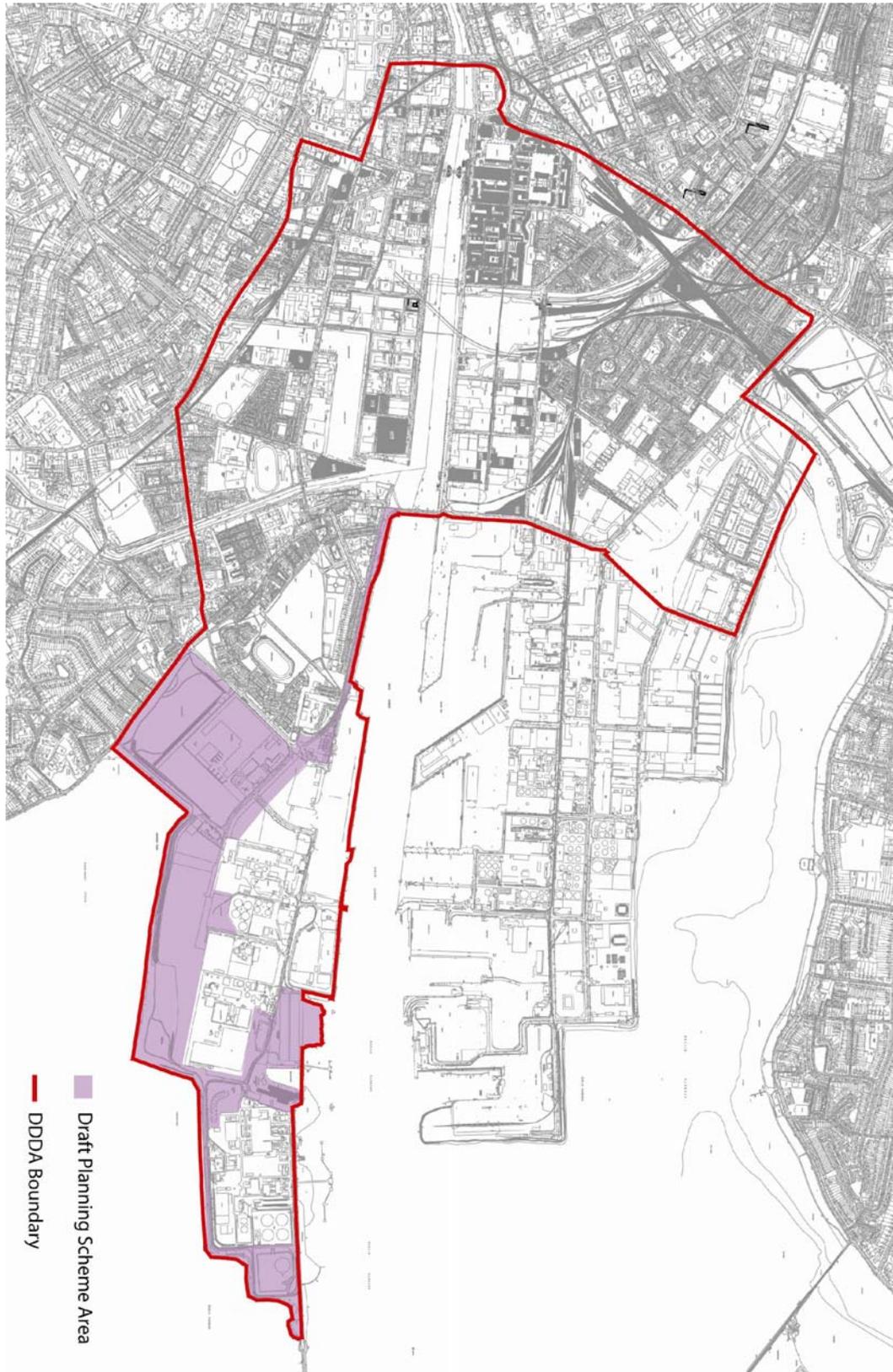


Figure 2 – Map of DDDA Boundary & Draft Planning Scheme Area.

1.4 The Purpose of the Report.

- 1.4.1 Scoping is a term applied to the consideration of the environmental issues that are to be addressed in either an EIS or Environmental Report of a Strategic Environmental Assessment (SEA). The formal preparation of a Scoping Report is not a legal requirement of either an EIA or SEA but is considered good practice as identified in the Environmental Protection Agency's *Guidelines on the information to be contained in Environmental Impact Statements*. The principle purpose of scoping is to develop an understanding of the impact on the environment that may be affected and the key measures proposed to set a framework for identifying and evaluating the impact of the measures on the environment.
- 1.4.2 The purpose of the Scoping Report has been to facilitate consultation with interested parties including the Special Interest Group (SIG) and to inform both the environmental impact assessment process and the Environmental Impact Statement (EIS) itself. This Scoping Report has been informed by submissions received by the statutory bodies to the Draft Scoping Report, by the comments received on environmental issues by the SIG and by comments from the public and interested parties during the various consultation events.
- 1.4.3 The scope of the EIA has been identified with regard to:
- (1) Available relevant guidance.
 - (2) Review of previous Environmental Reports and other EIA/SEA documents.
 - (3) Consideration of existing documentation relating to the Draft Planning Scheme Area.
 - (4) The production of baseline assessments undertaken by the EIA team.
 - (5) Consideration of both the existing environment and existing operations in particular.
 - (6) The objectives and content of the adopted *Dublin Docklands Master Plan 2008* and accompanying Environmental Report.
 - (7) *Dublin City Council Development Plan 2005-2011*.
- 1.4.4 This latest version of the scoping report takes on board the comments on the earlier draft circulated to prescribed bodies and interested parties. It should be read in conjunction with the EIS itself. The distinction should still remain that this document relates to the scope of impact and not the assessment of potential impacts themselves. That is a matter for the EIS itself.

1.5 Scoping Consultation.

1.5.1 Consultation with various statutory and environmental bodies is essential to a successful scoping exercise in an EIA process. Scoping consultation has been undertaken with the following prescribed Government and public bodies:

- Dept of Environment, Heritage and Local Government incl. National Monuments Section and National Parks and Wildlife Section.
- Department of Communications, Energy and Natural Resources.
- Various departments of Dublin City Council.
- Health and Safety Authority.
- Environmental Protection Agency.
- The Heritage Council.
- Eastern Regional Fisheries Board.
- An Taisce.
- Failte Ireland.
- The Arts Council.
- Office of Public Works.
- Department of Transport.
- Railway Procurement Agency.
- Dublin Transportation Office.
- National Roads Authority.
- Dublin Port Company.
- Electricity Supply Board (ESB).
- An Bord Pleanala.
- Department of Agriculture and Food.
- Department of Arts, Sports and Tourism.
- Department of Enterprise, Trade and Employment.
- Department of Community, Rural and Gaeltacht Affairs.
- Department of Equality, Justice and Law Reform.
- Irish Aviation Authority.
- Commission for Electricity Regulation.
- Dublin Airport Authority.
- Health Service Executive.
- Dublin Regional Authority.

1.5.2 A number of comments have been received from the above prescribed bodies and their comments have been incorporated not only into this scoping report but also the EIS.

1.5.3 The Environmental Protection Agency (EPA) has been consulted on an informal basis on the process of the EIA, and the content of the Scoping Report and the EIS. g

1.5.4 In addition, the following bodies/groups have also been consulted:

- Clanna Gael / Fontenoy GAC.
- Dublin GAA County Board.
- Ringsend and Irishtown Combined Residents.
- Sandymount Residents Association.
- Friends of the Irish Environmental Forum.
- Owners of Fabrizia and IGB sites.
- Marine Institute.
- National Museum of Ireland.
- Birdwatch Ireland.
- Bat Conservation Ireland.
- Irish Whale and Dolphin Group.
- Irish Wildlife Trust.
- Coastwatch Ireland.
- Star of the Sea Primary School.
- St. Matthews Primary School.
- Ringsend Community College.
- Poolbeg Yacht and Boat Club.
- Gardai Siochana.
- Young Peoples Forum.
- Senior Citizens Forum.
- Ringsend, Irishtown and Sandymount Environmental Group.

1.5.5 This list of non statutory consultees is indicative. Key groups that have attended public consultation workshops and open days have also been consulted.

1.6 Scoping Process

1.6.1 Figure 3 overleaf sets out the Draft Planning Scheme EIA process. Having produced the initial scoping report (Stage 3), following the receipt of comments (Stage 4), Stage 7 of the overall process identified below has been reached with both the Scoping Report and EIS being placed on public display for comment from the public and interested parties.

1.6.2 Preliminary desk based studies along with the consultation exercises undertaken including presentations, workshops and meetings of the Special Interest Group (SIG) have provided the scoping process with a set of environmental issues to be considered in the EIS.

Figure 3 - The EIA (Scoping) Process for the Draft Planning Scheme

Stage 1 -	Project Initiation. a) Refinement of Project Brief. b) Setting Project Objectives.
Stage 2 -	Information Gathering. a) Liaison through client with stakeholders. b) Information gathering/analysis. c) Identify key development parameters and issues. d) Production of baseline/context report.
Stage 3 -	Formulation of Options. a) Identification and clarification of available options. b) Initial general assessment of options. c) Preliminary assessment of potential impacts, mitigation and likely alternatives/variations to Draft Planning Scheme. d) Production of initial Scoping Report.
Stage 4 -	The Design Framework. a) Production of design framework. b) Consider initial potential impacts/mitigation of design framework. c) Design Framework reappraisal. d) Modification of Scoping Report.
Stage 5 -	Drafting of Planning Scheme & EIS. a) Drafting of EIS for Draft Planning Scheme. b) Drafting of Planning Scheme. c) Finalisation of Scoping Report.
Stage 6 -	Finalisation of Planning Scheme. a) DDDA approval of Planning Scheme.
Stage 7 -	Public Display of Draft Planning Scheme and Draft EIS. a) Production of Draft EIS for public display alongside Draft Planning Scheme and Scoping Report. b) Placing of Draft EIS, Scoping Report and Planning Scheme on public display.
Stage 8 -	Review. a) Review of submissions. b) Preparation of submissions report. c) Agree revisions to EIS.
Stage 9 -	Submission to the Minister. a) Submission of final draft EIS, Scoping Report and Planning Scheme for Ministerial Approval.

Note: Items relating to the Scoping Report and EIS are marked in red.

2.0 DESCRIPTION OF THE SCOPE OF THE DRAFT PLANNING SCHEME.

2.1 Development Context.

2.1.1 The *Dublin City Development Plan 2005-2011* aims to set out a framework for the coordinated and sustainable growth of the inner and outer city areas. The Plan's overall objective is:

“To enhance the quality of life and experience of the city for the residents, workers, commuters and visitors and to consolidate the urban form of the city and to do so in conjunction with improvement to the public transport network”

2.1.2 The Draft Planning Scheme shares and facilitates the delivery of the overall vision of both the adopted *Dublin Docklands Master Plan 2008*.

“We will develop Dublin Docklands into a world-class city quarter – a paragon of sustainable inner city regeneration – one in which the whole community enjoys the highest standards of access to education, employment, housing and social amenity and which delivers a major contribution to the social and economic prosperity of Dublin and the whole of Ireland”.

2.1.3 The Draft Planning Scheme seeks to incorporate the following strategic aims of the adopted *Dublin Docklands Master Plan 2008*.

Adopted Dublin Docklands Master Plan 2008

- a) Set out the economic, social and other issues relevant to the regeneration of the Docklands Area, and proposals to address those issues.
- b) Identify those parts of the Docklands Area where detailed proposals and plans for development, redevelopment, renewal or conservation of land in that area are appropriate.
- c) Identify those parts of the Docklands Area where Planning Schemes under Section 25 would be appropriate.
- d) Set out urban design guidelines for the Docklands Area, including guidelines relating to urban and building conservation, street furniture, and landscaping.
- e) Include proposals for appropriate renewal, preservation, conservation, restoration, development and redevelopment of the streetscape layout and building pattern of appropriate parts of the Docklands Area.
- f) Include proposals for the development of existing and new residential communities in the Docklands Area, including the development of housing for people of different

special backgrounds.

g) Include proposals for a programme of development or redevelopment of derelict sites or vacant sites in the Docklands Area.

g) Include proposals relating to the conservation of the architectural heritage of the Docklands Area.

h) Include transport proposals consistent with A Platform for Change Strategy 2000 – 2016, which updated the original Dublin Transport Initiative (DTI) Strategy.

i) Include an estimate of the costs of the implementation of the Master Plan and an indication of possible funding options.

j) Estimate the implications for employment, training and education in the Area and for employment, training and education of Docklands Area residents, of measures proposed in the Plan.

2.1.4 The 2008 Master Plan includes a number of key policies and objectives identifying the development potential of Poolbeg Peninsula which have been considered in the context of the Draft Planning Scheme. These are outlined in summary form in Figure 4 below:

Figure 4 –Dublin Docklands Master Plan 2008 Key Policies (Objectives).

Land Use	Urban Design
<ul style="list-style-type: none"> • Seek to implement Variation 21 to the Dublin City Development Plan 2005 – 2011. • Provide social and affordable housing at a minimum ratio of 20%. • Provide a mix of residential types, sizes and tenures of dwellings. • A land use mix in the order of 60-70% residential / 40-30% commercial. • Poolbeg Planning Scheme to include a strategy for phasing of development in tandem with delivery of high capacity public transport. • Provide supporting community social and economic facilities. 	<ul style="list-style-type: none"> • Existence within the peninsula of a Zone of Archaeological Interest. • Provision of an amenity bay loop. • Consider City Views in terms of impact of development. • Promote major public and cultural buildings at Poolbeg. • Seek to reinforce and enhance Irishtown Nature Park. • Maximise the use of green open space to facilitate sustainable drainage systems and enhance the potential for biodiversity.

- All major projects will be carefully assessed for environmental impacts, particularly as regards emissions and traffic.
- Provision of retail facilities up to District Centre level to be served mainly by public transport.
- Seek tourism facilities in Poolbeg.

Movement and Transport

- Proposed Priority Pedestrian Route.
- Provision of cycle route linked to the city wide network.
- Extension of Luas, provision of bus route and potential ferry terminal.
- Upgrade of the road network to facilitate development.

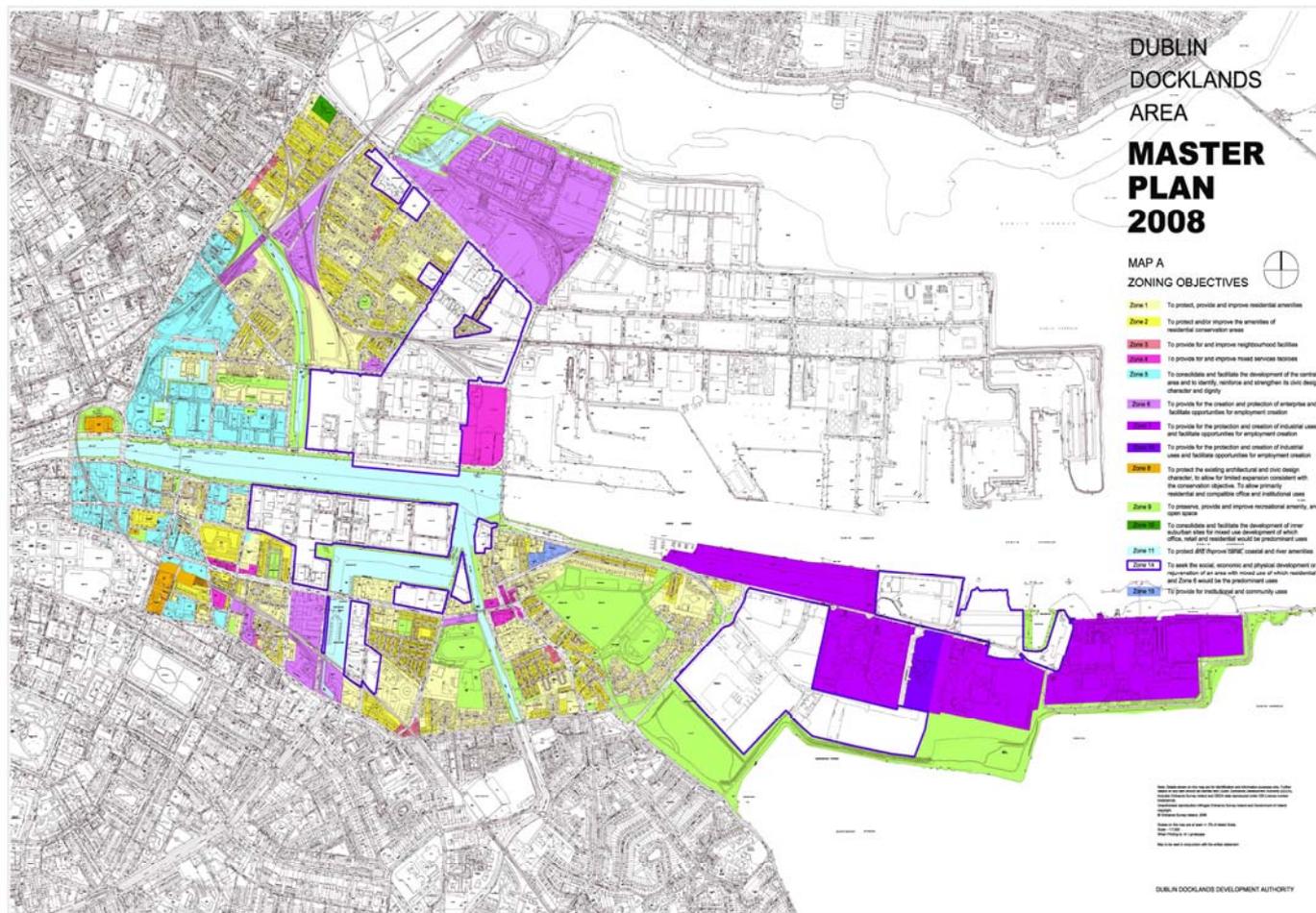
- Create a landscape network as part of the Master Plan that not only acts as a flood protection measure but also enhances the potential for biodiversity and movement.
- Promote the creation of public access to Pigeon House Harbour and investigate the feasibility of developing the harbour for public recreational and public boating purposes.
- Protection of archaeological material; formulation of site specific mitigation; undertaking of inter-tidal and underwater assessments; archaeological monitoring; and protection of the character of an archaeological site or its setting.
- Protection of the integrity of the SPA, cSAC, pNHA.
- Cooperate with Dublin City Council in the achievement of the objective of the *Dublin City Biodiversity Action Plan 2008-2012*.

Social Regeneration

- New development to be supported by adequate community and recreation facilities, both new and enhanced, in tandem with phasing of development.
- All S25 Planning Schemes to be subject of a Local Employment Charter subject to statutory and legal requirements.

<ul style="list-style-type: none"> • Introduction of high capacity public transport service (Bus Rapid Transit system, or interim variants, and Luas extension) linking Poolbeg to the remainder of the Docklands, the city centre and the wider transport network. 	<ul style="list-style-type: none"> • Facilitate and promote provision and expansion of education facilities.
<p style="text-align: center;">Infrastructure</p> <ul style="list-style-type: none"> • Roll out and phasing of development is subject to adequate waste water infrastructure. • Require Flood risk assessment for all Section 25 applications. 	<p style="text-align: center;">Economic Development</p> <ul style="list-style-type: none"> • Support development of commercial and retail development in Poolbeg.
<p style="text-align: center;">Arts, Culture, Tourism and Leisure</p> <ul style="list-style-type: none"> • Cultural infrastructure, activity and events in Poolbeg. • Tourism Node. • Cluster Tourism, arts and cultural facilities including hotels in Poolbeg. • Attractive and innovative restaurants, cafes, public houses and shops in Poolbeg. 	

2.1.5 The *2008 Master Plan* zone a variety of uses, including mixed use (Zone 14) within the peninsula. Figure 5 below sets out the *2008 Master Plan*'s zoning for Poolbeg.

Figure 5 - Zoning Objectives Map (extract) Dublin Docklands Master Plan 2008.

2.1.6 The Draft Planning Scheme is consistent with the recently adopted *2008 Master Plan* and *SEA*.

2.2 Description of the Scope of the Draft Planning Scheme.

2.2.1 The key generic elements of the Draft Planning Scheme against which the scope of the potential impacts can be established include the following:

- Mixed use residential and commercial development
- High density development
- Medium density development
- Low density development
- Provision of community facilities and infrastructure
- Provision of recreational facilities
- Provision of retail facilities up to district centre level
- Provision of a dominant landscape framework and environmental improvements across the peninsula and in proximity to existing public utilities
- Reuse of Pigeon House Hotel and the former Pigeon House Power Station
- Restoration, conservation and interpretation of heritage assets

- Topographical alterations
- Provision of new and enhanced publicly accessible open green spaces.
- Creation of a bus based Rapid Transit (DRT) system
- Potential option of road access through the proposed Special Protection Area (pSPA)
- Other infrastructure improvements
- Preferred option of a road through the pSPA
- Provision of retail facilities up to district level

2.2.2 The more detailed elements of the Draft Planning Scheme are identified in the EIS along with phasing against which the environmental impact and recommended mitigation measures are set out. The purpose of this Scoping Report is not to identify in detail the elements of the Draft Planning Scheme and establish their impact. That is the purpose of the EIS. The intention of this scoping report is to identify the scope of potential impacts and mitigation against the scope of the Draft Planning Scheme.

These key elements are contained in Figure 6 below which visually outlines an estimation of the scope of potential main environmental impacts. Further detail on the Draft Scheme is contained in the Draft Planning Scheme document. The scope of the Draft Planning Scheme is set out in the EIS as is the assessment of the likely impact of the proposed scheme on the environment and necessary mitigation.

3.0 SCOPE OF THE ENVIRONMENTAL ASSESSMENT.

3.1 Technical Scope.

- 3.1.1 The range of environmental topics to be addressed in the EIS is referred to as the Technical Scope.
- 3.1.2 Possible environmental issues and their potential significant impacts have been evaluated as part of what has been an ongoing scoping exercise in order to determine the extent to which they should be included in the EIA and ultimately the EIS document. As a result of this scoping exercise some issues have been considered to have no significant impact and therefore have been eliminated from the EIA. If such issues arise from the public consultation there will be opportunity to incorporate them into any revisions to the EIS (see stage 8 item (c) of Figure 3 above). Those issues, which have not been eliminated, will have formed the technical scope of the EIS document. Ongoing consultations including with the SIG have identified potential for significant effects which have as a result been duly considered in the EIS.
- 3.1.3 In considering this section it is worth bearing in mind that an EIA is the overall process of assessing environmental impacts and includes screening, scoping etc. The culmination of this process is the EIS which is a statement or document on environmental impact and includes issues of interaction, mitigation etc.
- 3.1.4 It is also worth considering in terms of the scope of potential impact that a Draft Planning Scheme is the equivalent in detail of an outline planning application and that accordingly this affects the level of environmental assessment that may be possible at this stage. Where appropriate a fuller environmental assessment can only reasonably be undertaken where detailed proposals are put forward within the S25 Certification process.

3.2 Spatial Scope.

- 3.2.1 The geographical or spatial scope of the appraisals takes into account the following factors –
- The physical extent and content of the Draft Planning Scheme;
 - The nature of the receiving environment; and
 - The manner in which the potential impacts are likely to spread.
- 3.2.2 The spatial extent of the EIS study area has been informed by the availability of data and information.

3.3 Temporal Scope.

- 3.3.1 The temporal scope used for assessment of the Draft Planning Scheme will be for the period 2009 to 2019 which is also the approximate duration of the construction programme. The temporal scope of the construction phase will take into account the time of day during which works are likely to be undertaken and in particular whether they are likely to be undertaken during the day time or night time.
- 3.3.2 For the operational phase, the temporal scope will be determined by the predicted date of the Draft Planning Scheme being developed which will occur on the IGB and Fabrizia sites from late 2009 until the later potential development of other areas up to 2019. For certain environmental topics the operational phase will extend beyond the completion of construction of the adopted Planning Scheme.
- 3.3.3 The EIS considers in clearly defined sections the likely impact of the Draft Planning Scheme in both construction and operational phases respectively.
- 3.3.4 Consistent with best practice the likely impact of the Draft Planning Scheme has been considered against a “do nothing” scenario. The scope of the impact has also been assessed where appropriate against a ‘do something’ scenario.

4.0 SCOPE OF POTENTIAL MAIN ENVIRONMENTAL IMPACTS.

- 4.1 The preliminary desk-based work conducted for the Baseline Report, ongoing analysis of the Draft Planning Scheme, site visits and comment from prescribed bodies in response to the initial scoping report and more recently consultation with local residents, public bodies and interest groups have formed the basis for the identification of the scope of potential environmental impacts. These impacts have been assessed and evaluated. Figure 6 overleaf outlines the potential main impacts in relation to key potential components identified in the development of the Draft Planning Scheme Area at this stage.
- 4.2 **It should be noted that Figure 6 is not a detailed assessment of the Draft Planning Scheme rather it is a general indication of the estimated scope of possible impacts from potential components which has informed the EIS.** Where scoping identifies a potentially negative impact mitigation measures will be identified in the EIS.
- 4.3 Revisions have been made to the scope of potential impacts as ongoing environmental assessment and consultation have been undertaken.
- 4.4 It has been decided after review of the earlier draft scoping report to 'scope out' potential effects on property and to 'scope in' effects on health and safety which will be dealt with in the EIS under 'Effect on Human Beings'

Figure 6 – Estimated Scope of Potential Main Impacts from Key Components of the Planning Scheme (not an impact assessment)

Potential Impacts	Human Beings	Flora / Fauna	Soils / Geology / Geotechnical	Water / Hydrology	Air quality / dust	Wind	Odours	Climate / Energy	Noise / Vibration	Landscape / Visual	Traffic / Transportation	Retail	Archaeology	Architectural and Cultural Heritage	Utilities	Waste
Key Components																
Mixed use residential and commercial development.	Green	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Pink	Green	Pink	Green	Yellow	Yellow	Yellow	Yellow
High density development	Green	Yellow	Green	Yellow	Yellow	Yellow	White	Yellow	Pink	Green	Yellow	Green	Yellow	Yellow	Yellow	Yellow
Medium density development	Green	Yellow	Green	Yellow	Yellow	Yellow	White	Yellow	Pink	Green	Yellow	Green	Yellow	Yellow	Yellow	Yellow
Low density development	Green	Yellow	Green	Yellow	Yellow	Yellow	White	Yellow	Pink	Green	Yellow	Green	Yellow	Yellow	Yellow	Yellow
Provision of community facilities and infrastructure	Green	Yellow	Green	White	Yellow	White	White	Yellow	Pink	Green	Green	White	Yellow	Yellow	Yellow	Yellow
Provision of recreational facilities	Green	Yellow	Green	White	Yellow	White	White	Yellow	Pink	Green	Green	White	Yellow	Yellow	Yellow	Yellow
Dominant landscape framework and environmental improvements	Green	Green	Green	White	Green	White	Yellow	Yellow	White	Green	White	White	Yellow	White	Yellow	White
Reuse of Pigeon House Hotel and former Power Station	Green	Pink	Yellow	White	Yellow	White	White	Yellow	White	Green	Yellow	Green	Yellow	Green	White	White
Restoration, conservation and interpretation of heritage assets.	Green	Green	Yellow	White	Yellow	White	White	White	White	Green	White	Green	Green	Green	White	White
Topographical alterations	White	Green	Green	White	Yellow	Yellow	Yellow	Yellow	White	Green	White	White	Green	White	White	White
New & enhanced existing publicly accessible open green space.	Green	Yellow	Green	White	Yellow	White	White	Green	White	Green	Green	White	White	White	White	White
Creation of bus based Rapid Transit (DRT)	Green	White	Yellow	White	Yellow	White	White	Green	Yellow	Yellow	Green	White	White	Yellow	White	White
Other infrastructure improvements	Green	Yellow	Yellow	Green	Yellow	White	Green	Yellow	Yellow	Yellow	Green	White	White	Yellow	Green	White
Preferred Option of road through pSPA	Green	Red	White	White	Yellow	White	White	White	Yellow	Yellow	Pink	White	White	White	White	White
District Level Retail	White	White	White	White	White	White	White	White	White	Green	Green	White	White	White	White	White

■ Permanent & long term positive impact
 ■ Temporary positive impact
 ■ Neutral
 Not Applicable
 ■ Temporary negative impact
 ■ Permanent & long term negative impact

5.0 PROPOSED METHODOLOGIES FOR ASSESSMENT OF ENVIRONMENTAL IMPACTS.

5.1. Human Beings.

5.1.1 The topic of human beings is partially covered by other environmental topics, such as air quality, noise and vibration and traffic and transportation. In the EIA process the impact upon human beings is broken into four categories – (population, employment, community and health and safety). Each category is sub-divided further to assess impact during construction and operation of the Draft Planning Scheme.

Population.

5.1.2 The extent of new mixed urban environments and residential units being proposed within the Draft Planning Scheme Area may provide a substantial and unique living/working environment at the edge of Dublin City centre.

5.1.3 The emphasis of the construction aspect of the EIS will concentrate upon the potential impacts from noise, vibration and dust impacts arising during the construction phase, not only upon the small population of indigenous residents and traveller families within the peninsula but also the neighbouring communities. The operational aspect of the EIS, is likely to have both positive and negative impacts and will have to be assessed with the existing indigenous population, neighbouring communities and emerging communities within and adjacent to the peninsula in mind. Data sources analysed include the *2006 Census*.

Employment.

5.1.4 The proposed development of new communities and business opportunities throughout the peninsula area could positively impact upon an identified decline in skills and jobs, albeit traditionally concentrated, north of the River. The nature and extent of employment generators likely to populate the commercial element of the Draft Planning Scheme may have both positive and negative impacts. Encouraging live/work environments may reduce inner city commuter traffic. However, the overall volume of commercial floorspace being proposed may potentially encourage a large volume of commuter traffic into the peninsula. This will be considered in the context of considerably enhanced public transport provision.

5.1.5 The extent and dynamic of benefits potentially gained from the range of mixed commercial uses, including retail, offices, enhancement of existing heavy industry (including public utilities) and numerous other uses is addressed in the EIS.

Construction Phase.

- 5.1.6 The potential impacts on human beings arising during the construction phase may include handling, treatment and/or disposal of contaminated material, and in the long term where pathways exist, between contaminated ground/water and humans. This potential is will be identified from a desk-based review where existing documents are available but the EIS states that further site investigation and risk assessments may be required.
- 5.1.7 Irrespective of a specific route being designated for construction traffic, given existing road capacity limitations, the construction process is likely to disrupt people and businesses along the access routes into and within the overall peninsula, such as Ringsend, Irishtown, Pigeon House, Beach and Strand Roads. This aspect is assessed in the EIS within the context of the proposed phasing of development throughout the Draft Planning Scheme Area. Careful management of the construction process, co-ordination of construction traffic, exploration of alternative means of access and extensive consultation with neighbouring communities and businesses will be used to minimize the likely extent of disruption caused along whatever route is designated for construction traffic.

Operation Phase.

- 5.1.8 The comprehensive and sustainable development of the Draft Planning Scheme Area is likely to bring long-term benefits to the immediate surrounding communities of Ringsend, Irishtown and Sandymount, the Greater Dublin Area as well as the Area's potential new population. The mix of proposed uses will create a sustainable environment where there is an emphasis on living and working in the same area as well as providing facilities and amenities for use by the wider city population. These benefits are examined in the EIS.

Assessment Methodology for Socio-Economic Impacts.

- 5.1.9 The construction of the Draft Planning Scheme will likely result in significant economic benefits through expenditure of works, purchasing of materials and secondary economic benefits (retailing, social/recreational activities).
- 5.1.10 Issues for consideration during the construction phase of the Draft Planning Scheme include, but not exclusively, the following:
- Assessment of the disruption likely to arise during construction of the various phases of development;
 - Economic benefits during the construction phase;
 - Economic impacts during the construction process.
- These are assessed in the EIS.

5.1.11 Issues for consideration during the operation of the Draft Planning Scheme include the following:

- A quantitative assessment of the improvements in general accessibility to and from the Draft Planning Scheme Area and throughout the peninsula generally through pedestrian, cyclist, road based and public transportation means.
- A quantitative assessment of the likely economic benefits of providing mixed commercial uses as attractors for inward investment.
- A quantitative and qualitative assessment of the benefits of providing a mixture of new urban communities.
- A quantitative and qualitative assessment of providing enhanced, improved and coordinated recreational and ecological landscaping to the Greater Dublin Area, neighbouring communities and emerging indigenous population.

Community.

5.1.12 The proposed development of new community amenities and facilities within the Draft Planning Scheme Area will likely address the deficit in social and community facilities identified in the adopted *Dublin Docklands Master Plan 2008* and the DDDA's social infrastructure audit. Elements of the Draft Planning Scheme may also positively impact upon the following issues which were identified (albeit associated with the larger Docklands Area rather than just the Draft Planning Scheme Area) as matters of concern in the adopted *Docklands Master Plan 2008*:

- An insufficient mix of private, public/social housing and unit sizes`.
- Lack of integration of new residential development with existing to sustain and build communities.
- Increased traffic, pollution and noise.
- Inadequate and poor quality local public transport.
- Displacement of marginal business.
- Insufficient open space, parks and play areas adjacent to housing.
- Enhancement of community facilities, recreation and amenity.
- High level of early school leavers.
- Inadequate childcare facilities.
- Drugs and crime.

5.1.13 A possible temporary negative impact upon the existing community within adjacent neighbours may be the unreasonable diminution in quality of life as a direct or indirect consequence of the construction of the Draft Planning Scheme. Risk of serious accident, air pollution, water pollution and noise are also to be considered within potential impacts.

Health and Safety.

- 5.1.14 The implications of the Draft Planning Scheme and its potential impacts (if any) on existing and proposed occupant's health are assessed. The issue of health from disturbing or developing on contaminated sites was raised during the scoping consultation and although it is often not found in EISs are considered.

5.2 Flora & Fauna (Nature Conservation).

- 5.2.1 Neither Poolbeg Peninsula nor the Draft Planning Scheme Area is currently covered by any nature conservation designations. However, the southern edge of the peninsula is adjacent to Dublin Bay which is covered by multiple Irish and European designations, namely a candidate Special Area of Conservation (cSAC), Special Protection Area (SPA) and proposed Natural Heritage Area (pNHA). The National Parks and Wildlife Service (NPWS) have commenced a review of SPA boundaries in 2002 which is ongoing. Relevant landowners and public bodies have now been notified of the proposed revision to the South Dublin Bay SPA boundary. The proposed extension of the SPA comprises a small area north of Irishtown Nature Park and south of the Wastewater Treatment Plant which was set aside as part of the planning permission for the Wastewater Treatment Plant for use as a feeding area for Brent geese. Submissions to the Department of the Environment, Heritage and Local Government regarding the proposed SPA boundary extension were invited on or before the 26th August 2008. The DDDA, as an interested party have lodged an observation in regard to the proposed SPA.
- 5.2.2 A review has been undertaken of the restrictions imposed on the development of the Draft Planning Scheme Area by existing European designations, i.e. Natura 2000 sites (the cSAC and expanded SPA). This has been carried out with particular reference to Article 6 of the *EU Habitats Directive* and Article 28 of the *European Communities (Natural Habitats) Regulations 1997* and their implications for any development that may impact upon the peninsula. This has been carried out in conjunction with the ongoing review of the Draft Planning Scheme and the results of the geomorphological assessment which was undertaken.
- 5.2.3 The Ecological Impact Assessment (EclA) comprises three separate elements:
- Baseline assessment;
 - Impact prediction;
 - Impact mitigation.

- 5.2.4 An Appropriate Assessment of the impact of the proposed development on designated sites has been undertaken in accordance with the relevant regulations.
- 5.2.5 A range of guidance documents have been used in the preparation of the ecological assessment. These include:
- *Guidelines on the information to be contained in Environmental Impact Statements* (Environmental Protection Agency, 2002);
 - *Advice Notes on Current Practice in the Preparation of Environmental Impact Assessments* (EPA, 2003);
 - *Guidelines for Ecological Assessment*, Institute of Ecological and Environmental Management, 2002;
 - All relevant existing or emerging national and European legislation;
 - Best practice.
- 5.2.6 There exist a large number of sources of ecological information on the Poolbeg Peninsula. This includes extensive data on plant communities, waterfowl, littoral habitats, fauna, physical/chemical data and benthic data. This information comes from a wide variety of sources including published books, articles in scientific journals, previous EIAs undertaken for the area and unpublished data collected during recent or ongoing research.
- 5.2.7 Other sources of information accessed have included:
- National Parks and Wildlife Service (NPWS) database;
 - Eastern Regional Fisheries Board (ERFB);
 - EPA;
 - Dublin City Council;
 - Other relevant bodies such as Bat Conservation Ireland (BCI) and BirdWatch Ireland.
- 5.2.8 Consultation has been undertaken with both NPWS and ERFB as part of the EIA process.
- 5.2.9 Due to the nature of the EIA for the Draft Planning Scheme, and the existence of a large amount of accessible information, no detailed surveys has been undertaken at the EIS stage. Where relevant, recommendations for specific surveys (such as bat surveys) to be carried out before any construction takes place will be included in the EIS.
- 5.2.10 The desk-based review of the existing ecological situation is followed by a review of the Draft Planning Scheme and its potential impacts, particularly on designated European nature conservation sites. A set of maps has been created indicating designated conservation areas, key habitats and ecological features.

- 5.2.11 The Draft Planning Scheme has the potential to enhance biodiversity in the Poolbeg Peninsula. As part of the overall assessment of the Draft Planning Scheme a geomorphologist has been employed to assess the potential impacts of an alteration of the existing sedimentation regime that may have long term knock-on effects on the ecology of the area, particularly on the designated sites. This review has been incorporated into the ecological assessment of the Draft Planning Scheme and is an integral part of the critical review of the Draft Planning Scheme, particularly the options for treatments of the southern boundary of Poolbeg Peninsula, between Sandymount Strand and Irishtown Nature Park.
- 5.2.12 There will be potential interactions between ecology and a range of other environmental disciplines, including landscape, contaminated land and water quality. These interactions are dealt with in the EIS.

5.3 Soils, Geology and Geotechnical

- 5.3.1 It is known that made ground is present throughout the peninsula and a municipal dump was present within the western portion that was capped over 30 years ago. Furthermore, given the current industrial usage of the lands, there is also the potential that these industrial activities may have historically or are currently impacting upon the receiving soils and groundwater.
- 5.3.2 The potential impacts of disturbance of potentially contaminated soil will be on water and human beings as discussed under the relevant headings in this scoping document. The potential impacts of the Draft Planning Scheme on soils and geology have been determined as follows:
- Desk-based review of geotechnical reports/investigations have been made available as discussed above.
 - The potential impacts on soils during the construction phase of the development (e.g. from refuelling and oil storage on site) have been assessed;
 - Potential discharges to soil during the long term operational phase of the development have been identified and assessed.
- 5.3.3 A specific assessment of impacts of the existing utilities has not been carried out as details regarding the environmental impact of these facilities are available in the various EIS documents associated with other proposed developments within the peninsula.

5.4 Water / Hydrology.

- 5.4.1 Poolbeg Peninsula is located at the mouth of the River Liffey where it enters the Irish Sea. The river forms the northern boundary of the Draft Planning Scheme Area. The Dodder River and Grand Canal flow into the Liffey approximately 500m and 1km to the south west and west of the Draft Planning Scheme Area respectively. The surrounding landscape is dominated by coastal waters to the east while Sandymount Strand and Dublin Bay stretches south.
- 5.4.2 Settlement beds associated with the Ringsend Waste Water Treatment Plant are located to the north east of the Draft Planning Scheme Area while a cooling race used by the Synergen Power Plant for process water is located to the north.
- 5.4.3 In the EPA-published report '*Water Quality in Ireland 2006 – Key Indicators of the Aquatic Environment*' the biological status of water quality in the Liffey Estuary and in Dublin Bay was outlined. The water quality status of the Liffey Estuary was reported as 'Intermediate', meaning slightly eutrophic, while both points monitored in Dublin Bay were reported as 'Unpolluted, or not eutrophic'.
- 5.4.4 Recent testing of the water quality in the area with respect to the '*European Communities Quality of Bathing Waters Regulations 1992 (No. 155 of 1992)*' indicates good water quality in the Shellybanks area.
- 5.4.5 Groundwater beneath Draft Planning Scheme Area is likely to be influenced by saltwater intrusion and also potentially by leachate from landfill.
- 5.4.6 The impact on water quality and hydrology has been assessed as follows:
- Desk-based review of existing water quality data including a review of Environmental Protection Agency (EPA) data and geotechnical reports for the Waste to Energy Plant, IGB and Fabrizia sites where available and review of monitoring reports from IPPC licensed facilities on the peninsula;
 - Assessment of the potential impact on groundwater and coastal water quality arising from construction activities and in particular the disturbance of contaminated ground and dewatering;
 - The potential impacts on water / hydrology during the construction phase of the development has been assessed;
 - Assessment of the potential impact of the operational phase of development in terms of discharges to Dublin Bay and to groundwater.
- 5.4.7 A specific assessment of impacts of the existing utilities on surface waters has not been carried out. The characterisation of the receiving environment includes for this.

- 5.4.8 As Dublin City is served by mains potable water supplies, groundwater within the peninsula will not be used as a water supply. Therefore drawdown on the existing aquifer has not been assessed.
- 5.4.9 Flooding and flood prevention issues are dealt with under this section. A Flood Risk Assessment is included as an Appendix to the EIS.

5.5 Air Quality (& Dust).

- 5.5.1 The Poolbeg ambient air quality is potentially influenced by a number of anthropogenic sources such as traffic emissions and emissions from industrial installations. Monitoring carried out between 2003 and 2007 at the Irish Glass Bottle site for the Waste to Energy plant EIS has revealed that the 24 hour average limit value for PM₁₀ was exceeded. Ambient levels of Nitrogen Dioxide (NO₂) were between 38 – 63% of the annual limit value. The NO₂ levels correlate well to other monitoring sites in the city however the PM₁₀ exceedances are unusual.
- 5.5.2 The EIS for the Waste to Energy plant further concluded that the proposed Waste to Energy Plant would not impact on ambient air quality and within that EIS the potential impact on occupiers of apartment blocks on the Fabrizia site at Poolbeg was examined. Further modelling carried out in 2008 in relation to the Waste to Energy Plant's oral hearing for its waste licence application also took account of other high rise buildings including the proposed U2 Tower and proposed new buildings at the Point. Particular attention will be given to air quality in relation to tall buildings proposed within the Draft Planning Scheme Area. With regard to dust, it has been noted during recent site visits that dust associated with the cement plant and related truck movements is prevalent along the verges of Southbank Road.
- 5.5.3 The Draft Planning Scheme for Poolbeg Peninsula envisages developing the available land-bank for mixed uses, side by side with existing utilities such as the Waste Water Treatment Plant, ESB Poolbeg and Synergen generating stations and the Waste to Energy Plant relatively recently granted a license from the Environmental Protection Agency (EPA). Accordingly the assessment of impact of the Draft Planning Scheme on ambient air quality has been undertaken as follows:
- The receiving ambient air quality has been described qualitatively in terms of existing air quality parameters
 - Such parameters include particulate matter (PM₁₀), nitrogen oxides, sulphur dioxide, and volatile organic compounds (VOCs).
 - A literature survey of recent studies with regard to the Waste to Energy Plant and compliance monitoring of IPPC licensed facilities was carried out.

- Further air quality monitoring has not been carried out since it is considered that sufficient information is already available and been the subject of scrutiny by the EPA culminating in the issuing of a Waste License from them in December 2008.
- The impact on future occupiers of any tall buildings proposed within the emerging Draft Planning Scheme has been assessed with regard to existing and proposed sources and applicable ambient Air Quality Standards (AQSs).
- The potential issue of coastal fumigation has been taken into consideration.
- The predicted impact of the Draft Planning Scheme has been assessed. In general, given that information exists on the impact of the existing utilities, this assessment has been concerned with the predicted impact on local air quality as a result of increased traffic within the area using recognized traffic emission dispersion modelling methodologies such as CAL3QHCR.
- The predicted emission has been compared with the relevant air quality standards.

5.5.4 The impacts on air quality during the construction phase have been identified and assessed although this is not likely to be significant except in terms of dust emissions and control.

5.5.5 Strategies for impact management have considered avoidance, reduction and remedial aspects. The mitigation measures shall include the options considered in the design and siting of alternatives. The cumulative and residual impact of the development on the ambient air environment has been determined.

5.6 Wind.

5.6.1 The unique location of the Draft Planning Scheme Area on land protruding into Dublin

Bay highlights the potential sensitivity of development to coastal related effects such as wind at the site. The on-site Meteorological Data for 2005, and the wind data compiled at Dublin Airport for 1977-2007, show that wind predominantly comes from the west with the strongest winds generally coming from the southwest.

5.6.2 The Draft Planning Scheme is not likely to cause wind effects on existing residential receptors to the west of the site. The focus of any consideration of wind effects will be on the proposed built elements of the Draft Planning Scheme and any proposed tall buildings.

5.6.3 The following desktop study of wind impact has been carried out:

- Review of meteorological conditions as applied to the existing built environment to describe the wind microclimate;
- Review of the layout, proposed building heights and massing to determine the main flow interactions affecting the development and adjoining receptors
- Application of the Lawson comfort criteria to quantify future wind conditions of the proposed built environment;
- Develop mitigation measures as necessary;

5.7 Odours.

5.7.1 Currently odour from the Waste Water Treatment Plant is an on-going concern on Poolbeg Peninsula with complaints lodged from residents located to the west in Ringsend and Sandymount. Most occur when easterly winds prevail which is approximately 20% of the time. However, it is understood that Dublin City Council currently has a programme in place to reduce odours at the Ringsend Waste Water Treatment Plant

5.7.2 The Draft Planning Scheme Area is also characterised by odours from natural biological processes along the shoreline.

5.7.3 The Draft Planning Scheme envisages developing the available land-bank for mixed uses, cognisant of existing utilities such as the Waste Water Treatment Plant which although technically outside the Draft Planning Scheme Area will, to some degree, influence development within it. The other elements of the Draft Planning Scheme envisioned are not likely to give rise to odour nuisance. Accordingly, the assessment of impact of the Draft Planning Scheme has been carried out with regard to odour as follows:

- The receiving environment, through a literature review of all available information with regard to the relatively odour issue. (It is not proposed to carry out odour monitoring or modelling of existing sources as this would be premature prior to the completion of abatement works).
- Qualitatively (from a literature review) future potential odour impacts on existing and proposed receptors have been identified.
- Mitigation factors and/or identify mitigation measures have been identified.

5.8 Climate and Energy

Climate

- 5.8.1 The assessment with regard to climate can be split into two areas namely micro and macro climate.
- 5.8.2 The impacts of the proposed scheme on the local microclimate are assessed in individual chapters within the EIS in terms of wind effects and overshadowing both within the proposed development and on surrounding sensitive receptors. At the macroclimate level, the impacts of the proposed scheme in terms of CO₂ emissions contributing to global warming are identified and quantified. CO₂ emissions from heating and electricity requirements are calculated based on the Building Regulations requirements. These serve as a baseline for improvement and targets are set for future developers to ensure a low carbon footprint for the scheme and are contained in the sustainability tool kit within the Draft Planning Scheme.
- 5.8.3 The effects of climate change and global warming in terms of potential flood risk is assessed. As stated in the Section on Water and Hydrology, a Strategic Flood Risk assessment has been carried out and included in the EIS. This will identify existing flood patterns or mechanisms in the area, addresses measures to protect future development on the peninsula against flooding and also identifies any potential flooding impacts as a result of the proposed scheme on surrounding areas. Mitigation measures are identified as necessary in the EIS.

Energy

- 5.8.4 The existing industrial uses within the peninsula range from metal collection and recycling, concrete batching to power production, Dublin Port's LoLo operation and wastewater treatment. It is also likely that a large waste to energy facility will be situated on the peninsula within the timeframe of this Draft Planning Scheme following the recent grant of a Waste License. Whilst currently there is little overt sustainability associated with these operations, it is possible that through heat and energy recovery, some of these industries could be considered of benefit to the Draft Planning Scheme. It could also be argued that the presence of a Wastewater Treatment Plant and a Waste to Energy Treatment Plant will allow 'on-site' treatment of the peninsula waste streams and, with the production of energy, could also be seen to 'close the loop' with regard to sustainability. Due to its industrial nature the peninsula is well serviced by energy utilities which should allow for easier integration of renewable energy into the national grid.
- 5.8.5 An assessment of the policies and objectives from the *Regional Planning Guidelines for the Greater Dublin Area*, the *Dublin City Development Plan 2005-2011*, the *Dublin Docklands Master Plan 2008*, as well as the development objectives of each of the

energy and waste treatment providers has been carried out to develop a thorough understanding of how existing and proposed energy provision may affect the overall Draft Planning Scheme Area.

5.8.6 There are a number of regulatory controls, guidelines and drivers which will set a basic level of performance with regard to sustainability for this Draft Planning Scheme. These include as a minimum the following:

- *National Climate Change Strategy 2007 – 2012.*
- *Energy White Paper – Delivering a Sustainable Energy Future for Ireland.*
- *Transport 21.*
- *Greater Dublin Strategic Drainage Study.*
- *Directive on the Energy Performance of Buildings.*
- *Dublin Waste Management Strategy.*
- *Habitats Directive.*

5.8.7 The requirements of these controls and drivers are considered as a minimum performance standard for the development against which success in sustainability will be based upon. Other case study developments have been considered and marked alongside the Draft Planning Scheme against this base case background.

5.9 Noise & Vibration.

Noise.

5.9.1 There are a number of noise sources currently present on the peninsula and these include the generating stations, the Waste Water Treatment Plant, scrap metal processing, cement milling, Lo-Lo operations associated with the Port and related truck movements. During the daytime, truck movements on the roads and scrap metal handling are the predominant noise sources. However, at night-time the low tonal noises associated with the Waste Water Treatment Plant pumps and gas turbines on the energy generating sites are expected to predominate.

5.9.2 The Draft Planning Scheme envisages developing the land-bank for mixed uses, side by side with existing utilities such as the Waste Water Treatment Plant, ESB and Synergen generating stations and the proposed Waste to Energy Plant. Accordingly, the assessment of impact of the Draft Planning Scheme on ambient noise environment has been assessed as follows:

- A desk based review of noise monitoring studies associated with the existing sources on site.
- A noise survey with the specific aim of identifying noise sources and corresponding sound pressure levels at known distances from the utilities. The survey therefore required night time noise monitoring when traffic and noise sources associated with the cement and scrap metal activities have reduced. Tonal analysis using methods such as the Joint Nordic method were carried out where required. The methodology followed is in accordance with the recommendations of the *International Standards Organisation Document: ISO 1996 Parts 1, 2 and 3 (1982) and the EPA Environmental Noise Survey Guidance Document, 2003*.
- Prediction modelling of additional noise sources arising from new elements of the Draft Planning Scheme has been considered in accordance with the requirements of '*ISO 9613-2 - Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation*' where appropriate.
- Prediction modelling of noise arising from additional long term traffic on the adjoining roads has been carried out, where relevant, in accordance with standard methodology e.g. *Guidelines for the Treatment of Noise and Vibration in National Road Schemes, 2004* published by the National Roads Authority and used in Ireland for traffic noise assessment.
- Prediction modelling of noise arising from the proposed construction operations has been carried out with regard to nearby sensitive receptors. *BS5228 1997: Noise and Vibration Control on Open and Construction Sites, Parts 1 and 2* have been applied.

5.9.3 The predicted future ambient noise levels at existing nearby receptors as a result of the Draft Planning Scheme and cumulative impact with existing noise sources has been calculated and compared to the existing noise levels at a representative sample of existing nearby receptors. Necessary mitigation measures have been determined where required. The cumulative and residual impact of the development on the ambient noise environment has been determined.

Vibration.

5.9.4 Noise and vibration impact assessments are closely related. Vibrational impacts arising from the construction and operation phases have been identified in terms of potential impact on possible sensitive buildings within the Draft Planning Scheme Area such as the Pigeon House Hotel and Pigeon House Power Station.

5.10. Landscape/Visual Impact.

- 5.10.1 National and local planning policy promotes increased development density and mixed use development (in combination with an improved multi-modal transport system) in the city centre and in designated development centres. The application of such densities should take account of and enhance the existing urban structure, contributing to both the diverse suite of character areas that make up the city (ideally creating more than one new character area) and the identity and legibility of the city as a whole.
- 5.10.2 The existing urban structure of Poolbeg Peninsula, its landform, urban grain, density, block structure, building typology and architectural character, has been developed for industrial uses and is generally inappropriate for typical mixed use, city centre development. It is inevitable that, where the potential for mixed use development is not constrained by the existing industry and utilities, the landscape would be fundamentally altered by the Draft Planning Scheme.
- 5.10.3 Apart from certain historic features, the urban structure and appearance of the peninsula and Draft Planning Scheme Area have been created relatively recently and are of limited value. It is therefore predicted that the landscape impact of the Draft Planning Scheme will be highly significant but beneficial. The integration of the peninsula with the surrounding urban structure and an improved relationship between Dublin City and the Bay are among the likely beneficial impacts.
- 5.10.4 It can be assumed that a number of factors will combine to demand a relatively high intensity of residential and commercial development on the lands not constrained by the existing industry and utilities. This implies that some development will be relatively higher than is generally the case within the neighbouring communities. Rather than so-called landmark buildings (several of which are in planning and / or under construction around Dublin), it can be expected that there will be a demand for a cluster or clusters of relatively high buildings within the Draft Planning Scheme Area.
- 5.10.5 Given the high visibility of Poolbeg Peninsula from coastal locations around Dublin Bay, it is likely that a large number of sensitive visual receptors, in homes, places of recreation and on commuter and international transport routes, will experience a high magnitude of change in their views. The Draft Planning Scheme will alter the views from locations further afield, including sensitive locations in the city centre. It is predicted that the visual impact will be high but largely positive or beneficial.
- 5.10.6 The visibility of the peninsula is such that the Draft Planning Scheme could cause or at least make a significant contribution to the re-imaging of the city and also of

Ireland. This will generate an enormous response from the visual receptors. This response is likely to be largely positive although it will not be uniform. People's judgement of beauty, their response to aesthetic change, is subjective and value-driven. For the visual impact of the development to be classed as positive, it will have to be clearly justified (in planning) and expressed in a way that appeals to the social, economic and environmental values of (the majority of) the visual receptors.

Assessment Methodology for Landscape and Visual Impact.

- 5.10.7 The Landscape and Visual Impact Assessment (LVIA) has been undertaken in accordance with the EPA's *Guidelines on the Information to be Contained in Environmental Impact Statements, 2002*, the Landscape Institute (UK) *Guidelines for Landscape and Visual Impact Assessment, Second Edition 2002*, (GLVIA) from which the methodology is derived and Dublin City Council's draft *Maximising the City's Potential 2007*.
- 5.10.8 The GLVIA prescribes that landscape and visual impacts be assessed by separate, although consistent and complementary procedures. Landscape assessment considers the impact deriving from alterations to the elements and characteristics of the landscape, which may give rise to changes in its character, how it is experienced and hence the ascribed value of the landscape. Visual assessment is concerned with changes that arise in the composition of available views, the response of people to these changes and the overall impact on the area's visual amenity.
- 5.10.9 Viewpoints, representing (a) the character areas of the immediate receiving environment, (b) historic and key city locations and (c) city gateways, have been selected for detailed visual impact assessment. The assessment of the impact on each location will be informed by photomontages of the Draft Planning Scheme.

5.11 Sunlight

- 5.11.1 Having regard to the location of the proposed Planning Scheme area to the north of Sandymount, there is no potential for the proposed emerging Draft Planning Scheme to have impacts on sunlight access to residential areas at Beach Road, to the south of the Beach Road, Church Avenue, Londonbridge Road, Bath Avenue or Bath Street. In other words, given the location of the proposed Planning Scheme lands, there is no potential for the Planning Scheme to overshadow the vast majority of residences in the vicinity.
- 5.11.2 It is proposed to carry out the assessment of the impact of the proposed emerging Draft Planning Scheme on sunlight access as follows:

- A three dimensional digital model of the proposed Draft Planning Scheme, of existing structures and trees in the area and of the recently demolished Irish Glass Bottle factory previously in existence at Sean Moore Road will be constructed.
- Using the digital model, shadows will be cast at several times of the day at the summer and winter solstices, and at the equinox. Shadows will be cast without the proposed development (i.e. the digital model will show shadows cast by the existing buildings only), without the proposed development but including the recently demolished Irish Glass Bottle factory (i.e. the digital model will show shadows cast by the existing buildings and the glass factory only), and with the proposed development (i.e., the digital model will show the shadows cast by the existing buildings together with the proposed development).
- The results will be presented in shadow study diagrams associated with a report describing the extent of impacts caused by overshadowing.

5.12 Traffic and Transportation.

5.12.1 Access to the peninsula on land is only available from the west as most of it is surrounded by water. The road network within the neighbouring urban areas of Ringsend, Irishtown and Sandymount is currently operating at capacity during peak travel periods leaving little traffic carrying capacity to accommodate any additional development. To develop a sensible movement framework for the Draft Planning Scheme Area the transport solution should strongly rely on high capacity public transport provision and well developed pedestrian and cycle links to surrounding areas and the city centre.

Assessment Methodology for Traffic and Transportation.

5.12.2 An assessment has been carried out to develop a good understanding of the existing transportation environment and the existing transport issues and problems experienced within the area. The assessment will inform the identification of strengths and weaknesses of the transportation context of the Draft Planning Scheme Area.

5.12.3 Planning policies and objectives from the *Regional Planning Guidelines for the Greater Dublin Area*, the *Dublin City Development Plan 2005-2011*, the *Dublin Docklands Master Plan 2008*, and the *Transport 21 Strategy* have been reviewed to develop an understanding of the expected future transportation context of the Draft Planning Scheme Area as well as the time line and benefit which planned transport infrastructure can bring to the overall area in terms of improved accessibility and

impact on travel patterns. Expected future transport infrastructure may include a rail interconnector, the extension of Luas Line C1 into the Docklands Area up to The Point Depot, the delivery of the Metro North, Luas line F and additional bus corridors within the city centre.

5.12.4 The operation of future transportation within and outside the Draft Planning Scheme Area has been assessed by scenario testing using the Dublin Transport Office's (DTO) Strategic Transport Model which is a multi modal model developed for the Greater Dublin Area. Following a review of the modeling output results, transportation options will be developed that will include various levels of new public transportation links connecting the Draft Planning Scheme Area to the city centre, improvement and integration of pedestrian and cycle links, and provision of water based transport.

5.12.5 The performance of the options has been evaluated in terms of traffic impact (i.e. junction capacity, travel time and speed), the balance achieved by car based transport versus more sustainable transport options and the extent of capacity. From the above process, the most appropriate transport solution has been identified and refined.

Construction Phase.

5.12.6 Impact from construction is expected to be primarily road based. The construction impact is dependent on the phasing and quantity of the development, required excavations and site preparation works, transportation of building materials and equipment, and the construction workforce. Since the phasing and quantity of development has been established, an assessment of the expected daily light and heavy vehicle traffic to and from the site during the construction period and during operational hours has also been made.

Operation Phase.

5.12.7 The expected transport operational impact of the Draft Planning Scheme and the preferred transportation strategy will be quantified by reviewing the potential increase in traffic on the road network, overloading of public transport provision and achievement of accessibility objectives for sustainable transport.

5.13 Retail.

5.13.1 The scope of the potential impact of the Draft Planning Scheme can be identified in policy terms and in the context of the existing retail environment. There are established means of assessing retail impact and these have been employed in the EIS according to guidance contained in the *Retail Planning Guidelines 2005* and the

Retail Planning Strategy for the Greater Dublin Area 2008-2016. Due regard has also been made to the provisions of the Dublin City Development plan 2005-2011.

- 5.13.2 The potential impact upon existing retail provision within the surrounding neighbourhoods, city centre and relevant shopping centres will be assessed.

5.14 Archaeology.

- 5.14.1 There are a number of recorded archaeological monuments within the Draft Planning Scheme Area including Pigeon House Fort and the Great South Wall along York Road and Pigeon House Road.

- 5.14.2. There is also the possibility that unrecorded archaeological features including ship wrecks may be located underground within the Draft Planning Scheme Area.

- 5.14.3 The identified archaeological resources are both significant and important. Development within proximity to such features will require careful assessment and consideration of its potential impact. The sensitive renovation and reuse of key historical buildings and features will be of significant value to the Draft Planning Scheme. Consideration of archaeological, architectural and cultural heritage within the Draft Planning Scheme Area has been based upon a thorough desk based review of existing data including the *Record of Monuments and Places for Dublin* and the *Urban Archaeological Survey for Dublin* and the National and the National Monuments Service data on www.archaeology.ie, national legislation such as the *Planning and Development Acts 2000–2006* and the *National Monuments Acts 1930-2004*, and other legislation and guidance documents including the *European Convention on the Protection of the Archaeological Heritage (Valetta Convention)*, 1992, the *National Heritage Plan, 2002*, '*Architectural Heritage Protection – Guidelines for Planning Authorities*' (2004) and the *Framework and Principles for the Protection of the Archaeological Heritage (1999)*, and relevant policies and objectives within the *Dublin City Development Plan 2005-2011* including the details contained within the City Plan's *Record of Protected Structures* and the *Docklands Master Plan 2008*. The identification of sub-surface impacts on potential archaeological resources has also been identified.

- 5.14.4 Mitigation measures have been developed where relevant to reduce or ameliorate the significance of potentially adverse impacts.

5.15 Architectural and Cultural Heritage.

- 5.15.1 The Draft Planning Scheme Area contains a number of protected structures including the Pigeon House Hotel and the Pigeon House Power Station and other features of architectural heritage value.
- 5.15.2 The identified architectural and cultural heritage resources are both significant and important. Development within proximity to such features will require careful assessment and consideration of its potential impact. The sensitive renovation and reuse of key historical buildings and features will be of significant value to the Draft Planning Scheme. Consideration of architectural and cultural heritage within the Draft Planning Scheme Area has been based upon a thorough desk based review of existing data including the *Record of Monuments and Places for Dublin*, national legislation such as the *Planning and Development Acts 2000–2006*, the *National Heritage Plan, 2002*, '*Architectural Heritage Protection – Guidelines for Planning Authorities*' (2004), and relevant policies and objectives within the *Dublin City Development Plan 2005-2011* including the details contained within the City Plan's *Record of Protected Structures* and the *Docklands Master Plan 2008*.
- 5.15.3 Mitigation measures have been developed where relevant to reduce or ameliorate the significance of potentially adverse impacts.

5.16 Utilities.

- 5.16.1 The retention and enhancement of existing public utilities within the peninsula is likely to be a very strong feature of the emerging Draft Planning Scheme which will be reflected in the EIA. Major utility infrastructure such as two power stations and the Ringsend Wastewater Treatment Works will remain operational on the Peninsula for the foreseeable future. Utility services will need to be upgraded to serve the requirements of the proposed new development. This will include local upgrades such as new distribution infrastructure for all utilities, a new electricity sub-station, an Above Ground Installation for Gas and a new telephone exchange. The Draft Planning Scheme will also depend on new regional infrastructure such as proposed improvements in both water supply and wastewater treatment capacity. These aspects of the emerging Draft Planning Scheme will likely engender both positive and negative impacts and will be assessed accordingly within the EIS.
- 5.16.2 A number of issues have been raised during consultation and these include the availability of potable water, foul water/waste water collection and treatment, storm water collection and disposal, and finally flooding. These issues are dealt with in the context of a number of chapters of the EIS including water, waste, utilities, energy

and climate. A flood risk assessment has also been undertaken. The role of phasing has also been recognised in the context of making sure that there is sufficient infrastructure to accommodate the proposed development.

5.17 Waste

5.17.1 This waste chapter of the EIS reviews the solid waste disposal infrastructure currently and proposed to serve the area, and identifies the potential impacts of the proposed Scheme on it during both construction and operational phases and the mitigation measures that may be employed to reduce/ eliminate potential impacts.

5.17.2 The assessment of the potential impact of the proposed scheme on the environment in terms of waste was carried out using the data sources identified below:

- *Dublin Waste Management Plan 2005-2010*;
- the latest '*National Waste Report*' 2006 published by the EPA;
- *EUROSTAT yearbook 2006-2007*;
- *Dublin City Development Plan 2005-2011*;
- *National Hazardous Waste Management Plan 2008-2012*;
- Government and EU publications; and
- *The Dublin Waste-to-Energy EIS*, published in June 2006 was also consulted.

5.17.3 The scope of the impacts will include issues of:

- commercial waste
- recycling
- municipal waste recycling
- landfills
- construction and demolition waste
- hazardous waste

5.17.4 The potential impacts of the proposed development on the waste environment during the construction and operational phases are identified. They include:

- soil removal and disposal
- waste from other construction activities
- operational waste from the Draft Planning Scheme

5.17.5 Waste water is dealt with in the Water chapter of the EIS

6.0 CONTENT OF THE EIS

- 6.1 The EIS comprises of the following key sections as set out below.
- 6.2 **Section 1** is an **Introduction** and describes the contextual background and requirements for an EIA, the purpose of the EIS, its scoping and structure and the process followed up to that point.
- 6.3 **Section 2** describes the character and detail of the Draft Planning Scheme Area as well as the **Draft Planning Scheme** and phasing of development.
- 6.4 **Section 3** describes the outline the development options and **Alternatives** considered.
- 6.5 **Section 4** describes **Specific Information** required and **Difficulties in Forecasting**.
- 6.6 **Section 5** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Human Beings**.
- 6.7 **Section 6** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Nature Conservation and Protected Species** and in the context of **Flora and Fauna** in particular.
- 6.8 **Section 7** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Soils, Geology and Geotechnical**.
- 6.9 **Section 8** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Water** and hydrological systems.
- 6.10 **Section 9** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Air Quality**, including dust.
- 6.11 **Section 10** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Wind**.
- 6.12 **Section 11** assesses the potential impacts of the Draft Planning Scheme from the perspective of **Odours**.
- 6.13 **Section 12** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Climate**.

- 6.14 **Section 13** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Noise and Vibration**.
- 6.15 **Section 14** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Landscape/Visual Impact**
- 6.16 **Section 15** assesses the predicted impact of the Draft Planning Scheme on **Sunlight**
- 6.17 **Section 16** assesses the predicted impact of the Draft Planning Scheme from the perspective of **Material Assets –Traffic and Transportation and Parking**.
- 6.18 **Section 17** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Material Assets – Retail Impact**.
- 6.19 **Section 18** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Material Assets – Archaeological Heritage**.
- 6.20 **Section 19** assesses the predicted impacts of the Draft Planning Scheme on **Material Assets – Architectural and Cultural Heritage**.
- 6.21 **Section 20** assesses the predicted impacts of the Draft Planning Scheme from the perspective of **Material Assets – Utilities**.
- 6.22 **Section 21** assesses the predicted impact of the Draft Planning Scheme on **Waste**
- 6.23 **Section 22** assesses the **Interaction of the Foregoing**, potential impacts and their Cumulative Impact.
- 6.24 **Section 23** – Further considers the issue of **Construction**
- 6.25 **Non-Technical Summary** - A separate **Non-Technical Summary** (NTS) will be prepared which will describe the main findings of the EIS.