

**ADDENDUM TO THE
ENVIRONMENTAL REPORT OF THE
DRAFT DUBLIN CITY DEVELOPMENT PLAN 2011 – 2017
STRATEGIC ENVIRONMENTAL ASSESSMENT**



August 2010

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INTRODUCTION

This Strategic Environmental Assessment (SEA) Addendum relates to the proposed amendments to the Environmental Report of the Draft Dublin City Development Plan 2011-2017 arising from submissions made on the Environmental Report (ER) and amendments to the Draft Plan as resolved by the members of Dublin City Council at Council Meetings held in July 2010. This addendum forms part of the second public display of the Draft Dublin city Development Plan 2011-2017.

It should be noted that changes are not made at this stage to the Environmental Report (ER) of the Draft Dublin City Development Plan 2011-2017. This addendum forms part of the documentation of the ongoing plan-making process. It supplements and should be read in conjunction with the Environmental Report of the Draft Dublin City Development Plan 2011-2017 Strategic Environmental Assessment (December 2009).

The assessment of policies and objectives in the context of mitigation policies, measures and potential impacts on the environmental receptors, is an iterative process throughout each stage of the plan-making process. Accordingly, the findings and content of this addendum will be used to update the Environmental Report (ER) on the adoption of the Dublin City Development Plan 2011 - 2017. When the plan is adopted an SEA Statement will be included in the written statement of the plan.

The Addendum consists of a main section of descriptive text which essentially represents the proposed Up-date to the Environmental Report and a series of appendices which include the details of the environmental assessment of amendments undertaken at each stage in the development plan process. An overview of main report and appendices is set out below for ease of reference.

Addendum / Up-Date to Environmental Report comprises a series of recommendations to up-date the Environmental Report as prepared for the Draft Development Plan. The updates and insertion of additional data, maps and amended policies are in response to the submissions made by the Department of the Environment, Heritage and Local Government (DoEHLG) and the Environmental Protection Agency (EPA) as prescribed Environmental Authorities for the purposes of Strategic Environmental Assessment (SEA). The section items numbers correspond directly to that section of the Manager's Report on Submissions which sets out the recommended changes to the Environmental Report (Pages 433-434).

Appendix 1 of this Addendum comprises a matrix of the environmental assessment of the proposed amendments to policies and stand alone objectives arising from the Manager's Report on Submissions on the Draft Development Plan, May 2010, to determine the potential impact on the environmental receptors.

Appendix 2 of this Addendum comprises the environmental assessment of those recommended amendments to policies and objectives arising from the Manager's Report on Councillor Motions, July 2010, subsequent to the Manager's Report on Submissions on the Draft Development Plan, to determine the potential impact on the environmental receptors.

Appendix 3 of this Addendum comprises the environmental assessment of further amendments to policies as resolved by members of Dublin City Council at Council Meetings held in July 2010 (see Appendix 5 for assessment of further amendments to objectives as resolved by Members of Dublin City Council at Council Meetings held in July 2010)

Appendix 4 of this Addendum comprises that exercise carried out demonstrating the link between Policies and Objectives in the Draft Development Plan on foot of a submission from the DoEHLG.

Appendix 5 of this Addendum comprises the assessment of the Draft Development Plan objectives in response to correspondence received from the DoEHLG as well as the objectives as resolved by members of Dublin City Council at Council Meetings held in July 2010.

Appendix 6 of this Addendum contains the additional maps to be incorporated into the Environmental Report.

HOW TO READ THIS DOCUMENT

ENVIRONMENTAL REPORT

Up-dates to the Environmental Report are itemised in response to submissions from the environmental authorities, described clearly and are shown in standard text.

POLICIES & OBJECTIVES

Amendments to Policies / Objectives in the Environmental Report & Assessment Matrices (Appendices 1-5) are shown as follows:

Deletions as shown as ~~strikethrough~~-text

Amendments / Additions are shown as **bold** and **underline** text

The following example shows the insertion of additional text:

From:

It is the policy of Dublin City Council

SI50 To monitor and approve air quality in accordance with national and EU policy directive on air quality.

To:

SI50 To monitor and approve air quality in accordance with national and EU policy directive on air quality **and where appropriate promote compliance with established targets.**

Note: This Addendum MUST BE READ IN CONJUNCTION with the Environmental Report on the Draft Development Plan.

ADDENDUM / UP-DATE TO THE ENVIRONMENTAL REPORT

1. The DoEHLG submission recommends that reference be made to Wildlife Acts of 1976 and 2000 and the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94 of 1997) and its amendments (S.I. No. 233 of 1998 and S.I. 378 of 2005) in the Environmental Report and the EPA submission recommends that reference be made to additional plans, regulations and directives.

The Environmental Report to be amended as follows:

Incorporate the following additional plans, regulations, directives and programmes, including a summary of their key objectives, into 'Table A - Relationship of the Draft Plan with Other Plans and Programmes' - pages 5 to 8 (incl) - of the Environmental Report of the Draft Dublin City Development Plan 2011 – 2017 Strategic Environmental Assessment:

Plan / Programme	Summary of Key Objectives
EU Level	
SEA Directive (2001/42/EC)	Under the SEA Directive the development plan requires an SEA. The development plan must take into account protection of the environment and the integration of the development plan into the sustainable planning of the country as a whole
EU Drinking Water Directive 98/83/EC	To protect the health of the consumers in the European Union and to make sure the water is wholesome and clean
Bathing Water Directive 2006/7/EC	Repeals Bathing Water Directive 76/160/EEC on 31 st December 2014
91/271/EEC as amended by Directive 98/15/EEC Urban Wastewater Treatment	To protect the environment from the adverse effects of discharges of urban wastewater by the provision of wastewater collecting systems and treatment plants for urban centres
European Commission White Paper on Adapting to climate change: Towards a European Framework for Action (COM (2009) 147)	Sets out a framework to reduce the EU's vulnerability to the impact of climate change
EU Shellfish Waters Directive 2006/113/EC	Concerns the quality of shellfish waters and applies to those waters designated as needing protection or improvement in order to support shellfish life and growth
EU Air Quality Directive 2008	Sets binding standards for Air Particles
Directive on Ambient Air Quality and Cleaner Air for Europe (Directive 2008/50/EC)	Provides standards for fine particle PM2.5 pollution in the European Union
Pesticides Framework Directive (proposed)	To control the storage, use and disposal of pesticides to minimise risk to health and environment from their usage and to include measures which relate to soil management strategies in land use planning

Plan / Programme	Summary of Key Objectives
National Level	
<p>European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 S.I. 435 of 2004 and</p> <p>Planning and Development (Strategic Environmental Assessment) Regulations 2004 S.I. 436 of 2004</p>	<p>Transposes EU Directive 2001/42/EC into Irish Law</p>
<p>Architectural Heritage Protection Guidelines for Planning Authorities (2004)</p>	<p>Practical Guide for planning authorities to deal with the provisions of Part IV of the Planning and Development Act</p>
<p>Wildlife Act 1976</p> <p>and</p> <p>Wildlife (Amendment) Act 2000</p> <p>European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94 of 1997) and amendments S.I. No. 233 of 1998 and S.I. 378 of 2005</p>	<p>Main Objectives of 1976 Act: To provide for the protection of flora and fauna, to conserve a representative sample of important ecosystems, to provide for the development and protection of game resources and to regulate their exploitation, and to provide the services necessary to accomplish such aims</p> <p>Main Objective of the 2000 (Amendment) Act: To give statutory protection to NHAs, geological and geomorphological sites, enhance the conservation of species and habitats, enhance hunting controls, inclusion of most species for protection, regulation of commercial shoot operators, ensure compliance with international agreements, increase fine levels for contravention of Wildlife Acts, strengthen the provisions relating to the cutting of hedgerows, strengthen the protective regime for SACs and to give statutory recognition to the Minister's responsibilities in regard to promoting the conservation of biological diversity</p> <p>Transposes EU Habitats Directive 92/43/EEC into Irish law</p>
<p>European Communities (Drinking Water) (No.2) Regulations 2007 S.I. 278 of 2007</p>	<p>Transposes EU Water Framework Directive (2000/60/EC) and EU Drinking Water Directive 98/83/EC into Irish Law</p>
<p>European Communities (Water Policy) Regulations 2009 S.I. 272 of 2009</p>	<p>Gives effect to the measures needed to achieve the environmental objectives established for the bodies of surface water by Directive 2006/60/EC</p>
<p>Quality of Bathing Water Regulations, 1992 S.I. 155 of 1992</p>	<p>Transposes EU Bathing Water Directive 76/160/EEC into Irish Law</p>
<p>Urban Wastewater Treatment (Amendment) Regulations 2010 S.I. 48 of 2010</p>	<p>Gives effect to Directive 2000/60/EC and to Directive 91/271/EEC</p>

European Communities (Water Policy) Regulations 2003 S.I. 722 of 2003	Transposes the Water Framework Directive into Irish Law
European Communities Quality of Shellfish Waters (Amendment) Regulation 2009 S.I. 55 of 2009 & Malahide Shellfish Waters Pollution Reduction Programme for Programmes as per SI No. 268 of 2006	To give effect to in the State to Directive 79/923/EEC of 30 th October 1979 on the quality required of shellfish waters
European Communities (Assessment and Management of Flood Risk) Regulations 2010 S.I. 122 of 2010	Transposes EU Floods Directive 2007/60/EC into Irish Law
Environmental Noise Regulations 2006 S.I. 140 of 2006	Transposes EU Directive 2002/49/EC into Irish Law
Ambient Air Quality and Assessment and Management Regulations, 1999 S.I. 33 of 1999	Transposes EU Directive 96/62/EC (Air Quality Directive) into Irish Law
Plan / Programme	Summary of Key Objectives
Regional Level	
Water Supply Project Dublin Region	Study determining a new major water source to meet projected demand in the long term
Eastern River Basin District Management Plan 2009 – 2015 and Associated Programmes of Measures	Describes the actions that are proposed to ensure the necessary protection of waters in the Eastern River Basin District
Forthcoming Catchment-Wide Flood Risk Assessments	Requirement of the EU Floods Directive
2030 Vision, DTO (yet to be published)	To identify areas of accessibility within the Dublin Region and the most appropriate locations for intensification
Plan / Programme	Summary of Key Objectives
Local Level	
Dublin City Council's Guidelines for Open Space and Development Taking in Charge (2009)	Guidelines issued by Dublin City Council which include required measures
Habitat Management Plans	Management Plans produced for five parks – Springdale Park, St. Kevin's Park, St. Anne's Park, Le Fanu Park and Bushy Park - and being implemented by Dublin City Council Parks and Landscape Services

Table 1: Relationship of the Draft Development Plan with Other Plans and Programmes (as to be added into Table A Relationship of the Draft Plan with Other Plans and Programmes of the Environmental Report)

2. The DoHELG submission recommends that Dublin City Council liaise with Dun Laoghaire Rathdown County Council on the proposed Eastern Bypass to ensure that the cumulative impact is assessed and that both developments are compatible with each other with respect to the Eastern Bypass and SEA and AA assessments.

On foot of the submission received from the DoHELG consultation has taken place between Dublin City Council and Dun Laoghaire Rathdown County Council on the cumulative effect and compatibility with regard to the proposed Eastern Bypass route development. Following consultations, the policy on the Eastern Bypass (Policy SI17) was amended ensuring a coordinated approach and compatibility between the respective plans and the SEA and AA assessments. Policy SI17 amended as follows:

From:

~~**Policy SI17:** It is the policy of Dublin City Council to support the provision of an Eastern By-Pass Route. This route shall link the northern port to the Southern Cross / South Eastern Motorway by way of a bored tunnel under Sandymount and Merrion Strand and Booterstown Marsh. The precise alignment and detailed design of the route shall be subject to an Environmental Assessment, and all statutory requirements, including the requirements of the Habitats Directive, shall respect the amenity of the River Liffey Estuary and Dublin Bay and shall be subject of a future plan variation~~

To:

Policy SI17: It is the policy of Dublin City Council to support the provision of a link between north Dublin Port and the Southern Cross/Eastern motorway via an eastern bypass of the City, in conjunction and cooperation with other transport bodies, the National Roads Authority and local authorities. The preferred method is by means of a bored tunnel and the preferred route is under Sandymount and Merrion Strand and Booterstown Marsh. However, the route and the detailed design of the link road will be subjected to an Environmental Impact Assessment and all statutory requirements, including a public consultation process, by the relevant authorities. An Appropriate Assessment of the proposed project for the entire route is also required in accordance with the Habitats Directive.

The policy as amended, and environmental assessment of same, will be incorporated into the assessment matrix – Evaluation of Draft Development Plan 2011 – 2017 – as contained within Appendix A, pages 142 – 215 of the Environmental Report. It is also set out in the matrix contained within Part 4 of the Manager’s Report on Submissions (May 2010) and also the Matrix in Section A of this report.

An environmental assessment of the amended policy has been carried out and is detailed in Matrix A below.

	PH1	BFF1	BFF2	A1	A2	CF1	CF2	CF3	W1	W2	MA1	MA2	CH1	LS1	LS2	LS3	LS4
<p>SI17 It is the policy of Dublin City Council to support the provision of <u>a link between north Dublin Port and the Southern Cross/South Eastern Motorway via an eastern bypass of the city, in conjunction and cooperation with other transport bodies, the National Roads Authority and local authorities. The preferred method is by means of a bored tunnel and the preferred route is under Sandymount and Merrion Strand and Booterstown Marsh. However, the route and detailed design of the link road will be subjected to an Environmental Impact Assessment and all statutory requirements, including a public consultation process, by the relevant authorities. An Appropriate Assessment of the proposed project for the entire route is also required in accordance with the Habitats Directive.</u></p>	?	? / -	0	?	?	?	?	?	0	0	?	?	?	? / -	0	? / -	0

Matrix A Environmental Assessment of Policy SI17 (as amended)

As indicated in Matrix A the exact environmental impacts of this policy as amended are unknown. Given that the details of the link road, e.g. route, capacity, construction details etc. are yet to be established, it is not possible to predict the potential impacts on a range of other environmental receptors i.e. air, climatic factors, material assets etc. Potentially it may have negative environmental impacts, unless mitigated against, particularly on Biodiversity, Flora & Fauna and Landscape & Soils. However, an in-depth assessment of the potential impacts of the proposed Eastern Bypass Route on the environment would be carried out in the habitats directive assessment screening and the broader environmental assessments, including the Environmental Impact Assessment (EIA), pertaining the to the individual project.

In the event of potentially significant negative impacts identified at this stage, there are a number of additional policies that could serve to mitigate against these environmental impacts, namely GC21, GC22, GC24, GC25, GC26, GC27, GC28, GC28A, SI39 and SI48. See Table 2 below.

Policies / Objectives which may have potential significant impacts on the environment	Additional Mitigation Measures
<p>Policy SI17 (as amended)</p> <p>It is the policy of Dublin City Council to support the provision of <u>a link between north Dublin Port and the Southern Cross/Eastern motorway via an eastern bypass of the City, in conjunction and cooperation with other transport bodies, the National Roads Authority and local authorities. The preferred method is by means of a bored tunnel and the preferred route is under Sandymount and Merrion Strand and Booterstown Marsh. However, the route and the detailed design of the link road will be subjected to an Environmental Impact Assessment and all statutory requirements, including a public consultation process, by the relevant authorities. An Appropriate Assessment of the proposed project for the entire route is also required in accordance with the Habitats Directive.</u></p>	<p>Policy</p> <p>GC21</p> <p>GC22</p> <p>GC24</p> <p>GC25</p> <p>GC26</p> <p>GC27</p> <p>GC28</p> <p>GC28A</p> <p>SI39</p> <p>SI48</p>

Table 2 Policy SI17 (as amended) and Additional Mitigation Measures

The Environmental Report to be amended as follows:

Evaluation of Draft Development Plan 2011 – 2017 Assessment Matrix, as contained within Appendix A, pages 142 – 215 of the Environmental will be updated to include environmental assessment of Policy SI17 (as amended) – as set out in Matrix A above.

and

Section 8 Mitigation of the Environmental Report will be amended to include additional mitigation policies GC21, GC22, GC24, GC25, GC26, GC27, GC28, GC28A, SI39 and SI48

3. The DoEHLG submission refers to the fact that the proposed Sutton to Sandycove coastal greenway (S2S) involves another local authority i.e. Dun Laoghaire – Rathdown County Council and recommended that Dublin City Council seek to ensure that the proposed S2S is treated in a similar manner by both DCC and Dun Laoghaire Rathdown County Council in their development plans, particularly with regard to the conclusions of the SEA and AA.

The submission received from the OPW referred to various green routes and the potential of same.

On foot of the submission received from the DoEHLG consultation has taken place between Dublin City Council and Dun Laoghaire Rathdown County Council on the cumulative effect and compatibility with regard to the proposed S2S development. Following consultations, the relevant objective as contained within the draft development plan, GCO2, was amended to ensure a coordinated approach and compatibility between the respective plans and SEA and AA assessments.

On foot of the submission received from the OPW Objective GCO2 has been amended to ensure consultation with the OPW takes place as appropriate.

Objective GCO2 of the draft plan has therefore been amended as follows:

From:

- GCO2** To achieve the following critical linkages within the lifetime of the development plan;
- (i) ~~To progress a cycle and walking route along a continuous coastal route from Sutton to Sandycove (often referred to as the ‘S2S’ route).~~
 - (ii) To provide a pedestrian and cycle way green link interconnecting the Royal Canal to the Grand Canal via the Phoenix Park.
 - (iii) To provide a continuous cycleway connecting the Phoenix Park and Heuston Station to the proposed S2S route along the city’s quays.
 - (iv) To improve access to existing natural assets such as parks and waterways through identified green routes.
 - (v) To seek to provide pedestrian and cycling green links connecting the Royal Canal and the Tolka Valley via a route through Botanic Gardens/Prospect Cemetry and a route in the vicinity of Holy Cross College (or routes as close as practically possible).

To:

- GCO2** To achieve the following critical linkages within the lifetime of the development plan;
- (i) **To promote the development of the Sutton to Sandycove Cycletrack scheme (S2S) as a key objective in both ‘Smarter Travel’ and in the ‘National Cycle Policy Framework’ subject to the appropriate environmental assessments, including any assessment required under 6(3) of the Habitats Directive. Subject to compliance with environmental regulations and statutory approvals, completion of this project is recognised as a significant development of Dublin Bay with potential recreational and tourism benefits, as well as providing a tram-free cycleway for both recreation and commuter cyclists.**
 - (ii) To provide a pedestrian and cycle way green link interconnecting the Royal Canal to the Grand Canal via the Phoenix Park **in consultation with the Office of Public Works**
 - (iii) To provide a continuous cycleway connecting the Phoenix Park and Heuston Station to the proposed S2S route along the city’s quays **in consultation with the Office of Public Works**

- (iv) To improve access to existing natural assets such as parks and waterways through identified green routes.
- (v) To seek to provide pedestrian and cycling green links connecting the Royal Canal and the Tolka Valley via a route through Botanic Gardens/Prospect Cemetry and a route in the vicinity of Holy Cross College (or routes as close as practically possible) **in Consultation with the Office of Public Works**

An environmental assessment of this objective as amended has been carried out and is detailed in Matrix **B** below

	PH1	BFF1	BFF2	A1	A2	CF1	CF2	CF3	W1	W2	MA1	MA2	CH1	LS1	LS2	LS3	LS4
<p>Amended OBJECTIVE GCO2</p> <p>To achieve the following critical linkages within the lifetime of the development plan:</p> <p><u>(i) To promote the development of the Sutton to Sandycove Cycletrack scheme (S2S) as a key objective in both ‘Smarter Travel’ and in the ‘National Cycle Policy Framework’ subject to the appropriate environmental assessments, including any assessment required under 6(3) of the Habitats Directive. Subject to compliance with environmental regulations and statutory approvals, completion of this project is recognised as a significant development of Dublin Bay with potential recreational and tourism benefits, as well as providing a tram-free</u></p>	+	?	?	+	+	+	+	+	0	0	+	0	0	?	?	?	0

<p><u>cycleway for both recreation and commuter cyclists.</u></p> <p>(ii) To provide a pedestrian and cycle way green link interconnecting the Royal Canal to the Grand Canal via the Phoenix Park <u>in consultation with the Office of Public Works</u></p> <p>(iii) To provide a continuous cycleway connecting the Phoenix Park and Heuston Station to the proposed S2S route along the city's quays <u>in consultation with the Office of Public Works</u></p> <p>(iv) To improve access to existing natural assets such as parks and waterways through identified green routes.</p> <p>(v) To seek to provide pedestrian and cycling green links connecting the Royal Canal and the Tolka Valley via a route through Botanic Gardens/Prospect Cemetery and a route in the vicinity of Holy Cross College (or routes as close as practically possible) <u>in Consultation with the Office of Public Works</u></p>																		
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Matrix B Environmental Assessment of Objective GCO2 (as amended)

The environmental assessment of this amended objective finds that the objective, while broadly positive, may have some potentially negative impacts on some environmental receptors i.e. on Biodiversity, Flora & Fauna and Landscape & Soils as a result of the construction of cycletracks in some environmentally sensitive areas including Natura 2000 sites. The following policies and objective will serve as mitigation policies: GC9, GC20, GC23, GC24, GC25, GC26, GC27, GC28, GC28A, SI39 and SI48. See Table 3 below

Policies / Objectives which may have potential significant impacts on the environment	Additional Mitigation Measures
<p>Objective GCO2 (as amended)</p> <p><u>To promote the development of the Sutton to Sandycove Cycletrack scheme (S2S) as a key objective in both 'Smarter Travel' and in the 'National Cycle Policy Framework' subject to the appropriate environmental assessments, including any assessment required under 6(3) of the Habitats Directive. Subject to compliance with environmental regulations and statutory approvals, completion of this project is recognised as a significant development of Dublin Bay with potential recreational and tourism benefits, as well as providing a tram-free cycleway for both recreation and commuter cyclists.</u></p>	<p>GC9</p> <p>GC20</p> <p>GC23</p> <p>GC24</p> <p>GC25</p> <p>GC26</p> <p>GC27</p> <p>GC28</p> <p>GC28A</p> <p>SI39</p> <p>SI48</p>

Table 3 Objective GCO2 and Mitigation Policies

The Environmental Report will be amended as follows:

Environmental Assessment of amended Objective GCO2 as above as to be included in assessment matrix in Appendix of the Environmental Report

and

Section 8 Mitigation of the Environmental Report will be amended to include mitigation policies GC9, GC20, GC23, GC24, GC25, GC26, GC27, GC28, GC28A, SI39 and SI48.

4. The EPA submission recommends that additional maps be included in the Environmental Report

The Environmental Report to be amended as follows:

The following maps to be incorporated *into Section 3 - Characteristics of the Existing Environment in Dublin City* - of the Environmental Report:

- Dublin Region
- Dublin City and Region
- Dublin Bay

- Open Space / Landscape
- Composite Biodiversity
- Urban Soil Geochemistry
- Biodiversity
- Heritage Sites
- Rivers in Dublin City Council
- Natura 200 Sites
- Tree Preservation Orders
- Sports Grounds
- Existing and Proposed Transport Routes

See Appendix 6 of this Addendum for Maps

5. The EPA submission recommends the inclusion of a description of the interrelationships between the environmental topics

The Environmental Report to be amended as follows:

Insert the following into the Environmental Report as a new Section 3.12.11B entitled '**Key Interrelationships Identified between Environmental Receptors:**

Add new section 3.12.11B:

The majority of environmental receptors interact with one another to some degree however only those interrelationships of significance were considered. Table 4 below identifies the main interrelationships arising in this SEA. In carrying out the environmental assessment these interrelationships have been taken into account during the assessment of the various alternatives and also formed a central consideration during the assessment of the potential impacts that may result from the development plan. The interrelationships between environmental topics have been addressed in the Environmental Report as they arise between each environmental receptor. A synopsis of some of the key interrelationships identified is set out below.

Environmental Receptor	PHH	BFF	W	A	CF	MA	CH	LS
Population and Human Health (PHH)		X	X	X	X	X	X	X
Biodiversity, flora and fauna (BFF)	X		X	x	X	X	/	X
Water (W)	X	X		/	X	X	/	X
Air (A)	X	X	/		X	X	/	
Climatic Factors (CF)	X	X	X	X		X	/	X
Material Assets (MA)	X	X	X	X	X		X	X
Cultural Heritage (CH)	X	/	/	/	/	X		X
Landscape & Soil (LS)	X	X	X	/	X	X	X	
X Significant Interrelationship / Insignificant Interrelationship								

Table 4 Key Interrelationships Identified between Environmental Receptors

Population & Human Health has some form of interrelationship between all of the other seven environmental receptors e.g. people rely on water (potable) for drinking, for provision of food (e.g. fish and shellfish). Clean water is required for recreation and leisure. Environmental sound levels can contribute significantly to the health and quality of life for the population in Dublin City. Globally, humans are having dramatic effects on climate. On average a Dubliner releases 9.7 tonnes of CO₂ per year. Dublin City currently (2006) consumes 22.3 TWh of primary energy per year, the equivalent to 1.9 million tonnes of oil in the form of electricity, oil, natural gas and renewable energy.

Material Assets and **Population & Human Health** and **Air** also display key interrelationships. The transport sector is a major contributor to the emissions of air pollutants. The pollutant emissions emanating from vehicular sources are also those to which the public may be most readily exposed, and they present a considerable risk in terms of their potential to contribute to breaches in air quality standards in areas subject to heavy traffic.

Biodiversity Flora & Fauna is another environmental receptor with a number of interrelationships between other environmental receptors as identified in the Dublin City Biodiversity Action Plan 2008 – 2012. Biodiversity/wildlife, the city and its people have always been interacting and continue to interact and respond to each other. Development patterns, traditional land uses and population changes can dictate the type of city spread

which can also dictate the natural heritage resource remaining. Dublin's geographical and topographical spread has also shaped the city. While the development of the city continues it is necessary to improve the management of nature to protect our natural heritage, habitats, plants and wildlife.

Biodiversity Flora and Fauna and climatic conditions display significant interrelationships. Vegetation acts as a carbon sink and plants and animals are used as indicators of climate change. Biodiversity can also provide other environmental services such as pollution control, flood attenuation and erosion prevention. Biodiversity can help reverse the negative impacts of climate change. Vegetation absorbs carbon dioxide. Good coastal wetlands can improve protection against rising sea levels and healthy floodplain and other wetland ecosystems can limit the effects of river flooding. Rising sea levels combined with weather extremes are serious concerns for all coastal cities, including Dublin City. Soft areas of coast, such as Bull Island, can provide a buffer to such weather extremes. Retaining green spaces to absorb water, creating wetlands in coastal areas, allowing the build-up of sand dunes and minimising development along the coast are all actions of Dublin City Council's Climate Change Strategy 2008-2012. Furthermore, this issue is listed as a specific project in the Biodiversity Action Plan i.e. to actively link biodiversity to wider sustainability issues such as flooding, climate change and waste.

Water and Biodiversity Flora and Fauna also display critical interrelationships in the city. The designated sites of North Bull Island and North and South Dublin Bay constitute part of the Irish and European network of protected areas for biodiversity as the Bay supports habitats and wildbird populations of international importance. The waterways of Dublin City, including the Liffey, Tolka and Dodder, support a significant wildlife resource including otters, bats, Atlantic Salmon, Brown Trout, Sea Trout, King Fisher (many of European importance and for which strict protection is required). All of these waterways and their associated riparian/edge vegetation provide important feeding and commuting corridors for a range of species. Furthermore the ecological value of these habitats is a resource for Dublin's citizens and also remarkable for such an urbanised city.

Landscape consists of the public and private landscape of the city. It fulfils an array of environmental, ecological, social, recreational and aesthetic functions of the developing city. Dublin City has significant green spaces through the provision of parks such as the Phoenix Park in particular, St. Anne's Park and a number of institutional lands, including Trinity College Dublin. The city's parks, institutional lands, private gardens and graveyards all contribute significantly to the biodiversity resource in the city. Remaining hedgerows, semi-natural grasslands and trees are of particular importance. The city's landscape and parks contain significant wildlife resources including woodland, semi-natural grasslands and remnant hedgerows. In this way, Dublin's City's parks support species of local and national importance including otters, bats, hedgehogs and kingfishers. The city's parks also play a significant amenity and educational role in the city.

Soils perform a number of key environmental, social and economic functions that are vital for life. It has a socio-economic and environmental role as a habitat and gene pool, a platform for human activities (including food production), landscape and heritage and as a provider of raw materials. The function of soils in abating climate change is particularly important in a regional context for cities such as experiencing rapid growth beyond city boundaries as is the case in Dublin City. The conversion of greenfield sites and sealing of soils can release CO₂ into the atmosphere and further reduce areas of 'carbon sinks'. Soils contain about three times the amount of carbon globally as vegetation, and about twice that in the atmosphere.

6. **The EPA submission suggests that there would be merits in linking the key environmental issues identified in the Environmental Report and policies / objectives**

incorporated into the plan to address these issues. This exercise has been completed and is presented in table format below.

The Environmental Report to be amended as follows:

Incorporate Table 5 below into the Environmental Report as an Appendix

Overarching Strategic Issues Identified as Affecting Dublin City's Environment	The Principal Policies and Objectives Incorporated into the Draft Development Plan 2011 – 2017 to Address the Issue
The housing of Dublin City's growing population in balanced, sustainable and attractive neighbourhoods on the limited amount of suitable land available within Dublin City Council's administrative boundary to allow for a compact city and region.	<u>Policies SC1, SC5, SC7, SC8, SC11, SC12, QH1, QH2, QH3, QH4, QH15, QH16, QH17, QH24, NC1, NC4, NC7, NC9, NC15, NC20</u>
The treatment of drinking water is a major issue for the city and region. The current water treatment plants are working to full capacity. While Ballymore Eustace is currently being expanded this will deal only the demand growth that will have taken place in the meantime.	<u>Polices SI33, SI34, SI35, SI36, SI37 and SI38 and Objectives SIO59, SIO60, SIO61, SIO62, SIO63, SIO64, SIO65</u>
In order to meet projected demands up to 2031 and beyond for drinking water a new water source must be determined. Currently the River Liffey is at its limit for safe abstraction	<u>Policy SI33 and Objective SIO59, SIO62, SIO64</u>
The European Union Water Framework Directive (WFD) requires that all governments aim to achieve "good ecological status" in all their natural waters by 2015. The rivers in Dublin City Council are currently either 'at risk' or 'probably at risk' of not being able to achieve good status by 2015 unless improvement measures are taken	<u>Policy SI39 and Objectives SIO66, SIO67</u>
Existing wastewater treatment infrastructure required by an increasing population in the Dublin Region is inadequate. Maximum capacity will be reached by 2014. Additional wastewater treatment infrastructure must be constructed in order to avoid significant adverse impacts upon water quality, biodiversity, flora and fauna and human health	<u>Policies SI40, SI41, SI42, SI43 and Objectives SIO68, SIO69, SIO70, SIO71</u>
There is a need to secure the necessary land, plant and underground corridors for major utility infrastructure, including water supply, delivery and drainage in a compact city to facilitate its growth and well-being while also integrating utility infrastructure into lands so that other uses are not compromised (e.g. rights of way limiting	<u>Objectives SIO63, SIO64</u>

Overarching Strategic Issues Identified as Affecting Dublin City's Environment	The Principal Policies and Objectives Incorporated into the Draft Development Plan 2011 – 2017 to Address the Issue
recreational provision)	
There is a need to ensure, through the implementation of measures such as sustainable urban drainage systems, that changes in land use do not lead to increased flood risk. Increased flood risks arising from climate change and sea level rise need to be addressed through proper planning and risk management measures in accordance with National guidelines	<u>Policies SI44, SI45, SI46, SI47, SI48, SI49 and Objective SIO72</u>
There is a continuing need to ensure better integration of landuse and transport which promotes more sustainable forms of transport, greater use of public transport as well as significant improvements in public transport	<u>Policies SI1, SI2, SI3, SI4, SI6, SI7, SI8, SI9, SI10, SI12, SI13, SI14, SI15, SI18, SI21 and Objectives SIO1, SIO2, SIO3, SIO4, SIO5, SIO6, SIO7, SIO8, SIO9, SIO10, SIO11, SIO12, SIO13, SIO14, SIO16, SIO17, SIO18, SIO19, SIO28, SIO29, SIO30, SIO31, SIO34, SIO45, SIO48</u>
A balance must be struck between accommodating the future development, recreational, heritage and biodiversity needs of Dublin City	<u>Policies GC1, GC2, GC3, GC4, GC5, GC6, GC7, GC8, GC9, GC10, GC11, GC12, GC13, GC14, GC15, GC16, GC17, GC18, GC19, GC20, GC21, GC22, GC23, GC24, GC25, GC26, GC27, GC28, GC29, GC30, GC31, GC32, GC33, GC34, GC35, GC36 and Objectives GCO1, GCO2, GCO5, GCO6, GCO7, GCO8, GCO9, GCO10, GCO11, GCO12, GCO13, GCO14, GCO17, GCO19, GCO20, GCO22, GCO23, GCO24, GCO25, GCO26, GCO27, GCO28, GCO29, GCO30, GCO31, GCO32, GCO33, GCO34, GCO35, GCO36, GCO37, GCO38, GCO39, GCO40, GCO41, GCO42</u>
Under the Kyoto Protocol Ireland has agreed to limit the net growth of Green House Gases (GHGs) to 13% above its 1990 levels (current figure is 25% above 1990 levels). There is a pressing need for Dublin City to reduce its GHG emissions	<u>Policy SI50, HR8 and Objectives SIO73, SIO74</u>
Emissions, mainly from the transport sector, are the main threat to air quality in the Dublin Region (oxides of nitrogen NO _x and PM ₁₀ and PM _{2.5}). These emissions must be reduced by switching to more sustainable modes of movement and transport.	<u>Policies SI1, SI2, SI3, SI4, SI6, SI7, SI8, SI9, SI10, SI12, SI13, SI14, SI15, SI18, SI21, SI50 and Objectives SIO1, SIO2, SIO3, SIO4, SIO5, SIO6, SIO7, SIO8, SIO9, SIO10, SIO11, SIO12, SIO13, SIO14, SIO16, SIO17, SIO18, SIO19, SIO28, SIO29, SIO30, SIO31, SIO34, SIO45, SIO48</u>

Table 5 : Key environmental Issues and policies / objectives in the draft plan to address these issues

7. The EPA submission requests that the environmental impacts of the development plan be highlighted.

In response, it should be noted that the potential significant environmental impacts of the draft plan are clearly set out in **Section 7** of the Environmental Report. These include impacts that are of significance and are considered to be potentially positive, negative, short, medium and long-term, permanent, temporary, secondary, cumulative and synergistic

impacts. No amendments to the Environmental Report are therefore necessary at this stage to address this issue.

8. The EPA submission suggests that a separate section on data gaps would contribute to clarity.

Add new section after Section 3.12.11 of the Environmental Report:

3.12.11A Data Gaps and Difficulties Encountered:

Some data gaps and difficulties have been identified by the SEA inter-departmental team for various environmental receptors as follows:

Landscape and Soils: The National Soil Database project (2001-CD/S2-M2) has generated an archive of soils data based on a sampling campaign in Ireland from 2002 to 2005. However the EPA confirmed to Dublin City Council in July 2010 that none of the sites surveyed are within the administrative area of Dublin City Council. Furthermore, there is no baseline geochemical information of any significance exists for Irish urban environments. The Geological Surveys of Europe (EuroGeoSurveys) have initiated an urban soils project in order to highlight the importance of urban soils to environmental health in European cities. Under this initiative, the Geological Survey of Ireland, in partnership with the Geological Survey of Norway, is to undertake systematic geochemical mapping of soils in the Greater Dublin Area.

Climatic Conditions: The *Baseline Emission Inventory for Dublin City Sustainable Energy for Action Plan* report is the first attempt to quantify the energy and CO₂ emissions for the Dublin City area and as such will inherently highlight data gaps. The methodology and assumptions made in the document are satisfactory, but for future baselines there are a number of desired outcomes, namely:

- More accurate data on business types, employee numbers and floor areas
- Complete Building Energy Rating (BER) database for Dublin City
- Modal splits for the city (not estimated)

This would lead to a more accurate database. In addition the database needs to be updated for future use as all figures relate to 2006, as do predictions. There has been a huge shift in economy and activity since its conception. The database highlights other areas that need to be addressed, such as other greenhouse gas emissions.

The above desired information depends on a number of agencies conducting research and compiling data for dissemination, such as SEAI, Department of Transport (plus other transport authorities) and the Department of Finance (plus other authorities). At present nearly all information is at the state level and at best provincial or regional level, this needs to be addressed so there is accurate local information to aid processes such as SEA and policy documents.

Furthermore, the ecological footprint of Dublin City is unknown. Currently, the City Council is considering a proposal to calculate same. This will assist in establishing baseline data and measuring progress over the lifespan of the development plan.

Biodiversity Flora and Fauna: The Dublin City Biodiversity Action Steering Group identified the main issues for biodiversity as (i) a knowledge gap and (ii) an awareness deficit. They determined that biodiversity is undervalued and suffers due to competing demands. The group also identified that direction and good examples are needed. The

proximity of human dwellings and wildlife is a great opportunity to help inform and enthuse people about natural heritage. It also creates some major challenges in trying to protect and enhance space for wildlife. Fortunately, Dublin has close cultural connections with much of its wildlife such as Bull Island, The Phoenix Park, its street trees, and its waterways in particular. The challenge is to make sure that there is an appreciation and awareness of the wider natural heritage. This will facilitate understanding and protection (e.g. of birds and bats) and ensure that what is locally and nationally available is not eroded but actively protected and enhanced. Raising awareness of what Dublin City has, and taking actions to protect it, is key to retaining healthy populations of species and enhancing our appreciation of natural heritage and quality of life. It is acknowledged that progress has been made on natural heritage in Dublin City. However, as the Biodiversity Action Plan identifies, there is need to collate existing information so that the gaps in knowledge can be identified, to target resources and to inform decision-making. Four strategic actions / visions have been identified:

- Spreading the Word – to inform and engage people in biodiversity; to help people understand biodiversity in the city across all sectors
- Planning Together – developing policies and mechanisms to incorporate biodiversity and weighting of biodiversity interests appropriately, and providing a framework for creating and enhancing natural heritage in the city
- Making Space for Nature – integrating biodiversity into day-to-day and innovative operations, demonstrating how this can be done, and integration into site specific and strategic work programmes
- Making it Work – Key partnerships created with other local authorities and with steering group members.

The Biodiversity Plan has set the following action: 'Use of GIS to fill information gaps on the following species and habitats in the city: (i) Bats, (ii) Birds, (iii) Otters, (iv) Red Squirrels, (v) Salmonids, (vi) selected invertebrate groups, (vii) Hedgerows and Urban Trees, (viii) Protected Rare, Scarce or Threatened plants, (ix) Semi-natural grasslands and (x) wetlands. It is also an action to use GIS to interpret data for practical use and to use GIS to update existing data.

Material Assets (Transport):

The following data gaps have been identified for Material Assets (transport):

- There is only limited information available regarding traffic patterns for the Dublin City Council area. Annual Cordon Counts are undertaken for different transport modes at the canal cordons. This process provides very useful information regarding modal splits for the city centre. However, this information is not available for the area outside of the canals.
- The main general source of travel information comes from the Census. This provides information on how people travel to work. However, the smallest level at which it is available is by Electoral Division. This may be too large a scale to be useful. The Census 2006 data is also now out of date and may no longer reflect currently reality.
- The former DTO (now NTA) model could be interrogated for more detailed travel information. However, this is not readily accessible to the City Council.

- While traffic counts are carried out for some junctions and streets within Dublin City, they are generally carried out on project-needs basis. They do not exist for all streets, are not carried out regularly and if they do exist may be well out of date.
- Pedestrian counts are generally not undertaken unless for specific purposes. As a result there is a dearth of information regarding pedestrian movements within the City Council area.

General Gaps / Difficulties Encountered:

- The lack of a centralised mapping database also posed some difficulties, particularly for GIS based maps, and those maps showing spatial data not normally held in the Planning and Economic Development Department.
- The lack of a centralised data source of environmental baseline information posed some difficulty for the process. This was overcome in most instances however by Dublin City Council setting up an interdepartmental team at the beginning of the process for the duration of the plan. This interdepartmental group will also assist in monitoring.

9. The EPA submission recommends updating population data when available

The Environmental Report to be amended as follows:

Amend Section 3.2 Population and Human Health of the Environmental Report as follows:

From:

The population of the city continues to grow, although at a lower rate than the region as whole. Population has risen by 10,430 persons since 2002 equating to a population increase of 2.1%. During the same period, population increase in the state was ~~46.9%~~ and 5.7% for the region. However, the figures for the city mask the population increase in the inner city which has increased by 50% since 1991.

To:

The population of the city continues to grow, although at a lower rate than the region as whole. Population has risen by 10,430 persons since 2002 equating to a population increase of 2.1%. During the same period, population increase in the state was 8.2% and 5.7% for the region. However, the figures for the city mask the population increase in the inner city which has increased by 50% since 1991.

And

The following text and accompanying tables to be inserted as the last paragraph of section 3.2 of the Environmental Report:

Dublin City Council's Housing Strategy for Dublin City is based on the settlement strategy, minimum population targets and housing unit allocations contained in the RPG for the GDA 2010-2022 (See Table X). The available zoned residential land under the development plan equates to circa 503 hectares (Ha) which is capable of meeting the RPGs housing unit allocation of 42,400 Units for Dublin City for the period 2006-2016, while also allowing for a fifty per cent 'headroom' as advised in the DoEHLG Guidelines on Development Plans (2007).

Replace Table 3 – Population Projections for Dublin City with Table below

Table RPG 2010 – 2022 Population Targets & Housing Allocations for Dublin City

	2006 Census Figs	2016 RPGs	2022 RPGs
Population Target	506,211	563,512	606,110
Housing Allocation	223,098	265,519	319,903

The minimum population targets and housing unit allocations as prescribed under the RPG relate to an initial 10-year period of 2006-2016 and a longer-term projection from 2016-2022. To align these targets and unit allocations to the period of this Development Plan, it is necessary to take cognisance of house completions for the years 2006-2010. The completions for these years, with a notable decline in the past few years (2007-2010), equate to circa 19,700 units, which results in a requirement for Dublin City to deliver circa 22,700 units for the period 2011-2016. The average annual requirement for the period thereafter is 9,064. Therefore, the housing unit allocation for the lifetime of this plan is 31,700 units (approx) (See Table 7 below).

The RPG calculations and assessment of housing demand take full account of the relatively high vacancy rates and excess of housing stock particularly for the short-term up to 2016, but it is also essential that each local authority makes adequate provision for housing supply and is in a good position for economic recovery in the medium to long term.

Table Housing Unit Allocations for Dublin City Council

RPG Allocation 2006 - 2016	42,400
DCC House Completions 2006 - 2010	19,700
Remaining RPG Allocation 2006 - 2016	22,700
RPG Allocation 2017 – 2022	54,384
Annual Average Requirement 2017 – 2022	9,064
DCC Target 2011 – 2017	31,764

Note: 2010 House Completions Estimate from DoEHLG Quarterly / Annual Housing Statistics 2009

10. The EPA submission recommends that reference be made to the National Soils Database in Section 3.6.2 and relevant findings for sites in the Dublin City Council area and reference the European Communities (Water Policy) Regulations 2009

The Environmental Report to be amended as follows:

The following text to be inserted into Section 3.6.2.1 Soils (including geology) as the last paragraph:

At a national level, the National Soil Database (NSDB) has produced, for the first time, a national baseline database of soil geochemistry, including data point maps and spatial distribution maps of major nutrients, major elements, essential trace elements, trace elements of special interest and minor elements.

The National Soil Database project (2001-CD/S2-M2) has generated an archive of soils data based on a sampling campaign in Ireland from 2002 to 2005. However, the EPA has confirmed that none of the sites surveyed are within the administrative area of Dublin City Council.

The existing baseline of data on soils in Dublin City is being developed by the Geological Survey of Ireland, in cooperation with Dublin City Council. This work has been in progress since 2009 under the SURGE Project, which will be completed toward the end of 2010. The sampling of 368 points within public parks and open spaces has been completed (see attached map). Detailed soils analysis and mapping of results is progressing. Dublin City Council has provided access to sites and is preparing reports on site history for each sampling location.

At present, no baseline geochemical information of any significance exists for Irish urban environments. The Geological Surveys of Europe (EuroGeoSurveys) have initiated an urban soils project in order to highlight the importance of urban soils to environmental health in European cities. Under this initiative, the Geological Survey of Ireland, in partnership with the Geological Survey of Norway, is to undertake systematic geochemical mapping of soils in the greater Dublin urban area.

The objectives of the project are:

- To determine the baseline concentrations of a wide range of inorganic and organic chemical pollutants in urban soils in order to identify contaminant sources, pathways to humans and health risk;
- To assess natural and anthropogenic geochemical concentrations in soils;
- To assist in environmental assessment, planning and development of urban areas/brown-field sites;
- To assist in compliance with EU Soil and Water Framework Directives;
- To develop GIS-based geochemical maps of Irish population centres that can be used for land use and planning purposes, environmental management and health risk assessment; and
- To examine the dynamics and complex processes operative in urban soils in the accumulation and transport of pollutants.

The European Communities (Water Policy) Regulations 2009 has now been referenced in Table 1 above. This table is to be incorporated into the Environmental Report by way of addition to Table A - Relationship of the Draft Plan with Other Plans and Programmes.

The EPA submission refers to the WFD aim of no deterioration in status of quality of waterbodies

The EPA state in their submission that regarding the target for the WFD it should be noted that the ERDB River Basin Management Plan (RBMP) indicates that most water bodies will not meet the 2015 deadline and that the targets in Table 18 of the Environmental report should reflect the reality in the RBMP.

In response to the submission received, Dublin City Council has amended the relevant objective in Table 18 in order to reflect the reality in the RBMP.

From:

All water bodies to ~~achieve good status, or maintain high status, by 2015 as required by the EU Framework Directive (WFD) 2000/60/EC~~

To:

All water bodies to meet **targets set in ERDB plan as adopted by Public Representatives and by Minister for Environment by Notice in July 2010 in accordance with S.I. 722 of 2003**

The Environmental Report to be amended as follows:

Table 18 of the Environmental Report to be amended to include as follows:

ENVIRONMENTAL RECEPTOR	ENVIRONMENTAL PROTECTION OBJECTIVE	TARGET	INDICATOR	Frequency of Reporting	Department Responsible
Water	Comply with EU Water Framework Directive 2000/60/EC	All water bodies to meet targets set in ERDB plan as adopted by Public Representatives and by Minister for Environment by Notice in July 2010 in accordance with S.I. 722 of 2003 OR	Ecological Status of Water Bodies	Annual	Environment & Engineering (water division)
	Provide adequate water distribution networks and drainage networks	Provision of adequate water, wastewater treatment and drainage infrastructure / flood prevention works in accordance with Dublin City Council's Strategic Water Plan for Water Services 2009	Capacity of water supply and wastewater infrastructure versus demand	Annual	Environment & Engineering (water division)

Note: It will also be necessary to amend the environmental protection objective as contained in Table 8, Box 2, Table 9, Table 1A and other sections, as appropriate, of the Environmental Report accordingly to take account of this amendment.

11. The EPA submission recommends making reference to the most up to date data from the EPA for the Liffey where relevant

The Environmental Report to be amended as follows

Section 3.8.3.7 Quality of Water in Liffey Estuary and Dublin Bay

Omit data based on 2006 figures and replace with the EPA report on water quality in Ireland 2006 – 2008 (EPA 2009) and incorporate into final ER.

In relation to that part of the submission requiring reference to the draft Malahide Shellfish Waters Pollution Reduction Programme it is noted that while Malahide is located outside of the city areas, regard will be had to the programme.

12. The EPA submission suggests that the requirement for alignment of the Flood Management Plans and the River Management Plans be reflected in the environmental report.

The Environmental Report to be amended as follows:

Add new text at the end of Section 3.8.1 of the Environmental Report:

The Dublin City Council Water Services Strategic Plan 2009 is the current strategic plan in place for Dublin city and sets out a number of objectives in relation to flood risk management including an objective to meet the requirements of the Floods Directive. This plan is the mechanism for the required alignment between the River Basin Management Plans and the Flood Management Plans.

13. The EPA recommends consideration of the possible inclusion of additional Environmental Protection Objectives (EPOs) to address sustainable use of natural resources and waste water treatment

Two environmental protection objectives have been devised for the environmental receptor, water. The second of these is as follows: *Provide adequate water distribution networks and drainage networks with the associated target Provision of adequate water, wastewater treatment and drainage infrastructure / flood prevention works in accordance with Dublin City Council's Strategic Water Plan for Water Services 2009.*

EPO for water to be amended

From:

Provide adequate water distribution networks and drainage networks

To:

Provide adequate wastewater treatment, water distribution networks and drainage networks.

Dublin Region Water Services Strategic Plan 2009 deals comprehensively with the issue of sustainable use of water. Since this plan is referred to directly in the environmental protection objective for water, it is not necessary to include another environmental protection objective to address the issue. No changes to the Environmental Report are therefore necessary in this regard.

The Environmental Report to be amended as follows:

Tables 1A, 8, 9, 18, Box 2, Table 1A and relevant text of the Environmental Report to be amended to include amended Environmental Protection Objective for Water as set out in the table below:

ENVIRONMENTAL RECEPTOR	ENVIRONMENTAL PROTECTION OBJECTIVE	TARGET	INDICATOR	Frequency of Reporting	Department Responsible
Water	Comply with EU Water Framework Directive 2000/60/EC	All water bodies to meet targets set in ERDB plan as adopted by Public Representatives and by Minister for Environment by Notice in July 2010 in accordance with S.I. 722 of 2003 OR	Ecological Status of Water Bodies	Annual	Environment & Engineering (water division)
	Provide adequate water distribution networks and drainage networks	Provision of adequate water, wastewater treatment and drainage infrastructure / flood prevention works in accordance with Dublin City Council's Strategic Water Plan for Water Services 2009	Capacity of water supply and wastewater infrastructure versus demand	Annual	Environment & Engineering (water division)

14. The DoEHLG in the submission received queried the use of policy GC1 as a policy that would mitigate against potentially negative environmental impacts of cycleways etc.

Initially Policy GC1, *To progress a strategic network as illustrated in the Strategic Green network map*, was considered suitable to act as a mitigation measure as it seeks to progress connect green spaces to various parts of the city and to link to towns and other areas in the city region, recognising the importance and benefits of interaction between the man-made city environment and the natural environment. However, it is recognised that an element of the green network comprises cycling tracks and networks, including the S2S. While the provision of cycleways is overall a positive addition for those living, working and visiting the city, the construction of some of these does have the potential to disturb natural habitats, Natura 2000 sites and impact upon the natural landscape. Upon reflection and reassessment of this policy, it is considered appropriate that the policy not be identified as a mitigatory policy. The policy has also been reassessed in order to determine its potential impacts upon the environment. See Matrix C below.

	PH1	BFF1	BFF2	A1	A2	CF1	CF2	CF3	W1	W2	MA1	MA2	C
GC1 To progress a strategic network as illustrated in the Strategic Green network map	+	+ / -	0	+	+	+	+	+	0	0	+	0	0

Matrix C Reassessment of Policy GC1

Policy GC1 has been found to have potentially negative impacts upon the environmental, particularly on two environmental receptors, (i) Biodiversity, Flora & Fauna and (ii) Landscape & Soils. However a significant number of policies and objectives have been incorporated into the plan that will serve as mitigation measures. The principal policies and objectives in this regard are: Policies GC23, GC24, GC25, GC26, GC27, GC28 and GC28A. See Table 8 below.

Policies and Objectives which may have potential Significant impacts on the environment	Mitigation Measures
GC1 To progress a strategic network as illustrated in the Strategic Green network map	GC23 GC24 GC25 GC26 GC27 GC28 GC28A

Table 8: Policy GC1 and Mitigation Measures

Environmental Report to be amended as follows:

Evaluation of Draft Development Plan 2011 – 2017 Assessment Matrix, as contained within Appendix A, pages 142 – 215 of the Environmental will be updated to include reassessment of Policy GC1 – as set out in Matrix C above:

and

Amend Section 8.2.4 *Biodiversity, Landscape and Climatic Factors – Mitigation* of the Environmental Report to exclude Policy GC1 as a mitigation policy and include mitigation policies GC23 and GC28A.as follows:

8.2.4 Biodiversity, Landscape and Climatic Factors – Mitigation

Policies contained within the plan to increase pedestrian and cyclist access to rivers, canals, areas of natural recreation and private recreational lands could have potential significant impacts in terms of disturbance, fragmentation or loss of habitats. Any significant adverse impacts are offset by the inclusion of mitigating policies in the plan which will ensure that habitats, designated and undesignated, are protected and enhanced as follows:

It is the policy of Dublin City Council:

- To protect and enhance bio-diversity in the city through the protection of nature conservation sites, maintenance of valuable mitigation habitats, the creation of a cohesive network of green corridors, green infrastructure design and also through the identification of opportunities for new habitats, buffer zones and wildlife corridors and to protect the ecology and wildlife of Dublin Bay (See Policy GC22)
- To protect flora, fauna and habitats, which have been identified by the Habitats Directive, Birds Directive, Wildlife Act 1976 (as amended), the Flora Protection Order (S.I. no. 84 of 1999), and the European Communities (Natural Habitats) Regulations 1997 (S.I. no. 94 of 1997) (See Policy GC24)
- To conserve and manage all Natural Heritage Areas, Special Areas of Conservation and Special Protection Areas identified and designated by the Department of Environment, Heritage and Local Government (See Policy GC25)
- To seek the conservation and management of areas of natural environmental value (See Policy GC26)
- To conserve priority species, habitats, and natural heritage features identified in the Biodiversity Action Plan for priority conservation measures (See Policy GC27)
- To make provision for habitat creation/maintenance and facilitate biodiversity by encouraging the development of linear parks, nature trails, wildlife corridors and urban woodlands (See Policy GC3)
- To co-ordinate between open space, biodiversity and flood management, in progressing a green infrastructure network (See Policy GC7)
- To continue to manage and protect public open spaces to meet the social, recreational, conservational and ecological needs of the city and to consider the development of appropriate complementary facilities which do not detract from the amenities of spaces.(See Policy GC14)
- To have regard to the conservation and enhancement of significant non-designated areas of ecological importance in accordance with development standards set out in this plan (See Policy GC28)
- To seek the conservation and management of areas of natural environmental value (See Policy GC26)
- To conserve priority species, habitats, and natural heritage features identified in the Biodiversity Action Plan for priority conservation measures (See Policy GC27)
- To have regard to the conservation and enhancement of significant non-designated areas of ecological importance in accordance with development standards set out in this plan (See Policy GC28)
- ~~▪ To progress a strategic network as illustrated in the Strategic Green Network map (See Policy GC1)~~
- To cooperate with Dublin Bay Task Force (DBTF) to work towards developing a framework for Coastal Zone Management Plan for Dublin Bay, developing a detailed

masterplan, and identifying new opportunities for enhancing Dublin Bay as a resource (See Policy GC21)

- To protect and improve the natural character of watercourses and to promote access, walkways and other compatible recreational uses along them (See Policy GC6)

Add policy as new mitigatory measure:

- To protect and enhance bio-diversity in the city through the protection of nature conservation sites, maintenance of valuable mitigation habitats, the creation of a cohesive network of green corridors, green infrastructure design and also through the identification of opportunities for new habitats, buffer zones and wildlife corridors. Buffer zone is a protective area between wildlife / habitats & human activity – traffic noise etc. (see Policy GC23)

Add new policy & also include as a mitigatory measure:

- **That any plan or project with the potential to give rise to significant direct, indirect or secondary impacts on a Natura 2000 site(s) shall be subject to an appropriate assessment in accordance with Article 6(3) of the Habitats Directive (see Policy GC28A).**

15. The DoEHLG submission recommends amending error in the ER where ‘Water’ has been inadvertently omitted as a separate environmental receptor

The omission of ‘water’ as an environmental receptor was inadvertently left out of Table 8 as a result of a typographical error.

The Environmental Report to be amended as follows:

Table 8 in *Section 4.2 Environmental Protection Objectives* to be amended to reinsert the environmental receptor 'Water' and associated Targets and Indicators. This table also incorporates that amendment detailed in 12 above as follows:

Environmental Receptor	Environmental Protection Objective	Target	Indicator
Water	<p>Comply with EU Water Framework Directive 2000/60/EC i.e. to ensure and maintain good ecological status of all receiving waters in the Dublin Region in the future</p> <p>All water bodies to meet targets set in ERDB plan as adopted by Public Representatives and by Minister for Environment by Notice in July 2010 in accordance with S.I. 722 of 2003</p> <p>Provide adequate wastewater treatment, water distribution networks and drainage networks</p>	<p>All water bodies to comply with the EU Framework Directive (WFD) 2000/60/EC and ERDB Programme of Measures as adopted</p> <p>Provision of adequate water, wastewater treatments and drainage infrastructure / flood prevention works in accordance with Dublin City Council's Strategic Water Plan for Water Services 2009</p>	<p>Ecological Status of Water Bodies</p> <p>Capacity of water supply and wastewater infrastructure versus demand</p>

Note: The revised EPO for Water will be inserted into Box 2, Table 9, Table 18 and Table 1A and relevant text of the Environmental Report accordingly to take account of these amendments

16. The EPA suggests including an assessment of secondary, cumulative, synergistic, short, medium and long term, positive, permanent, temporary and negative impacts

The potential significant environmental impacts of the draft development plan are set out in Section 7 of the Environmental Report. These include impacts that are of significance and are considered to be potentially positive, negative, short, medium and long-term, permanent, temporary, secondary, cumulative and synergistic. No amendments to the Environmental Report are therefore necessary at this stage to address this issue.

17. The EPA submission recommends assessing the zone of influence outside of the plan area

The Environmental Report to be amended as follows:

Amend page 118 of the Environmental Report as follows:

Add new text:

Many issues to be addressed in the development plan are regional issues, and are to be dealt with by joined-up regional thinking and actions by the relevant local authorities in the region and greater Dublin area.

The Regional Planning Guidelines for the Greater Dublin Area 2010 – 2022 have recently been produced. The accompanying SEA has assessed the impacts of the future development on the Greater Dublin Area on an objectives led approach. As stated in the SEA, particular reference was made to the potential cumulative effects in association with other relevant plans and programmes within the GDA area.

Some of the main policies with a zone of influence outside the plan area are those relating to:

- Supporting RPG, NSS, Platform for Change etc (Policy SI1, SI2, SI3, SI4)
- Cycleways and Paths (Objective SI8, GC1)
- The Eastern Bypass Route (Policy SI17)
- Wastewater Treatment Infrastructure (SI40, SI41, SI43)
- Climatic Factors (SI23, SI27, SI33, SI35, SI39, SI50)
- Water Bodies (GC17, GC21)
- The Region (HR1, HR2, HR3, HR4, HR5, HR6, HR7, HR8, HR9, HR10, HR11)

Dublin City Council's policies to consolidate the city will reduce the future sprawl of development into neighbouring authorities and beyond

18. The EPA submission suggests considering the possibility of monitoring including thresholds, intervention types, negative and positive effects and coordinated monitoring

Consideration will be given to further monitoring mechanisms, in addition to those in Section 9 of the Environmental Report, as appropriate following final adoption of the development plan. This could include coordinated monitoring at regional level in terms of the SEAs carried out in the adjoining local authorities and the Regional Planning Guidelines. No amendments to the Environmental Report are therefore necessary at this stage to address this issue.

19. Submissions received requested that the potential environmental impacts of flood defence infrastructure on the environment be addressed in the ER of the SEA

The potential environmental impacts of flood defence infrastructure on the environment will be addressed at project level when specific flood defences will be subjected to the EIS process.

20. Submissions received requested that the possibly of mitigation measures using soft defences be explored.

The methodology used by OPW specifically takes into account soft defence methodologies when evaluating possible options to arrive at preferred option for flood defences. Dublin City Council will have regard to the methodology set out in the Planning System and Flood Risk Management Guidelines. No amendments to the Environmental Report are therefore necessary at this stage to address this issue.

21. The DoEHLG submission queried the relationship between policies and objectives in the draft plan i.e. it was unclear to the department if an assessment of objectives would be included by assessing only policies.

In response to this aspect of the DoEHLG an exercise was undertaken to ensure that objectives contained in the development plan are related to a policy or set of policies. The objectives contained in the draft development plan essentially represent the means of achieving policies at a specific level and consist of a series of subsidiary action items that flow from a group of policies, or indeed in some instance, a singular policy. Nonetheless, the exercise was carried out – see Appendix 4 of this addendum

In addition as a precautionary approach an assessment of all draft development plan objectives has also been carried out. See Appendix 5 of this Addendum.

The Environmental Report to be amended as follows:

Insert exercise carried out demonstrating link between Policies and Objectives in the Draft Development Plan as set out in Appendix 4 of this addendum as an Appendix of the Environmental Report

and

Update the Environmental Report to include as Appendix 5 the matrix of the Environmental Assessment of all draft development plan objectives.

22. The DoHELG suggested that that would be merit in including additional indicators for the Cultural Heritage environmental receptor. Four additional indicators have been devised by the SEA team as follows:

- Number of Number of Formal Advice Statements Issued (Section 57s and Section 5s)
- Review and updating of the Record of Protected Structures on an ongoing basis including the review of the RPS in relation to DCIHR
- Retention of Conservation Officer, City Archaeologist and teams
- Number of planning applications / Part VIII applications / number of strategic plans (development plan, LAPs/ Framework Plans/ Urban Framework Plans etc.) with input from or screened by the City Archaeologist

Amend the Environmental Report as follows:

Amend Table 8 - *Environmental Protection Objectives, Targets and Indicators* – of the Environmental Report as follows

ENVIRONMENTAL RECEPTOR	ENVIRONMENTAL PROTECTION OBJECTIVE	TARGET	INDICATOR
<p>Cultural Heritage</p>	<p>Protect and enhance the city's cultural, including architectural and archaeological, heritage</p>	<p>Ensure that the cultural heritage of the city is maintained and protected from damage and deterioration</p>	<p>Percentage of Protected Structures 'at risk'</p> <p>Number of Architectural Conservation Areas (ACAs)</p> <p>Number of archaeological sites investigated</p> <p><i>Additional indicators to be included</i></p> <p>Number of Number of Formal Advice Statements Issued (Section 57s and Section 5s)</p> <p>Review and updating of the Record of Protected Structures on an ongoing basis including the review of the RPS in relation to DCIHR</p> <p>Retention of Conservation Officer, City Archaeologist and teams</p> <p>Number of planning applications / Part VIII applications / number of strategic plans (development plan, LAPs/ Framework Plans/ Urban Framework Plans etc.) with input from or screened by the City Archaeologist</p>

It will be necessary to also amend Table 18 of the Environmental Report to take account of these amendments