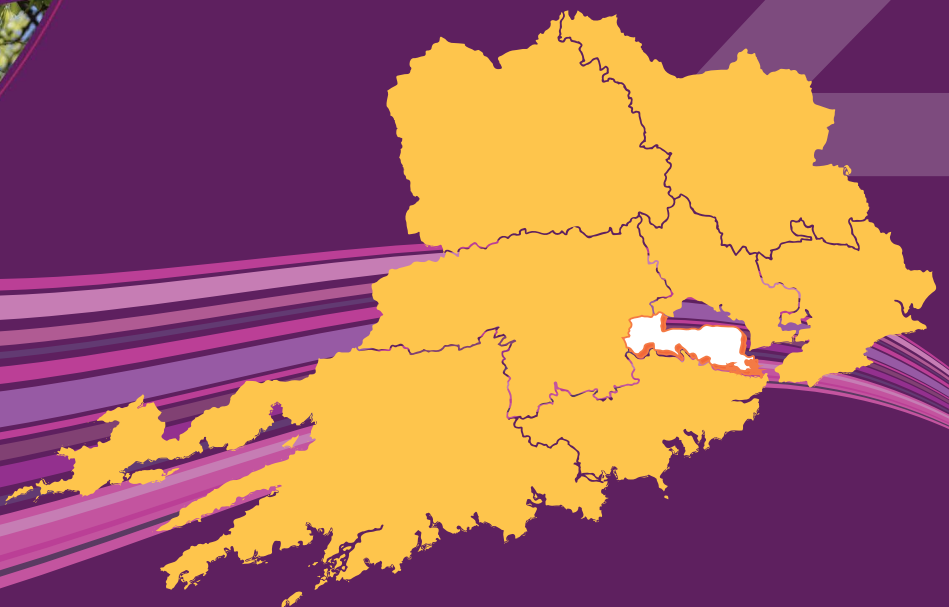




**Cork
County Council**
Comhairle Contae Chorcaí



**Draft
Ballincollig
Carrigaline
Municipal District
Environmental Reports**



16th November 2016

**VOLUME TWO
Environmental Reports**

2



How to make a Submission

The Draft Municipal District Local Area Plan is available from the Council website at www.corkcoco.ie. If required, a hard copy of the document may be inspected between the hours of **9.30 a.m. and 4.00p.m.**, from **Wednesday 16th November 2016** to **Friday 06th January 2017** at the following locations:

- Planning Department, Floor 1, County Hall, Cork.
- Planning Department, Norton House, Skibbereen, Co. Cork.
- Cork County Council Offices, Mallow
- Public Libraries - Please check libraries regarding opening times and availability.

CD copies of the documents may be requested by phone (Tel: 021-4285900) or collected from the Planning Department, Floor 1, County Hall between the hours of **9.30am** and **4.00pm** during the above period.

Submissions or observations regarding the Draft Municipal District Local Area Plan document are hereby invited from members of the public, children, or groups or associations representing the interests of children and other interested parties during the period **Wednesday 16th November 2016** to **4.00pm** on **Friday 06th January 2017**.

Submissions may be made in either of the following two ways:

- On-line via www.corkcoco.ie following the instructions provided

OR

- In written form to the Senior Planner, Planning Policy Unit, Cork County Council, Floor 13, County Hall, Cork. T12R2NC.

All such submissions lodged within the above period and prior to the close of business at **4.00pm on Friday 6th January 2017**, will be taken into consideration in the finalisation of the Municipal District Local Area Plan.



Environmental Reports

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Ballincollig Carrigaline Municipal District

1 Strategic Environmental Assessment Environmental Report

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Appendix A: Sample Settlement Enhancement Measures

Section 1: Introduction

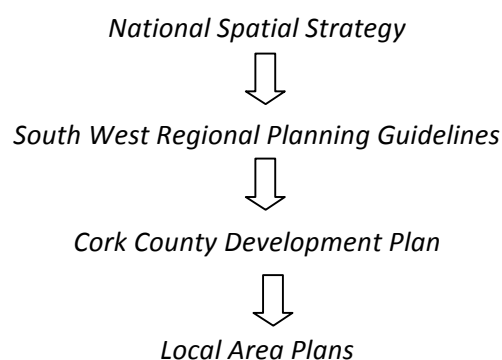
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- 1.1 Introduction
- 1.2 Strategic Environmental Assessment
- 1.3 Stages of SEA
- 1.4 Habitats Directive Assessment
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- 1.6 Difficulties Encountered
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1 Introduction

1.1 Introduction

- 1.1.1 This is the Environmental Report on the strategic environment assessment of the Draft Ballincollig Carrigaline Municipal District Local Area Plan 2016 and it describes the assessment of the likely significant effects on the environment of implementing the Draft Plan.
- 1.1.2 Cork County Council sets out its land use planning strategy for the development of the towns and villages of the county in a series of ten Electoral Area Local Area Plans.
- 1.1.3 Local Area Plans sit at the lower end of the planning policy hierarchy and must be consistent with the higher level plans like the County Development Plan and the Regional Planning Guidelines.



- 1.1.4 The most recent Local Area Plans were adopted in 2011. The Plans have a six year life and the Council is now commencing the process of preparing new plans which will be in place by August 2017. Following the re-organisation of local government in 2014, the electoral structure of the County is now based on eight Municipal Districts; see Table 1.1 and Figure 1.1. A new Local Area Plan will be prepared for each of the eight Municipal Districts in the County.
- 1.1.5 Currently the Town Development Plans adopted by the nine former Town Councils of Cobh, Clonakilty, Fermoy, Kinsale, Macroom, Mallow, Midleton, Skibbereen and Youghal remain in force pending the making of the next Cork County Development Plan in 2020. It is intended to replace the land use zoning provisions of the Town Plans with the new Local Area Plans and on this basis it is proposed to include the former Town Council administrative areas within the Local Area Plan review.

| Table 1.1 : Municipal Districts in County Cork | | | | |
|--|----------------------------|-----------------|---|--------------------------|
| Municipal District | | Population 2011 | Main Towns | No of villages |
| 1 | Ballincollig - Carrigaline | 71,946 | Ballincollig, Carrigaline, Passage West/ Monkstown/ Glenbrook, Cork City South Environs, Ringaskiddy | 5 |
| 2 | Bandon - Kinsale | 42,454 | Bandon, Kinsale | 34 |
| 3 | Blarney - Macroom | 43,398 | Blarney, Macroom | 54 |
| 4 | Cobh | 53,544 | Carrigtwohill, Cobh, Glanmire, Little Island, Cork City North Environs. (Monard is proposed new town and a designated Strategic Development Zone) | 24 |
| 5 | East Cork | 42,399 | Midleton, Youghal | 30 |
| 6 | Fermoy | 42,226 | Charleville, Fermoy, Mitchelstown | 29 |
| 7 | Kanturk - Mallow | 47,305 | Buttevant, Kanturk, Mallow, Millstreet, Newmarket | 46 |
| 8 | West Cork | 56,530 | Bantry, Castletownbere, Clonakilty, Dunmanway, Schull, Skibbereen | 67 & 7 Inhabited Islands |

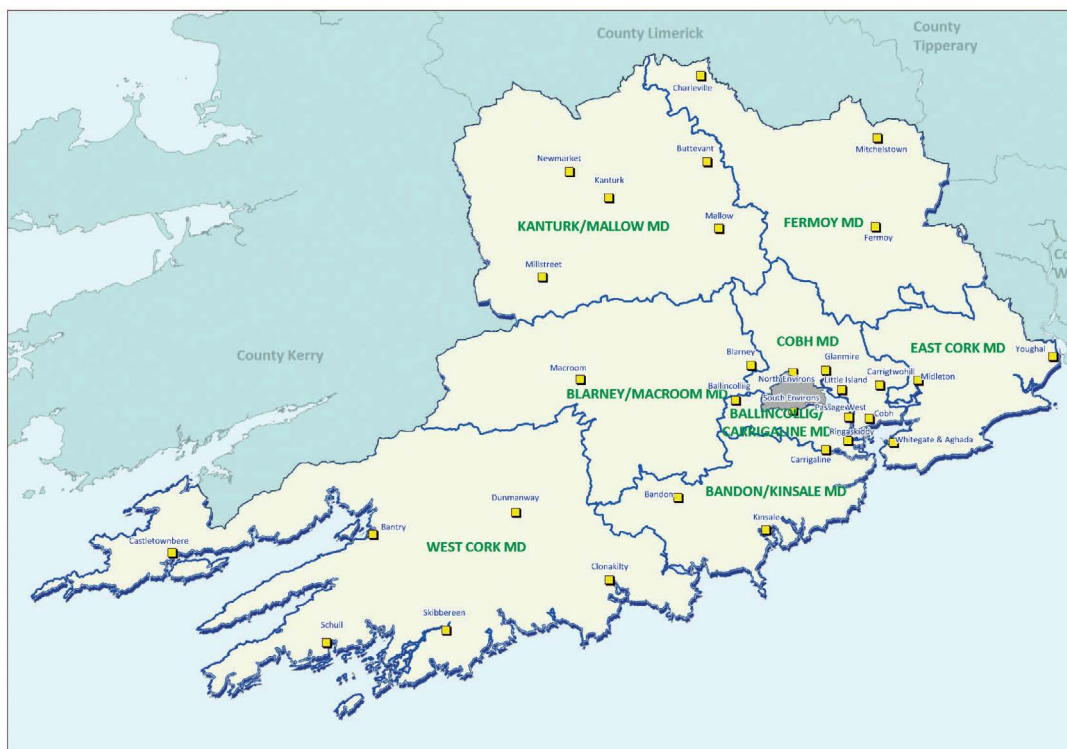


Figure 1: Municipal Districts in the County

1.2 Strategic Environmental Assessment

- 1.2.1 From a legislative viewpoint, the concept of SEA was initially introduced by way of the Directive 2001/42/EC of the European Parliament and of the Council of 27th June 2001 on the assessment of the effects of certain plans and programmes on the environment (the SEA Directive) which was transposed into Irish legislation by the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations, 2004 (S.I. No. 435 of 2004) and Planning and Development (Strategic Environmental Assessment) Regulations, 2004 (S.I. No. 436 of 2004). Subsequently, these statutory instruments were amended by S.I. 200 of 2011 and S.I. No. 201 of 2011. This SEA is being undertaken under S.I. No. 436 of 2004 (as amended) in accordance with Article 8, insofar as this legislation relates to land-use planning.
- 1.2.2 Strategic Environment Assessment is a systematic process of predicting and evaluating the likely environmental effects of implementing a plan, or other strategic action, in order to ensure that these effects are appropriately addressed at the earliest stage of decision-making on a par with economic and social considerations. The SEA process is undertaken using a methodical iterative approach. The methodology followed in this report is derived from a number of sources including the appropriate legislation and guidance documents prepared on a national and EU level. Legally, the SEA Directive (2001/42/EC), transposed Irish regulations and associated amendments to provide the legislative framework. The main sources of guidance include the documents detailed below:
- Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment Guidelines for Regional Authorities and Planning Authorities, Department of Environment, Heritage and Local Government, 2004;
 - SEA Pack and Scoping Guidance Document, EPA.
 - SEA Process Checklist, EPA.

1.3 Stages of SEA

- 1.3.1 There are a number of stages involved in the SEA process which are listed as follows:
- (1) Screening
 - (2) Scoping
 - (3) Collection of baseline data, assessment and compilation of the Environmental Report.
 - (4) Consultation with designated environmental authorities on Environmental Report and Draft Plan.
 - (5) Evaluation of submissions received in response to the consultation and amendments to the plan as appropriate with designated environmental authorities.
 - (6) Issuing of the final SEA Statement identifying how environmental considerations have been integrated into the final adopted Plan.
 - (7) Monitoring of significant environmental effects following adoption and implementation of the Plan.
- 1.3.2 This report only deals with stages 1-3.

Screening

- 1.3.3 The purpose of screening is to determine definitively if there is a necessity for a strategic environmental assessment to be undertaken. There is a mandatory requirement under the Planning and Development (Strategic Environmental Assessment) Regulations, 2004 (as amended) to undertake a strategic environmental assessment in respect of Local Area Plans for areas with a population of 5,000 or more, so in this instance, screening was not required and the SEA process proceeds to the next stage.

Scoping

- 1.3.4 The process of scoping for SEA is defined as the procedure whereby the range of environmental issues and the level of detail to be included in the Environmental Report are decided upon, in consultation with the prescribed environmental authorities. Scoping is necessary in order to establish, with objectivity, the potential impacts of the implementation of the draft plan on a number of environmental elements from consultations with a range of environmental bodies and the incorporation of associated submissions into the draft plan by way of their inclusion in the Environmental Report.
- 1.3.5 Scoping for the current SEA was commenced with the circulation of a Draft Scoping Report to all the environmental authorities on the 22nd April 2016. A total of two (2) submissions were received from EPA and Irish Water respectively. The Scoping Report was finalised on the 31st May 2016 and issues raised were considered further in the preparation of this Draft Local Area Plan and SEA Environment Report.

Collection of Baseline Data, Assessment and Environmental Report.

- 1.3.6 In order to assess the likely significant impacts of the Plan, baseline data on the current state of the environment has to be collected and evaluated and the potential effects of the plan predicted and considered. In accordance with legislation and guidance, the existing environment is described with respect to biodiversity, population, human health, fauna, flora, soil, water (surface freshwater, coastal, transitional, groundwater, bathing and water services (drinking water and waste water treatment), air, climatic factors, material assets (roads, transportation, energy etc), cultural heritage (including architectural and archaeological heritage), landscape and the interrelationships between these factors as appropriate. Any existing problems relevant to the new Plan are also identified at this baseline stage.
- 1.3.7 Identification of baseline environmental status provides for the identification of key resources and sensitivities within the Plan area and the identification of potential threats to the environment, thus allowing for the inclusion of mitigation measures that may need to be incorporated into the new Plan to ensure that it does not exacerbate existing problems. Assessment of the baseline environment also enables plan-makers to consider how the environment might evolve in the absence of the proposed plan.
- 1.3.8 As the data is compiled and plan policies evolve the likely significant effects of implementing the plan are identified, described and evaluated and this is described in the Environmental Report.
- 1.3.9 The information to be contained in the environmental report is set out in Annex 1 of the SEA Directive and reproduced in Schedule 2B of the Planning and Development Regulations 2001, as inserted by Article 12 of the Planning and Development (SEA) Regulations 2004). The structure of this report is summarised as follows:

Table 1: Information to be contained in an Environmental Report

| Item | Information to be contained in an Environmental Report | Relevant Section of Environmental Report |
|-------------|--|---|
| A | Outline of the contents and main objectives of the draft plan and relationship with other relevant plans or programmes | Section 2: Context of the Plan |
| B | Description of the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan | Section 3: Baseline Environment |
| C | Description of the environmental characteristics of areas likely to be significantly affected | Section 3: Baseline environment |
| D | Description of any existing environmental problems which are relevant to the plan including those relating to any areas of a particular environmental importance, such as Natura 2000 sites | Section 3: Baseline environment |
| E | Description of environmental protection objectives (EPOs), established at international, EU or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation | Section 4: EPOs |
| F | Description of the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and interrelationships between these factors | Section 6: Evaluation of Draft Plan |
| G | Description of the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan | Section 6: Evaluation of Draft Plan |
| H | Outline of the reasons for selecting the alternatives considered, with a description of how the assessment was undertaken and including any difficulties encountered in compiling the information | Section 5: Alternative Scenarios. |
| I | Description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan | Will be included in SEA Statement once plan finalised |
| J | A non-technical summary of the above information. | |

Documenting the SEA process

- 1.3.10 The SEA Process produces two documents – this environmental Report which is published with the Draft Municipal District Local Area Plan and an SEA statement which will be published at the end of the process, once the plan is adopted.
- 1.3.11 This Environmental Report will be submitted to the Elected Members with the Draft Municipal District Local Area Plan. The Members must take account of the Environmental Report before the Plan is adopted. When the Plan is adopted, an SEA Statement will be published, summarising, inter alia, how environmental considerations have been integrated into the Plan and the reasons for choosing the Plan as adopted over other alternatives considered in the Environmental Report.
- 1.3.12 Should alterations to the Draft Plan be proposed, there will be a further submission period of not less than four weeks during which time submissions and/or observations may be made on the proposed alterations. If material alterations are proposed they will need to undergo a screening process to determine if SEA is required. The proposed alterations, the screening document and SEA Environmental report, where relevant, will be sent to the Minister, the Board and the prescribed authorities and will be made available for public inspection.

1.4 Habitats Directive Assessment

- 1.4.1 Habitats Directive Assessment is an iterative process which runs parallel to and informs both the plan making process and the Strategic Environmental Assessment Process. It involves analysis and review of draft policies as they emerge during each stage of plan making, to ensure that their implementation will not impact on sites designated for nature conservation, nor on the habitats or species for which they are designated. Within this process, regard must also be had to the potential for policies to contribute to impacts which on their own may be acceptable, but which could be significant when considered in combination with the impacts arising from the implementation of other plans or policies.
- 1.4.2 1.4.2 The results of this analysis and review are presented in a Natura Impact Report which is contained in Section B of Volume Two of the Draft Municipal District Local Area Plan. At the end of the plan making process, an Appropriate Assessment Conclusion Statement will be produced which contains a summary of how ecological considerations in relation to Natura 2000 sites have been integrated into the Plan. The final Natura Impact Report and a declaration in relation to the potential for the plan to affect the integrity of Natura 2000 sites within its potential impact zone will also be produced at this time.

1.5 Strategic Flood Risk Assessment

- 1.5.1 As part of the review of the Local Area Plan, and in order to meet the needs of the Strategic Environmental Assessment process and the requirements of the Department of the Environment, Heritage and Local Government / Office of Public Works Guidelines, “The Planning System and Flood Risk Management” (2009), Cork County Council also undertook a Strategic Flood Risk Assessment (SFRA).
- 1.5.2 The assessment provides for an improved understanding of flood risk issues within the Municipal District and the spatial distribution of flood risk. The SFRA report sets out how the Flood Risk Assessment was undertaken, as well as how its findings were addressed and integrated into the Draft Plan. A copy of the SFRA is included in Appendix A of this report. It should be read in conjunction with the Draft Municipal District Local Area Plan.

1.6 Difficulties Encountered

1.6.1 During the preparation of the Environmental Report, habitats mapping for towns outside Metropolitan Cork was carried out and forms part of this report. No other new research was undertaken and information was gathered from existing sources of data. It should be noted that there are a number of areas where data was not readily available which include:

- No wetland inventory
- Habitat Mapping for the Non Metropolitan Towns was not finalised in time to inform preparation of report.
- Information is largely paper based with exceptions of designated areas in digitised format (GIS)
- Lack of guiding legislation in some areas e.g. soils and their conservation.
- Limited Air Quality monitoring data for the plan area. The frequency of this monitoring is also identified as an issue.
- Lack of a data on compliance records for waste water treatment systems on settlements of less than 500 p.e.
- Lack of information on the effectiveness of existing septic tank systems within the county.
- The lack of centralised data source for environmental baseline data posed a difficulty to the SEA process.

1.6.2 In addition, the status of a number of Transitional and Coastal Waterbodies was not available. Not only did this impede the preparation of the baseline assessment, it also highlights a potential problem with the implementation of the Water Framework Directive.

Section 2: The Draft Ballincollig Carrigaline Municipal District Local Area Plan

Sub-Section

- 2.1 Introduction
- 2.2 County Development Plan Strategy
- 2.3 Local Area Plan Strategy
- 2.4 Growth Strategy
- 2.5 Contents of the Draft Plan
- 2.6 Relationship with Other Relevant Plans and Programmes

2 The Draft Ballincollig Carrigaline Municipal District Local Area Plan

2.1 Introduction

- 2.1.1 In accordance with the Planning and Development Act, 2000 as amended a planning authority may at any time, and for any particular area within its functional area, prepare a local area plan in respect of that area.
- 2.1.2 The current Ballincollig Carrigaline Municipal District Local Area Plans were adopted in 2011 as two separate plans but are now under a single Municipal District and must be replaced by end of July 2017. On the 14th December 2015 the Council commenced a review by publishing a Preliminary Consultation Document for each of the 8 Municipal Districts and placing notices in the press to advise the public of the commencement of a 6 week period of public consultation. Submissions received were considered and included in a Chief Executive's Report to the Elected Members of the Council in April 2016. This was followed up by a series of briefing sessions to allow for consultation with members on issues raised and what needed to be addressed in the Draft Plan.

2.2 County Development Plan Strategy

- 2.2.1 A new Cork County Development Plan came into force in 2014. This plan, which has also been subject to Strategic Environmental Assessment and Habitats Directive Assessment, sets out the overall strategy for the proper planning and sustainable development of the County as a whole, including population targets for each Municipal District and each of the main towns. Within each Municipal District a combined population target is also given for the villages and rural areas. The County Development Plan 2014 has also identified the amount of new housing required in each Municipal District / Town /Village to meet the needs of the target population.
- 2.2.2 The County Development Plan has been prepared so that it is consistent with national targets issued by the Department of the Environment, Community and Local Government and the Regional Planning Guidelines for the South West Region. The Plan also sets out county-wide objectives for issues such as housing, social and community facilities, economy and employment, town centres and retail, energy and digital economy, transportation and mobility, water services, heritage, green infrastructure and the environment and zoning and land use.
- 2.2.3 The new Local Area Plan must be consistent with the objectives of the Cork County Development Plan 2014 and comply with the Local Area Plan Guidelines for Planning Authorities prepared by the Department of Environment, Community and Local Government and various legislative and other policy documents issued by the Government.

2.3 Local Area Plan Strategy

Overview

- 2.3.1 The Ballincollig Carrigaline Municipal District is located to the south of Cork City and in 2011 the population of the area stood at 71,946. This population is spread across a network of suburbs/settlements in particular the Cork City South Environs, 3 Main Towns, 5 smaller settlements and the open countryside. The district is largely urban based with over 91% of the population living in

the Cork City South environs and 3 Main Towns, 0.3% living in smaller settlements and just over 8% living in the open countryside i.e. not within a settlement.

- 2.3.2 Cork City South Environs is the largest urban area within the Municipal District with a population of 32,635 in 2011. The other urban areas are the Main Towns of Ballincollig, 17,368, Carrigaline (North), 9,917 and Passage West 5,790.
- 2.3.3 The Municipal District boundary splits Carrigaline Town into two parts, the North (population 9,917(67%) and South (Population 4,858(33%)). Carrigaline (South) is located in the Bandon-Kinsale Municipal District. The town centre of Carrigaline is also split into two roughly equal parts. Therefore it is proposed to include a Section on Carrigaline Main Town in both the Ballincollig-Carrigaline and the Bandon-Kinsale Municipal District Preliminary Consultation Documents.
- 2.3.4 The Ballincollig-Carrigaline Municipal District includes Ringaskiddy which is designated as a Strategic Employment Area in the Cork County Development Plan, 2014. Ringaskiddy also has a small local population but is not identified as a centre for population growth.

Table 2.1: Distribution of population within the Ballincollig Carrigaline Municipal District 2011

| | Settlement | Population 2011 | % |
|---|---|-----------------|------|
| Cork City South Environs and Main Towns(4)* | Ballincollig (17,368) Carrigaline(North)(9,917), City South Environs (32,635), Passage West (5,790) | 65,710 | 91.3 |
| Villages (2) | Ballynora, Waterfall. | 278* | 0.4 |
| Other Locations (3) | Curraheen, Curraghbinny and Farmers Cross | | |
| Rural Areas | | 5,958* | 8.3 |
| Total Population | | 71,946 | 100 |
| * Village and Rural Populations are estimated figures | | | |



Figure 2.1: Ballincollig Carrigaline Municipal District Settlements

Population Trends

2.3.5 Within the Ballincollig-Carrigaline Municipal District the County Development Plan provides for growth in population of 8,500 persons. The number of households is expected to grow by 7,685 leading to a net requirement for 9,144 new houses within the Municipal District. The County Development Plan indicates that 347ha of residentially zoned land is required.

2.3.6 The population growth target will require the provision of 8,663 new housing units, with significant new housing planned in each area, particularly in Ballincollig and Carrigaline.

**Table 2.2 Ballincollig Carrigaline Municipal District Housing Requirements and Supply
(Ballincollig Carrigaline MD LAP)**

| | Housing Requirement | | | | Housing Supply | |
|---|---------------------|-------------------|--------------------|--------------------------------|---|---|
| | Census 2011 | Population Target | New Units Required | Net Estimated Requirement (ha) | Est. Net Residential area zoned in LAP / TCP (ha) | Estimated Housing Yield (LAPs and TCPs) (Units) |
| Ballincollig | 17,368 | 23,805 | 4,038 | 161 | 170.3 | 4,872 |
| Carrigaline North | 9,917 | 11,994 | 2,422 | 97 | 90.80 | 2,423 |
| Cork City South Environs | 3,2635 | 31,308 | 1,284 | 37 | 93.00 | 1,285 |
| Passage West | 5,790 | 6,965 | 925 | 51 | 33.90 | 929 |
| Main Towns | 6,5710 | 74,072 | 8,663 | 347 | 388 | 9,509 |
| Villages | 278 | 355 | 55 | - | - | 37 |
| Rural | 5,958 | 6,019 | 425 | - | - | - |
| Total Villages and Rural | 6,236 | 6374 | 480 | - | - | 37 |
| Total for District | 71,946 | 80,446 | 9,144 | 347 | 388 | 9,546 |
| Current Estimated Strategic Land Reserve for this Municipal District is 41.3 Ha Source: Cork County Development Plan 2014- Volume One. Appendix B, Table B 8 | | | | | | |

2.4 Growth Strategy

2.4.1 At present planning policy for the settlements within the Ballincollig Carrigaline Municipal District is spread across the Carrigaline Electoral Area Local Area Plan adopted in 2011 and the Macroom Electoral Area Local Area Plan adopted in 2011. The intention is that local planning policy for all settlements within the Municipal District will be contained within the new Ballincollig Carrigaline Municipal District Local Area Plan 2017.

2.4.2 It is anticipated than many of the provisions of the current local area plans adopted in 2011 will be continued into the new Local Area Plan unless there is a specific requirement for change arising from changes in national planning policy, legislation, government guidelines, changes in local circumstances, needs etc or to reflect the provisions of the new County Development Plan adopted in 2014.

2.4.3 Within the Ballincollig Carrigaline Municipal District the County Plan provides for growth in population of 8,500 persons. The number of households is expected to grow by 7,685 leading to a net requirement for 9,144 new houses within the Municipal District in the period 2011-2022. The County Development Plan indicates that 347ha of land are required to meet this level of housing provision in the main towns, in addition to housing opportunities in the villages and rural areas.

2.4.4 Through its County Development Plan 2014, the Council has allocated the majority of this growth to the towns with 9,144 new houses proposed, the majority of which are planned for Ballincollig (4,033), Carrigaline (2,422), Cork City Environs (1,284) and Passage West (925). Some housing growth is also planned within the villages and rural (480 units).

Table 3.1 below shows that the current provision of zoned lands within the main towns is sufficient to accommodate 9,509 new dwelling units providing headroom of 846 units or 10% in excess of the net requirement within the towns of the Municipal District for 8,663 new units. Table 3.1 also shows that the greatest number of new dwellings is planned in Ballincollig with significant new growth also planned in Carrigaline.

| | Housing Requirement | | | | Housing Supply | |
|--------------------------|---------------------|-------------------|--------------------|--------------------------------|---|---|
| | Census 2011 | Population Target | New Units Required | Net Estimated Requirement (ha) | Est. Net Residential area zoned in LAP / TCP (ha) | Estimated Housing Yield (LAPs and TCPs) (Units) |
| Ballincollig | 17,368 | 23,805 | 4,038 | 161 | 170.3 | 4,872 |
| Carrigaline North | 9,917 | 11,994 | 2,422 | 97 | 90.80 | 2,423 |
| Cork City South Environs | 3,2635 | 31,308 | 1,284 | 37 | 93.00 | 1,285 |
| Passage West | 5,790 | 6,965 | 925 | 51 | 33.90 | 929 |
| Main Towns | 6,5710 | 74,072 | 8,663 | 347 | 388 | 9,509 |
| Villages | 278 | 355 | 55 | - | - | 37 |
| Rural | 5,958 | 6,019 | 425 | - | - | - |
| Total Villages and Rural | 6,236 | 6374 | 480 | - | - | 37 |

| | | | | | | |
|---|--------|--------|-------|-----|-----|-------|
| Total for District | 71,946 | 80,446 | 9,144 | 347 | 388 | 9,546 |
| Current Estimated Strategic Land Reserve for this Municipal District is 41.3 Ha Source: Cork County Development Plan 2014- Volume One. Appendix B, Table B 8 | | | | | | |

- 2.4.5 The scale of growth for the individual main settlements of the Municipal District as provided for in this Local Area Plan is outlined in Table 2.3. For the towns, the 'Overall Scale of New Development' figure is the same target figure established by the Core Strategy of the County Development Plan and sufficient residential land has been zoned within the plan to cater for this level of growth and to provide for additional spare capacity in the form of headroom.
- 2.4.6 Taking into account the need for a robust housing land supply in the Cork Metropolitan areas, there is a need to consider additional residential land of approximately 4-500ha in order to provide sufficient headroom of overall requirements. Therefore, the Ballincollig Carrigaline and Cobh Municipal District draft Local Area Plans have identified options for this strategic land reserve. A total of 1489ha in 12 sites has been identified in these two MDC LAP's. A full assessment of these potential land options will be undertaken prior to the publication of the Chief Executive Report in February 2017. Once preferred sites have been selected, they will be brought forward at the amendment stage of the plan.
- 2.4.7 Based on estimated current and target population figures for the villages, the County Development Plan (Core Strategy) estimated the number of new houses that that may need to be accommodated within the villages of this Municipal District as 55 units. This local area plan has retained the scale of growth figures for the villages at the 2011 figures which is at 37 units.
- 2.4.8 Within the village network it is suggested that the new local area plan should maintain the scale of growth established in the 2011 Local Areas Plans in order to respect the scale and character of the villages and because there are significant deficits in water services infrastructure. Ample land is available within the development boundaries of the villages to accommodate the expected level of growth and at this stage of the process it is not intended to make any significant changes to the development boundaries of any of the villages. The main factor constraining development in the villages is likely to be inadequate water services infrastructure. As outlined above, there is enough land available within the towns within the Municipal District to accommodate any development which cannot take place within the villages due to lack of infrastructure.

2.5 Contents of the Draft Plan

- 2.5.1 The Draft Local Area Plan provides a blueprint for the development of the Ballincollig Carrigaline Municipal District for the next 6 years. Set out below are details of the structure and broad chapter content of the Draft local Area Plan.

Section 1 Introduction

- 2.5.2 This Section sets out the review process to date, the overall plan context and the overall approach/key policies that will influenced the preparation of the Draft Plan namely;

Role of the Cork County Development Plan 2014

Approach to deal with Town Council Development Plans

Special Policy Areas-Framework Masterplan

Settlement Network

Infrastructure

Water Services

Flood Risk

Regeneration Areas

Quality in Urban Design

Green Belts around Towns

Environmental Assessment including

Strategic Environmental Assessment

Strategic Flood Risk Assessment

Habitats Directive Assessment

Section 2 Local Area Strategy

2.5.3 This section set out the overall strategy for the Ballincollig Carrigaline Municipal District. It sets out the housing requirements and zoned housing land supply for each of the main towns and the south environs, sets out the appropriate scale of growth within the village network and the current infrastructure position for all the main towns and smaller settlement within the settlement network. It assesses the current employment position in the Municipal District and the key Environment and Heritage assets within the area. The key message is that sufficient land has been provided to meet population targets but that infrastructure remains a key constraint to delivering on those targets.

Section 3 Main Towns

2.5.4 The purpose of this section is to set out the policies and objectives including land use zoning maps for the 5 Main Towns of Ballincollig, Carrigaline, Cork City Environs, Passage West and Ringaskiddy in the Ballincollig Carrigaline Municipal District. Where appropriate Regeneration Areas have also been identified.

Table 2.4: Population, Households and Net New Houses for Main Towns

| | Housing Requirement | | | | | Housing Supply | |
|---------------------|---------------------|-------------------|----------------------|--------------------|--------------------------------|---|-------------------------|
| | Census 2011 | Population Target | Total New Households | New Units Required | Net Estimated Requirement (Ha) | Net Estimated Residential Area Zoned (Ha) | Estimated Housing Yield |
| Ballincollig | 17,368 | 23,805 | 3,675 | 4,033 | 161 | 170.3 | 4,872 |
| Carrigaline | 9,917 | 11,994 | 1,435 | 2,422 | 97 | 90.80 | 2,423 |
| Cork South Environs | 32,635 | 31,308 | 1,336 | 1,284 | 51 | 93 | 1,285 |
| Passage West | 5,790 | 6,985 | 822 | 925 | 37 | 33.90 | 929 |

2.5.5 **Ballincollig** is the largest main town in the County and has been one of Cork's fastest growing towns. It is located only 8km to the west of Cork City. Ballincollig has experienced a high level of growth

and development pressure since 2000 however traffic congestion in the town has been greatly reduced with the opening of the N22 bypass and the Greenfields link road.

- 2.5.6 Under the Cork County Development Plan 2014 Ballincollig is defined as one of nine “Metropolitan Towns” within the Cork Gateway. The strategic aims of large metropolitan towns like Ballincollig are to accommodate critical population growth and act as service and employment centres within the Cork Gateway, providing high levels of community facilities and amenities with infrastructure capacity and high quality and integrated public transport facilities.
- 2.5.7 **Carrigaline** is a Metropolitan Town within the County Metropolitan Strategic Planning Area and has experienced a significant amount of development in recent years. The objective for Carrigaline is set out in TCR 4-4 of the County Development Plan 2014 where the stated aim is to support the vitality and viability of the metropolitan towns and to ensure that such centres provide an appropriate range of retail and non retail functions to serve the needs of the community and respective catchment areas, with an emphasis on convenience and appropriate comparison shopping.
- 2.5.8 Carrigaline is divided between two Municipal Districts but for the purposes of this plan is being treated as one area. This section is also replicated in the Bandon/Kinsale MD Local Area Plan.
- 2.5.9 **Passage West** Glenbrook and Monkstown are a series of linked Lower Harbour commuter settlements within the Metropolitan Strategic Planning Area. Passage West functions as an important residential area with excellent recreational facilities centred on its harbour location. The Settlement overlooks Cork Harbour, which provides an attractive setting. Glenbrook is largely a small linear residential fishing village which containing some limited services including the local Garda Station. Monkstown’s historic development as a new commuter suburb for the rich middle classes in the 19th century has left a legacy of large and impressive buildings.
- 2.5.10 **Ringaskiddy** is designated as a Strategic Employment Area, within the County Metropolitan Strategic Planning Area and has developed into one of the most significant employment areas in the Country. The objective for Ringaskiddy is set out in EE 4-1 of the County Development Plan 2014 where the stated aim is to promote the development of Ringaskiddy as a Strategic Employment Area suitable for large scale industrial developments which is compatible with relevant environment, nature and landscape protection policies as they apply around Cork Harbour.
- 2.5.11 Ringaskiddy is the location of modern deep-water port facilities, a naval and marine training institution and has successfully attracted major, large scale, high technology manufacturing plants. There are advanced proposals to upgrade the N28 to motorway standards

Section 4 Villages and Other Locations

- 2.5.12 There are 2 Villages in the Ballincollig Carrigaline Municipal District as follows; Ballynora and Waterfall.
- 2.5.13 It is a strategic aim of the Cork County Development Plan, 2014 to encourage and facilitate development at a scale, layout and design that reflects the character of each village, where water services and waste water infrastructure is available and support the retention and improvement of key social and community facilities within villages, including the improved provision of inter-urban public transport.

Table 2.6: Scale of Development in Ballincollig Carrigaline Municipal District Villages

| Name | Existing Number of Houses Q1 2015 (Geodirectory) | Growth 2005 to 2015 (Geodirectory) | Overall Scale of Development (No. of houses) | Normal Recommended Scale of any Individual scheme |
|------|--|------------------------------------|--|---|
| | | | | |

| | | | | |
|------------------|----|----|----|---|
| Ballynora | 26 | - | 15 | 5 |
| Waterfall | 89 | 42 | 22 | 8 |

2.5.14 There are 3 Other Locations in the Ballincollig Carrigaline Municipal District as follows
Curraghbinny, Curraheen and Farmers Cross.

2.5.15 It is a strategic aim of the Cork County Development Plan, 2014 to preserve the rural character of village nuclei and encourage small scale expansion at a scale, layout and design that reflects the character of each village, where water services and waste water infrastructure is available generally through low density individual housing, in tandem with the provision of services.

2.5.16 There are 3 Other Locations in the Ballincollig Carrigaline Municipal District as follows;
Curraghbinny, Curraheen and Farmers Cross.

2.5.17 It is a strategic aim of the Cork County Development Plan, 2014 to recognise Other Locations, as areas which may not form a significant part of the settlement network, but do perform important functions with regard to tourism, heritage, recreation and other uses.

Section 5 Putting the Plan into Practice

2.5.18 This section assigns responsibility for the implementation of the Plan's policies to various agencies including the Local Authority. It also sets out the expected timeframes for the delivery of physical and social infrastructure, including the assignment of Plan priorities and funding streams necessary to secure key development objectives. It also outlines the approach to monitoring and how the Plan will inform other Plans within its functional area.

2.6 Relationship with Other Relevant Plans and Programmes

2.6.1 The Local Area Plan is part of a hierarchy of County, Regional and National Plans. The Plan should be consistent with higher-level plans such as those of a county, regional or national nature. The following National, Regional and County Plans have influenced the policies contained in this Draft Local Area Plan.

National Policy

- 2.6.2 **National Spatial Strategy:** The National Spatial Strategy (NSS) is a twenty year planning framework for the entire country which is designed to achieve a better balance of social, economic and physical development and population growth between regions. The main focus of the NSS is to bring people, jobs and services closer together, in order to achieve a better quality of life for people, a strong, competitive economic position for the country and to ensure environmental protection.
- 2.6.3 Cork is identified as a gateway, a nationally significant centre whose location, scale and service base supports the achievement of the type of critical mass necessary to sustain strong levels of growth. Cork will build on its substantial and established economic base to lever investment into the South West region, with the support of its scale of population, its third level institutions and the substantial capacity for growth identified in the Cork Area Strategic Plan (CASP). Implementation of CASP is important to secure the objectives of the NSS. Mallow is identified as a 'hub' and will perform an important role within the national structure at regional and County level. Improvements in regional accessibility through roads, advanced communications infrastructure and public transport links are key supporting factors. The NSS also seeks to develop the potential of other towns and villages. Large towns near Cork City need to be promoted as self-sustaining towns. Medium sized towns in coastal and peripheral areas have a critical role to play as service centres and in economic development. In the more rural parts of the County "a dynamic and nationally important tourism product has been developed which will require effective management and sustainable development of the natural and cultural heritage to sustain it for the future".
- 2.6.4 **National Development Plan 2007 – 2013:** The National Development Plan (NDP) Transforming Ireland — A Better Quality of Life for All sets out our national investment priorities and has four basic objectives: to continue sustainable national economic and employment growth, to strengthen and improve Ireland's international competitiveness, to foster balanced regional development and to promote social inclusion. In Cork, the NDP identifies the need to accelerate growth and development and identifies a number of investment priorities for Cork including motorways, integrated public transport systems, enhancement of tourism, leisure and recreational facilities, developing employment, research and development capacity etc.
- 2.6.5 **Food Harvest 2020– A Vision for Irish Agri-Food and Fisheries:** The agri-food and fisheries sector is Ireland's most important indigenous industry and is recognised as having a key role to play in Ireland's export-led economic recovery. With €7bn in exports the sector currently accounts for over half of manufacturing exports, by Irish owned firms. The geographical distribution of the sector ensures that any future wealth and employment generated will be of direct benefit to rural and coastal communities. The 2020 vision for the sector seeks to increase the value of primary output in the agriculture, fisheries and forestry sector by €1.5 billion by 2020 (an increase of 33% on 2007-2009 levels); increase value added in the agri-food, fisheries and wood products sector by €3 billion (+40%) and achieve an export target of €12 billion for the sector (+ 42%). Meeting these targets will have significant environmental challenges including reducing the carbon intensity of Irish agriculture and ensuring the sector plays its part in reducing our overall greenhouse gas (GHG) emissions. As a County with a strong agri-food and fisheries sector already, there is obvious scope of sustainable growth in this area which should bring many benefits to the County as a whole.

- 2.6.6 National Climate Change Strategy (2007 – 2012) / Climate Change Adaption Framework 2012:** The National Climate Change Strategy 2007 – 2012 sets out a range of measures, building on those already in place under the first National Climate Change Strategy (2000) to ensure Ireland reaches its target under the Kyoto Protocol. The Strategy provides a framework for action to reduce Ireland's greenhouse gas emissions.
- 2.6.7 The National Climate Change Adaptation Framework** introduces an integrated policy framework, involving all stakeholders on all institutional levels to ensure adaptation measures are taken across different sectors and levels of government to manage and reduce Ireland's vulnerability to the negative impacts of climate change. Under the Framework, the relevant Government Departments, Agencies and local authorities have been asked to commence the preparation of sectoral and local adaptation plans and to publish drafts of these plans by mid-2014
- 2.6.8 National Renewable Energy Action Plan:** The National Renewable Energy Action Plan (NREAP) sets out the Government's strategic approach and concrete measures to deliver on Ireland's 16% target under European Renewable Energy Directive 2009/28/EC. The development of renewable energy is central to overall energy policy in Ireland. Nationally, the Government's ambitions for renewable energy and the related national targets are fully commensurate with the European Union's energy policy objectives and the targets addressed to Ireland under the Renewable Energy Directive. Ireland's energy efficiency ambitions (20% of energy from renewable sources by 2020) as set out in the National Energy Efficiency Action Plan are duly reflected in the NREAP.
- 2.6.9 National Biodiversity Plan: Action for Biodiversity 2011 – 2016:** Ireland's second National Biodiversity Plan sets out a vision for the conservation and restoration of biodiversity and ecosystems in Ireland and includes the overarching target of "reducing biodiversity loss and degradation of ecosystems in Ireland by 2016, and achieving substantial recovery by 2020". The Plan sets out a number of strategic objectives and actions which are aimed at mainstreaming biodiversity in the decision making process across all sectors, strengthening the knowledge base and increasing awareness of biodiversity in order to support the achievement of the target.
- 2.6.10 Our Sustainable Future -A framework for Sustainable Development in Ireland (2012):** This framework recognises that the green economy and sustainable development agendas are a key element of Ireland's economic recovery strategy and sets out the range of environmental, economic and social measures required to move these agendas forward. The framework sets out 70 measures that will ensure we improve our quality of life for current and future generations and sets out clear measures, responsibilities and timelines in an implementation plan. These include areas such as the sustainability of public finances and economic resilience, natural resources, agriculture, climate change, transport, sustainable communities and spatial planning, public health, education, innovation and research, skills and training, and global poverty. The framework recognises that some aspects of the pattern of development that emerged in Ireland over the last decade present major challenges from a sustainable development perspective and spatial planning is one of the mechanisms, along with wider public policy coordination and fiscal policy, to effect change at national, regional and local level and deliver more sustainable communities.
- 2.6.11 Smarter Travel. A new transport Policy for Ireland 2009-2020:** Smarter Travel recognises that transport and travel trends in Ireland are unsustainable. Even with the investment in Transport 21, if we continue with present policies, congestion will get worse, transport emissions will continue to grow, economic competitiveness will suffer and quality of life will decline. Smarter travel is designed to show how we can reverse current unsustainable transport and travel patterns and reduce the health and environmental impacts of current trends and improve our quality of life. Actions are aimed at influencing overall travel demand and reducing emissions in both urban and rural areas. Key actions include the following:

- Actions to reduce distance travelled by private car and encourage smarter travel, including focusing population growth in areas of employment and to encourage people to live in close proximity to places of employment and the use of pricing mechanisms or fiscal measures to encourage behavioural change,
- Actions aimed at ensuring that alternatives to the car are more widely available, through improved public transport service and investment in cycling and walking,
- Actions aimed at improving the fuel efficiency of motorised transport, and
- Actions aimed at strengthening institutional arrangements to deliver the targets.

2.6.12 National Action Plan for Social Inclusion 2007 – 2016: This National Action Plan for Social inclusion, complemented by the social inclusion elements of the National Development Plan 2007-2013: Transforming Ireland– A Better Quality of Life for All, sets out how the social inclusion strategy will be achieved over the period 2007-2016. The overall goal of this Plan is to reduce the number of those experiencing consistent poverty to between 2% and 0% by 2012, with the aim of eliminating consistent poverty by 2016.

2.6.13 National Heritage Plan 2002: The National Heritage Plan sets out a clear and coherent strategy and framework for the protection and enhancement of Ireland’s national heritage. The core objective of the Plan is to protect the national heritage as well as promoting it as a resource to be enjoyed by all.

Regional Policy

2.6.14 South Western Regional Planning Guidelines: Prepared by the South West Regional Authority to provide a broad canvas to steer the sustainable growth and prosperity of the region in line with the key principles of national strategy. Planning Authorities are required to have regard to the guidelines in the discharge of their functions.

2.6.15 South West River Basin District Management Plan has been prepared on foot of the EU Water Framework Directive to create an integrated approach to managing water quality on a river basin basis. It requires that management plans be prepared on a river basin basis in six year cycles and specifies a structured approach to developing those plans with the first plans to cover the period 2009 to 2015. The South West River Basin Management Plan is the mechanism for protecting and improving the County’s water resources and ensures that development permitted meets the requirements of the relevant River Basin Management Plan and does not contravene the objectives of the EU Water Framework Directive.

2.6.16 Waste Management Plan: A joint waste management strategy was prepared for the Cork City and county in 1995 by the both Local Authorities. Since then separate waste management plans have been prepared for each jurisdiction and the most recent plan for the County covers the period 2004-2009. Waste minimisation is a key element of the most recent Plan (2004) and includes a number of measures including waste prevention, reduction at source, reuse, recycling and recovery and is achieved through the use of bring sites, civic amenity sites, waste transfer stations, authorised transfer facilities and material recovery. All of these have a role to play in achieving national recycling targets.

Local Policy

2.6.17 Cork County Development Plan 2014: The Cork County Development Plan, 2014 adopted on the 8th December 2014 sets out the blueprint for the development of the county, underpinned by the core principles of sustainability, social inclusion, quality of design and climate change adaptation. The County Development Plan includes over 200 objectives on a range of issues including:

- Housing,
- Rural, Coastal and Island Development;

- Social and Community facilities;
- Economy and Employment;
- Town Centres and Retail Development;
- Tourism;
- Energy and Digital Economy;
- Transport and Mobility;
- Water Services, Surface Water (including Flooding) and Waste;
- Heritage;
- Green Infrastructure and Environment;
- Zoning and Land use.

2.6.18 The objectives of the County Development Plan have not been repeated in the Local Area Plan and so the two documents must be read together when planning a development. All proposals for development, put forward in accordance with the provisions of this Local Area Plan, must demonstrate compliance with the objectives of the County Plan.

2.6.19 It is expected to remain in force (subject to any interim variations that the Council may make) until late 2020. It is a six year development plan for the County that attempts to set out, as concisely as possible; Cork County Council's current thinking on planning policy looking towards the horizon year of 2022. The plan also sets out the overall planning and sustainable development strategy for the county which must be consistent with the National Spatial Strategy 2002-2020 and the South West Regional Planning Guidelines 2010-2022.

2.6.20 The Plan is the county's principle strategic planning policy document. Detailed land-use zoning maps for the main settlements of the county are contained in the Municipal District Local Area Plans.

2.6.21 **Local Economic and Community Plans:** The Local Economic and Community Plan (LECP) was adopted in 2016. It is provided for in the statutory Local Government Reform Act 2014. This Act requires that a six-year plan be adopted by Cork County Council, setting out high level goals, objectives and actions required to promote and support local economic and community development within the county. The strategic aim of this Local Economic and Community Plan (LECP) is, ultimately, the "Removal of barriers to facilitate individuals and organisations in achieving their ambitions, within a long-term and sustainable framework"

2.6.22 This strategic aim seeks to absorb and reflect the breadth and complexity of modern life, where opportunities exist for individuals and organisations to fulfil their ambitions, whether personal, economic or social. Places and societies that best provide for those ambitions, within a sustainable framework, are the places where people want to live and work. In turn, places where people want to live are the places that become socially and economically relevant. Impediments – be they linked to issues around physical, organisational, environmental, economic, educational, equality, access, or related to any of the other aspects of our collective lives – are the barriers to our ambitions. This plan seeks to commence a process that will lead to removal of those barriers by those with the capacities to do so.

2.6.23 The legislation envisaged that the LECP will be consistent with its informing strategies, set at a European, National and Regional level, while also being consistent and integrated with complementary plans at its own level. In particular, the LECP must be consistent with the County Development Plan

Core Strategy and the planned for Regional Spatial and Economic Strategy (RSES), currently the Regional Planning Guidelines.

- 2.6.24 This Local Area Plan will play a key role in implementing the LECP's aims and objectives as they apply to this Municipal District while at the same time the LECP will set out a pathway to address many of the social and economic issues facing the District identified in this Local Area Plan.
- 2.6.25 **County Biodiversity Action Plan 2009-2014:** This plan addressed how the wildlife resources of the County, including native plants, animals and the ecosystems that they combine to produce, will be managed and protected. Its implementation will contribute to achieving national and international targets for the conservation of biodiversity in the context of constantly accelerating rates of species extinction and habitat loss and deterioration globally.
- 2.6.26 **Cork County Heritage Plan 2005-2010:** The development of the County Heritage Plan had its origins in the National Heritage Plan published in 2002. The aim of the plan is to 'ensure the protection of our heritage and to promote its enjoyment by all'. This is underpinned by the core principle that heritage is communal and we all share a responsibility to protect it.
- 2.6.27 **Cork City Development Plan 2015-2021:** The city plan is of relevance because the city is the main economic and retail focus for the county as a whole and the focus of public transport services within the metropolitan area. The Plan includes a population target for the city of 150,000 by 2022 and re-emphasises the potential for the development of brownfield land in the City Centre, Docklands, Mahon and Blackpool to cater for the sustainable growth of the city.

Legislative Context

2.6.28 The Directive 2001/42/EC of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment (the SEA Directive) and its transposed Irish legislation, including amendments form the legislative framework for the SEA process, including its documentation in the form of an Environmental Report. The Planning and Development Act, 2000 (as amended) also forms an integral part of SEA and additional guidance from a European context and national context has been listed within this Section. Additional key pieces of legislation pertaining to environmental considerations include the following list which is regarded as not exhaustive:

- EU Birds Directive (79/409/EEC)
- EU Habitats Directive (92/43/EEC)
- The Wildlife Act, 1976 (as amended)
- The Flora (Protection) Order 1999
- UN Convention of Biological Diversity 1992 (ratified 1996)
- Convention on Wetlands of International Importance (Ramsar Convention 1971)
- European Communities (Birds and Natural Habitats) Regulations, 2011
- Urban Waste Water Treatment Regulations, 2001 and 2004 and Amendments (2010)
- Water Services Act, 2007
- Water Services (Amendment) Act, 2013
- European Communities Environmental Objectives (Surface Waters) Regulations, 2009
- European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations, 2009

- European Communities Environmental Objectives (Groundwater) Regulations, 2010
- EU Nitrates Directive (91/676/EEC)
- European Communities (Good Agricultural Practice for Protection of Waters) Regulations, 2010
- EU Bathing Water Directive (2006/7/EC)
- Bathing Water Quality Regulations, 2008
- Bathing Water Quality (Amendment) Regulations, 2011
- Shellfish Waters Directive (2006/113/EC)
- European Communities (Quality of Shellfish Waters) Regulations, 2006
- European Communities (Quality of Shellfish Waters) (Amendment) Regulations, 2009
- Waste Water Discharge (Authorisation) Regulations, 2007
- European Communities (Environmental Liability) Regulations, 2008
- Air Quality Standards Regulations, 2011
- Environmental Noise Regulations, 2006
- The European Landscape Convention, 2000

Section 3: Environmental Baseline

Sub-Section

- 3.1 Introduction
- 3.2 Population and Human Health
- 3.3 Biodiversity-Flora and Fauna
- 3.4 Soils
- 3.5 Water
- 3.6 Air and Climatic Factors
- 3.7 Material Assets
- 3.8 Cultural Heritage
- 3.9 Landscape
- 3.10 Flooding

3 Environmental Baseline

3.1 Introduction

3.1.1 The environmental baseline of this Municipal District is described in this section. This baseline information outlines the environmental context within which the Draft Ballincollig Carrigaline Municipal District Local Area Plan will operate. The purpose of this section is to provide enough environmental baseline data to:

- support the identification of environmental problems;
- support the process of assessing the environmental effects;
- provide a baseline against which future monitoring data can be compared.

3.1.2 A number of key environmental issues set the context for the collection of the baseline data and each section includes an overview of the current situation, the key environmental problems and an analysis of the likely evolution in the absence of the Draft Plan. The Environmental issues are listed below:

- Population and Human Health,
- Biodiversity – Flora and Fauna,
- Soil,
- Water,
- Air and Climatic factors,
- Material Assets,
- Cultural Heritage,
- Landscape.

3.1.3 A number of maps are included to illustrate the baseline environment of the Municipal District County, the majority of which indicate the existing situation for the environmental issues identified above. However in many cases the maps and information is only available at a County Level.

3.1.4 The Department of the Environment, Heritage and Local Government (DoEHLG) circular SEA 1/8 and NPWS 1/8 requires that under the Habitats Directive an Appropriate Assessment of the ecological implications of a plan is conducted. An appropriate assessment of the Draft Plan was conducted by Cork County Council and is provided as part of this Draft Plan.

3.2 Population and Human Health

3.2.1 In 2011 the population of the Ballincollig Carrigaline MD stood at 71,946. In the period to 2022, the population target allocated in the Cork County Development Plan 2014 provides for the population to grow by 8,500 persons or 10.5% approximately. The majority of this growth is targeted at the two towns of the District; Ballincollig, Carrigaline plus the South environs. Growth is also provided for across the network of smaller settlements within the District.

Table 3.1 Ballincollig Carrigaline Municipal District Housing Requirements and Supply

| | Housing Requirement | | | | Housing Supply | |
|--|---------------------|-------------------|--------------------|--------------------------------|---|---|
| | Census 2011 | Population Target | New Units Required | Net Estimated Requirement (ha) | Est. Net Residential area zoned in LAP / TCP (ha) | Estimated Housing Yield (LAPs and TCPs) (Units) |
| Ballincollig | 17,368 | 23,805 | 4,038 | 161 | 170.3 | ,4872 |
| Carrigaline North | 9,917 | 11,994 | 2,422 | 97 | 90.80 | 2,423 |
| Cork City South Environs | 3,2635 | 31,308 | 1,284 | 37 | 93.00 | 1,285 |
| Passage West | 5,790 | 6,965 | 925 | 51 | 33.90 | 929 |
| Main Towns | 6,5710 | 74,072 | 8,663 | 347 | 388 | 9,509 |
| Villages | 278 | 355 | 55 | - | - | 37 |
| Rural | 5,958 | 6,019 | 425 | - | - | - |
| Total Villages and Rural | 6,236 | 6374 | 480 | - | - | 37 |
| Total for District | 71,946 | 80,446 | 9,144 | 347 | 388 | 9,546 |
| Current Estimated Strategic Land Reserve for this Municipal District is 41.3Ha Source: Cork County Development Plan 2014- Volume One. Appendix B, Table B 8 | | | | | | |

3.2.2 With regard to Human Health, impacts relevant to SEA are those which arise as a result of interactions with environmental vectors such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so they come in contact with human beings. These issues will be explored in the Environmental Report.

Existing Sensitivities in relation to Population and Human Health

3.2.3 The Draft Plan has made provision for the population of the MD to increase leading to increased demand for housing within the area and the provision of supporting social, community and employment/commercial services, facilities and opportunities. The timely delivery of such services is important to the quality of life of the population.

3.2.4 Enabling population growth and sustainable patterns of development in key settlements may be hindered by delays in the delivery of key infrastructure required to facilitate development leading to a housing shortage in some areas and development being shifted to other, potentially less sustainable locations, frustrating efforts to plan for having people, jobs and services located closer together.

- 3.2.5 Dispersed settlement patterns can lead to an over dependence on car based transport and long journeys to work which can have negative impacts on the health of the population and quality of life.
- 3.2.6 The economic decline of some settlements and/or the failure of others to realise the expected level of growth, can lead to reduced service provision, loss of job opportunities and reduced quality of life for the remaining residents of the area. A key challenge for the Draft Plan is to promote the sustainable growth of the economy of the six main towns of the Municipal District to support the balanced socio economic growth of the area.
- 3.2.7 Improved recreational/walking and cycling facilities are needed to support an increased uptake in physical exercise to help improve / maintain the health of the population.

3.3 Biodiversity-Flora and Fauna

- 3.3.1 European and National Legislation now protect the most valuable of our remaining wild places, through designation of sites as proposed Natural Heritage Area, Natural Heritage Areas, candidate Special Areas of Conservation and Special Protection Areas. The designation of these sites at a national level is the responsibility of the Department of the Environment, Heritage and local Government but it is the responsibility of all of us to protect these sites. The process of designation of such sites is ongoing, with new sites being added, redesignated and boundaries of existing sites being adjusted. The key Natura sites in the Ballincollig Carrigaline MD are illustrated in Figure 3.1.
- 3.3.2 There is one SPA, one SAC and five pNHA's dispersed throughout the Ballincollig Carrigaline MD. The reasons for designation range from ecological, plants, ornithological, woodland, heath, bats and vegetation. The largest nature conservation area is the Cork Harbour SPA (4030). The four pNHAs include Douglas River Estuary pNHA1046, Monkstown Creek pNHA1979, Loughbeg pNHA1066 and Owenboy River pNHA1990.

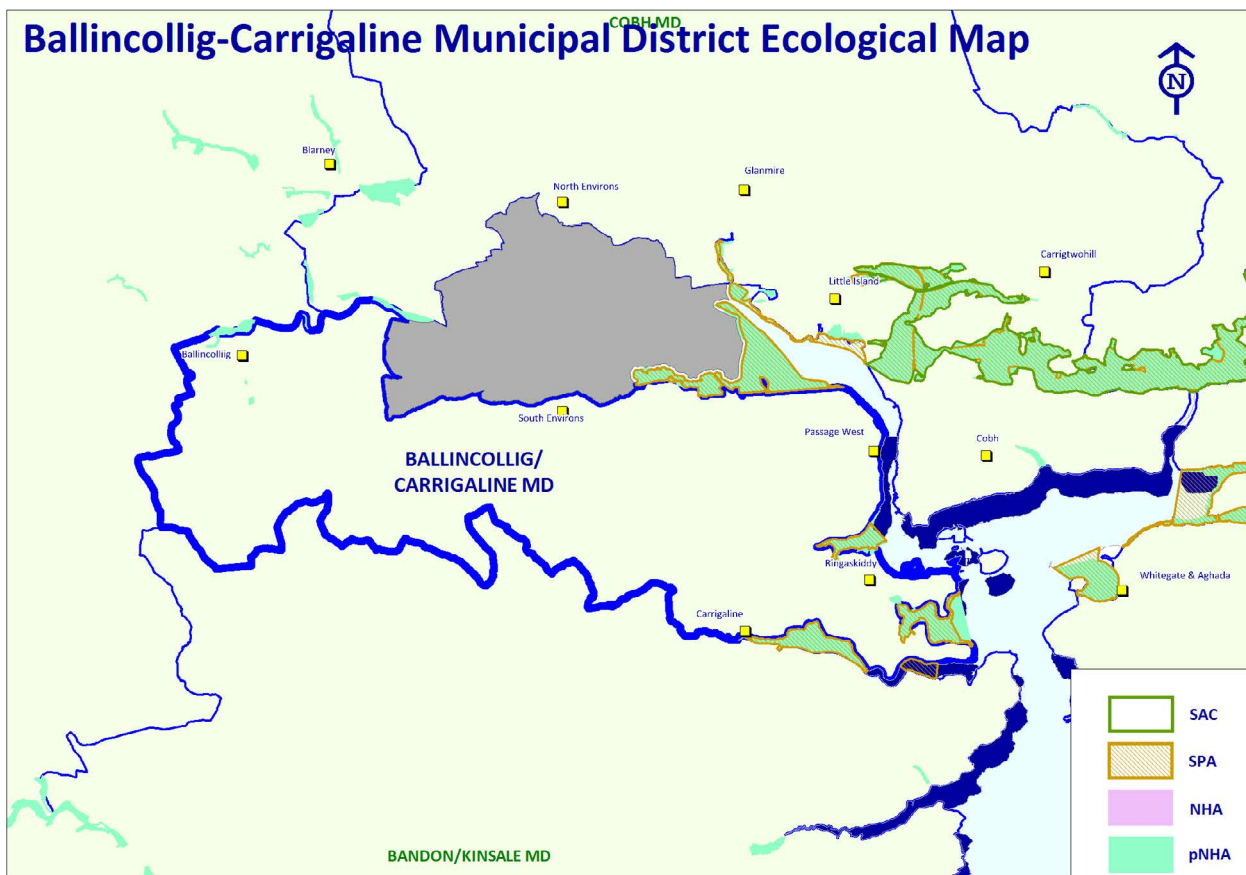


Figure 3.1 Ballincollig Carrigaline Ecological Map

Table 3.2: Special Protection Areas

| Name | Environmental Designation | Settlement |
|--------------|---------------------------|--|
| Cork Harbour | SPA 4030 | Douglas, Ringaskiddy, Rochestown, Monkstown, Passage West, Glenbrook |

Table 3.3: Special Areas of Conservation

| Name | Environmental Designation | Settlement |
|-----------------------------------|---------------------------|--|
| Cork Harbour Great Island Channel | SAC 1058 | Douglas, Ringaskiddy, Rochestown, Monkstown, Passage West, Glenbrook |

Table 3.4: Natural Heritage Areas

| Name | Environmental Designation | Settlement |
|-----------------------|---------------------------|--------------|
| Ballincollig Cave | pNHA 1249 | Ballincollig |
| Douglas River Estuary | pNHA 1046 | Douglas |
| Monkstown Creek | pNHA 1979 | Ringaskiddy |
| Loughbeg | pNHA 1066 | Ringaskiddy |
| Owenboy River | pNHA 1990 | Carrigaline |

Protected Species

- 3.3.3 Cork Harbour is a large, sheltered bay system with several river estuaries – principally those of the Rivers Lee, Douglas and Owenacurra. The SPA site comprises most of the arterial areas of Cork Harbour, including all of the North Channel, the Douglas Estuary, Inner Lough Mahon, Lough Beg, Whitegate Bay and Rostellan inlet. Cork Harbour is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl, for which it is amongst the top five sites in the country. Several of the species which occur regularly are listed in Annex 1 of the EU Birds Directive, i.e. whooper swan, Golden Plover, Bar-tailed Godwit, Ruff and Common Tern.
- 3.3.4 The SEA has been informed by the findings of the Habitats Directive Assessment process and will include appropriate mapping highlighting important sites within the area. The SEA process has also been informed by the Ecological Baseline study commissioned by the Council.

Existing Sensitivities in relation to Biodiversity

- 3.3.5 The new LAP will make provision for the population of the MD to increase leading to increased demand for housing within the area and the provision of supporting social, community and employment / commercial services, facilities and opportunities. The timely delivery of such services is important to the quality of life of the population.
- 3.3.6 Enabling population growth and sustainable patterns of development in key settlements may be hindered by delays in the delivery of key infrastructure required to facilitate development leading to a housing shortage in some areas and development being shifted to other, potentially less sustainable locations, frustrating efforts to plan for having people, jobs and services located closer together.
- 3.3.7 Dispersed settlement patterns can lead to an over dependence on car based transport and long journeys to work which can have negative impacts on the health of the population and quality of life.
- 3.3.8 The economic decline of some settlements and / or the failure of others to realise the expected level of growth, can lead to reduced service provision, loss of job opportunities and reduced quality of life for the remaining residents of the area. A key challenge for the new plan is to promote the sustainable growth of the economy of the three main towns of the Municipal District to support the balanced socio economic growth of the area.
- 3.3.9 Improved recreational/walking and cycling facilities are needed to support an increased uptake in physical exercise to help improve / maintain the health of the population.
- 3.3.10 At present water quality issues within Cork Harbour, which is a designated Special Area of Conservation and Special Protection Area, mean that development within the catchment is on hold pending resolution of the water quality issues. This will affect development within the Fermoy Municipal District.
- 3.3.11 New development has the potential to impact on biodiversity, flora and fauna through the loss of some greenfield land, habitat loss or disturbance, contribution to climate change and impacts on water quality.
- 3.3.12 The Council is commissioning a baseline ecological status report for some areas which will help inform the development of the new local area plan and minimise the loss of ecological resources. Other Municipal Districts have already completed habitat assessments and the information from these has informed the analysis of the biodiversity baseline.

3.4 Soils

3.4.1 The SEA examined soil issues within the Municipal District, looking at the most common soil types within the plan area and how they might be affected by the development proposed in the Draft Plan. The SEA considered the challenges facing soil generally together with issues such as erosion, geology and quarrying as appropriate.

3.4.2 The most dominant soil types in County Cork are Brown Podzolics and Grey Brown Podzolics which are medium to heavy texture with a great depth of profile. These soils are located in the southern and eastern parts of the county. Brown Podzolics display good physical characteristics and are usually devoted to cropping and pasture production, while Grey Brown Podzolics are good all purpose soils. Figure 3-2 displays the soil cover characteristics within the county.

| | | | |
|-----------------|---|--|--|
| Rolling Lowland | Brown Podzolics 60% Less depleted of nutrients | Acid Brown earths 40% Most occur on lime deficient parent materials, therefore acidic in nature, relatively mature and well drained | Old Red sandstone, Lower avonian shale and Rhyolite glacial till. |
|-----------------|---|--|--|

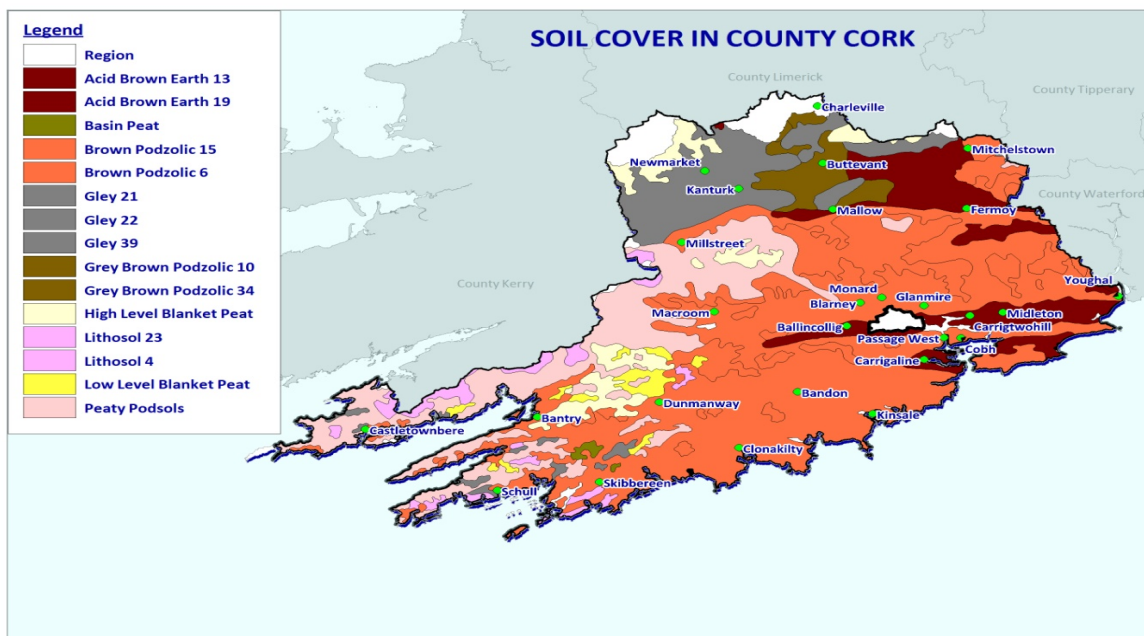


Figure 3.2 Soil Cover in County Cork

Existing Sensitivities in relation to Soil

4.5.3 Additional development may lead to damage to or loss of the soil resource or impact on its functions.

3.5 Water

- 3.5.1 This section of the SEA will consider issues in relation surface water (rivers and lakes, estuarine and coastal waters) and groundwater in the Municipal District as appropriate looking at the status and quality of these waters. The section will also examine water services infrastructure (drinking water supply, wastewater treatment and storm water).
- 3.5.2 Consideration was given to current and future loading within key water catchments, the potential impacts of additional development on water quality, surface water management, climate change and the need for new infrastructure to serve anticipated demands.
- 3.5.3 Water services of the all the infrastructure requirements needed to facilitate new development is the most critical, as in the absence of it, no development can take place. Since January 2014 Irish Water is responsible for the operation of public water services (drinking water and wastewater) including management and maintenance of existing water services assets. Those intending to carry out development must now obtain consent to connect to Irish Water Infrastructure for new development. Irish Water also has responsibility for planning for future infrastructure needs and for the delivery of new infrastructure and future decisions in relation to investment in new water services infrastructure will be made by Irish Water. Developers must also satisfy themselves that Irish Water will make adequate services available in order to meet the needs of any development they propose.
- 3.5.4 Irish Water have undertaken a strategic review of all settlements in the Metropolitan Area and developing an investment programme for the implementation of the water services (water and waste water) in line with the priorities identified by Cork County Councils urban expansion areas. The investment programme needs to be implemented in tandem with the investment package for roads, stormwater and recreation so that there is a co-ordinated approach to development.
- 3.5.5 The Cork County Development Plan, 2014 and the new Municipal District Local Area Plans are important documents that Irish Water should take into account in formulating its plans and programmes. As part of the review of the Local Area Plans it is proposed to prepare a companion document outlining the Water Services Infrastructural Investment needs in each Municipal District.
- 3.5.6 So far as the villages are concerned, in many cases the water services infrastructure needed to deliver the 2011 housing requirements is often not in place. In general the Councils approach to this, which is summarised in Table 3.6, is that where Irish Water already have water services infrastructure in a town or village then Irish Water will need to upgrade that infrastructure as necessary to meet the demands of current and future customers in the settlement.

Table 3.6 :Strategy for Water Services Provision

| Normally Expected level of Water Services | | Policy Approach |
|---|---|--|
| Towns | Public Drinking Water and Waste Water Treatment | Adequate water services infrastructure to be prioritised. |
| Key villages | | |
| Villages | Public Drinking Water | Adequate drinking water services infrastructure to be prioritised |
| | Public Waste Water Treatment | Adequate waste water treatment facilities to be prioritised for villages which already have some element of public infrastructure. |
| | | For smaller villages where services are not available or expected, development will be limited to a small |

| Table 3.6 :Strategy for Water Services Provision | | |
|---|------------------------------|---|
| | | number of individual houses with their own treatment plant. |
| Village Nuclei | Public Drinking Water | Where already present, adequate drinking water services to be maintained. In the absence of public drinking water, individual dwellings may be permitted on the basis of private wells subject to normal planning and public health criteria. |
| | Public Waste Water Treatment | In these smaller settlements within no public services, it is proposed to limit development to a small number of individual houses with their own treatment plant. |

3.5.7 Across the County as a whole the water services infrastructure needed to deliver the scale of growth envisaged by the County Development 2014 is often not in place. In general the Councils approach to this is that where Irish Water already have water services infrastructure in a town or village then Irish Water will need to up upgrade that infrastructure as necessary to meet the demands of current and future customers in the settlement.

3.5.8 Therefore, while the current water services infrastructure may not immediately be able to deliver the overall scale of growth set out in the LAP, the proposal is to retain the target with the expectation that the infrastructure will be delivered over time by Irish Water.

Table 3.7: Ballincollig-Carrigaline Municipal District – Suggested Scale of Development

| Name | Existing Number of Houses Q1 2015 (Geo directory) | Outstanding Planning Permissions Q1 2015 (No. of houses) | Scale of Development (CDP 2014 and LAPs 2011) | Drinking Water Status | Waste-Water Status | Suggested Scale of Development |
|---------------------------|---|--|---|-----------------------|--------------------|--------------------------------|
| Main Towns (4) | | | | | | |
| Ballincollig | - | - | 4,033 | | | Target as per CDP 2014 |
| Carrigaline (North) | - | - | 2,422 | | | Target as per CDP 2014 |
| Cork South Environs | - | - | 1,284 | | | Target as per CDP 2014 |
| Passage West | - | - | 925 | | | Target as per CDP 2014 |
| Total Main Towns | | | 8,664 | | | |
| Villages (2) | | | | | | |
| Ballynora | 26 | - | 15 | | None | A |
| Waterfall | 89 | 42 | 22 | | None | A |
| Total Villages | | | 37 | | | |
| Overall Total | | | 8,701 | | | |
| Water Services Key | Irish Water Services in place with broadly adequate existing water services capacity. | | | | | |
| | Irish Water Services in place with limited or no spare water services capacity. | | | | | |
| | None – No existing Irish Water Services. | | | | | |

Existing Sensitivities in relation to Water

- 3.5.9 The major issues arising in relation to water relates to the towns of Carrigaline, Passage West/ Monkstown and Ringaskiddy, where this currently deficiencies in relation to Waste Water services.
- 3.5.10 It is envisaged that high quality drinking water and waste water infrastructure will be in place through the provision of the Lower Harbour WWT plant in Ringaskiddy, which when completed, have the capacity to serve Carrigaline, Passage West/Monkstown and Ringaskiddy and will be in place when the new Local Area Plan comes into force in mid 2017.
- 3.5.11 There is capacity in Ballincollig to cater for some of the planned growth and additional investment will be required to cater for the balance
- 3.5.12 In terms of water services infrastructure within the Municipal District Table 3.7 in section 3 of this document details the current status of the water services infrastructure within the Ballincollig Carrigaline Municipal District. Additional investment will be required in some settlements in order to facilitate development in line with Core Strategy provisions of the County Development Plan 2014.

3.6 Air and Climatic Factors

- 3.6.1 The SEA for this Plan considered Air and Climatic Factors potentially affecting the plan area including air quality, noise, greenhouse gases etc.
- 3.6.2 Air quality is generally good in the County and Cork is located in an area with a relatively mild climate and has an almost continuous movement of clean air. Nationally, it is now evident that, due mainly to the very significant increase of vehicles on the public roads, the biggest threat now facing air

quality in urban areas is emissions from road traffic. As the population grows and more development takes place emissions will rise.

- 3.6.3 Cork County and City Councils have prepared a joint Noise Action Plan which deals with the mitigation of noise within the Cork conurbation as well as along all national and some regional roads within the county. Common sources of noise within the County include road vehicles, aircraft, railways, industry, construction, commercial premises and entertainment venues, sports and recreation venues and windfarms.
- 3.6.4 Development Plans and Local Area Plans have an important role to play in the prevention and limitation of adverse noise effects and can ensure that conflicts do not occur between noise-generating and noise sensitive uses such as housing, hospitals, schools, places of worship etc., by guiding development to the right locations and where necessary, specifying design and layout solutions, planning authorities can limit the overall number of people exposed to potential noise effects.

Existing Sensitivities in relation to Air and Climate

- 3.6.5 One of the key manifestations of climate change is flooding. A Strategic Flood Risk Assessment (SFRA) has been undertaken as part of the preparation of this plan, and all zoned lands in areas at risk of flooding have been reviewed. The Strategic Flood Risk Assessment (SFRA) is included in Volume 2 of this Plan and explains in detail the overall approach to flood risk management that has been followed. It is important to read this document in conjunction with Volume 1 of the plan.
- 3.6.6 While air quality is not an issue at present, given the significant levels of growth forecast for the Airport, and the lack of on-going monitoring data, it is considered appropriate that an air quality monitoring programme be established. One of the key manifestations of climate change is flooding. The Council has a body of information in relation to the areas that are at risk of flooding and will test the outputs of the proposed new local area plan against that information as part of the Strategic Flood Risk Assessment of the new plan.
- 3.6.7 At present, noise is not a significant issue at Cork Airport, largely because established planning policies have kept the airport approaches free from development. Notwithstanding this it is appropriate that a noise monitoring programme be carried out as movements will exceed the 50,000 threshold in the current statutory lifetime of this Local Area Plan.
- 3.6.8 The dispersed nature of the settlement patterns throughout the county results in high levels of car based commuting which contributes to the overall transport emissions which impacts on air quality.

3.7 Material Assets

- 3.7.1 The EPA SEA Process Draft Checklist (2008) defines material assets as the critical infrastructure essential for the functioning of society such as: electricity generation and distribution, water supply, wastewater treatment, transportation, etc. Water Supplies and Waste Water Treatment infrastructure will be dealt with under Water in Section 3.5. This section of the SEA will deal with other essential infrastructure within the plan area i.e. Transport (Road, Rail, Public Transport, airports, ports/ harbours) as appropriate and Waste.

Existing Sensitivities in relation to Material Assets

- 3.7.2 Additional population and economic growth in the area is dependent on the provision of appropriate and sustainable water services and transport infrastructure to underpin sustainable growth.

The Draft Plan has identified areas where additional investment is required in order to meet population growth targets.

3.8 Cultural Heritage

3.8.1 The SEA will consider Archaeological and Architectural Heritage. Cork County has a vast resource of archaeological heritage with over 19,000 monuments registered throughout the County. Figure 3.3 indicates the distribution of recorded monuments within the county. The County has the highest concentration of National Monuments (58 in total).

3.8.2 Within the network of settlements designated for growth, a number of towns are subject to zones of archaeological potential including Bandon, Buttevant, Clonakilty, Cobh, Fermoy, Kinsale, Macroom, Mallow, Midleton, Skibbereen and Youghal. Some of these towns are also walled towns and subject to recently released national policy and guidelines regarding “walled towns” (Youghal, Bandon, Kinsale & Buttevant).

3.8.3 County Cork has a wealth of industrial archaeology and this is protected through the archaeological record. Underwater Archaeology is now recognised as an important element of our cultural heritage. Given the coastal geography of County Cork and the significance role that some of the County’s coastal ports and towns played in historic events over the centuries there is very high potential for underwater cultural material in the form of shipwreck remains and associated artefacts. Some of the coastal towns may have been subject to reclamation and infrastructure may have been developed to facilitate the maritime landscape. Maritime artefacts such as quays, jetties, anchorages, access routes to the sea etc are all important cultural heritage resources

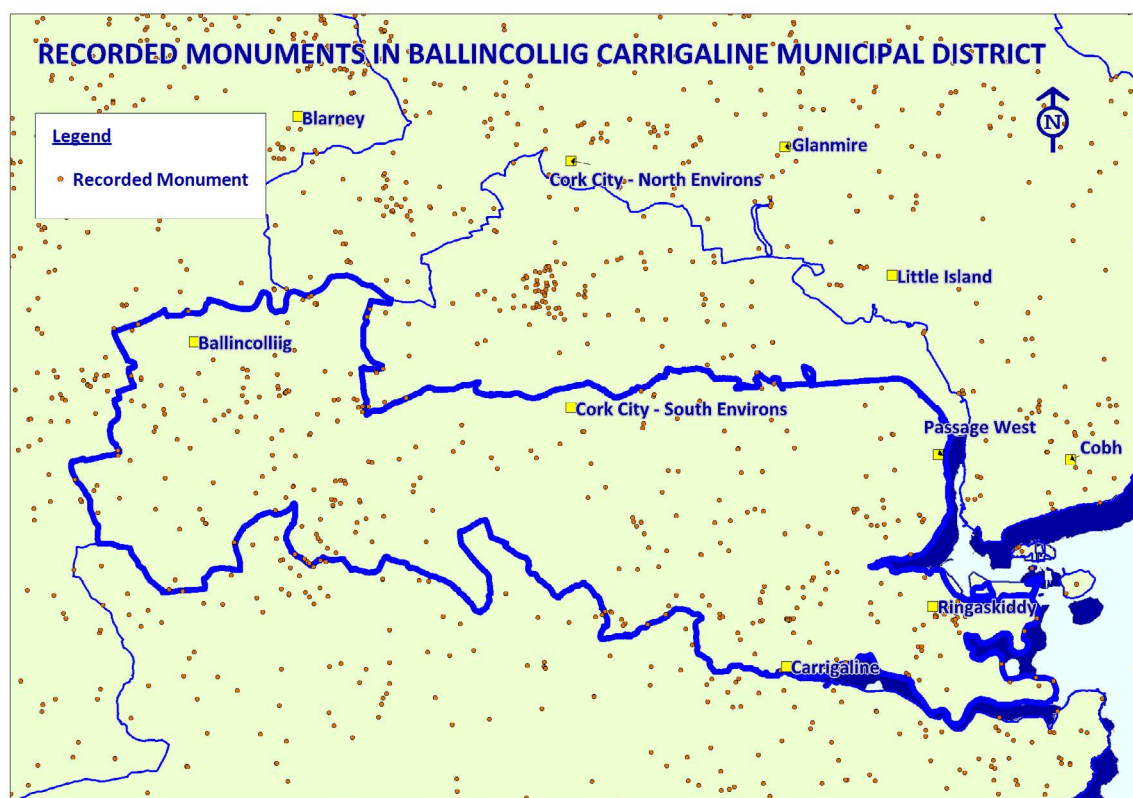


Figure 3.3: Recorded Monuments

3.8.4 In terms of Architectural Heritage, the Planning and Development Act sets out the requirements for County Development Plans to protect structures of “architectural, historical, archaeological, artistic, cultural, scientific and technical interest” by including a Record of Protected Structures (RPS) or the designation of Architectural Conservation Areas (ACAs) to protect areas of townscape value. There are currently in excess of 1,400 structures on the RPS as part of the County Development Plan 2014. Figure 3.4 illustrates the distribution of protected structures in the Ballincollig Carrigaline MD while Table 3.8 provides information at main town level.

3.8.5 There are 2 Architectural Conservation Areas designated within the County Development Plan 2014, Under the Planning Act it is an objective to protect the special character of an area which generally comprises of a collection of buildings and their setting and in many cases may include a historic demense or park. Some of these are within settlements designated for growth.

| Table 3.8 Ballincollig Carrigaline Built Heritage Designations | | | | |
|--|-----|-----|---------------------------|---|
| Settlement Name | ACA | RPS | NIAH | Archaeology (* as per Urban Archaeology Survey) |
| Ballincollig | 0 | 12 | 48 | 27 sites |
| Carrigaline | 0 | 6 | 12 | 29 sites |
| Cork City South Environs | 2 | 26 | 58 | 19 sites |
| Passage West Monkstown | 3 | 10 | 217 in total (3 National) | 7 sites |

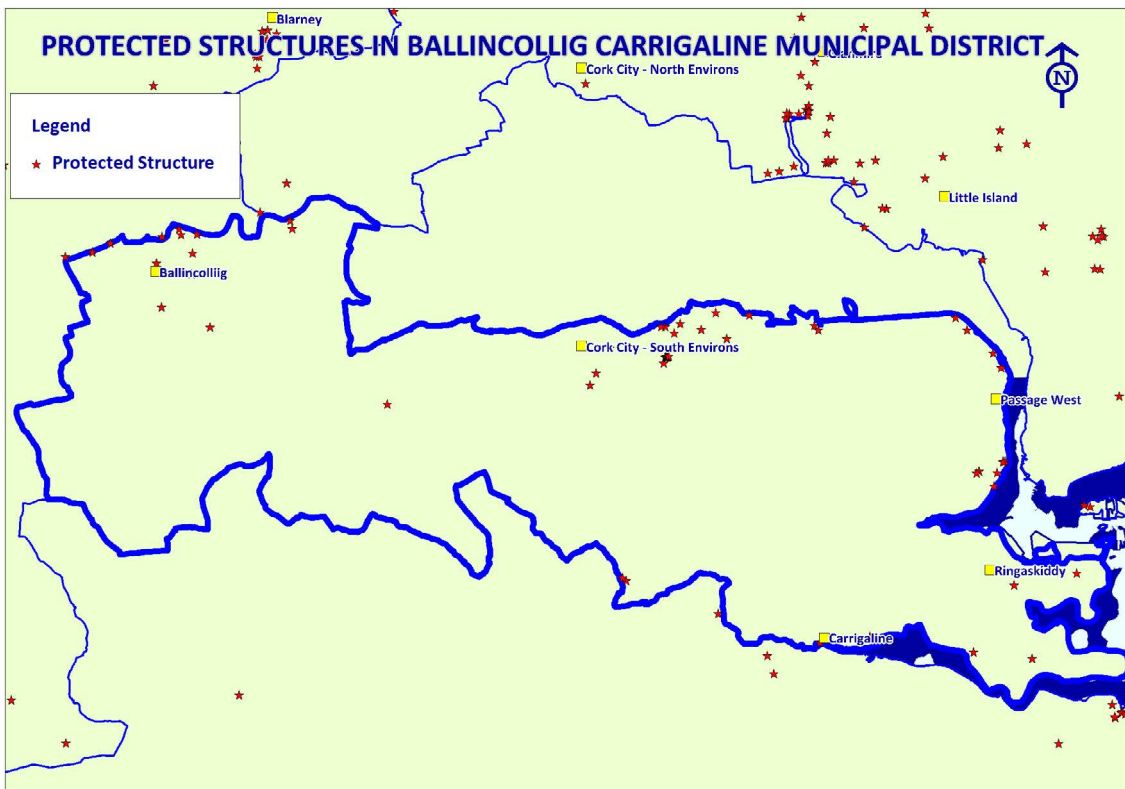


Figure 3.4: Record of Protected Structures

3.9 Landscape

3.9.1 The landscape sensitivity and values of the Ballincollig Carrigaline MD has been classified in accordance with Table 3.9 and as shown in Figures 3.5 and 3.6. The SEA will explore landscape issue as they relate to the Local Area Plan process in accordance with the policy set out in the County Development Plan.

| Landscape Character Types | Main Settlements located within LCT | LCT Value | LCT Sensitivity | LCT Importance |
|-------------------------------|--|-----------|-----------------|----------------|
| City Harbour and Estuary | South City Environs, Passage West, Ringsakiddy | Very high | Very High | National |
| Broad Fertile Lowland Valleys | Ballincollig | High | High | National |
| Indented Estuarine Coast | Carrigaline | Very high | Very High | National |

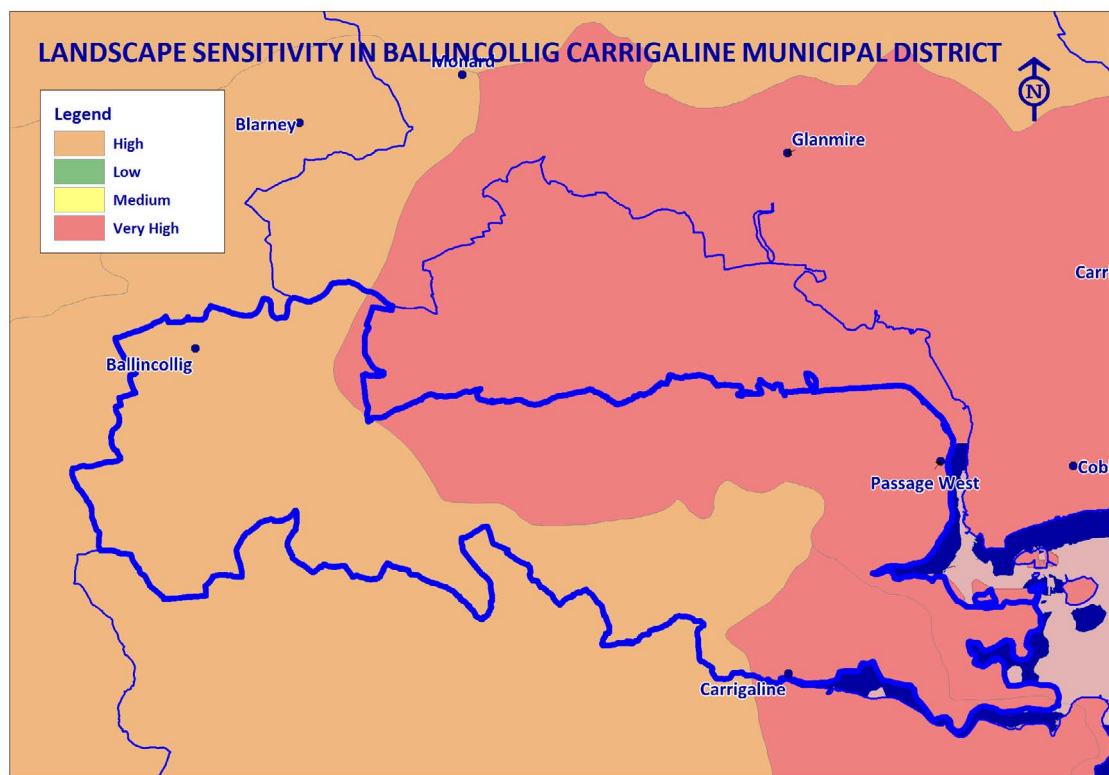


Figure 3.5: Landscape Sensitivity in Ballincollig Carrigaline MD

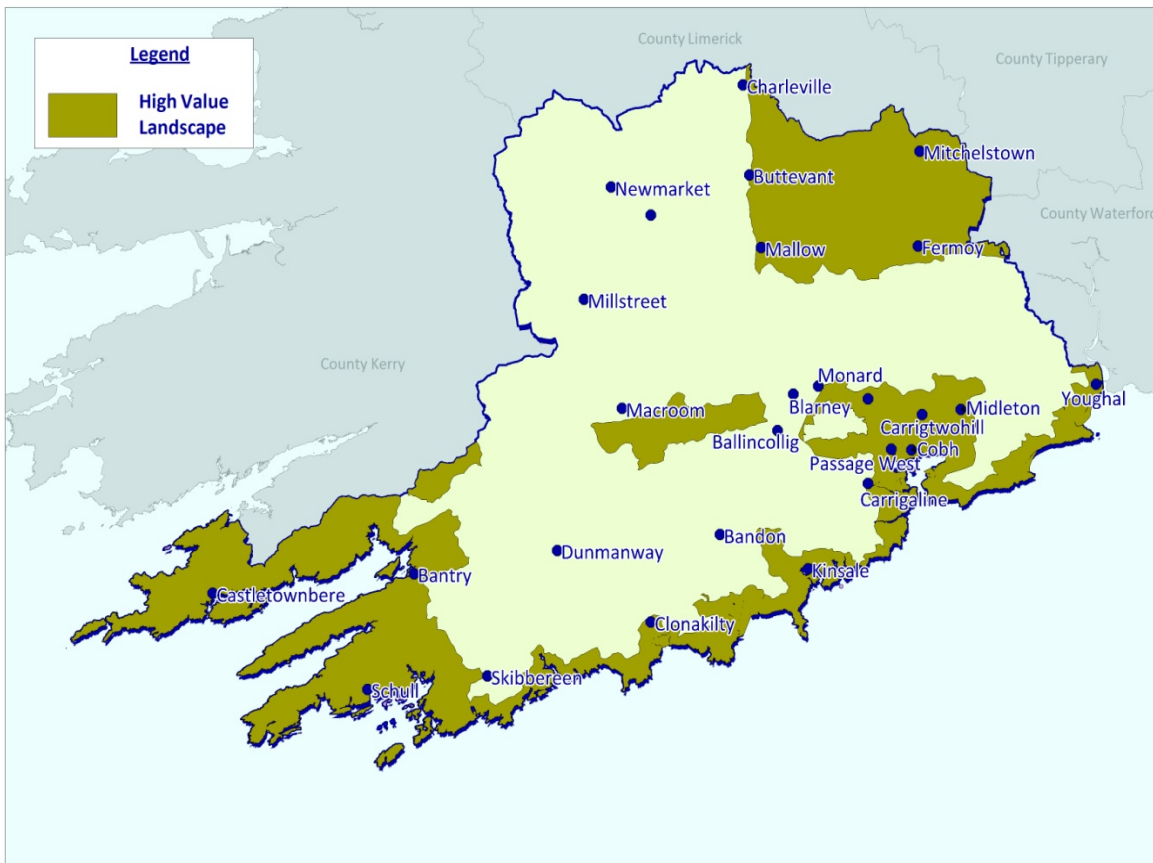


Figure 3.6: Landscape Value in Ballincollig Carrigaline MD

Existing Sensitivities in relation to Landscape

3.9.2 Future growth within the Municipal District is largely directed to the Main Towns of Ballincollig and Carrigaline. Some of these settlements are located either in an area of very high Landscape Value (Carrigaline) or Medium Landscape Value (Ballincollig). It is important that future development in these settlements are designed and sited to ensure assimilation into these highly sensitive landscapes and strategic areas of landscape importance are acknowledged and protected within the Plan.

3.10 Flooding

3.10.1 The assessment and management of flood risks in relation to planned future development is an important element of the local area plan. The majority of towns, villages and smaller settlements have a river or stream either running through the built-up area or close by and are inevitably exposed to some degree of flood risk when those rivers or streams overflow their normal course. Similarly, in coastal areas flooding can periodically occur following unusual weather or tidal events.

3.10.2 As part of the preparation of this Local Area Plan the Council has updated the flood zone mapping used in the 2011 Local Area Plans to take account of the information that has become available from the National CFRAM programme (Catchment Flood Risk Assessment and Management), and other Flood Schemes undertaken by the OPW. In addition, flood risk mapping for rural areas, outside of settlements boundaries, is also now available and is being published simultaneously with this Draft Local Area Plan.

3.10.3 The Council's overall approach to Flood Risk Management is set out in Chapter 11 of the County Development Plan 2014 and intending developers should familiarise themselves with its provisions. In Council's approach to flood risk is to:

- a) Avoid development in areas at risk of flooding; and
- b) Where development in floodplains cannot be avoided, to take a sequential approach to flood risk management based on avoidance, reduction and mitigation of risk.

3.10.4 A Strategic Flood Risk Assessment (SFRA) has been undertaken as part of the preparation of this plan, and all zoned lands in areas at risk of flooding have been reviewed. The Strategic Flood Risk Assessment (SFRA) is included in Volume 2 of this Plan and explains in detail the overall approach to flood risk management that has been followed. It is important to read this document in conjunction with Volume 1 of the plan.

3.10.5 Where development is proposed within an area at risk of flooding, either on land that is subject to a specific zoning objective, lands within the “existing built up area” of a town, within a development boundary of a village, or in the open countryside, then intending applicants need to comply with the provisions of Chapter 11 of the Cork County Development Plan 2014 and Objectives WS 6-1 and WS 6-2, as appropriate, and with the provisions of the Ministerial Guidelines – ‘The Planning System and Flood Risk Management’.

3.10.6 Flood Zone Mapping for the rural parts of the Municipal District (i.e. outside of a settlement boundary) is also now available to view online, for information purposes, as part of the Local Area Plan Map Browser at www.corkcoco.ie.

Section 4: Environmental Protection Objectives

Sub-Section

- 4.1 Introduction
- 4.2 Population and Human Health
- 4.3 Biodiversity-Flora and Fauna
- 4.4 Soils
- 4.5 Water
- 4.6 Air Quality and Climatic Factors
- 4.7 Material Assets
- 4.8 Cultural Heritage
- 4.9 Landscape
- 4.10 Flooding

4 Environmental Protection Objectives

4.1 Introduction

- 4.1.1 This section identifies the Strategic Environmental Protection Objectives used in the assessment of the Draft Plan. Environmental Protection Objectives (EPOs) are methodological measures against which the environmental effects of the Plan can be tested. If complied with in full, EPOs would result in an environmentally neutral impact from the implementation of the Plan. The EPOs are set out under a range of topics and are used as standards against which the provisions of the Plan can be evaluated in order to help identify areas in which significant adverse impacts are likely to occur, unless mitigated.
- 4.1.2 The SEA Directive requires that the evaluation of plans and programmes be focused upon the relevant aspects of the environmental characteristics of areas likely to be significantly affected. EPOs are developed from international, national and regional policies including various European Directives which have been transposed into Irish law and which are intended to be implemented within the County. The EPOs selected have also been informed by Table 4B of the SEA Guidelines (DEHLG, 2004), those used in the preparation of the current County Development Plan and the issues arising from the baseline assessment. The use of EPOs, although not a statutory requirement, does fulfill obligations set out in Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004).
- 4.1.3 The EPOs are linked to indicators which can facilitate monitoring the environmental effects of implementing the Plan when adopted, as well as to targets which the Plan can help work towards.

4.2 Population and Human Health

- 4.2.1 The impact of the Plan on the population and human health is potentially multifaceted as the plan interacts with all the environmental receptors. The plan guides physical land use and seeks to promote sustainable development, guiding the spatial distribution of population across the county. Key directives and policy documents relevant to population have been referenced earlier in this document and include the National Spatial Strategy, Regional Planning Guidelines, National Development Plan, Our Sustainable Future – A Framework for Sustainable Development in Ireland 2011-2016, Smarter Travel, Guidelines for Sustainable Residential Development in Urban Areas, Sustainable Rural Housing, Guidelines for Planning Authorities 2005 etc.
- 4.2.2 The impact of the plan on human health will be influenced by nature, location and design of new development permitted under the plan and its impact on environmental factors like water quality, air quality, noise, landscape and in the long term on climatic factors. The EPOs, Indicators and Targets in Table 4.1 have been identified having regard to the policy context and the environmental baseline described in Section 3.

4.3 Biodiversity-Flora and Fauna

- 4.3.1 County Cork has a rich and diverse natural heritage which is described in the baseline section of this report (Chapter 3). Key directives and policy documents relevant to biodiversity, flora and fauna have been referenced earlier in this document and include the EU Habitats Directive (92/43/EEC), the EU Birds Directive (79/409/EEC), UN Convention on Biological Diversity, the National Biodiversity Plan – Action for Biodiversity 2011-2016 and the County Biodiversity Action Plan 2009-2014. The EPOs,

Indicators and Targets set out in Table 4.1 have been identified having regard to the policy context and the environmental baseline described in Section 3.

4.4 Soils

4.4.1 There is currently no legislation specific to protecting soil resources. Successive development plans have sought to protect and sustainably manage the soil resource of the county. The EPOs, Indicators and Targets in Table 4.1 have been identified having regard to the environmental baseline described in Section 3.

4.5 Water

4.5.1 Water Quality is governed by a large body of legislation and is subject to regular monitoring. As discussed in Chapter 3, the Water Framework Directive has introduced a new approach to water protection. The current baseline status of waters in Cork is varied (see Chapter 3) and the improvement of less than good water quality status is a priority for the future. Key directives and policy documents relevant to water have been referenced earlier in this document and include the Water Framework Directive (2000/60/EC) and Groundwater Quality Directive 2006/118/EC. The EPO, Indicators and Targets in Table 4.1 have been identified having regard to the policy context and the environmental baseline described in Section 3.

4.6 Air Quality and Climatic Factors

4.6.1 The main impacts on air quality are likely to arise from traffic emissions and noise from traffic and other sources. The land use policies of the plan affect the journeys people make every day to work, school, shopping or for leisure purposes etc. At present approximately 90% of journeys to work within the county are made by the private car. The transport sector is also a significant contributor to greenhouse gas emissions. Key directives and policy documents relevant to Air/ Climate change include Directive 96/62/EC – Air Quality Framework Directive, the Kyoto Protocol and the National Climate Change Strategy (2007-2012) and Climate Change Adaption Framework 2012. The EPO, Indicators and Targets in Table 4.1 have been identified having regard to the policy context and the environmental baseline described in Section 3.

4.7 Material Assets

4.7.1 Material Assets, for the purposes of SEA, comprises the infrastructure the population needs for the functioning of society and includes roads, transport, water services, energy and telecommunications infrastructure, the building stock of the county, production facilities (factories etc), green infrastructure (parks open spaces, recreational facilities etc.). Large infrastructural installations have the potential to have significant effects on the environment, both during its construction/ development stage and during its use and operation. Such projects will generally require EIA as part of the planning process which would evaluate such impacts and introduce mitigation measures where necessary to minimise any negative environmental effects. The EPO, Indicators and Targets in Table 4.1 have been identified having regard to the policy context and the environmental baseline described in Section 3.

4.8 Cultural Heritage

4.8.1 Cork has a rich architectural, archaeological and cultural heritage. Key directives, legislation and policy documents relevant to cultural heritage include the Planning and Development Acts 2000 – 2013, National Monuments Acts, National Heritage Plan 2000 and the Framework & Principles for the Protection of Archaeological Heritage (DAHGI 1999). The EPO, Indicators and Targets in Table 4.1 have

been identified having regard to the policy context and the environmental baseline described in Section 3.

4.9 Landscape

- 4.9.1 The European Landscape Convention was signed in 2000 and came into force in Ireland in 2004. The European Landscape Convention aims to promote the protection, management and planning of European landscapes and to organise European co-operation on landscape issues. The Convention highlights the importance and need for public involvement in the development of landscapes. It encourages a joined up approach through policy and planning in all areas of land-use, development and management, including the recognition of landscape in law and is the first international treaty to be exclusively concerned with the protection, management and enhancement of the European landscape. The Convention covers natural, rural, urban and peri-urban areas. It deals with ordinary and degraded landscapes as well as those of outstanding beauty.
- 4.9.2 The preparation of a National Landscape Strategy is underway since 2011 but has yet to be completed. A Draft Landscape Strategy for County Cork was prepared in 2008 and identifies landscapes in the county in terms of their Character, Value, Sensitivity and Importance and includes recommendations on balancing development and change with landscape protection. Once the National Landscape Strategy is finalised the County Strategy will need to be reviewed and completed.
- 4.9.3 The EPOs, Indicators and Targets in Table 4.1 have been identified having regard to the policy context and the environmental baseline described in Section 3.

4.10 Flooding

- 4.10.1 In order to meet the needs of the Strategic Environmental Assessment process and the requirements of the Department Guidelines “The Planning System and Flood Risk Management” the Draft Local Area Plan has been subject to flood risk assessment procedures. Government Guidelines require, and it is an objective of this plan, that future development is avoided in areas indicated as being at risk of flooding. More detailed information on the approach to flooding and how development proposals in areas at risk of flooding have been assessed is given in the Strategic Flood Risk Assessment Report contained in Volume 2 Environmental Reports, of the Draft Plan.

Table 4.1: List of Environmental Protection Objectives, Targets and Indicators

| Environmental Protection Objective | Targets | Indicators |
|--|--|---|
| <p>Population (P)</p> <p>EPO 1: To ensure the sustainable development of area so people have the opportunity to live in communities with high quality residential, working and recreational environments with sustainable travel patterns.</p> | <p>Deliver on the population target for the Municipal District, especially in the main towns.</p> <p>Promote the economic development of the area.</p> <p>Co-ordinate new housing development and the delivery of social and community infrastructure</p> <p>Decrease journey time and distance travelled to work during the lifetime of the plan.</p> <p>All large scale housing development to be accompanied by a Design Statement.</p> | <p>Significant increase in the population of the main towns.</p> <p>Distance and mode of transport to work/ school.</p> |
| <p>Human Health (HH)</p> <p>EPO 2: To protect and enhance human health and manage hazards or nuisances arising from traffic & incompatible land uses.</p> | <p>Avoid incompatible development nears SEVESO sites or IPPC licensed sites</p> <p>Ensure new development is well served with community facilities and facilitates including walking and cycling routes.</p> | <p>No of planning permissions granted within the consultation distance of Seveso sites/IPPC facilities.</p> <p>No of new primary health care/schools/creches/ community facilities provided.</p> <p>Amount of (Km) new cycleways provided.</p> |
| <p>Biodiversity, Flora and Fauna (BFF)</p> <p>EPO 3: Throughout the county, conserve and restore ecosystems, habitats and species in their natural surroundings, and ensure their sustainable management, including the ecological corridors between them.</p> | <ul style="list-style-type: none"> • Maintain the favourable conservation status of all habitats and species, especially those protected under national and international legislation. • Implement the actions of the Cork County Biodiversity Action Plan. • Establishment of a Green Infrastructure Strategy for the County • Protect habitats from | <ul style="list-style-type: none"> • Number of developments receiving planning permission within designated sites or within the consultation distance of designated sites where the HDA process identified potential for impacts. • Reduction in the quantum of greenfield land in the county as measured by the increase in the amount of brownfield land associated |

| Environmental Protection Objective | Targets | Indicators |
|---|--|--|
| | invasive species | with each settlement and the no. of one off houses being built in the countryside. <ul style="list-style-type: none"> • Number of actions achieved in Biodiversity Action Plan • Progress on Green Infrastructure strategy |
| Soil (S) EPO 4: Protect the function and quality of the soil resource in the Ballincollig Carrigaline Municipal District | Reduce the use of greenfield land by encouraging the reuse of brownfield sites. Encourage sustainable extraction of non-renewable sand, gravel and rock deposits and the reuse and recycling of construction and demolition waste. | No of brownfield sites that have been redeveloped. Volume of construction and demolition waste recycled. Reduction in number of vacant and derelict buildings. |
| Water (W) EPO 5: Maintain and improve the quality of water resources and improve the management and sustainable use of these resources to comply with the requirements of the WFD. | To achieve 'good' status in all bodies of surface waters (lakes rivers, transitional and coastal waters). Achieve compliance with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC (protection of groundwater). Not to permit development where it would result in a WWTP exceeding the terms of its discharge license. Encourage future population growth in areas served by urban waste water treatment plants and public water supplies. | Trends in classification of overall status of surface water under Surface Water Regulations 2009 (SI No 272 of 2009) Trends in Classification of Bathing Waters as set by Directive 2006/7/EC. Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC. No of households served by urban waste water treatment plants/ septic tanks/ individual WWTP or other systems. No of households served by public water supplies. % of water unaccounted for. |
| Air Quality and Climate Factors (AQ/C) EPO 6: Protect and improve air quality. | Ensure air quality monitoring results are maintained within appropriate emission limits. Increase modal shift in favour of public transport, walking and cycling. | Trends in Air Quality monitoring data. Percentage of population travelling to work by public transport, walking or cycling. |

Table 4.1: List of Environmental Protection Objectives, Targets and Indicators

| Environmental Protection Objective | Targets | Indicators |
|--|--|--|
| EPO 7: Contribute to mitigation of, and adaptation to, climate change. | <p>Encourage production and use of renewal energy.</p> <p>Encourage energy efficiency in building design and construction.</p> <p>Provide flood protection measures where appropriate.</p> <p>Avoid inappropriate development in areas of flood risk.</p> | <p>No of wind turbines permitted.</p> <p>No of developments permitted within areas at risk of flooding.</p> |
| Cultural Heritage (CH) EPO 8: Protect and, where appropriate, enhance the character, diversity and special qualities of architectural, archaeological and cultural heritage (including Gaeltachtaí) in County Cork. | <p>No loss of or adverse impact on the fabric or setting of monuments on the Record of Monuments (RMP).</p> <p>No loss of or adverse impact on the architectural heritage value or setting of protected structures.</p> <p>No loss of or adverse impact on structures recorded on the National Inventory of Architectural Heritage.</p> <p>Implement the Cork County Heritage Plan</p> | <p>Loss of or adverse impact on monuments on the Record of Monuments (RMP).</p> <p>Loss of or adverse impact on protected structures included on the RPS or structures included on the NIAH.</p> |
| Landscape (L) EPO 9: Protect and, where appropriate, enhance the character, diversity and special qualities of landscapes in County Cork. | <p>No large scale development permitted in areas of high landscape value.</p> | <p>Number of large scale developments permitted in areas of high landscape value.</p> |
| Material Assets (MA) EPO 10: Make best use of the material assets of the area and promote the sustainable development of new infrastructure to provide for the current and future needs of the population. | <p>Develop the road, rail and public transport infrastructure of the county to facilitate sustainable growth and travel patterns.</p> <p>Ensure appropriate water services infrastructure is delivered in areas targeted for population growth.</p> <p>Protect and optimise the use</p> | <p>New critical infrastructural projects completed (projects identified by the CDP).</p> |

| Environmental Protection Objective | Targets | Indicators |
|---|---|---|
| | <p>of the existing building stock.</p> <p>Facilitate the sustainable expansion of production facilities to enable economic growth and create new employment opportunities.</p> <p>Protect and enhance green infrastructure.</p> <p>Protect existing recreational facilities and green infrastructure.</p> | |
| <p>Flooding (F)</p> <p>EPO 11: Protect flood plains and areas at risk of flooding from inappropriate development.</p> | <p>No inappropriate development permitted in areas at risk of flooding.</p> <p>All applications in areas at risk to be accompanied by detailed a flood risk assessment.</p> | <p>Number and nature of developments permitted in areas at risk</p> |

Section 5: Alternatives

Sub-Section

- 5.1 Introduction
- 5.2 SEMPre
- 5.3 Description of Alternative Plan Scenarios
- 5.4 Evaluation of Alternative Scenarios
- 5.5 The Preferred Scenario

5 Alternatives

5.1 Introduction

5.1.1 The SEA Directive and Regulations require the Environmental Report to consider 'reasonable alternatives taking into account the objectives and geographical scope of the plan or programme' and the significant environmental effects of the alternatives selected. The alternatives must be reasonable and capable of implementation within the statutory and operational requirements of the Plan.

5.1.2 Three alternative scenarios have been considered during the drafting process for the preparation of the Draft Municipal District Local Area Plan. Each scenario was prepared having regard to Ministerial Guidelines, the National Spatial Strategy and the Regional Planning Guidelines for the South West Region, including its population targets, and the key aims of the County Development Plan 2014. Any scenario that runs counter to these higher level plans would not be reasonable and has not been considered as part of the Environmental Assessment process.

5.2 SEMPRe

5.2.1 The SEMPRe Settlement Sustainability project for Cork was completed in 2013. The study involved a detailed analysis of the sustainability of the 26 main towns in County Cork using Sustainability Evaluation Metric for Policy Evaluation (SEMPRe) which is an indicator based method of sustainability measurement. The study identified the relative sustainability of the 26 main towns using a series of 25 sustainable indicators, (Table 5.2) of which 5 were identified as key performance indicators (measure significant aspects of sustainability). Each settlement was assessed and awarded a score out of 100, enabling settlements to be ranked in terms of relative sustainability. The Sustainable Development Index (SDI) scores for the 26 main settlements in Cork are detailed in Table 5.1 and are organised into 3 categories. It can be observed that in general, larger settlements are more sustainable and as distance from Cork city increases, settlement sustainability decreases:

- Category 1 settlements have the highest SDI results,
- Category 2 have intermediate SDI results, and
- Category 3 has the lowest SDI results.

Table 5.1: Settlement Sustainable Development Indicators

| Infrastructure and location |
|---|
| Infrastructural capacity for settlement expansion** |
| Connected to gas distribution network |
| Index of recycling facilities |
| Proportion of households with broadband internet |
| Presence of farmers markets |
| Water and wastewater |
| Water quality of water bodies |
| Wastewater treatment spare capacity |
| Unaccounted for water |
| Populated area at risk of flooding** |
| Urban wastewater treatment status |
| Population and urban form |
| Planned population density ** |
| Proportion of population unemployed |
| Proportion of population with 3 rd level education |
| Housing vacancy rate |
| Distance to nearest largest retail centre |
| Transport and energy |
| Average transport CO ₂ |
| Settlement walkability |
| Number of public transport services/1000 population** |
| Average household heating CO ₂ |
| Proportion of population travelling to work by private car |
| Livability |
| Distance to nearest acute hospital** |
| Tidy Towns points score |
| SAC, SPA, HA within 5km of settlement |
| Distance to nearest park, nature reserve or wildlife park |
| Presence of 24 hour Garda station |
| ** key performance indicators |

Table 5.2: Main Towns Sustainable Settlement Ranking

| Settlement | SDI Score 2013 | Category | Population 2011 |
|----------------|----------------|----------|-----------------|
| Ballincollig | 62.8 | 1 | 17,368 |
| Blarney | 61.5 | 1 | 2,437 |
| Carrigaline | 57.2 | 1 | 14,775 |
| Carrigtwohill | 56.8 | 1 | 4,551 |
| Midleton | 54.9 | 1 | 12,001 |
| Cobh | 54.8 | 1 | 12,347 |
| Bandon | 54.5 | 1 | 6,640 |
| Mallow | 53.6 | 1 | 11,605 |
| Glanmire | 53.5 | 1 | 8,924 |
| Bantry | 53.1 | 1 | 3,348 |
| Clonakilty | 50.3 | 2 | 4,721 |
| Kinsale | 50.3 | 2 | 4,893 |
| Fermoy | 49.6 | 2 | 6,489 |
| Passage West | 48.6 | 2 | 5,709 |
| Macroom | 46.7 | 2 | 3,879 |
| Buttevant | 46.1 | 2 | 945 |
| Schull | 43.8 | 2 | 658 |
| Mitchelstown | 42.8 | 2 | 3,677 |
| Charleville | 41.1 | 3 | 3,646 |
| Newmarket | 41.0 | 3 | 988 |
| Skibbereen | 39.2 | 3 | 2,670 |
| Youghal | 38.2 | 3 | 7,794 |
| Dunmanaway | 37.8 | 3 | 1,585 |
| Castletownbere | 37.7 | 3 | 912 |
| Millstreet | 36.7 | 3 | 1,574 |
| Kanturk | 35.3 | 3 | 2,263 |

5.2.2 In general Category 1 settlements are relatively large in terms of population size and are located in relatively close proximity to Cork City. Category 1 settlements benefit from economies of scale in terms of infrastructure and services. All settlements in the County Metropolitan Strategic Planning Area are Category 1 settlements with the exception of Passage West which falls into Category 2. Category 1 settlements outside of the Metropolitan SPA are: Mallow, Bandon and Bantry.

5.2.3 Category 2 settlements generally have smaller population sizes and are more peripheral relative to Cork City. Certain settlements such as Schull and Buttevant have population sizes of less than 1,000 persons and peripheral locations yet fall into the intermediate sustainability category.

- 5.2.4 Category 3 settlements are the least sustainable (with an average SDI of 38.4) and range in population size from Castletownbere (912 persons) to Youghal (7,794 persons) with an average of 2,682 persons. In general category 3 settlements are smaller settlements sited in more peripheral locations relative to Cork city, and are mainly located in the North and West Strategic Planning areas.
- 5.2.5 The score each town receives is determined by how the town measures up in relation to the indicators used in the study which were arrived at following consultation with a range of stakeholders. Indicators chosen were limited by data availability and applicability at the spatial scale of individual towns and it is acknowledged that the use of different indicators may yield different results. The lack of public transport provision and the high reliance on the private car as a means of travelling to work means that most settlements score poorly in terms of transportation while those with an older housing stock score poorly in terms of energy due to higher household heating CO2 emissions. Proximity to the city influenced two indicators (proximity to large retail centre and an acute hospital) so for some towns their sustainability automatically decreases with distance from the city. A sample of potential measures for enhancing the sustainability of these settlements is set out in Appendix B. The study has informed the consideration of alternative scenarios for development in the formulation of the Draft Plan.

5.3 Description of Alternative Plan Scenarios

- 5.3.1 The Ballincollig Carrigaline MD has an extensive urban structure comprising towns and villages. The Draft Ballincollig Carrigaline Municipal District Local Area Plan provide for the development of 3 main towns Cork South Environs and 2 villages, and other locations with specific industrial/ tourism functions e.g. Table 3.7 show the network of settlements provided for within the current Draft Ballincollig Carrigaline Municipal District Local Area Plan.
- 5.3.2 Successive County Development Plan strategies have sought to encourage balanced growth across the county to sustain the economies and service levels of the main towns and villages and the key aims of the Draft Plan support the continuation of this approach, seeking sustainable patterns of growth in urban and rural areas.
- 5.3.3 The Regional Planning Guidelines support this balanced approach to development in order to maintain vibrant rural communities with an equal level of urban and rural growth. The population targets set out in Regional Planning Guidelines distribute the population growth target for the SW Region to the Cork Gateway (including Metropolitan Cork), the Greater Cork Area, equivalent to the CASP Ring, the Northern Area which includes North Cork and parts of North and East Kerry, and the Western Area which includes West Cork and South and West Kerry. Targets for the North and West Areas have been allocated between Cork and Kerry in their respective County Development Plan strategies.
- 5.3.4 The scenarios considered in preparing this Draft Plan have therefore been prepared in this context. The overall level of growth allocated to each Municipal District is the same for each scenario, in line with targets of the Core Strategy in the County Development Plan and the Regional Planning Guidelines. The scenarios look at options for development within each MD. Scenarios which would be inconsistent with this approach, by focusing more growth on one MD over another for example, have not been considered.

Scenario 1: Public Transport

- 5.3.5 This scenario seeks to focus a greater proportion of development in a smaller number of settlements to enhance the viability of bus based inter-urban public transport services. Under this scenario the potential for growth is still dispersed over the entire settlement network but a greater proportion of the growth is focused on a smaller number of locations.
- 5.3.6 Very little growth has been allocated to the rural area under this scenario. It is anticipated that the reduced growth targets for the rural areas combined with a revised approach to managing rural housing, would serve to further consolidate growth in those areas along the preferred public transport corridors.
- 5.3.7 5.4.6 In the Ballincollig Carrigaline Municipal District, this scenario concentrates growth in the main settlements in Metropolitan Cork, with most of the growth is directed towards Ballincollig and Carrigaline with the aim of delivering a sufficient critical mass of population in these towns so as to justify further investments in primarily bus based public transport around the county and growth in rural areas is curtailed.

Environmental Impacts of Scenario 1

- 5.3.8 Scenario 1 allocates some growth to every settlement in the network and to villages and rural areas, while seeking to concentrate a greater proportion of the growth in a smaller number of settlements. Many of these settlements have inadequate drinking water supply and/or waste water treatment infrastructure, and significant public investment in infrastructure will be required to enable such development to take place. Such investment is essential to accommodate the growth and mitigate impacts on water quality, human health etc. This dispersed pattern of growth will generally give rise to some cumulative impacts on ground and surface water quality, heritage, landscape and biodiversity and will lead to increased levels of environmental effects associated with additional commuting such as increased energy consumption, emissions to air, road traffic noise etc.
- 5.3.9 In those areas where more intense levels of growth are promoted, there is greater potential for negative environmental impacts on soil, air quality, biodiversity and landscape. Such impacts can however be managed by adherence to good practice guidance and procedures in development management. Intense development in some areas would also be balanced with lower development pressures in other areas, particularly the villages and rural areas which will lead to less pressure on biodiversity, groundwater resources, flora and fauna etc. and the general rural amenities of the county.
- 5.3.10 Investment in infrastructure in the main growth centres can be more targeted, potentially leading to better quality provision/ design solutions/ economies of scale.
- 5.3.11 Within the main growth areas, the correlation between population growth and public transport infrastructure will have a neutral to positive environmental impact particularly on air quality, climatic factors and human health due to the reduction in the need to travel and road traffic emissions. The concentration of population within the built up area of the city and its environs might also encourage a greater proportion of people to consider a move to other modes of transport such as walking and cycling with positive benefits on human health, air quality etc.

Planning Effects of Scenario 1

- 5.3.12 While the settlement pattern for the county remains dispersed, overall commuting should decrease as a greater proportion of population growth is accommodated in the main settlements where public transport is available, reducing commuting distances and car dependency with associated positive benefits for the population.
- 5.3.13 The concentration of growth in the manner proposed by this strategy may lead to reduced levels of investment in the other areas which may have negative impacts on quality of life and the quality of the

urban environment if there are higher levels of vacancy. The reduced population targets for towns outside the corridor may also hinder their ability to secure investment in waste water infrastructure in the future if there are lower levels of population and employment growth.

5.3.14 Dispersed settlement pattern means limited resources for infrastructural investment have to be spread over a large number of settlements, leading to deficiencies in the level of service provided with potential for negative impacts on the environment (most likely in the area of waste water treatment and water quality). The reduced population targets for towns outside the corridor may also hinder their ability to secure investment in waste water infrastructure in the future if there are lower levels of population and employment growth.

Table 5.3: Scenario 1 Population Targets

| | Census Population 2011 | CDP 2014 2022 Target Population | Scenario 1 Population Target 2022 | Scenario 1 Population Growth 2011 - 2022 |
|------------------------------------|------------------------|---------------------------------|-----------------------------------|--|
| Ballincollig Carrigaline MD | | | | |
| Ballincollig | 17,368 | 23,805 | 23,805 | 6,437 |
| Carrigaline | 9,917 | 11,994 | 11,994 | 2,077 |
| Passage West | 5,790 | 6,965 | 6,965 | 1,175 |
| Cork South Environs | 32,635 | 31,308 | 31,308 | -1,327 |
| Total Main Towns | 65,710 | 74,072 | 74,072 | 8,362 |
| Villages and Rural | 6,236 | 6,374 | 6,374 | 138 |
| Total | 71,946 | 80,446 | 80,446 | 8,500 |

Scenario 2: Employment Towns.

5.3.15 This Scenario looks at employment-led growth which focuses development in key locations where employment growth is more likely to be delivered and differs from previous Plan strategies which spread growth more evenly across all the Main Settlements. Within the Ballincollig Carrigaline MD this scenario focuses growth in Ballincollig and Carrigaline with reduced growth targets in Passage West. This takes account of the proposed employment policies of the Plan.

Environmental Impacts Scenario 2

5.3.16 Scenario 2 allocates growth across the two main towns, while seeking to concentrate a greater proportion of the growth in a smaller number of settlements where economic/employment growth may be more easily achieved. Many of these settlements have adequate drinking water supply and/or waste water treatment infrastructure. This dispersed pattern of growth will generally give rise to some cumulative impacts on ground and surface water quality, heritage, landscape and biodiversity and will lead to increased levels of environmental effects associated with additional commuting such as increased energy consumption, emissions to air, road traffic noise etc.

5.3.17 This scenario concentrates economic growth and employment growth in a smaller number of settlements, making them more self sufficient. This could potentially have negative impacts on soil, air quality, biodiversity and landscape but these impacts can be mitigated by implementing good proactive in development management and would be balanced with lower development pressures in other areas,

particularly the villages and rural areas with less pressure on the water quality, biodiversity, landscape etc. in these areas. In addition more people will have the opportunity to work locally and possible switch to walking or cycling modes, thus reducing travel distances, traffic volumes and traffic emissions within positive benefits to air quality, climatic factors and human health.

5.3.18 The concentration of growth in the manner proposed by this strategy may lead to reduced levels of investment in the other areas which may have negative impacts on quality of life and the quality of the urban environment if there are higher levels of vacancy and reduced employment opportunities at these locations. The reduced population targets for towns outside the designated employment nodes may also hinder their ability to secure investment in waste water infrastructure in the future if there are lower levels of population and employment growth.

Planning Effects of Scenario 2

5.3.19 The concentration of growth in the manner proposed by this strategy will strengthen the economic position of these towns chosen as the main growth centres, underpinning further investment and making them more attractive places to live. The strategy may also lead to reduced levels of investment in the other areas which may have negative impacts on quality of life and the quality of the urban environment of those areas if there are higher levels of vacancy and reduced employment opportunities at these locations. The reduced population targets for some towns may also hinder their ability to secure investment in waste water infrastructure in the future if there are lower levels of population and employment growth.

5.3.20 Lower levels of development in the rural areas will help conserve the landscape and amenity of those areas, potentially making it more attractive for visitors.

Table 5.4: Scenario 2 Population Targets

| | Census Population 2011 | CDP 2014 2022 Target Population | Scenario 1 Population Target 2022 | Scenario 1 Population Growth 2011 - 2022 |
|------------------------------------|------------------------|---------------------------------|-----------------------------------|--|
| Ballincollig Carrigaline MD | | | | |
| Ballincollig | 17,368 | 23,805 | 24,305 | 6,837 |
| Carrigaline | 9,917 | 11,994 | 12,192 | 2,175 |
| Passage West | 5,790 | 6,965 | 5,965 | 375 |
| Cork South Environs | 32,635 | 31,308 | 31,610 | -1,025 |
| Total Main Towns | 65,710 | 74,072 | 74,072 | 8,362 |
| Villages and Rural | 6,236 | 6,374 | 6,374 | 138 |
| Total | 71,946 | 80,446 | 80,446 | 8,500 |

Scenario 3: Balanced Growth

5.3.21 In this scenario, significant growth is allocated across the main settlements with lower levels of growth in the villages and rural areas. The principle strength of this scenario lies in the balanced approach allowing for the majority of growth to take place in the main settlements but at the same time allowing for continued, more modest growth in the villages and rural areas, continuing to support the economies of these areas to underpin local services and quality of life. The pattern of population

distribution in this scenario is more dispersed than in the other scenarios as it seeks to support all the main towns. However this is balanced with an employment strategy which seeks to bring people and jobs closer together either in the same settlement or by high quality transport links connecting settlements together.

5.3.22 In the Ballincollig Carrigaline MD, the majority of the growth is assigned to Ballincollig followed by Carrigaline with more modest growth in the other towns.

Environmental Impacts of Scenario 3

5.3.23 The concentration of both population and employment growth in the main urban areas of the County would serve to reduce commuting patterns as more people would be afforded greater opportunities to live closer to their places of employment and/or travel using high quality public transport links. Such an approach would have a positive environmental effect by serving to reduce CO₂ emissions and would enhance people's quality of life.

5.3.24 Focusing population growth across the settlement network will necessitate significant investment in water services infrastructure.

5.3.25 While allowing for growth in rural areas, this scenario will result in some negative impacts on the environment. It is unlikely that developments in rural area will be connected to public wastewater treatment networks. While not as significant on their own, the cumulative impact of rural development could have significant negative impacts both on biodiversity and particularly on water quality.

5.3.26 This scenario would still give rise to the growth of rural housing outside the settlement network which would contribute to further unsustainable commuting patterns and increased car dependency.

Planning Effects of Scenario 3

5.3.27 In common with the other scenarios, this scenario has a strong urban influence. It sets out population targets for the main settlements that, while ambitious, will ultimately help them perform their function as the primary growth centres in the county.

5.3.28 The scenario also recognises that there is a demand for growth in rural areas and provides for some additional growth in the key villages and lower order settlements in rural areas. Facilitating population growth in these areas would in turn encourage the retention of services in these locations. The scale of growth envisaged however is not of a scale that would serve to undermine the growth of the main urban centres in the county.

Table 5.5: Scenario 3 Population Targets

| | Census Population 2011 | CDP 2014 2022 Target Population | Scenario 1 Population Target 2022 | Scenario 1 Population Growth 2011 - 2022 |
|------------------------------------|------------------------|---------------------------------|-----------------------------------|--|
| Ballincollig Carrigaline MD | | | | |
| Ballincollig | 17,368 | 23,805 | 24,405 | 7,037 |
| Carrigaline | 9,917 | 11,994 | 12,494 | 2,577 |
| Passage West | 5,790 | 6,965 | 5,965 | 175 |
| Cork South Environs | 32,635 | 31,308 | 31,308 | -1,327 |
| Total Main Towns | 65,710 | 74,072 | 74,172 | 8,462 |
| Villages and Rural | 6,236 | 6,374 | 6,274 | 38 |
| Total | 71,946 | 80,446 | 80,446 | 8,500 |

5.4 Evaluation of Alternative Scenarios

- 5.4.1 The evaluation of the three proposed alternative scenarios for their respective impacts on the environment was undertaken utilising the Environmental Protection Objectives (EPOs) specifically developed to protect, maintain, conserve or restore environmental elements within the Municipal District. Each scenario was assessed as to whether it was likely to have a positive, negative, uncertain or neutral impact on the EPO's. The EPO's against which the three scenarios were assessed are set out in Section 4, Table 4.1 and are outlined below together with a matrix assessment of each scenario.
- 5.4.2 All scenarios are assessed on the basis **that appropriate water services infrastructure will be available to cater for growth and development will not be permitted in the absence of this critical infrastructure.**

| EPO Reference number | Table 5.6: Environmental Objectives |
|----------------------|---|
| EPO 1 | To ensure the sustainable development of Cork County so the people of Cork have the opportunity to live in communities with high quality residential, working and recreational environments with sustainable travel patterns. |
| EPO 2 | To protect and enhance human health and manage hazards or nuisances arising from traffic and incompatible land uses. |
| EPO 3 | Throughout the county, conserve and restore ecosystems, habitats and species in their natural surroundings, and ensure their sustainable management, including the ecological corridors between them. |
| EPO 4 | Protect the function and quality of the soil resource in County Cork |
| EPO 5 | Maintain and improve the quality of water resources and improve the management and sustainable use of these resources to comply with the requirements of the WFD. |
| EPO 6 | Protect and improve air quality. |
| EPO 7 | Contribute to mitigation of, and adaptation to, climate change |
| EPO 8 | Protect and, where appropriate, enhance the character, diversity and special qualities of architectural, archaeological and cultural heritage (including Gaeltachtaí) in County Cork. |
| EPO 9 | Protect and, where appropriate, enhance the character, diversity and special qualities of landscapes in County Cork. |
| EPO 10 | Make best use of the material assets of the county and promote the sustainable development of new infrastructure to provide for the current and future needs of the population. |
| EPO 11 | Protect flood plains and areas at risk of flooding from inappropriate development. |

5.5 The Preferred Scenario

- 5.5.1 The Planning Acts require that a Local Area Plan must be consistent with the objectives of the development plan, its core strategy and any regional spatial and economic strategy that applies to the area. This makes the consideration of alternative scenarios more difficult and the key parameters have already been determined. The provisions of the core strategy imply that higher level plans are the ones where the strategic alternative scenarios need to be considered and subjected to rigorous environmental assessment.
- 5.5.2 Given the parameters established by the Regional Planning Guidelines and the extensive nature of the designated settlement network within the county, the alternatives considered in preparing the draft plan are all rather similar in promoting balanced development across the county and have relatively similar impacts.
- 5.5.3 Scenario 3 is the one that places the most emphasis on building on what has already been achieved within the county in terms of supporting the network of settlements, the established employment areas while continuing to support the development of villages and rural areas and it is therefore the preferred scenario, giving the most positive interaction for most of the population with EPO 1. Scenarios 1 and 2 in promoting a more focused development pattern would inevitably lead to the decline and contraction of some of the other towns, villages and rural areas resulting in the loss of economic opportunities in those areas, reduced investment and an overall reduction in the quality of life for the people living in those areas.

Table 5.7: Alternative Scenarios interaction with Environmental Protection Objectives

| | Positive Interaction with status of EPOs | Negative Interaction with status of EPOs | Uncertain Interaction with status of EPOs | Neutral Interaction with status of EPOs |
|-------------------|--|--|---|---|
| Scenario 1 | EPO 2, 6, 7, 10, 11 | EPO 1, 3, 5 | | EPO 4, 8, 9 |
| Scenario 2 | EPO 2, 6, 7, 10, 11 | EPO 1, 3, 5 | | EPO 4, 8, 9 |
| Scenario 3 | EPO 1, 2, 3, 6, 7, 10, 11 | | | EPO 4, 5, 8, 9 |

Section 6: Evaluation of the Draft Local Area Plan

Sub-Section

- 6.1 Introduction
- 6.2 Evaluation
- 6.3 Mitigation/Recommended Changes

6 Evaluation of the Draft Local Area Plan

6.1 Introduction

6.1.1 SEA legislation requires the Environmental Report to include the likely significant effects on the environment of implementing the Plan. This includes secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, positive and negative effects. The effects should be shown on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above.

6.2 Evaluation

6.2.1 The following section identifies the effects on the environment of implementing the Draft Ballincollig Carrigaline Municipal District Local Area Plan. The assessment is done on a Section by Section basis, looking at the key provisions and individual objectives of each Section the expected outcome of implementing the Section and the implications for the environment. The Section is then assessed for its likely interaction with the Environmental Protection Objectives and the assessment concludes with recommendations for changes to the Draft Plan. Interactions are assessed on the basis of being:

- Positive (+)
- Negative (-)
- Uncertain (?), or
- Neutral (Ne)

6.2.2 This exercise will set out any environmental problems that are likely to arise from the implementation of the Draft Local Area Plan. Arising from this analysis, the Environmental Report provides recommendations on what mitigation measures will be taken. Mitigation measures can take the form of:

- Amend the wording of an existing objective
- Delete the objective
- Addition of a new objective

6.2.3 A column has been provided to show the Environmental Report's recommendations and another has been provided to display the resulting Local Area Plan's action or response to these recommendations. The Local Area Plan's action could be to reject, accept or to partly accept the Environmental Reports recommendation.

6.2.4 The Draft Ballincollig Carrigaline Municipal District Local Area Plan 2016 document has been prepared by undertaking a review of the existing statutory plans for the area including the Carrigaline and Macroom Electoral Area Local Area Plans 2011 (as amended) and updating the provisions those plans as necessary to take account of any changes in national planning policy, legislation, government guidelines etc which has taken place in the interim and by changes in local circumstances, needs etc. It is important to recognise that the current statutory plans for the area were themselves subject to Strategic Environmental Assessment and Habitats Directive Assessment prior to adoption, and many of the provisions of these plans have been carried forward, unchanged,

into the new Draft Plan 2016. Therefore there are few issues arising that need to be assessed *de novo*.

- 6.2.5 In addition, given the current body of planning knowledge gathered from previous planning work for the area, policy and objectives likely to give rise to significant environmental effect are simply not put forward in the first instance. In this way many of the possible environmental impacts of objectives were avoided or had previously been anticipated and mitigated for through the inclusion of objectives in the current statutory plans.
- 6.2.6 The County Development Plan 2014 includes many protective objectives in relation to issues such as Development Management and Protection of Amenities, Sustainable Residential Development, Natural, Built and Cultural Heritage, Biodiversity, Landscape, Water Quality, Pollution Control, protecting Air Quality, managing Noise and Light emissions, flood risk management, sustainable energy etc. All proposals for development under the Local Area Plan, must comply in the first instance, with the all the provisions of the County Development Plan.
- 6.2.7 All of the objectives of the Draft Plan were assessed for possible impacts within the context of these existing mitigation measures. As these mitigation measures negate or mitigate any significant negative impacts that could otherwise have been expected, there were few recommendations arising from the SEA process in relation to the Draft Local Area Plan.
- 6.2.8 Key mitigation measures included in previous plans, and carried forward in the current Draft Local Area Plan relate to issues such as timely delivery of key infrastructure needed to cater for new development. In relation to water quality for example the plan recognises that in some areas the water services infrastructure needed to facilitate planned growth is not currently in place. In response to this the Draft Plan includes strong objectives requiring that appropriate and sustainable water and waste water infrastructure is provided and operational in advance of the commencement of any discharges from the development. In addition the objectives provide that such infrastructure must be capable of treating discharges to ensure that water quality in the receiving water does not fall below legally required levels, while also meeting the objectives of the relevant River Basin Management Plan, and the requirements of any Natura sites in the area.
- 6.2.9 There are new zoning proposals for the urban expansion areas in this draft plan that further developed the original Special Policy Areas (X-01) from the 2011 Electoral Area Local Area Plans. While these previous plans and the selected sites for urban expansion were subject to the SEA and AA in 2011, careful consideration of the environmental implications of each new zoning has been made and consideration of the relevant guidelines, additional mitigating text has been included in specific objectives.
- 6.2.10 In relation to Traffic and Transportation the plan requires the submission of traffic impact assessments for key sites to ensure that these impacts are fully assessed and mitigated as appropriate, at the project stage.

| Table 6.1: Evaluation of Draft Ballincollig Carrigaline Municipal District Local Area Plan Objectives | | | | | | |
|--|---|---------------------|----------------------|---|---------------------------|---------------------|
| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
| Section 1 Introduction | | | | | | |
| IN-01 | EPO-1, EPO-2, EPO-3, EPO-4, EPO-6, EPO-7, EPO-9 EPO-11 | | | EPO-5, EPO-8, EPO-10 | No change required | |
| Section 2 Local Area Strategy | | | | | | |
| LAS-01 | EPO-3, EPO-5, EPO-7, EPO-9, EPO-10 EPO-11 | | | EPO-2, EPO-1, EPO-4, EPO-6, EPO-8, | No change required | |
| Section 3 Main Towns | | | | | | |
| Ballincollig | | | | | | |
| BG-GO-01 | EPO-1, EPO-4 EPO-5 EPO-6 EPO-7 EPO-8, EPO-9, EPO-10 EPO-11 | | | EPO-2 EPO-3 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|------------|---|--------------|---------------|---|--------------------|--------------|
| BG-GO-02 | EPO-2 EPO-4 EPO-5 EPO-7 EPO-10 EPO-11 | | | EPO-1, EPO-3 EPO-6 EPO-8, EPO-9, | No change required | |
| BG-GO-03 | EPO-1 EPO-10 EPO-8, EPO-9, | | | EPO-2 EPO-4 EPO-5 EPO-7 EPO-11 EPO-3 EPO-6 | No change required | |
| BG-GO-04 | EPO-1 EPO-2 EPO-6 EPO-8, EPO-9 EPO-3 EPO-10 | | | EPO-4 EPO-5 EPO-7 EPO-11 | No change required | |
| BG-GO-05 | EPO-1 EPO-3 EPO-5 EPO-10 | | | EPO-2 EPO-4 EPO-6 EPO-8, EPO-7 EPO-9 EPO-11 | No change required | |
| BG-GO-06 | EPO-1 EPO-2, EPO-4, EPO-6 EPO-8, EPO-7 EPO-10 | | | EPO-3 EPO-5 EPO-9 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|---------------------------------|---|--------------|---------------|---|--------------------|--------------|
| BG-GO-07 | EPO-1 EPO-2, EPO-6 EPO-8 EPO-10 | | | EPO-3 EPO-5 EPO-4 EPO-7 EPO-9 EPO-11 | No change required | |
| BG-R-01, BG-R-02, BG-R-03 | EPO-1 EPO-2, EPO-10 | | | EPO-4 EPO-3 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| BG-R-04 | EPO-1 EPO-2, EPO-10 | | | EPO-4 EPO-3 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|--|---|--------------|---------------|---|--------------------|--------------|
| BG-R-05 BG-R-06 BG-R-07 BG-R-08 BG-R-09 BG-R-10 BG-R-11 BG-R-12 BG-R-13 BG-R-14 BG-R-15 BG-R-16 | EPO-1 EPO-2, EPO-10 | | | EPO-4 EPO-3 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| BG-E-01, BG-E-02 | EPO-1 EPO-2, EPO-8 EPO-11 | | | EPO-4 EPO-3 EPO-5 EPO-6 EPO-7 EPO-9 EPO-10 | No change required | |
| BG-T-01, BG-T-02 BG-T-03 BG-T-04 BG-T-05 | EPO-1 EPO-2, EPO-4 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-5 EPO-9 EPO-3 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|--|--|--------------|---------------|--|--------------------|--------------|
| BG-C-01 BG-C-02 BG-C-03 BG-C-04 | EPO-3 EPO-10 | | | EPO-1 EPO-2, EPO-4 EPO-6 EPO-7 EPO-8 EPO-5 EPO-9 EPO-11 | No change required | |
| BG-U-01 BG-U-02 | EPO-1 EPO-10 | | | EPO-2 EPO-3 EPO-6 EPO-7 EPO-8 EPO-5 EPO-11 EPO-9 EPO-4 | No change required | |
| BG-U-03 BG-U-04 BG-U-05 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 | | | EPO-3 EPO-4 EPO-5 EPO-8 | No change required | |
| BG-U-06 | EPO-1 EPO-10 | | | EPO-2 EPO-3 EPO-4 EPO-9 EPO-5 EPO-8 EPO-6 EPO-7 EPO-11 EPO-4 EPO-9 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|---|--|--------------|---------------|----------------------------------|--------------------|--------------|
| BG-U-07, BG-U-08 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-3 EPO-4 EPO-5 EPO-8 | No change required | |
| BG-0-01, BG-0-02 BG-0-03 BG-0-04 BG-0-05 BG-0-06 BG-0-07 BG-0-08 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | | | EPO-5 | No change required | |
| Carrigaline | | | | | | |
| CL-GO-01 | EPO-1 EPO-2 EPO-4 EPO-5 EPO-6 EPO-7 EPO-10 EPO-11 | | | EPO-3 EPO-8 EPO-9 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|-----------------------|--|--------------|---------------|---|--------------------|--------------|
| CL-GO-02 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | | | EPO-5 | No change required | |
| CL-GO-03 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-4 EPO-3 EPO-5 EPO-9 EPO-11 | No change required | |
| CL-GO-04 | EPO-1 EPO-3 EPO-5 EPO-10 | | | EPO-2 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| CL-GO-05, CL-GO-06 | EPO-8 EPO-9 | | | EPO-1 EPO-3 EPO-5 EPO-10 EPO-2 EPO-4 EPO-6 EPO-7 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|-------------------------------|---|--------------|---------------|--|--------------------|--------------|
| CL-GO-07, CL-GO-08 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-3 EPO-4 EPO-5 EPO-9 EPO-11 | No change required | |
| CL-GO-09 CL-GO-10 | EPO-1 EPO-10 | | | EPO-2 EPO-3 EPO-4 EPO-5 EPO-6 EPO-7 EPO-11 EPO-8 EPO-9 | No change required | |
| CL-R-01 CL-R-02 CL-R-03 | EPO-1 EPO-2 EPO-10 | | | EPO-4 EPO-3 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| CL-R-04 | EPO-1 EPO-2 EPO-10 | | | EPO-4 EPO-3 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|--|--|--------------|---------------|--|--------------------|--------------|
| CL-R-05, CL-R-06 CL-R-07 CL-R-08 CL-R-09 CL-R-10 CL-R-11 CL-R-12 CL-R-13 CL-R-14 CL-R-15 CL-R-16 CL-R-17 | EPO-1 EPO-2 EPO-10 | | | EPO-4 EPO-3 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| CL-B-01, CL-B-02 | EPO-3 EPO-10 | | | EPO-1 EPO-2 EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| CL-T-01 | EPO-1 EPO-2 EPO-4 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-5 EPO-9 EPO-3 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|--------------------------------|---|--------------|---------------|--|--------------------|--------------|
| CL-C-01, CL-C-02 | EPO-3 EPO-10 | | | EPO-1 EPO-2 EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| CL-U-01, CL-U-02 | EPO-1 EPO-10 | | | EPO-2 EPO-3 EPO-4 EPO-9 EPO-5 EPO-6 EPO-7 EPO-8 EPO-11 | No change required | |
| CL-U-03, CL-U-04 CL-U-05 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-3 EPO-4 EPO-5 EPO-8 | No change required | |
| CL-U-06 | EPO-1 EPO-10 | | | EPO-2 EPO-3 EPO-5 EPO-6 EPO-7 EPO-8 EPO-11 EPO-4 EPO-9 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|--------------------------------|---|--------------|---------------|--|--------------------|--------------|
| CL-U-07, CL-U-08 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-3 EPO-4 EPO-5 EPO-8 | No change required | |
| CL-U-09 | EPO-1 EPO-2 EPO-10 | | | EPO-3 EPO-4 EPO-6 EPO-5 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| CL-U-10, CL-U-11 CL-U-12 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-3 EPO-4 EPO-5 EPO-8 | No change required | |
| CL-U-13 | EPO-1 EPO-9 | | | EPO-2 EPO-3 EPO-5 EPO-6 EPO-7 EPO-8 EPO-11 EPO-4 EPO-9 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|------------|--|--------------|---------------|----------------------------------|--------------------|--------------|
| CL-U-14 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-3 EPO-4 EPO-5 EPO-8 | No change required | |
| CL-O-01 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | | | EPO-5 | No change required | |
| CL-O-02 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-5 EPO-8 | No change required | |
| CL-O-01 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | | | EPO-5 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|--|--|--------------|---------------|--|--------------------|--------------|
| CL-O-02 CL-O-03 CL-O-04 CL-O-05 CL-O-06 CL-O-07 CL-O-08 CL-O-09 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-5 EPO-8 | No change required | |
| Cork South Environs | | | | | | |
| SE-GO-01 | EPO-1 EPO-2 EPO-4 EPO-5 EPO-6 EPO-7 EPO-10 EPO-11 | | | EPO-3 EPO-8 EPO-9 | No change required | |
| SE-GO-02 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | | | EPO-5 | No change required | |
| SE-GO-03 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-4 EPO-3 EPO-5 EPO-9 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|----------------------|---|--------------|---------------|---|--------------------|--------------|
| SE-GO-04 | EPO-1 EPO-3 EPO-5 EPO-10 | | | EPO-2 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| SE-GO-05 SE-GO-06 | EPO-8 EPO-9 | | | EPO-1 EPO-2 EPO-3 EPO-4 EPO-5 EPO-6 EPO-7 EPO-10 EPO-11 | No change required | |
| SE-GO-07 SE-GO-08 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-4 EPO-3 EPO-5 EPO-9 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|---|--|--------------|----------------|---|--------------------|--------------|
| SE-GO-09 | EPO-1 EPO-10 | | EPO-6 EPO-7 | EPO-2 EPO-3 EPO-4 EPO-5 EPO-11 EPO-8 EPO-9 | No change required | |
| SE-R-01 SE-R-02 SE-R-03 SE-R-04 SE-R-05 SE-R-06 SE-R-07 SE-R-08 SE-R-10 SE-R-11 SE-R-12 | EPO-1 EPO-2 EPO-10 | | | EPO-3 EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| SE-T-01, SE-T-02 SE-T-03 SE-T-04 SE-T-05 | EPO-1 EPO-2 EPO-4 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-3 EPO-5 EPO-9 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|-------------------------------|---|--------------|---------------|--|--------------------|--------------|
| SE-C-01 | EPO-3 EPO-10 | | | EPO-1 EPO-2 EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| SE-U-01 SE-U-02 | EPO-1 EPO-10 | | | EPO-2 EPO-3 EPO-5 EPO-6 EPO-7 EPO-8 EPO-11 EPO-4 EPO-9 | No change required | |
| SE-U-03 SE-U-04 SE-U-05 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-3 EPO-4 EPO-5 EPO-8 | No change required | |
| SE-U-06 | EPO-1 EPO-10 | | | EPO-2 EPO-3 EPO-5 EPO-6 EPO-7 EPO-8 EPO-11 EPO-4 EPO-9 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|------------|--|--------------|---------------|----------------------------------|--------------------|--------------|
| SE-U-07 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-3 EPO-4 EPO-5 EPO-8 | No change required | |
| SE-O-01 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | | | EPO-5 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|--|---|--------------|---------------|--------------------------|--------------------|--------------|
| SE-O-02 SE-O-03 SE-O-04 SE-O-05 SE-O-06 SE-O-07 SE-O-08 SE-O-09 SE-O-10 SE-O-11 SE-O-12 SE-O-13 SE-O-14 SE-O-15 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-5 EPO-8 | No change required | |
| SE-X-01 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-5 EPO-6 EPO-9 EPO-10 | | | EPO-7 EPO-8 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|-------------------------------|--|--------------|---------------|--|--------------------|--------------|
| Passage West/Monkstown | | | | | | |
| PW-GO-01 | EPO-1 EPO-2 EPO-4 EPO-5 EPO-6 EPO-7 EPO-10 EPO-11 | | | EPO-3 EPO-8 EPO-9 | No change required | |
| PW-GO-02 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | | | EPO-5 | No change required | |
| PW-GO-03 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-4 EPO-3 EPO-5 EPO-9 EPO-11 | No change required | |
| PW-GO-04 | EPO-1 EPO-3 EPO-5 EPO-10 | | | EPO-2 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|---|---|--------------|---------------|---|--------------------|--------------|
| PW-GO-05 | EPO-8 EPO-9 | | | EPO-1 EPO-2 EPO-3 EPO-4 EPO-5 EPO-6 EPO-7 EPO-10 EPO-11 | No change required | |
| PW-GO-06 | EPO-1 EPO-2 EPO-3 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 | | | EPO-4 EPO-5 EPO-11 | No change required | |
| PW-GO-07 | EPO-6 EPO-7 EPO-11 | | | EPO-1 EPO-2 EPO-3 EPO-4 EPO-5 EPO-8 EPO-9 EPO-10 | No change required | |
| PW-R-01 PW-R-02 PW-R-03 PW-R-04 PW-R-05 PW-R-06 PW-R-07 PW-R-08 PW-R-09 | EPO-1 EPO-2 EPO-10 | | | EPO-3 EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|-------------------------------|---|--------------|---------------|--|--------------------|--------------|
| PW-T-01 PW-T-02 | EPO-1 EPO-2 EPO-4 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-3 EPO-5 EPO-9 EPO-11 | No change required | |
| PW-X-01 PW-X-02 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-5 EPO-6 EPO-9 EPO-10 | | | EPO-7 EPO-8 EPO-11 | No change required | |
| PW-U-01 PW-U-02 | EPO-1 EPO-10 | | | EPO-2 EPO-3 EPO-5 EPO-6 EPO-7 EPO-8 EPO-11 EPO-4 EPO-9 | No change required | |
| PW-U-03 PW-U-04 PW-U-05 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-3 EPO-4 EPO-5 EPO-8 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|---|--|--------------|---------------|--|--------------------|--------------|
| PW-O-01 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | | | EPO-5 | No change required | |
| PW-O-02, PW-O-03 PW-O-04 PW-O-05 PW-O-06 PW-O-07 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-5 EPO-8 | No change required | |
| PW-O-08 | EPO-1 EPO-2 EPO-3 | | | EPO-4 EPO-5 EPO-6 EPO-8 EPO-9 EPO-10 EPO-11 EPO-7 | No change required | |
| Ringaskiddy | | | | | | |
| RY-GO-01 RY-GO-02 | EPO-1 EPO-2 EPO-4 EPO-5 EPO-6 EPO-7 EPO-10 EPO-11 | | | EPO-3 EPO-8 EPO-9 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|------------------------------------|---|--------------|---------------|---|--------------------|--------------|
| RY-GO-03 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-4 EPO-3 EPO-5 EPO-9 EPO-11 | No change required | |
| RY-GO-04 | EPO-1 EPO-3 EPO-5 EPO-10 | | | EPO-2 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-11 | No change required | |
| RY-GO-05 RY-GO-06 | EPO-8 EPO-9 | | | EPO-1 EPO-2 EPO-3 EPO-4 EPO-5 EPO-6 EPO-7 EPO-10 EPO-11 | No change required | |
| RY-GO-07 RY-GO-08 | EPO-1 EPO-2 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-3 EPO-4 EPO-5 EPO-9 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|---|----------------|--------------|---------------|---|--------------------|--------------|
| RY-I-01, RY-I-02 RY-I-03 RY-I-04 RY-I-05 RY-I-05 RY-I-06 RY-I-07 | EPO-1 EPO-2 | | | EPO-5 EPO-3 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | No change required | |
| RY-I-08 | EPO-1 EPO-2 | | | EPO-5 EPO-3 EPO-4 EPO-6 EPO-7 EPO-9 EPO-11 EPO-8 EPO-10 | No change required | |
| RY-I-09 RY-1-10 RY-1-11 RY-1-12 RY-1-13 RY-1-14 | EPO-1 EPO-2 | | | EPO-5 EPO-3 EPO-4 EPO-6 EPO-7 EPO-9 EPO-8 EPO-10 EPO-11 | No change required | |
| RY-I-15 RY-I-16 | EPO-1 EPO-2 | | | EPO-5 EPO-8 EPO-10 EPO-3 EPO-4 EPO-6 EPO-7 EPO-9 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|----------------------------|---|--------------|---------------|--|---------------------------|--------------|
| RY-I-17 | EPO-1 EPO-2 | | | EPO-5 EPO-8 EPO-10 EPO-11 EPO-3 EPO-4 EPO-6 EPO-7 EPO-9 | No change required | |
| RY-I-18 RY-I-19 | EPO-1 EPO-2 | | | EPO-5 EPO-8 EPO-10 EPO-3 EPO-4 EPO-6 EPO-7 EPO-9 EPO-11 | No change required | |
| RY-T-01 RY-T-02 | EPO-1 EPO-2 EPO-4 EPO-6 EPO-7 EPO-8 EPO-10 | | | EPO-5 EPO-9 EPO-11 EPO-3 | No change required | |
| RY-U-01 | EPO-1 EPO-2 | | | EPO-5 EPO-8 EPO-10 EPO-11 EPO-3 EPO-4 EPO-6 EPO-7 EPO-9 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|--|--|--------------|---------------|--|---------------------------|--------------|
| RY-U-02 | EPO-1 | | | EPO-2 EPO-3 EPO-5 EPO-10 EPO-11 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 | No change required | |
| RY-O-01 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | | | EPO-5 | No change required | |
| RY-O-02 RY-O-03 RY-O-04 RY-O-05 RY-O-06 RY-O-07 RY-O-08 | EPO-1 EPO-2 EPO-3 EPO-4 EPO-6 EPO-7 EPO-9 EPO-10 EPO-11 | | | EPO-5 EPO-8 | No change required | |
| Cork International Airport | | | | | | |
| CA-TL-01 CA-TL-02 | EPO-1 EPO-2 EPO-6 EPO-7 | | | EPO-5 EPO-8 EPO-9 EPO-10 EPO-11 EPO-3 EPO-4 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|-------------------------------------|----------------------------------|--------------|---------------|--|--------------------|--------------|
| CA-E-01 CA-U-01 CA-U-02 | EPO-1 EPO-2 EPO-6 EPO-7 | | | EPO-5 EPO-8 EPO-9 EPO-10 EPO-11 EPO-3 EPO-4 | No change required | |
| CA-U-03 CA-PS-01 CA-PS-02 | EPO-1 | | | EPO-2 EPO-3 EPO-5 EPO-10 EPO-11 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 | No change required | |
| Villages and Other Locations | | | | | | |
| Ballynora | | | | | | |
| DB-01 | EPO-1 EPO-2 | | | EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-10 EPO-11 EPO-3 EPO-9 | No change required | |
| O-01 C-01 U-01 U-02 | EPO-1 EPO-2 | | | EPO-3 EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|--|---|--------------|---------------|---|--------------------|--------------|
| Waterfall | | | | | | |
| DB-01 | EPO-1 EPO-2 | | | EPO-4 EPO-3 EPO-9 EPO-5 EPO-6 EPO-7 EPO-8 EPO-10 EPO-11 | No change required | |
| DB-02 | EPO-1 EPO-2 | | | EPO-3 EPO-9 EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-10 EPO-11 | No change required | |
| DB-03 | | | | EPO-1 EPO-3 EPO-4 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 EPO-2 EPO-5 | No change required | |
| DB-04 DB-05 DB-06 DB-07 DB-08 DB-09 T-01 | EPO-1 EPO-2 EPO-3 EPO-8 EPO-9 | | | EPO-4 EPO-5 EPO-6 EPO-7 EPO-10 EPO-11 | No change required | |

| Objectives | Positive (+) | Negative (-) | Uncertain (?) | Neutral (Ne) | SEA Recommendation | LAP Response |
|----------------------|----------------|--------------|---------------|---|--------------------|--------------|
| Curraghbinny | | | | | | |
| DB-01 | EPO-1 EPO-2 | | | EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-10 EPO-11 EPO-3 EPO-9 | No change required | |
| Curraheen | | | | | | |
| DB-01 | EPO-1 EPO-2 | | | EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-10 EPO-11 EPO-3 EPO-9 | No change required | |
| Farmers Cross | | | | | | |
| DB-01 | EPO-1 EPO-2 | | | EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-10 EPO-11 EPO-3 EPO-9 | No change required | |
| DB-02 | EPO-1 EPO-2 | | | EPO-3 EPO-4 EPO-5 EPO-6 EPO-7 EPO-8 EPO-9 EPO-10 EPO-11 | No change required | |

6.3 Mitigation/Recommended Changes

- 6.3.1 This purpose of this section is to outline the mitigation measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of the Municipal District arising from the implementation of the LAP, thereby consolidating the SEA process. Environmental issues have been identified in Section 3 and the environmental impact of the plan has been analysed in section 6.
- 6.3.2 As outlined above, as this plan is a review of previous plans for the area which have already been through the SEA process, many of the possible environmental impacts of objectives were avoided or had previously been anticipated and mitigated for through the inclusion of objectives in the current statutory plans for the area. Protective mitigation measures are also contained in the County Development Plan 2014. All of the objectives of the Draft Plan were assessed for possible impacts within the context of these existing mitigation measures. As these mitigation measures negate or mitigate any negative impacts that could otherwise have been expected there were few recommendations arising from the SEA process.

Issue One – The Correlation between Population Targets for the Main Towns and Infrastructure

- 6.3.3 In the Municipal District the main towns in particular have been allocated substantial population target growth. In many instances wastewater infrastructure is at overcapacity or reaching capacity, in most cases there are programmes in place for the delivery of adequate waste water services to address this issue, however if the programmes are not delivered in a timely manner, development may not proceed as planned. In the Urban Expansion Areas of Ballincollig and Carrigaline it will be important the developments are implemented in accordance with the general and specific objectives of the Draft plan and the phasing schedule which provides for adequate mitigation measures.

Mitigation Measures - Recommendations

- 6.3.4 To sustainably achieve the population and growth targets outlined in this plan a general objective has been included for the towns which are mainly affected by deficiencies in water and waste water infrastructure, which requires that appropriate Water and Waste water infrastructure be provided in tandem with proposed developments.
- 6.3.5 Furthermore prospective developers, whose sites may be affected by the deficiencies highlighted above, are required to enter into agreement with the Council on the timing and provision of the necessary infrastructure before the design and layout of the development is commenced. This requirement is contained within the relevant site specific objectives.

Conclusion

- 6.3.6 The SEA Statement which will be prepared and made public on adoption of the LAP will include information on, among other things, how environmental considerations have been integrated into the LAP including how measures have been integrated into the Plan in order to mitigate effects of implementing the LAP. A number of mitigation measures have already been incorporated into the LAP and there is an opportunity for the outstanding mitigation measures to be incorporated at the amendment stage. It should be noted that the purpose of the SEA Statement is to record how these mitigation measures were incorporated into the final plan.

Section 7: Monitoring and Next Steps

Sub-Section

- 7.1 Introduction
- 7.2 Next Steps
- 7.3 How to make a Submission

7 Monitoring and Next Steps

7.1 Introduction

7.1.1 The SEA Directive requires that the significant environmental effects of the implementation of plans are monitored in order to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action. Monitoring can also be used to analyse whether the Local Area Plan is achieving its environmental protection objectives and targets, whether such objectives need to be re-examined and whether the proposed mitigation measures are being implemented.

7.1.2 Section 4 identifies the Strategic Environmental Protection Objectives used in the assessment of the Draft Plan. The Section also identifies a number of indicators that will be used to assess the environmental Impact of implementing the plan. In addition to the indicators set out in this Section, the evaluation of the plan also sets out additional indicators that can be used to monitor the impacts of the plan. A completed list of indicators that will be used to monitor the predicted environmental impacts of implementing the plan will be set out in the Environmental Statement that will be prepared in the final stages of the SEA process. .

7.2 Next Steps

7.2.1 This Environmental Report forms a key element of the Strategic Environmental Assessment (SEA). However, the preparation of the environmental report does not bring the SEA process to an end. The SEA process should continue from the time the environmental report is completed through to the time Cork County Council monitors the implementation of the Municipal District Local Area Plan and will act as an important reference point for the continuing SEA of all policies, plans, strategies and programmes carried out by the Council.

| Table 6.1: General Overview of the Process after the Environmental Report |
|--|
| A - Preparing the Environmental Report |
| B - Consulting on the Environmental Report and Draft Local Area Plan |
| C - Response of Consultation Authorities and the Public |
| D - Taking Account of Consultation Opinion |
| E - Adopting Local Area Plan |
| F - Providing Information |
| G - Monitoring plan |

Preparing the Environmental Report

7.2.2 This Environmental Report has been produced to comply with the requirements of the Guidance for Regional Authorities and Planning Authorities on the Implementation of the SEA Directive (2001/42/EC). The Baseline analysis outlined the current state of the environment and was prepared using the most up to date information from a wide variety of state agencies. The evaluation of the plan as set out in Section 6, identifies a number of concerns with policies as they are presented in the draft plan and has suggested a number of changes that should be incorporated into the Draft Local Area Plan before publication.

Consulting on the Environmental Report and the Draft Plan

7.2.3 Consultation is an important element of the SEA process. The Environmental Report will be part of the consultation exercise for the Draft Municipal District Local Area Plan. Consultation will be carried out with a range of statutory bodies, including the Environmental Protection Agency and the National Parks and Wildlife Service and the public. As well as having an opportunity to comment on the Draft Plan, these bodies will have an opportunity to comment on the content of the environmental report and the overall SEA process.

Taking account of the consultation opinion

7.2.4 It is recognised that the opinion expressed through the public consultation exercise can be very useful in improving the quality of the plan being prepared. In order to track these changes, the consultation exercise will aim to include documentation of all the comments and the changes made.

Adopting Plan

7.2.5 The overriding aim of the SEA process is to improve the quality of the Draft Municipal District Local Area Plan and to ensure that it protects the environment; it is important that the relevant findings in the environmental report and any outcomes from the consultation process are incorporated into the plan before its adoption.

Providing information

7.2.6 Once the Draft Municipal District Local Area Plan is adopted a number of post-adoption steps are required to conclude the SEA process. The essence of this stage is to provide information regarding the difference the SEA process has made to the plan. This will involve the publication of an Environmental Statement which will specify: -

- How environmental considerations have been integrated into the plan;
- How the environmental report has been taken into account;
- How opinions expressed during various consultations have been taken into account;
- The reasons for choosing the plan as adopted in the light of other reasonable alternatives; and
- Measures to monitor significant environmental effects.

Monitor Plan

7.2.7 Once the plan is adopted and the necessary information is provided, the County Council will seek to monitor the significant environmental effects identified through the SEA process. The detail of the monitoring process will be included in the environmental statement. The framework for monitoring used in the environmental report /statement will be used to identify unforeseen adverse effects at an early stage so that, if necessary, the appropriate remedial action can be undertaken.

7.3 How to make a Submission

7.3.1 The Draft Ballincollig Carrigaline Municipal District Local Area Plan is available from the Council website at www.corkcoco.ie. If required, a hard copy of the document may be inspected between the hours of 9.30 a.m. and 4.00p.m, from Wednesday 16th November 2016 to Friday 6th January 2017 at the following locations:

- Planning Department, Floor 1, County Hall, Cork.
- Planning Department, Norton House, Skibbereen, Co. Cork.
- Cork County Council Offices, Mallow
- Public Libraries – Please check libraries regarding opening times and availability.

7.3.2 CD copies of the documents may be requested by phone (Tel: 021-4285900) or collected from the Planning Department, Floor 1, County Hall between the hours of 9.30am and 4.00pm during the above period.

7.3.3 Submissions or observations regarding the Draft Ballincollig Carrigaline Municipal District Local Area Plan document are hereby invited from members of the public, children, or groups or associations representing the interests of children and other interested parties during the period Wednesday 16th November 2016 to 4pm on Friday 6th January 2017.

7.3.4 Submissions may be made in either of the following two ways:

- On-line via www.corkcoco.ie following the instructions provided
- OR
- In written form to the Senior Planner, Planning Policy Unit, Cork County Council, Floor 13, County Hall, Cork. T12R2NC.

7.3.5 All such submissions lodged within the above period and prior to the close of business at 4.00pm on Friday 6th January 2017, will be taken into consideration in the finalisation of the Ballincollig Municipal District Local Area Plan.

Section 8: Non Technical Summary

Sub-Section

- 8.1 Introduction
- 8.2 The Draft Ballincollig Carrigaline Municipal District Local Area Plan
- 8.3 Environmental Baseline
- 8.4 Environmental Protection Objectives
- 8.5 Alternatives
- 8.6 Evaluation of the Draft Local Area Plan
- 8.7 Monitoring
- 8.8 Sub-title

8 Non Technical Summary

8.1 Introduction

8.1.1 This is the non technical summary of the Environmental Report of the draft Ballincollig Carrigaline Municipal District Local Area Plan 2016, Strategic Environmental Assessment (SEA). The purpose of this summary report is to provide a clear synopsis of the overall findings of the SEA process in relation to the Draft Amendment and outline the key likely environmental consequences of policies and objectives. Correspondingly, the findings of each chapter are dealt with below.

8.1.2 The SEA is being carried out in order to comply with the provisions of the SEA Regulations and in order to improve the planning and environmental management of the area. This report should be read in conjunction with the Draft Ballincollig Carrigaline Municipal District Local Area Plan 2016. A Strategic Environmental Assessment is an important mechanism in promoting sustainable development and in raising awareness of significant environmental issues and in ensuring that such issues are addressed within the capacity of the planning system. It seeks to inform the decision making process before a decision is made to adopt the draft plan.

8.2 The Draft Ballincollig Carrigaline Municipal District Local Area Plan

8.2.1 In accordance with the Planning and Development Act, 2000 as amended a planning authority may at any time, and for any particular area within its functional area, prepare a local area plan in respect of that area.

8.2.2 The current Ballincollig Carrigaline Municipal District Local Area Plans were adopted in 2011 as two separate plans but are now under a single Municipal District and must be replaced by end of July 2017. On the 14th December 2015 the Council commenced a review by publishing a Preliminary Consultation Document for each of the 8 Municipal Districts and placing notices in the press to advise the public of the commencement of a 6 week period of public consultation. Submissions received were considered and included in a Chief Executive's Report to the Elected Members of the Council in April 2016. This was followed up by a series of briefing sessions to allow for consultation with members on issues raised and what needed to be addressed in the Draft Plan.

8.3 Environmental Baseline

8.3.1 This section of the Environmental Report summarises the environmental baseline in the Electoral Area. The baseline assessment methodology contains the following steps:

- Description of the current state of the environment
- The primary environmental issues of relevance to the Plan
- The characteristics of the environment likely to be significantly affected by the Plan.
- The evolution of the environment in the absence of the Plan
- The interaction between environmental topics

8.3.2 The baseline has been compiled using all available datasets and in conjunction with indicators suggested during scoping. The main sources of data used in the compilation of this baseline were (amongst others):

- Scoping Responses from the Environmental Authorities
- Existing databases such as the EPA, Cork County Council and the (CSO)
- Information supplied by Cork County Council during the SEA scoping stage.

8.3.3 The characteristics of the existing environment are described under the following headings:

- Biodiversity/Flora and Fauna
- Soil and Geology
- Water Resources
- Air and Climate
- Cultural Heritage including Architectural and Archaeological Heritage
- Landscape

8.3.4 There are also a number of maps included in this section to highlight the baseline environment of the area, the majority of which indicate the existing situation for the environmental issues identified above. A cumulative sensitivity map at the electoral area level has also been provided as effects cannot be considered to be boundary sensitive.

8.4 Environmental Protection Objectives

8.4.1 This section aims to identify the relevant Environmental Protection Objectives (EPOs). SEA objectives are used to help show whether the objectives of the plan are beneficial for the environment, to compare the environmental effects of alternatives, or to suggest improvements. The Environmental Protection Objectives set out in this section are set out under a range of topics and are used as the standards against which the future development scenarios, strategic aims, strategic principles and development objectives of the plan can be evaluated, to help to identify areas in which significant adverse impacts are likely to occur, if unmitigated.

8.5 Alternatives

8.5.1 The following section identifies and describes the alternative scenarios considered during the drafting process of the Local Area Plan. Article 5 of the Strategic Environmental Assessment Directive requires the Environmental Report to consider “reasonable alternatives taking into account the objectives and the geographical scope of the plan. The alternative population growth scenarios that were considered included an employment-focused approach; a public transport focused approach and a balanced approach and the preferred scenario from an environmental perspective is provided. Mitigation measures which attempt to prevent, reduce and as fully as possible offset any significant adverse effects of the environment of implementing the preferred alternative are identified in this chapter where applicable.

8.6 Evaluation of the Draft Local Area Plan

8.6.1 This chapter outlines in a tabular form the likely positive and negative impacts of the Local Area Plan policies on the EPO objectives detailed in Section 4. It is considered that the majority of the policies will either improve the state of the EPO or else are unlikely to interact with them adversely. However, a certain amount of policies are more likely to have either an uncertain or negative impact and in these cases it is recommended that mitigation objectives be included so as to minimise damage to the relevant EPO.

Recommended Changes

8.6.2 This section will outline the possible mitigation measures or changes envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment, identified in Section 6 arising from the implementation of the Plan and as such seeks to tie together the SEA process. As a result of this analysis and in light of the SEA process, certain mitigation measures have been identified although in general it is considered that where potential conflict or uncertainty has been demonstrated, adequate compensatory objectives are proposed that will seek to negate any potential significant impacts from proposed policies.

8.7 Monitoring

8.7.1 The SEA Directive requires that the significant environmental effects of the implementation of plans are monitored in order to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action. Monitoring can also be used to analyse whether the Strategy is achieving its environmental protection objectives and targets, whether such objectives need to be re-examined and whether the proposed mitigation measures are being implemented.

Appendices

Appendix A: Sample Settlement Enhancement Measures

Settlement Enhancement Measures

A sample of potential measures for enhancing the sustainability of these settlements is set out in Table D1 below. The key areas where the Plan can deliver enhanced sustainability outcomes are in the areas of transportation and Water and wastewater. The Plan's transportation policies now place a strong emphasis on modal shift targets to sustainable forms of movement especially prioritising walking and cycling for shorter trips and better access to public transport within the towns. A number of towns scored poorly in terms of settlement walkability and recommendations are made to undertake a movement audit at these locations. The audit of the pedestrian and cycling environment of the town should focus on improving the quality, safety, connectivity and attractiveness of the movement network within the town together with a complementary set of traffic calming and parking measures.

The provision of good quality public transport provision is inherently linked to density within the service catchment of an operator. Most of the County is starting from a low public transport base but a revised approach to density in the Plan should make the delivery of a more extensive high frequency bus service viable within the Metropolitan area where the largest proportion of the target growth is allocated. The integration of public transport services is also a key consideration at some locations to encourage modal shift together with the provision of stops at convenient locations. The delivery of these enhancement measures will help increase a modal shift to green travel modes and should consequently reduce car based commuting and associated CO2 emissions.

The Plan has identified the infrastructure status of all the main settlements allocated growth within the County. Where deficiencies have been identified the Plan has specified that development may only proceed where appropriate infrastructure is available which satisfies the environmental regulations and complies with EPA licensing. Water conservation is also identified as a key priority area of investment in the Plan and a number of Category 3 settlements in North Cork have been identified with significant water leakage issues. While investment in these deficiencies will be outside the scope of the Council, the Plan will not exacerbate the existing situation.

Table D1: Sample Sustainability Enhancement Measures

| Town | SDI score | Livability | | Infrastructure & Location | | Water & Wastewater | | | Population & Urban Form | | Transport & Energy | |
|----------------|-----------|---------------------|--------------------------------|---------------------------------|-----------------------------------|-----------------------|--|-----------------------------|-------------------------|----------------------|-----------------------------------|--------------------------|
| | | Provide public park | Local employment opportunities | Improve infrastructure Capacity | Provision of recycling facilities | Improve water quality | Compliance with Urban wastewater treatment | Water conservation measures | Address Housing Vacancy | Increase pop density | Improve walking & cycling network | Improve public transport |
| Ballincollig | 1 | | | | | | | | | | | X |
| Blarney | 1 | | | | | | | | | | X | |
| Carrigaline | 1 | | | X | | | | | | | | X |
| Carrigtwohill | 1 | | | | | X | X | | | | X | X |
| Midleton | 1 | | | X | X | X | | | X | | X | |
| Cobh | 1 | | X | X | X | | | X | | | X | X |
| Bandon | 1 | X | X | | | | | | | | X | X |
| Mallow | 1 | | X | | | | X | | | X | X | X |
| Glanmire | 1 | | | | X | | X | | | | X | X |
| Bantry | 1 | X | | X | | | | | | | | X |
| Clonakilty | 2 | | X | X | | | X | | | | | X |
| Kinsale | 2 | | | | X | | | | | | X | X |
| Fermoy | 2 | | | | | X | | | | | | X |
| Passage West | 2 | | | X | X | | | | | | X | X |
| Macroom | 2 | | | X | | | | | X | X | | |
| Buttevant | 2 | | X | X | | | | | X | X | | |
| Schull | 2 | | | X | | | | | X | X | | |
| Mitchelstown | 2 | | X | X | | | | X | | | | |
| Charleville | 3 | | X | | | | | | X | X | X | X |
| Newmarket | 3 | | | X | | | | | | | | X |
| Skibbereen | 3 | | | X | | | | | | X | | |
| Youghal | 3 | | X | | | | | | | | | X |
| Dunmanway | 3 | | | X | | | X | X | X | X | | X |
| Castletownbere | 3 | X | | X | | | X | | | X | | |
| Millstreet | 3 | X | | X | | | | X | | | | |
| Kanturk | 3 | | X | X | | | X | X | X | X | | |

Ballincollig- Carrigaline Municipal District Draft Local Area Plan

DRAFT Strategic Flood Risk Assessment

November 2016

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Section 1 Introduction

1.1 Scope

- 1.1.1 This Strategic Flood Risk Assessment of the Draft Ballincollig Carrigaline Municipal District Local Area Plan 2016 has been prepared in accordance, in so far as is practicable, with 'The Planning System and Flood Risk Management: Guidelines for Planning Authorities', published in November 2009 by the DEHLG and the OPW, and having specific regard to the areas, within the settlements of this Municipal District, that have been identified as being at risk of flooding.
- 1.1.2 This report sets out how the Flood Risk Assessment was undertaken, as well as how its findings were addressed and integrated into the Draft Local Area Plan. The report should be read in conjunction with the Ballincollig-Carrigaline Municipal District Draft Local Area Plan, and the associated maps.

1.2 Report Structure

- 1.2.1 Section 2 of this report provides a brief introduction to the Ballincollig-Carrigaline Municipal District, identifying the settlement hierarchy and the key population and household growth targets for the respective categories of settlement with the settlement hierarchy.
- 1.2.2 Section 3 examines the main sources of flood risk within the Municipal District and recent flood events.
- 1.2.3 Section 4 examines how the issue of managing flood risk was addressed in the review of the Local Area Plan and outlines the main provisions of the flood risk management strategy.
- 1.2.4 Section 5 sets out what this assessment has achieved in terms of managing the adverse effects of flooding within the Ballincollig-Carrigaline Municipal District. It also identifies how information on flood risk will be reviewed and monitored over the lifetime of the plan.

1.3 The Planning System and Flood Risk

- 1.3.1 'The Planning System and Flood Risk Management: Guidelines for Planning Authorities', published in November 2009, describe flooding as a natural process that can occur at any time and in a wide variety of locations. Flooding can often be beneficial and many habitats rely on periodic inundation. However, when flooding interacts with human development, it can threaten people, their property and the environment. Flooding may be from rivers, the sea, groundwater, sewers or overland flow caused by intense or prolonged periods of rainfall. Climate change effects suggest that the frequency and severity of flooding is likely to increase in the future.
- 1.3.2 The Guidelines describe good flood risk practice in planning and development management and seek to integrate flood risk management into the planning process, thereby assisting in the delivery of sustainable development. Planning

Authorities are directed to have regard to the Guidelines in the preparation of Development Plans and Local Area Plans, and for development management purposes. For this to be achieved, flood risk must be assessed as early as possible in the planning process.

- 1.3.3 Paragraph 1.6 of the Guidelines states that the core objectives are to:
- avoid inappropriate development in areas at risk of flooding;
 - avoid new developments increasing flood risk elsewhere, including that which may arise from surface run-off;
 - ensure effective management of residual risks for development permitted in floodplains;
 - avoid unnecessary restriction of national, regional or local economic and social growth;
 - improve the understanding of flood risk among relevant stakeholders; and
 - Ensure that the requirements of EU and national law in relation to the natural environment and nature conservation are complied with at all stages of flood risk management".
- 1.3.4 The Guidelines aim to facilitate 'the transparent consideration of flood risk at all levels of the planning process, ensuring a consistency of approach throughout the country. The Guidelines work on a number of key principles, including:
- Adopting a staged and hierarchical approach to the assessment of flood risk;
 - Adopting a sequential approach to the management of flood risk, based on the frequency of flooding (identified through Flood Zones) and the vulnerability of the proposed land use.

1.4 Definition of Flood Risk

- 1.4.1 Prior to discussing the management of flood risk, it is helpful to understand what is meant by the term. It is also important to define the components of flood risk in order to apply the principles of the Guidelines in a consistent manner.
- 1.4.2 Flood risk is generally accepted to be a combination of the likelihood of flooding and the potential consequences arising, and is normally expressed in terms of the following relationship:

$$\text{Flood risk} = \text{Probability of flooding} \times \text{Consequences of flooding}$$

- 1.4.3 Likelihood of flooding is normally defined as the percentage probability of a flood of a given severity occurring in any given year. For example, a 1% probability indicates the severity of a flood that is expected to be exceeded on average once in 100 years, i.e. it has a 1 in 100 chance of occurring in any given year.
- 1.4.4 In the Local Area Plan, flood risks are defined in relation to the following zones;
- **Flood Zone A:** where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding);

- **Flood Zone B:** where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding or between 0.1% or 1 in 1000 and 0.5% or 1 in 200 for coastal flooding);
 - **Elsewhere**, sometimes referred to as Zone C, the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding). This zone covers all areas of the Plan which are not in zones A or B.
- 1.4.5 Consequences of flooding depend on the hazards caused by flooding (depth of water, speed of flow, rate of onset, duration, wave-action effects, water quality) and the vulnerability of receptors (type of development, nature, e.g. age-structure, of the population, presence and reliability of mitigation measures etc).
- 1.4.6 The 'Planning System and Flood Risk Management: Guidelines for Planning Authorities', provides three vulnerability categories, based on the type of development, detailed in Table 3.1 of the Guidelines, and are summarised as:
- Highly vulnerable, including residential properties, essential infrastructure and emergency service facilities;
 - Less vulnerable, such as retail and commercial and local transport infrastructure
 - Water compatible, including open space, outdoor recreation and associated essential facilities, such as changing rooms.

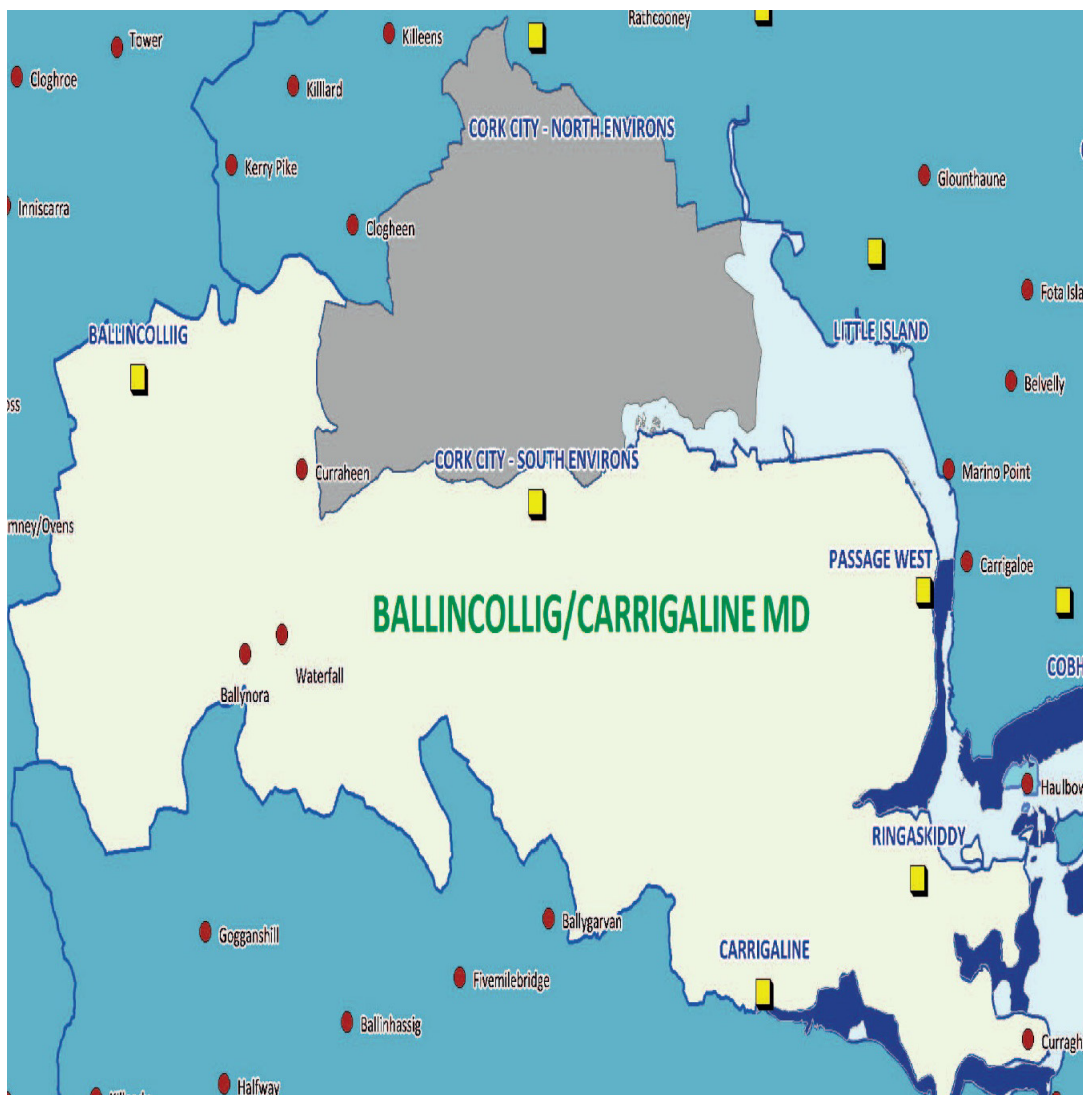
Section 2 Local Study Area

2.1 Introduction: The Ballincollig-Carrigaline Municipal District

2.1.1 The *Ballincollig-Carrigaline* Municipal District lies entirely within the County Metropolitan Strategic Planning area as defined in the County Development Plan 2014. It is a predominantly rural Municipal District that accommodates an extensive network of settlements as follows:

- **Five Main Settlements** comprising Ballincollig, Carrigaline, Cork City South Environs, Passage West and Ringaskiddy.
- **Two Villages** comprising Ballynora and Waterfall.
- **Three Other Locations** comprising Curraghabinny, Curraheen and Farmers Cross

Figure 1 Ballincollig Carrigaline Municipal District



2.2 Population and Household Growth

- 2.2.1 Within the Ballincollig-Carrigaline Municipal District the County Development Plan provides for growth in population of 14,376 persons. The number of households is expected to grow by 9,847 leading to a net requirement for 9,546 new houses. The County Development Plan indicates that 347 ha of zoned land are required to meet this level of housing provision in the main towns, in addition to housing opportunities in the villages and rural areas.
- 2.2.2 Almost all of the growth, 9,144 proposed dwellings is allocated to the towns in the Municipal District, all of which form part of the County Metropolitan Area of Cork City, a designated Gateway in the National Spatial Strategy, and in line with the South West Regional Planning Guidelines. Some modest housing growth is also planned within the villages and other locations within the district (480 units).
- 2.2.3 Arising from the County Development Plan 2014, Table 2.2 shows that there is a net requirement within the towns of the Municipal District for 9,144 new dwelling units and capacity, in terms of the current provision of zoned lands within the towns, to accommodate 9,509.

| Table 2.1: Ballincollig-Carrigaline Municipal District | | | | | | |
|---|---------------------|-------------------|--------------------|--------------------------------|--|---|
| | Housing Requirement | | | | Housing Supply | |
| | Census 2011 | Population Target | New Units Required | Net Estimated Requirement (ha) | Estimated Net Residential area zoned in LAP / TCP (ha) | Estimated Housing Yield (LAPs and TCPs) |
| Ballincollig | 17,368 | 23,805 | 4,033 | 161 | 170.3 | 4,872 |
| Carrigaline (North & South) | 14,775 | 17,870 | 2,422 | 97 | 90.80 | 2,423 |
| Cork City South Environs | 32,635 | 31,308 | 1,284 | 37 | 93.00 | 1,285 |
| Passage West | 5,790 | 6,965 | 925 | 51 | 33.90 | 929 |
| Main Towns | 65,710 | 74,072 | 8,663 | 347 | 388.0 | 9,509 |
| Villages | 278 | 355 | 55 | - | - | 37 |
| Rural | 5,958 | 6,019 | 425 | - | - | -- |
| Total Villages and Rural | 6,236 | 6,374 | 480 | | | 37 |
| Total Municipal District * | 71,946 | 86,322 | 9,144 | 347 | 388 | 9,546 |
| Current Estimated Strategic Land Reserve (LAPs and TCPs) for this Municipal District is 41.3Ha | | | | | | |
| Source: Cork County Development Plan 2014- Volume One. Appendix B, Table B 8 | | | | | | |
| *including Carrigaline South | | | | | | |

2.3 Environment and Heritage –

2.3.1 European and National legislation now protects the most valuable of our remaining wild places, through designation of sites as proposed Natural Heritage Areas, candidate Special Areas of Conservation and Special Protection Areas. The current list of protected sites is contained in the County Development Plan 2014 and is shown on the Heritage and Scenic Amenity Maps in Volume 3 in that Plan. Designated sites in the Ballincollig-Carrigaline Municipal District are detailed in the table below.

| Designated Sites in the Ballincollig-Carrigaline Municipal District | | |
|---|-----------------------|------------------|
| Code | Description | Natura 2000 Site |
| pNHA 0094 | Lee Valley | No |
| pNHA 1046 | Douglas River Estuary | No |
| pNHA 1066 | Lough Beg (Cork) | No |
| pNHA 1979 | Monkstown Creek | No |
| pNHA 1990 | Owenboy River | No |
| SPA-4030 | Cork Harbour | Yes |

- 2.3.2 To date, sites of geological interest have not been comprehensively covered by the existing nature conservation designations. Cork County Council recognises the importance of geological heritage and to this end has listed the important geological features within the County, in the County Development Plan 2014, with the intention of maintaining their possible conservation value. Geological features of interest in the Ballincollig-Carrigaline Municipal District include; armour stone at Lough Beg and Curraghbinnny, and raised beaches in Cork Harbour.
- 2.3.3 In terms of built heritage, there are numerous recorded monuments and protected structures throughout the Municipal District and these are also detailed in the County Development Plan 2014.

2.4 Infrastructure

Water and Waste Water

- 2.4.1 There are significant infrastructural deficiencies within the Municipal District in terms of waste water treatment and water supply services that will need to be addressed over the lifetime of the Local Area Plan if the growth targets for the Municipal District are to be achieved, including for example the upgrading of waste water treatment plant facilities and the implementation of water conservation measures.
- 2.4.2 In Ballincollig upgrading of the WWTP will be required to accommodate target growth in Ballincollig. Extension, upgrading of sewers is also required to service some locations. There are also capacity issues at the west end of the village for the waste water collection system.

Stormwater is an issue for the collection system which has significant surface water inflow. There is a need for stormwater separation along the collection system.

Drinking water is available in Ballincollig; however, a new reservoir may be required to provide storage for Ballincollig. The existing network will also need to be upgraded and extended to service some locations.

- 2.4.3 Upgrading / extension of local watermain's will be required to service some locations in Carrigaline.
- 2.4.4 In the South Environs, pumping of stormwater due to combined sewers is an issue in the area and upgrades to pumping stations in the area may be required to facilitate development during the lifetime of this plan.
- 2.4.5 Surface water generally discharges to one of a number of local watercourses that feed into the Tramore Valley. At times of heavy rainfall, the extent of development in recent years has sometimes led to floods occurring where flows have exceeded the capacity of this river system. Future development proposals will require detailed analysis to ensure that the rate and volume of projected surface water discharge is within the capacity of the receiving system.
- 2.4.6 A drinking water supply is available to accommodate proposed development in Cork City South Environs. However the upgrading of high level supplies including reservoir and watermains is required to provide adequate water pressures to some high level sites. Extension of water mains is required to provide water supply to some other sites.
- 2.4.7 Currently in Passage West there is no Wastewater Treatment Plant serving Passage West/Monkstown/Glenbrook. Wastewater in Passage West / Monkstown / Glenbrook is conveyed via a largely combined sewer system to the Lough Mahon / Cork Harbour. Provision of the Lower Harbour Sewerage Scheme will be required prior to any further development in Passage West / Monkstown / Glenbrook. - Construction of the Lower Harbour WWTP in Shanbally has commenced. Extension and upgrading of sewers will be required to service some locations.
- 2.4.8 Whilst drinking water is currently available to serve the current levels of demand in Passage West, in order to provide a water supply for all of proposed development in Passage West / Monkstown / Glenbrook it will be necessary to upgrade the trunk watermain network from Monkstown, Mount Prospect and Rochestown Road. Upgrading of existing reservoir storage may also be required. Upgrading / extension of local watermains will also be required.
- 2.4.9 In Ringaskiddy, during periods of heavy rainfall surface water is a problem particularly in Ringaskiddy village and in order to protect the capacity of the planned waste water treatment plant for the lower harbour towns this will have to be addressed. All new development should include attenuation measures in accordance with Sustainable Drainage Systems (SuDS).

Road Network

- 2.4.10 In Carrigaline, further investment in roads infrastructure is also needed to create capacity in the road network to accommodate planned future development. Delivery of the Western Relief Road is needed to help relieve the town of through traffic from the R611 Cork Road and to free up capacity within the road network to facilitate planned development.
- The construction of this road will also help relieve traffic congestion along Main Street and provide a framework for the expansion and consolidation of the town centre.
- 2.4.11 The City South Environs is heavily dependent on a road network which suffers from heavy peak hour congestion. This problem is most acutely felt in Douglas where it is difficult to make improvements to the local road network given the compact nature of the existing urban environment. In order to relieve this congestion the local road

network serving the area has to be adapted to accommodate public transport by enhancing the local road infrastructure serving the area, by facilitating greater public transport use and by creating a more pedestrian friendly urban setting.

- 2.4.12 The N40 South Ring Road is a National Primary Route which provides strategic connectivity between the N22, N71, N27 and N28 with the wider National Route Network. It also serves a traffic distribution function for the southern periphery of Cork City. The N40 Road is subject to heavy congestion and resultant delay during peak periods
- 2.4.13 In order to protect this regionally important road, a demand study has been commissioned by Transport Infrastructure Ireland (TII). This study will seek to ensure that capacity along the N40 is protected as demand rises in the future.
- 2.4.14 Significant road improvements are also needed to service the current and future traffic volumes in the western portion of the area, along with the provision of footpaths, public lighting and cycling routes from Togher Village to the residential developments which have occurred along Matthew Hill and Togher Road over the last decade.
- 2.4.15 In Passage West, access issues to zoned land on the western side of the town need to be addressed in order to assist in the development of existing residential zoned lands which are proposed to be retained in the Draft Local Area Plan.
- 2.4.16 Ringaskiddy is served by the N-28 National Primary Route which links the settlement to Cork City and onwards to the wider regional and national road network. It is proposed to construct a new M28 Motorway from Cork to Ringaskiddy from the existing N28 N40 Bloomfield interchange on the South Ring Road to Ringaskiddy village.

Section 3 Flood Risk in the Ballincollig-Carrigaline Municipal District

3.1 Sources of Flooding –

- 3.2.1 This SFRA has primarily reviewed flood risk from fluvial and tidal sources. Flood risks from pluvial and groundwater sources or from drainage systems, reservoirs and canals and other artificial or man-made systems have not been considered in detail in this study and such risks will need to be assessed at the project stage.
- 3.2.2 This approach has been adopted for two main reasons. Firstly, the review of flooding in the Ballincollig-Carrigaline Municipal District shows rivers to be the most common source of damage and it is this source of flooding that has been taken into account in the Local Area Plan process. Other sources of flooding are considered to present a lesser risk in this Municipal District but should be considered at the planning application stage. Secondly, Flood Zones in the 'Planning System and Flood Risk Management' are defined on the basis of fluvial, and where appropriate, tidal flood risk.

3.2 Fluvial Flooding

- 3.2.3 Flooding of watercourses is associated with the exceedance of channel capacity during higher flows. The process of flooding on watercourses depends on a number of characteristics associated with the catchment including; geographical location and variation in rainfall, steepness of the channel and surrounding floodplain and infiltration and rate of runoff associated with urban and rural catchments. There are two main catchment types - large and relatively flat or small and steep, the two giving two very different responses during large rainfall events.
- 3.2.4 In a large, relatively flat catchment, flood levels will rise slowly and natural floodplains may remain flooded for several days, acting as the natural regulator of the flow. In small, steep catchments, local intense rainfall can result in the rapid onset of deep and fast-flowing flooding with little warning. Such “flash” flooding, which may only last a few hours, can cause considerable damage and possible threat to life.
- 3.2.5 The form of the floodplain, either natural or urbanised, can influence flooding along watercourses. The location of buildings and roads can significantly influence flood depths and velocities by altering flow directions and reducing the volume of storage within the floodplain. Critical structures such as bridge and culverts can also significantly reduce capacity creating pinch points within the floodplain. These structures are also vulnerable to blockage by natural debris within the channel or by fly tipping and waste.
- 3.2.6 Rivers are the primary cause of flooding in the Ballincollig Carrigaline Municipal District with flood events attributed to fluvial sources ranging from the Blackwater River in particular to smaller tributaries and drains.
- 3.2.7 The Ballincollig- Carrigaline Municipal District is most affected by flooding from the River Lee and its tributaries. The Lee River catchment covers an area of approximately 2,000 square kilometres. The catchment is defined by the land area drained by the River Lee, its tributaries and Cork Harbour.
- 3.2.8 The Lee River can be broken down into nine sub catchments as follows: Upper River Lee; Lower River Lee; Tramore/Douglas River; Kiln River; Glashaboy River; Owennacurra River; Carrigtohill area; Owenboy River; and Cork Harbour. The

majority of the Ballincollig Carrigaline Municipal District is covered by the sub catchments of the Lower Lee and the Owenboy. Curaheen and Tramore River catchments. The Lower Lee system runs between Inniscarra dam and the City boundary before entering Lough Mahon.

- 3.2.9 Carrigaline has been subject to recurring flood events due to the low lying nature of the town centre and the tidal influences on the Owenboy River.

Douglas (City South Environs) was badly affected by flooding in 2012. As a result Cork County Council, acting as Agents for the OPW has now commenced works on a Flood Relief Scheme for Douglas. The scheme involved the replacement of the existing under capacity culverts on the Tramore River.

Flooding has occurred in the Ballincollig Regional Park and non residential areas adjacent to the River Lee, however there have been no reported flood events within the town itself

3.3 Other Sources of Flooding

- 3.3.1 Other sources of flooding including pluvial, ground water, drainage systems and reservoirs are detailed below. Risks from these sources have not been specifically considered in the Strategic Flood Risk Assessment undertaken for the Ballincollig-Carrigaline Municipal District and need to be addressed at the planning application stage.

- **Pluvial Flooding:** Pluvial flooding is a result of rainfall generated overland flows of water. Flooding of land from surface water runoff is usually caused by intense rainfall that may only last a few hours. The resulting water follows natural valley lines, creating flow paths along roads and through and around developments and ponding in low spots, which often coincide with fluvial floodplains in low lying areas.
- **Groundwater Flooding:** Groundwater flooding is caused by the emergence of water originating from underground, and is particularly common in karstic landscapes. This can emerge from either point or diffuse locations. The occurrence of groundwater flooding is usually very local and unlike flooding from rivers and the sea, does not generally pose a significant risk to life due to the slow rate at which the water level rises.
- **Flooding from Drainage Systems:** Flooding from artificial drainage systems occurs when flow entering a system, such as an urban storm water drainage system, exceeds its discharge capacity, it becomes blocked or it cannot discharge due to a high water level in the receiving watercourse. Sewer flooding problems will often be associated with regularly occurring storm events during which sewers and associated infrastructure can become blocked or fail.
- **Flooding from Reservoirs, Lakes and other Artificial Sources:** Reservoirs can be a major source of flood risk, as demonstrated in the 2009 flooding, when waters released from the Inniscarra Dam flooded sections of Cork City.

Section 4 Addressing Flood Risk in the Ballincollig Carrigaline MD Local Area Plan

4.1 Introduction

4.1.1 This section details the approach to Flood Risk Management adopted in the Ballincollig-Carrigaline Municipal District Local Area Plan.

4.2 Collation of Flood Risk Data

4.2.1 In 2010, as part of the review of its Local Area Plans, and in order to meet the needs of the Strategic Environmental Assessment process and the requirements of the Department of the Environment, Heritage and Local Government / Office of Public Works Guidelines, "The Planning System and Flood Risk Management" (2009), Cork County Council undertook a county wide Strategic Flood Risk Assessment using data prepared on its behalf by JBA Consultants. The Council also conferred with OPW officials, the Lead Agency for Flood Risk Management in Ireland, in completing the county wide assessment of flood risks and in formulating the flood risk management strategy which informed the preparation the 2011 Local Area Plans.

4.2.2 For the purposes of the assessment, information about flood risks was collated from a number of sources including:

- 'Floodmaps.ie' – The national flood hazard mapping website operated by the Office of Public Works, where information about past flood events is recorded and made available to the public. 'Flood point' information available on this site has not been included for technical reasons.
- 'Flood Hazard Mapping' for fluvial and tidal areas commissioned by Cork County Council from JBA Consulting. These indicative flood extent maps provided flood extent information for river catchments where a more detailed CFRAMS study was not available.
- Draft River Lee Catchment Flood Risk Assessment and Management Study (Lee CFRAMS) data was used for areas within the catchment of the study.

4.2.3 This data was amalgamated into a single 'Indicative Flood Zone Map' for the County, which was then used as the basis for the flood risk assessment of the 2011 Local Area Plans. The flood zone map showed the areas known to be at risk of fluvial (river) or tidal flooding only. It should be noted that the flood zones are based on an undefended scenario and do not take the presence of flood protection structures such as walls or embankments into account. This is to allow for the fact that there is still a residual risk of flooding behind the defences due to overtopping or breach, and that there may be no guarantee that the defences will be maintained in perpetuity. This is accordance with the requirements of the Guidelines which specify an undefended assessment of risk.

4.2.4 In 2016, as part of the further review of the Local Area Plans the Council commissioned an update of the flood zone mapping used in the 2011 to take account of the information that has become available in the intervening period from other flood studies, including the outputs from the National CFRAM Programme (Catchment Flood Risk Assessment and Management), undertaken by the OPW.

4.2.5 The updated flood zone mapping provides information on the three main flood zones as follows:

- **Zone A** – High probability of flooding. Most areas of the County that are subject to flood risks fall into this category. Here, most types of development would be considered inappropriate. Development in this zone should be avoided and/or only considered in exceptional circumstances, such as in major urban or town centres, or in the case of essential infrastructure that cannot be located elsewhere. A Justification Test set out in Ministerial Guidelines applies to proposals in this zone. Only water-compatible development, such as docks and marinas, dockside activities that require a waterside location, amenity open space, outdoor sports and recreation, would be considered appropriate in this zone.
- **Zone B** - Moderate probability of flooding. In most parts of the County this designation applies only to limited areas of land. In only a few locations do significant sites fall into this category. Here, highly vulnerable development, such as hospitals, residential care homes, Garda, fire and ambulance stations, dwelling houses and primary strategic transport and utilities infrastructure, would generally be considered inappropriate. Less vulnerable development, such as retail, commercial and industrial uses, sites used for short-let for caravans and camping and secondary strategic transport and utilities infrastructure, should only be considered in this zone if adequate sites are not available in Zone C, and subject to a flood risk assessment demonstrating that the risk can be appropriately managed”.
- **Elsewhere** (referred to in the Guidelines as Flood Zone C) – Localised flooding from sources other than rivers and the coast can still occur and may need to be taken into account at the planning application stage. |

4.2.6 Extracts from the flood zone map are shown, where relevant, on the settlement maps included in the Local Area Plan. The maps are indicative in nature and are intended to primarily function as a screening tool. The areas at risk may be more or less extensive in practice than indicated in the flood mapping. The mapping may be refined where possible over time as other more detailed flood risk assessments are completed by the OPW.

4.2.7 Within areas not specifically identified by the plan as being at risk of fluvial or tidal flooding (i.e. within Zone C) a flood risk screening assessment may still be required to assess potential impact of development on adjoining Flood Zones A or B, particularly with respect to surface water management . An assessment of the risk of other sources of flooding such as pluvial or ground water flooding may also be needed.

4.2.8 The inclusion of the flood zone information on the settlement maps of the Municipal District is the first step in managing flood risk in the future. The updated mapping provides for an improved understanding of flood risk issues within the County. The maps indicate the extent of flood zones that should be safeguarded from development and will support the application of the sequential approach, and the justification test as appropriate, in areas where development is proposed.

4.2.9 As part of the review of the Local Area Plans, all zoned lands in areas at risk of flooding have been considered in the context of the updated indicative flood zone maps.

4.3 Flood Risk within the Ballincollig-CarrigalineMunicipal District

4.3.1 Flood risk to each settlement has been appraised based on the Indicative Flood Zones which cross the settlement boundary, and is summarised in Table 4.1.

| Table 4.1: Flood Risk by Settlement in the Ballincollig-Carrigaline Municipal District | | |
|---|---|---|
| Settlement | Indicative Fluvial/ Coastal Flood Risk within Development Boundary | Comment |
| Main Settlements | | |
| Ballincollig | Yes | All development proposals within the Indicative Flood Zone Areas will need to comply with the flood risk assessment procedure detailed in Section 4.6 of this report i.e. verification of Indicative Flood Zone mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate. |
| Carrigaline | Yes | |
| City South Environs | Yes | |
| Passage West | Yes | |
| Ringaskiddy | Yes | |
| Villages | | |
| Ballynora | Yes | All development proposals within the Indicative Flood Zone Areas will need to comply with the flood risk assessment procedure detailed in Section 4.6 of this report i.e. verification of Indicative Flood Zone mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate. See Table 4.3 for details. |
| Waterfall | Yes | All development proposals within the Indicative Flood Zone Areas will need to comply with the flood risk assessment procedure detailed in Section 4.6 of this report i.e. verification of Indicative Flood Zone mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate. See Table 4.3 for details. |
| Other Locations | | |
| Curraghbinny | Yes | All development proposals within the Indicative Flood Zone Areas will need to comply with the flood risk assessment procedure detailed in Section 4.6 of this report i.e. verification of Indicative Flood Zone mapping, compliance with the requirements of the Development Plan |
| Curraheen | Yes | |

| Table 4.1: Flood Risk by Settlement in the Ballincollig-Carrigaline Municipal District | | |
|--|---|--|
| Settlement | Indicative Fluvial/ Coastal Flood Risk within Development Boundary | Comment |
| | | Justification Test, and detailed site specific assessment, as appropriate. |
| Farmers Cross | No | Indicative Flood Zone Mapping does not indicate a fluvial /coastal risk. See Paragraph 4.2.7. regarding the need for further assessment. |

4.4 Flood Risk Management Strategy

4.4.1 The assessment and management of flood risks in relation to planned future development is an important element of sustainable development. The majority of towns, villages and smaller settlements have a river or stream either running through the built-up area or close by and are inevitably exposed to some degree of flood risk when those rivers or streams overflow their normal course. Similarly, in coastal areas, flooding can periodically occur following unusual weather or tidal events.

4.4.2 Generally, the purpose of zoning is to indicate to property owners and members of the public the types of development which the Planning Authority considers most appropriate in each land use category. Zoning is designed to reduce conflicting uses within areas, to protect resources and, in association with phasing, to ensure that land suitable for development is used to the best advantage of the community as a whole.

4.4.3 The approach adopted has generally been to

- Include, on the settlement maps, information on the areas at risk of flooding (extent of Flood Zones A and B),
- Avoid development in areas at risk of flooding; and
- Where development in floodplains cannot be avoided, to take a sequential approach to flood risk management based on avoidance, reduction and mitigation of risk.

4.4.4 In response to local circumstances, particularly where there may be some uncertainties in relation to flood risk data or where land has been zoned in a previous plan or planning permission has already been granted, the approach has been modified and lands have been zoned for development with a requirement that a detailed site specific flood risk assessment be carried out at the project stage. This is explained in more detail below.

4.5 The Approach to Zoning in Areas at Risk of Flooding.

4.5.1 Within the areas identified by the Indicative Flood Risk Mapping as being at risk (Zone A or B), all proposals for development will need to comply with the Ministerial Guidelines – 'The Planning System and Flood Risk Management. In this LAP, land use

zoning objectives within the indicative Flood Risk Areas have been included in the plan where either:

- The land use zoning objective has been considered in the context of the “Development Plan Justification Test” set out in the Ministerial Guidelines;
- The zoning objective stemmed from a similar objective in a previous Plan and has been included in this Plan in order to facilitate the local verification of the indicative Flood Risk Maps at the project planning/planning application stage.

4.5.2 In the preparation of the Draft Ballinacollig-CarrigalineMunicipal District LAP, proposed zonings were generally assessed relative to the provisions of the Guidelines and the Justification Test for Development Plans as detailed in the Guidelines. The Justification Test is generally required in situations where the planning authority needs to consider future development in areas at a high or moderate risk of flooding, for uses or development vulnerable to flooding that would otherwise be inappropriate. In such circumstances, all of the following criteria must be satisfied :

- a) The urban settlement is targeted for growth in the NSS, RPGs, or statutory plans defined under the provisions of the Planning and Development Act, 2000, as amended.
- b) the zoning is required to achieve the proper planning and sustainable development of an urban settlement and is
 - Essential to facilitate the regeneration and/or expansion of the centre of the urban settlement;
 - Comprises significant previously developed and/or under-utilised lands;
 - Is within or adjoining the core of an established or designated urban settlement;
 - Will be essential to achieving compact and sustainable urban growth; and
 - There are no suitable alternative lands for the particular use in areas at lower risk of flooding within or adjoining the core of the urban settlement
- c) A flood Risk Assessment to the appropriate level of detail has been carried out as part of the SEA, which demonstrates that flood risk to the development can be adequately managed and the development will not cause adverse impacts elsewhere.

4.4.5 In the preparation of the Draft Ballinacollig-CarrigalineMunicipal District Local Areas Plan the final element of the Justification Test (part (c) above), which requires a site specific flood risk assessment to be carried out, was not undertaken. In some cases, certain zonings were included in areas at risk of flooding, even when such zoning did not pass the Justification Test, as a response to a desire to retain those zonings where planning permission had been granted or where the zoning had already been made in a previous Plan.

4.4.6 Instead, the approach taken in the Draft Local Area Plan provides, in the first instance, for the detailed assessment of the extent of the actual flood risk relative to that indicated on the indicative mapping via a phased flood risk assessment procedure. The first stage of this assessment process provides a prospective developer with the opportunity to verify the Indicative Flood Zone Mapping in the

first instance, and address any local ambiguities. Depending on the outcome of the verification stage, a prospective developer may then have the opportunity to demonstrate compliance with the requirements of the Development Plan Justification Test and carry out a detailed site specific assessment, as appropriate. This flood risk assessment process is set out in Chapter 11 of the County Development Plan 2014.

4.4.7 Development proposals on lands within areas at risk of flooding will also be subject to the 'Development Management Justification Test', details of which are set out in the Guidelines.

4.4.8 The Table below lists the specific zoned sites within the Ballincollig-Carrigaline Municipal District that are located within either Flood Zone A or B and the circumstances of their inclusion.

| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
|-------------|------------------|---|---------------------------------|---|
| Carrigaline | CL-T-01 | Justification Test | Not applied | |
| | | Existing Zonings | ✓ | Previously zoned for Town Centre use in the 2005 & 2011 LAP. Part of the land is at risk of flooding. A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014 |
| Carrigaline | CL-R-04 | Justification Test | | |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|--|---------------------------------|--|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | Existing Zonings | ✓ | <p>Previously zoned for Residential use in the 2005 & 2011 LAP. Part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014</p> |
| Carrigaline | CL-R-13 | SFRA carried out as part of amendment to 2011 Carrigaline Local Area Plan. | Not Applied | - |
| | | New Zoning | ✓ | <p>Previously zoned for Residential use in the 2011 LAP (Amendment No2 Shannonpark Framework Masterplan)</p> <p>Only part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan</p> |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|--|---------------------------------|--|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | | | Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014. |
| Carrigaline | CL-R-15 | SFRA carried out as part of amendment to 2011 Carrigaline Local Area Plan. | | Previously zoned for Residential use in the 2011 LAP Amendment No4 Shannonpark X-01 Only part of the land is at risk of flooding. A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014 |
| | | New Zoning | ✓ | |
| Carrigaline | CL-B-01 | Justification Test | Not applied | |
| | | Existing Zonings | ✓ | Previously zoned for Business use in the 2005 & 2011 LAP. Part of the land is at risk of flooding. A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|---|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | | | Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014. |
| | | | | |
| Cork City South Environs | SE-TC-01 | Justification Test | Not Applied | - |
| | | Existing Zonings | ✓ | <p>Part of this site is at risk of flooding.</p> <p>Previously zoned for Town Centre Use in the 2011 LAP Amendment No 2. Douglas Land Use and Transportation Study</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014.</p> |
| Cork City South | SE-TC-02 | Justification Test | Not Applied | - |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|---|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| Environs | | Existing Zonings | ✓ | <p>This site is substantially within the area at risk of flooding.</p> <p>Previously zoned for Town Centre Use in the 2011 LAP Amendment No 2. Douglas Land Use and Transportation Study</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014.</p> |
| Cork City South Environs | SE-TC-03 | Justification Test | Not Applied | - |
| | | Existing Zonings | ✓ | <p>Parts of this site are within the area at risk of flooding. Previously zoned for Town Centre Use in the 2011 LAP Amendment No 2. Douglas Land Use and Transportation Study</p> <p>Objective limits development of the site to flood compatible uses.</p> <p>A site specific flood risk assessment will be required i.e. verification</p> |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|---|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | | | of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014. |
| Cork City South Environs | SE-TC-04 | Justification Test | Not Applied | - |
| | | Existing Zonings | ✓ | <p>Parts of this site are within the area at risk of flooding. Previously zoned for Town Centre Use in the 2011 LAP Amendment No 2. Douglas Land Use and Transportation Study</p> <p>Objective limits development of the site to flood compatible uses.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014</p> |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|--|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| Cork City South Environs | SE-R-01 | Justification Test | Not Applied | |
| | | Existing Zonings | ✓ | <p>Previously zoned for Residential use in the 2005 & 2011 LAP. Part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014</p> |
| Cork City South Environs | SE-R-02 | Justification Test | Not Applied | |
| | | Existing Zonings | ✓ | <p>Previously zoned for Residential use in the 2005 & 2011 LAP. Part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with</p> |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|--|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | | | Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014. |
| Cork City South Environs | SE-R-04 | Justification Test | Not Applied | |
| | | Existing Zonings | ✓ | Previously zoned for Residential use in the 2005 & 2011 LAP. Part of the land is at risk of flooding. A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014. |
| Cork City South Environs | SE-R-06 | Justification Test | Not Applied | |
| | | Existing Zonings | ✓ | Previously zoned for Residential use in the 2005 & 2011 LAP. Part of the land is at risk of flooding. A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|---|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | | | Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014. |
| Passage West | PW-T-01 | Justification Test | Not Applied | - |
| | | Existing Zonings | ✓ | <p>Previously zoned for Town Centre use in the 2005 & 2011 LAP. Part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014.</p> |
| Passage West | PW-T-02 | Justification Test | Not Applied | |
| | | Existing Zonings | ✓ | <p>Previously zoned for Town Centre use in the 2005 & 2011 LAP. Part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be</p> |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|--|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | | | required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014. |
| Passage West | PW-X-01 | Justification Test | Not Applied | |
| | | Existing Zonings | ✓ | Previously zoned as Special Policy Area in the 2011 LAP. Part of the land is at risk of flooding. A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014. |
| Passage West | PW-X-02 | Justification Test | Not Applied | |
| | | Existing Zonings | ✓ | Previously zoned as Special Policy Area in the 2011 LAP. Part of the |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|---|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | | | land is at risk of flooding. A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014. |
| Ringaskiddy | RY-I-02 | Justification Test | Not Applied | |
| | | Existing Zoning | ✓ | Previously zoned as Special Policy Area in the 2011 LAP. Part of the land is at risk of flooding. A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014 |
| Ringaskiddy | RY-I-07 | Justification Test | Not Applied | |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|---|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | Existing Zoning | ✓ | <p>Previously zoned for Industrial Uses in the 2011 LAP. Part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014</p> |
| Ringaskiddy | RY-I-08 | Justification Test | Not Applied | |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|--|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | | | <p>Previously zoned as Industrial Uses in the 2011 LAP. Part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014</p> |
| Ringaskiddy | RY-I-10 | Justification Test | Not Applied | |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|--|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | Existing Zoning | ✓ | <p>Previously zoned for Industrial Uses the 2011 LAP. Part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014</p> |
| Ringaskiddy | RY-I-11 | Justification Test | Not Applied | |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|---|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | Existing Zoning | ✓ | <p>Previously zoned for Industrial Uses in the 2011 LAP. Part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014</p> |
| Ringaskiddy | RY-I-13 | Justification Test | Not Applied | |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|---|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | Existing Zoning | ✓ | <p>Previously zoned for Industrial Uses in the 2011 LAP. Part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014</p> |
| Ringaskiddy | RY-I-18 | Justification Test | Not Applied | |
| | | Existing Zoning | ✓ | <p>Previously zoned for Industrial Uses in the 2011 LAP. Part of the land is at risk of flooding.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014</p> |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|--|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| Ringaskiddy | RY-I-19 | Justification Test | Applied | Site passes justification test, as no other suitable site available for expansion of I.M.E.R.C. |
| | | Extension to existing zoning. | ✓ | <p>Previous zoned (C-01) for Third Level educational campus for marine related education research and training.</p> <p>Should the applicant wish to proceed further with the development proposal, then the applicant needs to be able to demonstrate, to the satisfaction of the Planning Authority, that the proposal meets the requirements of the 'Development Plan Justification Test' as set out in the Guidelines and as detailed in section 4.4.3 above. Where the Council is satisfied that the proposal satisfies the requirements of the Development Plan Justification Test, it shall confirm this in writing to the applicant.</p> <p>If the proposal is considered to meet the requirements of</p> |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|--|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | | | <p>the Development Plan Justification Test then prospective developers should proceed to a more detailed site specific flood risk assessment in line with Chapter 5 of the Guidelines.</p> <p>Thereafter, where development has to take place in areas at risk of flooding, the risks should be mitigated and managed through the location, layout and design of the development to reduce such risks to an acceptable level.</p> <p>Prospective applications are asked to advise Cork County Council of the actual verified flood risk.</p> |
| Ballynora | C-01 | Justification Test | Existing Zoning | |
| | | Not applied | ✓ | <p>Zoned for Community Uses in the 2011 LAP.</p> <p>A site specific flood risk assessment will be required i.e. verification of Indicative Flood Zone Mapping, compliance with the requirements of</p> |

| Table 4.2: Specific Land Use Zonings located within Flood Zone A or B | | | | |
|---|------------------|---|---------------------------------|---|
| Settlement | Zoning Objective | Development Plan Justification Test & Other Assessment Criteria | Reason for inclusion in the LAP | Comment |
| | | | | the Development Plan Justification Test, and detailed site specific assessment, as appropriate, in accordance with Objectives WS 6-1 and WS 6-2 as detailed in Chapter 11, Volume 1 of the Cork County Development Plan, 2014 |

Note: Proposals for 'open space or outdoor recreation development have not been included in Table 4.2 because these are normally water compatible forms of development and, therefore, do not need to be subjected to the 'Development Plan' Justification Test. However, an appropriate flood risk assessment will be necessary at the project planning/ planning application stage.

4.6 Approach to Development in Areas at Risk of Flooding

4.6.1 Where development is proposed within an area at risk of flooding, either on land that is subject to a specific zoning objective, lands within the "existing built up area" of a town or within a development boundary of a village, there are a number of steps that a applicant for planning permission may need to complete as follows:

- a) Verification of the Indicative Flood Zone Mapping:
- b) Compliance with the 'Development Plan Justification Test' ;
- c) Detailed site specific flood risk assessment.

4.6.2 These steps are set out in more detail in the Table below.

| Table 4.3 Flood Risk Assessment Procedure for Development Proposals Located within Areas at Risk of Flooding | | |
|--|---|--|
| 1 | Verification of flood zone mapping | <p>In order to reflect the possibility that the 'Indicative Flood Zone Maps' may include some localised uncertainties, all applicants have the opportunity to carry out their own flood risk assessment to verify the accuracy of the flood zone information included within the Local Area Plan.</p> <p>The extent of the study area to be included in such an assessment should be agreed in advance with the Planning Authority. This verification process is intended to be carried out relatively quickly and at modest expense, but should include</p> |

| <p align="center">Table 4.3 Flood Risk Assessment Procedure for Development Proposals Located within Areas at Risk of Flooding</p> | | |
|---|--|--|
| | | <p>the following:</p> <ul style="list-style-type: none"> • An examination of all sources of flooding that may affect a particular location, in addition to the fluvial and tidal risk represented in the indicative flood risk maps. Local knowledge of flood events may be useful. • A review of all available flood related information, including the flood zone maps and historical flood records (from www.floodmaps.ie, and through wider internet / newspaper / library search/ local knowledge of flooding in the area). • An appraisal of the relevance and likely accuracy / adequacy of the existing information. For example, if the outline is from CFRAM or other detailed study they can be relied on to a greater extent than if they are from other sources. • Site cross sections or spot levels, including the river and surrounding lands. • Description of the site and surrounding area, including ground conditions, levels and land use. • Commentary on any localised uncertainty in the existing flood mapping and other sources of flood risk information and the site area. • Proposal as to the appropriate course of action which could be either: <ul style="list-style-type: none"> ▪ further study in relation to the flood risk affecting the lands; ▪ revision of development proposals to avoid areas shown to be at risk of flooding; or ▪ Continue with development as proposed (if the site is clearly demonstrated to be outside Flood Zones A or B and has been shown not to be at flood risk, having also had regard to the provisions of Section 3.3). <p>It is recommended that prospective applicants for planning permission should carry out this first stage 'Verification' process' well in advance of the submission of their application for planning permission and that its recommendations should be brought to the attention of Council staff as part of a pre-planning meeting.</p> |

| Table 4.3 Flood Risk Assessment Procedure for Development Proposals Located within Areas at Risk of Flooding | | |
|---|--|--|
| 2 | Flood Risk Is verified: | Where the 'Verification' process outlined above indicates that the land is in fact at risk of flooding then, in accordance with the "avoid" principle of the Guidelines, there is a presumption against development, and the sequential approach should be used to find an alternative site for development that is not at risk of flooding. |
| 2(a) | Development Plan Justification Test. | <p>Should the applicant wish to proceed further with the development proposal, then the applicant needs to be able to demonstrate, to the satisfaction of the Planning Authority, that the proposal meets the requirements of the 'Development Plan Justification Test' as set out in the Guidelines and as detailed in section 4.4.3 above. Where the Council is satisfied that the proposal satisfies the requirements of the Development Plan Justification Test, it shall confirm this in writing to the applicant.</p> <p>If the proposal is considered to meet the requirements of the Development Plan Justification Test then prospective developers should proceed to a more detailed site specific flood risk assessment in line with Chapter 5 of the Guidelines.</p> <p>Thereafter, where development has to take place in areas at risk of flooding, the risks should be mitigated and managed through the location, layout and design of the development to reduce such risks to an acceptable level.</p> <p>Prospective applications are asked to advise Cork County Council of the actual verified flood risk.</p> |
| 2(b) | Detailed site specific Assessment | Where, following a detailed site specific assessment, it can be satisfactorily shown that the proposed development, and its infrastructure, will avoid significant risks of flooding in line with the principles set out in the Ministerial Guidelines, then, subject to other relevant proper planning considerations, permission may be granted for the development. |
| 3 | No flood risk demonstrated. | Where the 'Verification' process outlined above shows satisfactorily that the site is not at risk of flooding, and the County Council has agreed in writing with such a conclusion, then, subject to other normal planning considerations, an application for planning permission may be favourably considered. |

4.7 Flood Risk and Development Management

4.7.1 In addition to the requirements set out in Table 4.3 regard should also be had to the following:

- a) Minor proposals for development, for example small extensions to existing houses or changes of use, in areas at moderate to high risk of flooding should be assessed in accordance with Planning Guidelines: The Planning System and Flood Risk Management.
- b) Where flood risk constitutes a significant environmental effect of a development proposal, a sub-threshold EIS may be triggered. Screening for EIA should be an integral part of all planning applications in areas at risk of flooding.
- c) Any proposal in an area at risk of flooding that is considered acceptable in principle must demonstrate that appropriate mitigation measures can be put in place and that residual risks can be managed to acceptable levels. Addressing flood risk in the design of new development should consider the following:
 - Locating development away from areas at risk of flooding, where possible.
 - Substituting more vulnerable land uses with less vulnerable ones.
 - Identifying and protecting land required for current and future flood risk management, such as conveyance routes, flood storage areas and flood protection schemes etc.
 - Addressing the need for effective emergency response planning for flood events in areas of new development.
- d) Site layout, landscape planning and drainage of new development must be closely integrated to play an effective role in flood-reduction. As such, proposals should clearly indicate:
 - The use of Sustainable Drainage Systems (SuDS) to manage surface water run-off.
 - Water conveyance routes free of barriers such as walls or buildings.
 - The signing of floodplain areas to indicate the shared use of the land and to identify safe access routes.
- e) To ensure that adequate measures are put in place to deal with residual risks, proposals should demonstrate the use of flood-resistant construction measures that are aimed at preventing water from entering a building and that mitigate the damage floodwater causes to buildings. Alternatively, designs for flood resilient construction may be adopted where it can be demonstrated that entry of floodwater into buildings is preferable to limit damage caused by floodwater and allow relatively quick recovery. Such measures include the design and specification of internal building services and finishes. Further detail on flood resilience and flood resistance are included in the Technical Appendices of the Planning Guidelines, The Planning System and Flood Risk Management.

Section 5 Managing Flood Risk in the Future

5.1 What has the LAP Achieved

5.1.1 The inclusion of Indicative Flood Zone maps for the settlements of the Municipal District is the first step in managing flood risk in the future. The maps are primarily intended to function as a screening tool. They are not a substitute for detailed hydraulic modelling, such as may be required to assess the level of flood risk for a specific development. The flood maps should be used to guide decision making when determining whether a detailed Flood Risk Assessment is required for any given site. The maps are intended for guidance, and cannot provide details for individual properties.

5.2 Monitoring and Review

5.3.1 Information in relation to flood risk will be monitored and reviewed by the Council and the Flood Risk Assessment will be updated as appropriate as new information becomes available. There are a number of key outputs from possible future studies and datasets which could inform any update of the FRA as availability allows. A list of potential sources of information which will inform an FRA review is provided in the table below.

| Potential Sources of Flood Risk Data | | |
|---|----------------------------------|--------------------------|
| Data | Source | Timeframe |
| Ongoing CFRAM Studies | OPW | End of 2016 / Early 2017 |
| County Development Plan Updates | Cork County Council | 2020 |
| Flood maps of other sources, such as canal breach and drainage networks | Various | Unknown |
| Significant flood events | Various | Unknown |
| Changes to Planning and / or Flood Management Policy | DoEHLG /OPW /Cork County Council | Unknown |
| SFRAs for Local Area Plans | Cork County Council | Upon LAP review |
| Detailed FRAs | Various | Unknown |
| Flood Defence Feasibility / Design Reports | OPW primarily | Unknown |

Draft Ballincollig Carrigaline Municipal District Local Area Plan

Habitats Directive Assessment Screening Report

Prepared by Cork County Council
Planning Policy Unit
November 2016

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1 Introduction

1.1 Context

Cork County Council is in the process of preparing the Ballincollig-Carrigaline Municipal District Electoral Area Local Area Plan. This is a plan which will set development policy for the towns, villages and other settlements within the Ballincollig Carrigaline MD until 2023.

In accordance with requirements under the EU Habitats Directive (43/92/EEC) and EU Birds Directive (79/409/EEC) as provided for in part XAB of the Planning and Development Act 2010, the impacts of the policies and objectives of all statutory land use plans on certain sites that are designated for the protection of nature (Natura 2000 sites¹), must be assessed as an integral part of the process of drafting of the plan. This is to determine whether or not the implementation of plan policies could have negative consequences for the habitats or plant or animal species for which these sites are designated. This assessment process is called a Habitats Directive Assessment (HDA) and must be carried out at all stages of the plan making process.

1.2 Legislative Background Habitats Directive Assessment

Habitats Directive Assessment is an iterative process which runs parallel to and informs the plan making process. It involves analysis and review of draft policies as they emerge during each stage of plan making, to ensure that their implementation will not impact on sites designated for nature conservation, nor on the habitats or species for which they are designated. Within this process, regard is had to the potential for policies and zoning proposals set out in the plan to contribute to impacts which on their own may be acceptable, but which could be significant when considered in combination with the impacts arising from the implementation of other plans, programmes, policies or projects.

The process may result in the development of new policy areas and/or the modification or removal of certain policies to be presented in the final plan. The results of this analysis and review are presented in Habitats Directive Reports which are produced for at each stage of the plan making process plan. At the end of the plan making process, an Appropriate Assessment Conclusion Statement or Screening Conclusion Statement will be produced which will contain a summary of how ecological considerations in relation to Natura 2000 sites have been integrated into the plan. The final Habitats Directive Report and a declaration in relation to the potential for the plan to affect the integrity of Natura 2000 sites within its potential impact zone will also be produced at that time.

¹ Natura 2000 sites include Special Areas of Conservation designated under the Habitats Directive and Special Protection Areas designated under the Birds Directive. Special Areas of Conservation are sites that are protected because they support particular habitats and/or plant and animal species that have been identified to be threatened at EU community level. Special Protection Areas are sites that are protected for the conservation of species of birds that are in danger of extinction, or are rare or vulnerable. Special Protection Areas may also be sites that are particularly important for migratory birds. Such sites include internationally important wetlands.

Article 6(3) of the Habitats Directive identifies what is required in terms of assessment of plans of projects.

Habitats Directive Article 6(3)

Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

EU and National Guidance sets out two main stages to the assessment process which are as follows:

Stage One: Screening

The process which identifies what might be likely impacts arising from a plan on a Natura 2000 site, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant. No further assessment is required if no significant impacts on Natura 2000 sites are identified during the screening stage. The screening assessment is normally contained in a **Habitats Directive Screening Report**.

Stage Two: Appropriate Assessment

Where the possibility of significant impacts has not been discounted by the screening process, a more detailed assessment is required. This is called an Appropriate Assessment and involves the compilation of a **Natura Impact Report** by the Planning Authority which is a report of scientific evidence and data relating to European sites for which significant negative impacts have not been previously screened out. This is used to identify and classify any implications of the plan for these sites in view of their conservation objectives. The Appropriate Assessment must include a determination as to whether or not the plan or its proposed amendments would adversely affect the integrity of any European site or sites. The plan may be adopted if adverse effects on the integrity of European sites can be ruled out during the Appropriate Assessment process. The plan may not be adopted on foot of an Appropriate Assessment, if it is found that it will give rise to adverse impacts on one or more European sites, or if uncertainty remains in relation to potential impacts on one or more European sites.

The directive provides for a derogation procedure which can allow a plan or project to proceed in spite of a finding that the plan or project could / would give rise to adverse effects on the overall integrity of one or more Natura 2000 sites. Derogation procedures can only be progressed in very limited circumstances which are set out in Article 6(4) of the Directive (see below).

Habitats Directive Article 6(4)

If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

EU and National Guidance identifies the procedures which must be followed in circumstances where a derogation from the Habitats Directive is sought to allow a project or a plan to proceed, despite a finding that it will give rise to adverse effects on the integrity of one or more Natura 2000 sites. These procedures can only be invoked where it has been shown that there are no alternative ways to implement the plan/project which avoid adverse effects on the integrity of one or more European sites, where it has been demonstrated that there are imperative reasons of overriding public interest for which the plan/project must proceed and where measures have been developed and provided to compensate for any losses to be incurred. These further stages are described below.

Stage Three: Assessment of alternative solutions

In circumstances where the potential for a plan to give rise to adverse effects on the integrity of a European site or sites has not been ruled out during the appropriate assessment process, it can only be considered for authorisation where it is demonstrated that there are no alternative solutions and that there Imperative Reasons of Overriding Public Interest (IROPI) which can allow the plan or project to proceed. Stage three of a Habitats Directive Assessment involves the assessment of alternative solutions.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain

The fourth stage of the Habitats Directive Assessment process involves demonstrating that Imperative Reasons of Overriding Public Interest exist, and the assessment of the compensatory measures which are proposed to be implemented. In every case in which a local authority envisages approving or proceeding with a plan or project on grounds of IROPI, the Minister for Arts, Heritage and the Gaeltacht must be consulted.

The assessment may stop at any of the above stages if significant impacts on Natura 2000 sites can be ruled out.

This document represents the first phase of the Habitats Directive Assessment process for the **Draft Ballincollig Carrigaline Municipal District Local Area Plan – Consultation Draft**. It contains the findings of the Habitats Directive screening assessment of this plan.

2 How this Report Was Prepared

2.1 Working Methods

The approach taken in the making of this assessment follows European Communities, Assessment of plans and projects significantly affecting Natura 2000 sites, Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, 2002, and on Local Government and Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities, 2009.

2.2 Consultation

This report, with the **draft Ballincollig Carrigaline Municipal District Local Area Plan** and the **Environmental Report** has been referred to statutory consultees and is available for public consultation from **Wednesday 16th November 2016 to Friday 06th January 2017**, so that the public or other interested stakeholders and statutory consultees have the opportunity to submit their comments and observations. These matters will then be considered and a decision made as to whether it is necessary to amend the draft plan to reflect the issues raised. The plan and this report are now available from the Council website at www.corkcoco.ie.

2.3 Data Sources, Gaps and Limitations

The information contained in this report is based on a desktop review of information relating to these sites and to the habitats and species that they support. References and data used are cited in the back of this report.

3 Draft Plan Screening

3.1 Screening Methodology

EU Guidelines (2001) set out a process for screening landuse plans, which involves four main steps as follows:

- Provide a description of the proposed plan.
- Identify relevant Natura 2000 sites, and compile information on their qualifying interests and conservation objectives.
- Identify the potential effects of the plan on the identified Natura 2000 sites.
- Assess of the significance of any effects on identified Natura 2000 sites, having regard to potential for ‘in combination’ effects.

This process is applied to all proposed plans or projects except those which are directly connected with the necessary management of a Natura 2000 site or sites. This report follows the steps set out above.

3.2 Description of the draft Plan

The **Ballincollig Carrigaline Municipal District Local Area Plan** will be a strategic plan identifying where development is to be directed and how/where supporting infrastructure is to be provided within the plan area from 2017 to 2023. The draft plan proposes population targets for settlements within the district and identifies where that development is proposed to be located through its zoning maps and corresponding policy objectives.

Section 1 Introduction

This section of the plan sets out the review process to date, the overall plan context and the overall approach/key policies that will influence the preparation of the Draft Plan namely the:

- Role of the Cork County Development Plan 2014
- Approach to Town Council Development Plans
- Settlement Network
- Urban Expansion Areas
- Water Services
- Development Contributions
- Regeneration Areas
- Flood Risk Assessment and Management
- Green Belts around Towns
- Strategic Land Reserve
- Environmental Assessments including:
 - Strategic Environmental Assessment,
 - Strategic Flood Risk Assessment and
 - Habitats Directive Assessment

Section 2 Local Area Strategy

This section sets out the overall strategy for the Ballincollig Carrigaline Municipal District. It sets out the housing requirements and zoned housing land supply for each of the three main towns along with Cork city south environs while it also sets out the appropriate scale of growth within the village network and the current infrastructure position for all the main towns and smaller settlement within the settlement network. It assesses the current employment position in the Municipal District and the key environment and heritage assets within the area. The key message is that sufficient land has been provided to meet population targets but that infrastructure remains a key constraint to delivering on those targets.

Section 3 Main Towns and Key Assets

The purpose of this section is to set out the policies and objectives including land use zoning maps for the three Main Towns of Ballincollig, Carrigaline, Passage West Cork City in the Ballincollig Carrigaline Municipal District along with Cork City South Environs and the key asset or Ringaskiddy and Cork Airport. Where appropriate, Regeneration Areas and other renewal initiatives have also been identified.

This section of the plan sets out proposals for population growth and other development objectives for the main towns.

Section 4 Villages, Village Nuclei and Other Locations

There are two key villages of Ballynora and Waterfall along with three other locations Curraghbinny, Curraheen and Farmers Cross are identified for development in the Ballincollig Carrigaline Municipal District.

This section of the plan sets out proposed scale of growth and other development objectives for each of the main villages and a number of other village nuclei over the lifetime of the plan.

Section 5 Putting the Plan into Practice

This section of the plan assigns responsibility for the implementation of the Plan's policies to various agencies including the Local Authority. It also sets out the expected timeframes for the delivery of physical and social infrastructure, including the assignment of Plan priorities and funding streams necessary to secure key development objectives. It also outlines the approach to monitoring and how the Plan will inform other Plans within its functional area.

3.3 Natura 2000 Sites Within the Potential Impact Zone of the Plan

The Ballincollig Carrigaline Municipal District covers the southern metropolitan area around Cork City. The plan encompasses the main towns of Ballincollig and Carrigaline as well as the southern environs of Cork City and the strategically important Ringaskiddy Port and Cork International Airport. The boundaries of the plan area are shown on **Figure 1** below. The Natura 2000 sites subject to screening are shown in **Figure 2**.

Figure 1: Cork Municipal District Areas

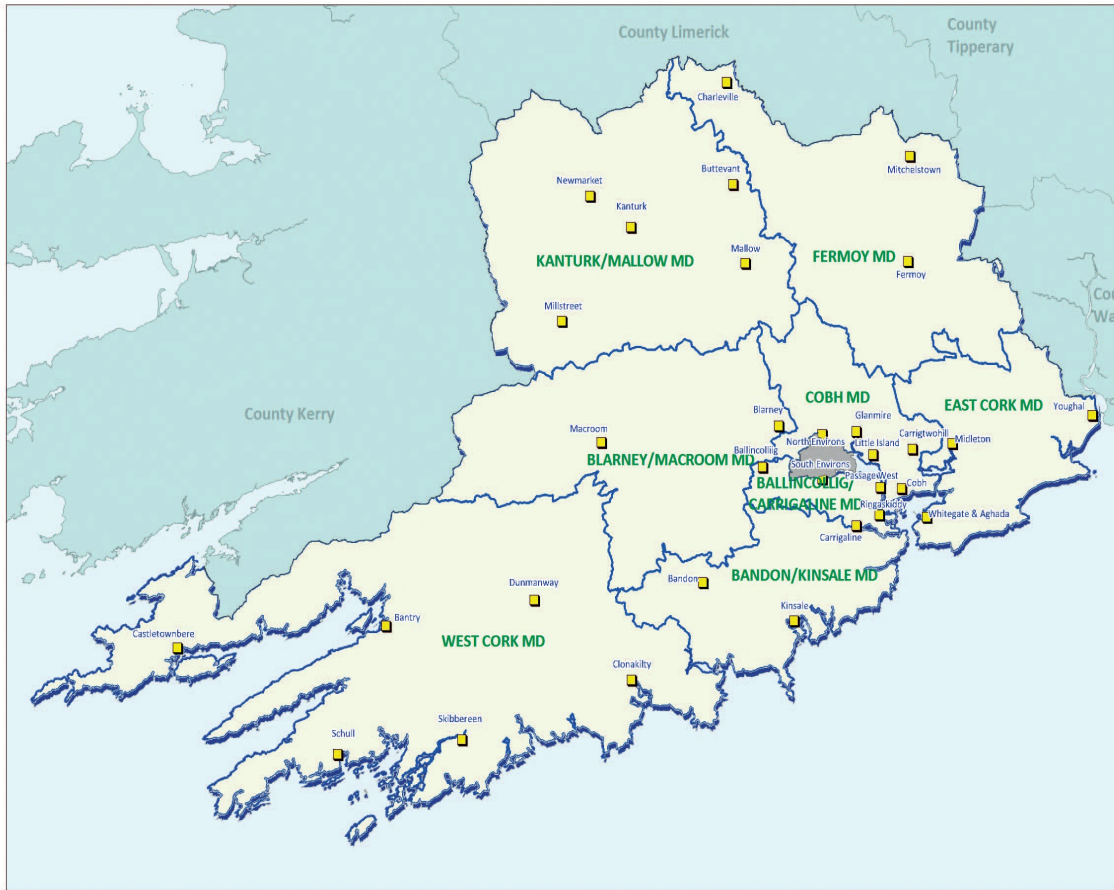


Figure 2 Boundary of Natura 2000 Sites Subject to Screening

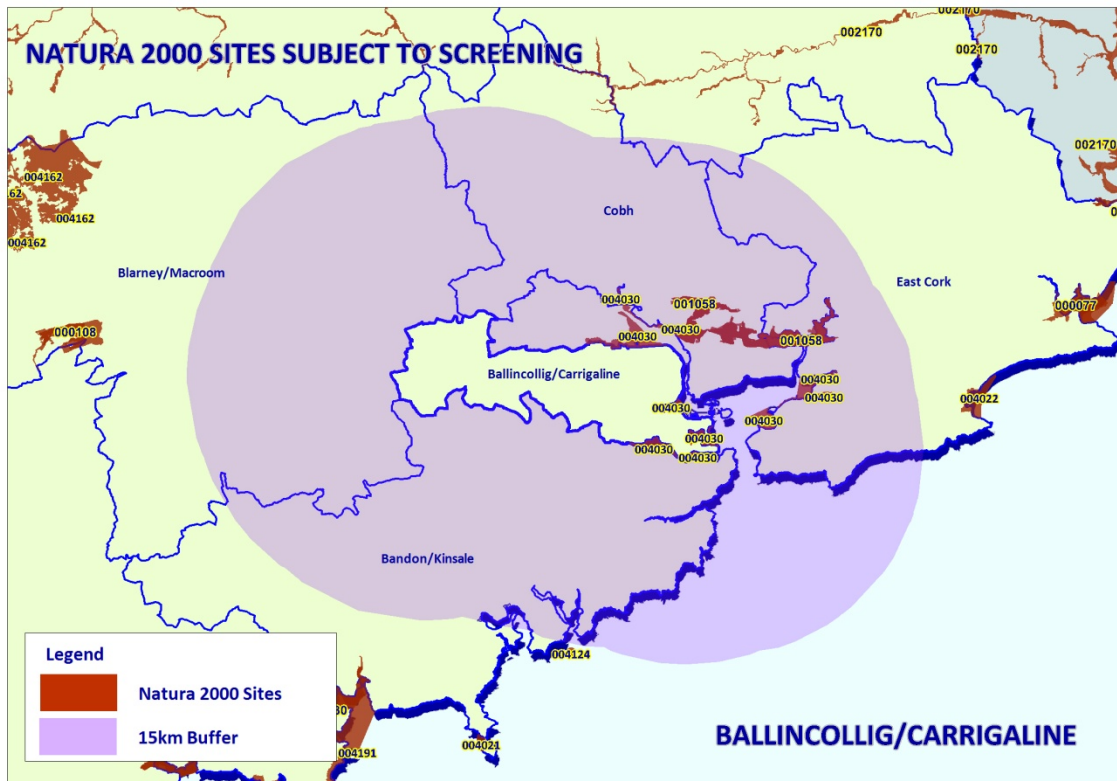


Table 1 sets out the Natura 2000 sites which are subject to screening in this report. It includes all Natura 2000 sites within the plan boundary area and Natura 2000 sites within 15km of the plan boundary. The habitats and species for which these sites are designated are also listed in Table 1 as are their Conservation Objectives. The potential for Natura 2000 sites that are >15km from the plan boundary area to be affected by policies set out in the draft plan was also considered. This could include sites which are hydrologically connected to watercourses or water bodies within the plan boundary area. No such sites were identified.

| Table 1 All Natura Sites Within the Ballincollig Carrigaline MD or within 15km of the District | | | |
|--|--------------------------|--|---|
| Site Code | Site Name | Qualifying Interests | Conservation Objectives |
| 1058 | Great Island Channel SAC | Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] | To maintain the favourable conservation condition of the following habitats for which the Barley Cove to Ballyrisode SAC is designated: <ul style="list-style-type: none"> Mudflats and sandflats not covered by seawater at low tide [1140] and to restore the favourable conservation condition of <ul style="list-style-type: none"> Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] which are defined by attributes and targets set out in Conservation Objectives for the Great Island Channel SAC June 6 2014 available at www.NPWS.ie |
| 4030 | Cork Harbour SPA | <ul style="list-style-type: none"> Little Grebe (<i>Tachybaptus ruficollis</i>) [A004] Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Grey Heron (<i>Ardea cinerea</i>) [A028] Shelduck (<i>Tadorna tadorna</i>) [A048] Wigeon (<i>Anas penelope</i>) [A050] Teal (<i>Anas crecca</i>) [A052] Pintail (<i>Anas acuta</i>) [A054] Shoveler (<i>Anas clypeata</i>) [A056] | To maintain the favourable conservation condition of the following bird species in Cork Harbour SPA: <ul style="list-style-type: none"> Little Grebe (<i>Tachybaptus ruficollis</i>) [A004] Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Grey Heron (<i>Ardea cinerea</i>) [A028] Shelduck (<i>Tadorna tadorna</i>) [A048] Wigeon (<i>Anas penelope</i>) [A050] |

| Table 1 All Natura Sites Within the Ballincollig Carrigaline MD or within 15km of the District | | | |
|--|-----------|---|--|
| Site Code | Site Name | Qualifying Interests | Conservation Objectives |
| | | <ul style="list-style-type: none"> • Red-breasted Merganser (<i>Mergus serrator</i>) [A069] • Oystercatcher (<i>Haematopus ostralegus</i>) [A130] • Golden Plover (<i>Pluvialis apricaria</i>) [A140] • Grey Plover (<i>Pluvialis squatarola</i>) [A141] • Lapwing (<i>Vanellus vanellus</i>) [A142] • Dunlin (<i>Calidris alpina</i>) [A149] • Black-tailed Godwit (<i>Limosa limosa</i>) [A156] • Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] • Curlew (<i>Numenius arquata</i>) [A160] • Redshank (<i>Tringa totanus</i>) [A162] • Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] • Common Gull (<i>Larus canus</i>) [A182] • Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] • Common Tern (<i>Sterna hirundo</i>) [A193] • Wetland and Waterbirds [A999] | <ul style="list-style-type: none"> • Teal (<i>Anas crecca</i>) [A052] • Pintail (<i>Anas acuta</i>) [A054] • Shoveler (<i>Anas clypeata</i>) [A056] • Red-breasted Merganser (<i>Mergus serrator</i>) [A069] • Oystercatcher (<i>Haematopus ostralegus</i>) [A130] • Golden Plover (<i>Pluvialis apricaria</i>) [A140] • Grey Plover (<i>Pluvialis squatarola</i>) [A141] • Lapwing (<i>Vanellus vanellus</i>) [A142] • Dunlin (<i>Calidris alpina</i>) [A149] • Black-tailed Godwit (<i>Limosa limosa</i>) [A156] • Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] • Curlew (<i>Numenius arquata</i>) [A160] • Redshank (<i>Tringa totanus</i>) [A162] • Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] • Common Gull (<i>Larus canus</i>) [A182] • Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] • Common Tern (<i>Sterna hirundo</i>) [A193] <p>and to maintain the favourable conservation condition of the wetland habitat in Cork Harbour SPA as a resources for the regularly-occurring migratory birds that utilise it as defined by attributes and targets set out in Conservation Objectives Cork Harbour SPA Dec 16 2014 which are available at www.NPWS.ie</p> |

3.4 Screening Assessment

Preliminary Screening

The purpose of this screening exercise is to identify whether any of the policies or zoning objectives set out in the draft plan could have the potential to give rise to negative effects on any of the Natura 2000 sites listed above.

As a preliminary assessment, the Natura 2000 sites were assessed to identify whether there was any hydrological or other linkage between them and the plan areas, or whether implementation of the plan would require exploitation of resources (e.g. water) from within any Natura 2000 site (identifying potential pathways for impact). The results of this preliminary screening are set out in **Table 2 below**.

| Table 2: Preliminary Screening Assessment | |
|---|--|
| Site Name | Preliminary Screening Assessment |
| Great Island Channel Special Area of Conservation Site Code 1058 | The SAC is approximately 200m from the boundary of the Municipal District and approximately one km from the settlement of Passage West which is located across the River Lee channel from the SAC. No policies associated with this settlement direct activity into this SAC, nor will they require the utilisation of resources from within the SAC. No potential for impact on this site is identified. No further assessment is considered to be required. |
| Cork Harbour Special Protection Area Site Code 4030 | The boundary of this SPA overlaps with or is adjacent to a number of settlements along the eastern shoreline of Cork Harbour, including Crosshaven, Carrigaline, Curraghbinny, Ringaskiddy, Passage West /Glenbrook/Monkstown and Cork City South Environs . Proposals for these settlements including proposals for development of designated walking and cycling routes close to the SPA require further assessment. Wastewater from many of these settlements are discharged to the harbour in areas within or near the SPA and also requires further assessment. Further assessment is required. |

Detailed Screening

Further screening was then completed for the remaining sites. These are sites which are located in areas where hydrological or other possible ecological linkages have been identified between them and settlements for which policy is proposed at preliminary screening stage. Screening has been completed having regard to plan policies and zoning objectives. Particular attention has been paid in this exercise to policies which could

- direct development into areas within or adjacent to Natura 2000 sites;
- give rise to a risk of increased levels of disturbance affecting populations of species in any Natura 2000 site;
- encourage increased recreational or other human activity within or near any Natura 2000 sites;
- give rise to increased pressure on environmental resources (e.g. water) which could affect any Natura 2000 sites;
- increase risk of spread of invasive species within or near Natura 2000 sites; or
- influence how land within or close to Natura 2000 sites is developed and managed in the future.

The focus of detailed screening is on the following sites:

| Code | Site Name |
|-------------|------------------|
|-------------|------------------|

| | |
|------|--------------------------------------|
| 4030 | Cork Harbour Special Protection Area |
|------|--------------------------------------|

The qualifying interests and conservation objectives for this site are summarised in **Appendix I**. The outcome of this screening is set out below.

| Cork Harbour SPA (4028)-Screening Assessment |
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| SPA Description and Key Concerns |
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| This is a large site which is made up of a number of discrete sheltered river estuarine systems discharging to Cork Harbour. The primary habitats of the SPA are intertidal mudflats which are of very high importance for the high numbers and variety of wintering waterfowl species which occur here. The SPA also has a nationally important breeding colony of Common Tern. The qualifying interests of the SPA and their Conservation Objectives are set out in Appendix 1 of this report. The north channel of Cork Harbour including the Owenacurra Estuary, the estuary at Rostellan, the Owenboy Estuary and Lough Mahon which form part of the SPA are assessed to have moderate water quality status. Water quality in other portions of the SPA at Lough Beg and Whitegate/Aghada are assessed to be reaching good water quality status (EPA Envision Maps, 2010-2012). |
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|--|
| Significant growth is proposed for this MD including within the settlements of Carrigaline, City |
|--|

South Environs, Passage West/Glenbrook/Monkstown and Ringaskiddy. Furthermore, there are a number of parcels of land identified in the plan, which are currently under consideration to be zoned for future development (Metropolitan Cork Strategic Land Reserve). These include lands within this Municipal District at Castletreasure (SLR3), Frankfield/Grange (SLR4), Togher/Doughcloyne (SLR5), Ardrostig (SLR6), Ballincollig East-Carrigrohane (SLR7) and Oldcourt (SLR12).

A number of settlements in the Municipal District are located adjacent to or overlapping with the boundary of the SPA. These include the settlements of Carrigaline, Curraghbinny, Ringaskiddy, Passage West /Glenbrook/Monkstown and Cork City South Environs. While the emphasis will be on residential development for most of the settlements, the emphasis in Ringaskiddy is on expansion of Industrial and Port related activities.

Proposals for these settlements also include proposals for development of designated walking and cycling routes close to the SPA which will require further assessment. Wastewater from many of these settlements is discharged to the harbour in areas within or near the SPA and also requires further assessment.

The key concerns for this assessment, having regard to the Conservation Objectives which apply to this SPA are to ensure that:

- policies in the plan will not affect the extent or quality of available feeding and roosting habitats or sites in the estuary – ie protect water quality and natural hydrological processes within the harbour area;
- policies in the plan will not cause disturbance at Common Tern breeding sites or have the potential to affect food availability for this species – primary risks associated with port activities and possible risks to ecological receptors associated with industrial emissions;
- policies in the plan do not support recreational / amenity uses or other activities within or near the SPA which would have a high risk of causing disturbance to species for which the SPA is designated.

Assessment

Protection of natural dynamic coastal hydrological processes:

The installation of coastal protection infrastructure or other physical infrastructure in the coastal zone could have the potential to affect natural hydrological processes and could thereby interfere with the protection of wetland habitats upon which birds for which this SPA is designated are dependant. There are no policies in the plan which propose the installation of coastal protection infrastructure or which propose development directly within the coastal zone around this SPA.

The additional growth proposed for the settlements adjacent to the SAC including City South Environs, Passage West/Glenbrook/Monkstown, Ringaskiddy and Carrigaline could have the potential to significantly increase levels of surface water run-off and possibly to alter hydrological patterns on mudflats within the SPA, including areas which are known to be of importance for birds. Objectives SE-GO-04, PW-GO-05 and RY-GO-07 clarify that provision must be made for adequate storm water disposal in these settlements, however there is no such objective for Carrigaline which is located immediately adjacent to the SPA and there is no reference in these objectives to requirements for provision of SuDS and ensuring that surface water run-off is retained at Greenfield rates. It is recommended that these objectives would be modified to add further clarity to Councils position in relation to management of surface water and control of run-off. It is recommended that an additional general objective would be included for Carrigaline which would reflect this position.

Protecting water quality/estuarine habitats - Waste-water Treatment – Nutrient Inputs:

Elevated levels of nutrients are a less critical issue for estuarine birds than they are for estuarine habitats, as increased nutrients in mudflat systems can result in increased food availability for birds, notwithstanding the fact that the conservation condition of the habitat is reduced. Elevated levels of nutrients can in some circumstances result in a decrease in food availability for birds by causing an increase in the spread of algal mats over these areas.

The primary sources of nutrients in this catchment are identified to be associated with agricultural activities and with urban wastewater systems. A new WWTP is currently under construction at Shanbally to which foul water from the settlements of the lower harbour including Carrigaline, Ringaskiddy, Passage West and Crosshaven will be directed for treatment before discharge in the outer channel of Cork Harbour between Roches Point and Crosshaven. This location is considered to be sufficiently distant from the SPA to ensure that treated effluent discharging here does not pose a risk of impact on this site. Waste water from the City South Environs area is directed to the Municipal Plant at Carrigrennan on Little Island.

Settlement specific objectives clarify that the new growth in the settlements of Carrigaline, South City Environs and Passage West cannot proceed until/unless appropriate wastewater infrastructure is in place (CL-GO-02, SE-GO-03, PW-GO-02) to cater for the additional growth proposed in this plan. This same principle is repeated in GO-01(c) for the villages and other locations including Curraghbinny. No such objective is included for the settlement of Ringaskiddy. It is recommended that an additional objective would be included for Ringaskiddy which would reflect this same position.

Protecting water quality/estuarine habitats – Industrial Emissions:

A significant portion of land in the Ringaskiddy which is located close to two important estuarine zones (Lough Beg and Monkstown Creek), is zoned for industrial development. Air borne and

aqueous emissions associated with industrial development in these zones could have the potential to affect water quality and/or the quality of habitats in estuarine areas adjacent to this area, and could thereby have the potential to affect the quality or extent of feeding habitats for a range of overwintering bird species or with prey availability for Common Tern. New industrial development in this area will be likely to be of the type which will be required to be subject to Industrial Emissions Discharge License regulated by the EPA, but account must be taken of these issues at the planning stage also. It is stated in objective RY-GO-02 that new development in Ringaskiddy will only be permitted where it is shown to be compatible with the requirements of the Birds and Habitats Directives. The potential for industrial related emissions to affect the SPA is likely to be a key focus of ecological assessment for new industrial development proposals in these areas. Consideration may want to be given to highlighting this issue in the RY-GO-02 policy.

Port of Cork:

Permission has recently been granted for significant expansion of Port of Cork facilities at Ringaskiddy, and the LAP supports these proposals (RY-GO-04). New development proposals at Ringaskiddy are located within close proximity to important feeding and roosting areas for a number of wintering bird species for which the SPA is designated at Monkstown Creek, while the mooring dolphins within the Port facilities are currently the preferred breeding site for the bulk of the Cork Harbour Common Tern population. The proposals for the redevelopment of the Ringaskiddy facilities were permitted by An Bord Pleanála in 2015, following an Appropriate Assessment process which identified certain mitigation measures that are required to be undertaken to ensure that adverse effects on the integrity of the SPA are avoided. It is recommended that objective RY-GO-03 would be modified to make clear that the relocation of port facilities is supported subject to the implementation of mitigation measures which were identified to be required when permission was granted for these works to proceed.

Boundary Issues:

The development boundaries of Carrigaline, Ringaskiddy, Monkstown and the City South Environs partially overlap with the Cork Harbour SPA. All of the land within the SPA which lies within these settlement boundaries forms part of the foreshore and is unlikely to come under pressure for development. A small tidal inlet to the south of Monkstown Creek in the Ringaskiddy settlement area is zoned as Open Space. There is no overlap between areas of terrestrial habitat which are within the SPA and land which is described as existing built up areas. There are no conflicts in zoning of land within the settlement boundaries and the SPA.

A significant area of land in the Ringaskiddy area which is located close to two important estuarine zones (Lough Beg and Monkstown Creek) is zoned for industrial development. While there are no boundary overlaps with any of the individually identified industrial zones, some of them may be of importance for certain species of bird for which the SPA is designated at particular times of the year and phases of the tidal cycle. The most potentially sensitive of these

are identified in the associated zoning policies. General Objective RY-GO-02 clarifies that permission for development in Ringaskiddy will only be granted where it is shown to be compatible with the requirements of the Birds and Habitats Directives. The importance of these industrial zones for field feeding wintering bird species is likely to be a primary focus of ecological assessment in respect of new development proposals in these areas. Consideration may want to be given to highlighting this issue in the relevant objectives at the amendments stage.

Walkways/Cycleways and Paths:

There are existing walking/cycling routes along the edge of the harbour extending along the old railway line from Hop Island to Passage West (PW-U-02) and extending along the old railway line on the southern side of the Owenboy Estuary from Carrigaline to Crosshaven (CL-U-08). There are proposals to connect these sections of cycleway/walkway to form the Cork Harbour Greenway with development of new sections to the route (PW-U-05 and CL-U-05). The objectives relating to these proposals all include caveats which clarify that further development of these routes will only be progressed where they are found to be compatible with the requirements of the Habitats and Birds Directive. Subject to adherence to the protective caveats included in these policies, it is considered that proposals for the continued development of the Cork Harbour Greenway are compatible with the protection of the Cork Harbour SPA.

There is also a proposal to develop a new walkway on the northern side of the Owenboy Estuary (CL-U-07) adjacent to the SPA. The northern side of the Owenboy Estuary is relatively undisturbed and is of importance as a roosting area for a number of species of bird for which the SPA is designated, while much of the route is already in place on the southern side of the estuary. It is considered that development of walking and cycling facilities on both sides of the Owenboy Estuary may give rise to unsustainable levels of disturbance in the estuary, and that it would be preferable to omit proposals for the development of another walkway on the north side of the estuary, in order to ensure that a portion of the estuary remains relatively undisturbed. Further consideration will be given to this issue in the coming months and may result in a recommendation to omit proposals for the development of this walkway at the amendments stage.

Conclusion

Protection of natural dynamic coastal hydrological processes:

It is recommended that an objective would be included for all settlements in the MD to clarify Councils position in relation to provision of SuDS and the requirement to ensure that Greenfield rates of surface water run-off would be maintained where new development is proposed. It is recommended that an additional general objective would be included for Carrigaline which would reflect this position.

Protecting water quality/estuarine habitats - Waste-water Treatment – Nutrient Inputs:

It is recommended that an additional objective would be included for Ringaskiddy which would clarify that the new growth in this settlement cannot proceed until/unless appropriate wastewater infrastructure is in place.

Protecting water quality/estuarine habitats – Industrial Emissions:

It is stated in objective RY-GO-02 that new development in Ringaskiddy will only be permitted where it is shown to be compatible with the requirements of the Birds and Habitats Directives. The potential for industrial related emissions to affect the SPA is likely to be a key focus of ecological assessment for new industrial development proposals in Ringaskiddy. Consideration may want to be given to highlighting this issue in the plan at the amendments stage.

Boundary Issues:

General Objective RY-GO-02 clarifies that permission for development in Ringaskiddy will only be granted where it is shown to be compatible with the requirements of the Birds and Habitats Directives. The importance of industrial zones in this area for field feeding wintering bird species is likely to be a primary focus of ecological assessment in respect of new development proposals in these areas. Consideration may want to be given to highlighting this issue in plan at the amendments stage.

Port of Cork:

It is recommended that objective RY-GO-03 would be modified to make clear that the relocation of port facilities is supported subject to the implementation of mitigation measures which were identified to be required when permission was granted for these works to proceed.

Walkways/Cycleways and Paths:

Subject to adherence to the protective caveats included in policies (PW-U-02, PW-U-05, CL-U-05 and CL-U-08), it is considered that proposals for the continued development of the Cork Harbour Greenway are compatible with the protection of the Cork Harbour SPA.

It is recommended that further consideration would be given to the proposals for the development of a new walkway on the northern side of the Owenboy Estuary (CL-U-07) in the coming months to determine whether this proposal is compatible with the requirements of the Birds Directive.

Overall Conclusion:

Some changes to the draft plan are required to ensure compliance with the Birds Directive. It is recommended that these changes would be made at the amendments stage. Subject to the implementation of these changes and adherence to protective policies set out in the LAP, it is considered that potential for development supported by this plan to give rise to negative effects on the Cork Harbour SPA can be ruled out.

4 Screening Conclusions and Recommendations

| Ballincollig-Carrigaline Municipal District Local Area Plan – Consultation Draft Screening Conclusion | |
|---|--|
| Natura 2000 sites subject to Screening for Appropriate Assessment | Great Island Channel SAC (1058) Cork Harbour SPA (4030) |
| Description of the Plan | See Section 2 of this report. |
| Is the Plan Directly Connected with Or Necessary to the Management of the Natura 2000 sites identified above | No |
| Are there other projects or plans that together with this plan could give rise to cumulative impacts on any of the above listed sites. | <p>Other plans that set land use policy and promote the development of economic, tourism, agriculture activity in within the catchment of Cork Harbour may include policies whose implementation could result in negative ‘in combination’ effects on habitats and species for which the Great Island Channel SAC and the Cork Harbour SPA are designated include <i>inter alia</i>:</p> <ul style="list-style-type: none"> • Atlantic Gateways Initiative 2006 • Common Agricultural Policy (2014-2020) • Cork Area Strategic Plan (2008) • Cork City Development Plan (2015-2021) • Draft Local Area Plan - East Cork Municipal District 2016 • Draft Local Area Plan – Cobh Municipal District 2016 • Forests, products and people – Irelands forest policy-a renewed vision 2014 • Harvest 2020-A Vision for Irish Agri-Food and Fisheries • Marine Leisure Infrastructure Strategy for the Southern Division of Cork County 2010-2020 • National Climate (2007-2012) Climate Adaptation Framework (2012) • National Development Plan 2007-2013 • National Renewable Energy Action Plan • National Spatial Strategy • National Tourism Action Plan 2016-2018 |

| | |
|--|---|
| | <ul style="list-style-type: none">• National Waste Management Plan 2004-2009• Port of Cork Strategic Development Plan 2010• Smarter Travel. A New Transport Policy for Ireland 2009-2020• South Western Regional Planning Guidelines 2010-2022 <p>The primary issues of concern are policies which could increase pressure for development within designated sites, policies resulting in an increased pressure on water quality, policies which may hinder natural hydrological processes within the coastal zone and policies which increase human activity within and near areas of high importance for feeding and roosting birds.</p> <p>Other plans that set land use policy and promote the development of agriculture and forestry activity within the catchment of the Blackwater River may include policies whose implementation could result in negative ‘in combination’ effects on habitats and species for which the Blackwater River is designated include <i>inter alia</i>:</p> <ul style="list-style-type: none">• Atlantic Gateways Initiative 2006• Common Agricultural Policy (2014-2020)• Cork Area Strategic Plan (2008)• Draft Local Area Plan - Kanturk-Mallow Municipal District 2016• Draft Local Area Plan - Fermoy Cork Municipal District 2016• Draft Local Area Plan – East Cork Municipal District 2016• Forests, products and people – Irelands forest policy-a renewed vision 2014• Harvest 2020-A Vision for Irish Agri-Food and Fisheries• National Climate (2007-2012) Climate Adaptation Framework (2012)• National Development Plan 2007-2013• National Renewable Energy Action Plan• National Spatial Strategy• National Waste Management Plan 2004-2009• South Western Regional Planning Guidelines 2010-2022 <p>The primary issues of concern are policies resulting in an increased pressure on water quality, policies which may hinder</p> |
|--|---|

| | |
|---|--|
| | <p>natural flooding patterns and other hydrological processes in the river.</p> |
| <p>Assessment of Significant Effects</p> | |
| <p>Describe how the plan (alone or in combination is likely to affect Natura 2000 sites)</p> | <p>The key policy areas which were identified at the draft plan screening stage which could have the potential to give rise to impacts on the Natura 2000 network were:</p> <ul style="list-style-type: none"> • Proposed increases in population and support for the intensification of industrial and business economic activity around Cork Harbour could have the potential to affect water quality in the Great Island Channel SAC by causing increases in nutrient inputs to the harbour area. Increased nutrient inputs could have the potential to contribute to negative effects on the diversity of benthic faunal communities associated with mudflat habitats for which this SAC is designated. • Intensification of development within the catchment of Cork Harbour could have the potential to increase hydrological pressures on estuarine habitats within the Great Island Channel SAC by increasing volumes of surface water run-off to the SAC from surrounding built up areas and/or by reducing available space to allow for coastal retreat. Alterations in natural coastal dynamic processes could have the potential to affect habitats for which the Great Island Channel SAC is designated. • Boundary overlaps between settlements around the harbour and designated sites could increase pressure for development within protected sites. |
| <p>Recommended changes to the plan</p> | <p>A number of recommendations for modifications to the draft plan are proposed to ensure compliance with the Habitats and Birds Directives. These are summarised below.</p> <p>Great Island Channel SAC: no changes required.</p> <p>Cork Harbour SPA: Modify general objectives for relevant settlements to clarify Councils position in relation the provision of SuDS and to ensure that Greenfield rates of surface water run-off are maintained. Include surface water management objective in General Objectives for Carrigaline; Include objective in Ringaskiddy to clarify that new growth in</p> |

| | |
|---|--|
| | <p>this settlement will only be permitted where adequate water and waste water services are in place; Ringaskiddy – consider clarifying that impacts of industrial emissions on the SPA will be a key focus when new industrial development proposals are assessed; Ringaskiddy - consider clarifying that importance of pasture fields in industrial zones for field feeding birds will be likely to be a key focus point when new industrial development proposals are assessed; Modify RY-GO-03 to clarify that redevelopment of Port at Ringaskiddy will be supported where it is shown to be compatible with requirements of Birds and Habitats Directives.</p> <p>It is recommended that further consideration would be given to proposals for development of a new walkway on the northern side of the Owenboy Estuary over the coming months to determine whether this proposal is compatible with the protection of the Cork Harbour SPA.</p> |
| List of Agencies Consulted | The draft plan and this report will be referred to all of the relevant Statutory Authorities and will available for consideration by the general public from November 16 th 2016. |
| Conclusion | <p>Further assessment is required in respect of the proposal to develop a walkway on the northern side of the Owenboy Estuary. No conclusions can be reached in respect of these proposals at this point.</p> <p>Subject to adherence to protective policies in the plan relating to provision of appropriate waste water infrastructure and management of surface water, and to adoption of recommended changes as set out above, it is considered that potential for this plan to give rise to significant negative effects on the Natura 2000 network can be screened out.</p> |
| Data Collected to Carry Out the Assessment | |
| Who carried out the assessment | Planning Policy Unit Cork County Council |
| Sources of Data | See references |
| Level of Assessment Completed | Screening for Appropriate Assessment |

| | |
|--|--|
| Where can the full results of the assessment be accessed and viewed | Habitats Directive Assessment will continue through the process of making this plan. All documents associated with the process will be available at www.corkcoco.ie |
|--|--|

5 Next Steps

5.1 Post Consultation

Submissions or observations regarding the **Ballincollig Carrigaline Municipal District Draft Local Area Plan** document and to the Environmental Report and Habitats Directive Screening Report are now welcome up to 4pm on Friday 06th January 2017.

All such submissions lodged within the above period and prior to the close of business at 4.00pm on Friday 06th January 2017, will be taken into consideration in the finalisation of the Local Area Plan, and proposed amendments will be published during a second round of public consultation which will commence in the spring of 2017. Proposed amendments will be subject to Habitats Directive Screening Assessment and the findings of that assessment will be published alongside the proposed amendments.

6 Sources of Information

6.1 National Parks and Wildlife Service Data

Information relating to individual Natura 2000 sites including Article 17 Conservation Assessment Reports for Habitats and Species In Ireland (2013), individual site synopses, Natura 2000 data forms, and information relating to the qualifying features and conservation objectives of individual sites was sourced from the NPWS database (www.NPWS.ie)

6.2 Guidance

Guidance used in the preparation of this report included the following:

European Communities, Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC. European Communities, 2000.

European Communities, Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Communities, 2001.

Environment, Heritage and Local Government. Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. 2009.

Appendix I

Great Island Channel SAC (Site Code 1058) Site Data

Qualifying Interests

- 1140 Mudflats and sandflats not covered by seawater at low tide
 1330 Atlantic salt meadows

Conservation Objectives - Attributes and Targets (summary)

| | |
|---|--|
| Mudflats and sandflats not covered by seawater at low tide [1140] | |
| Conservation Objective: To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Great Island Channel SAC. | |
| Attribute/Target | |
| Habitat Area | Community Distribution |
| The permanent habitat is stable or increasing subject to natural processes (723ha). | Conserve the following community type in a natural condition: Mixed sediment to sandy mud with polychaetes and oligochaetes community complex. |

| |
|---|
| Atlantic salt meadows (Glauco-Puccinellietalia maritimae) |
| Conservation Objective: To maintain the favourable conservation condition of Atlantic salt meadows (Glauco-Puccinellietalia maritimae) in Great Island Channel SAC |
| Attribute/Target |

| Habitat Area | Habitat Distribution | Physical Structure: sediment supply | Physical structure: creeks and pans | Physical structure: flooding regime | Vegetation structure: donation | Vegetation structure: height | Vegetation structure: vegetation cover | Vegetation composition: typical species and sub-communities | Vegetation structure: negative indicator species – <i>Spartan angelica</i> |
|--|---|---|--|-------------------------------------|--|--|---|--|--|
| Stable or increasing subject to natural processes including erosion and succession – Baw nard 0.29ha; Carrigtwohill 1.01ha | No decline or change in habitat distribution subject to natural processes | Maintain natural circulation of sediments and organic matter, without any physical obstructions | Maintain/restore creek and pan structure, subject to natural processes, including erosion and succession | Maintain natural tidal regime | Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | Maintain structural variation in sward | Maintain more than 90% of area outside creeks vegetated | Maintain range of sub-communities with typical species listed in SMP | No significant expansion of common cord grass with an annual spread of less than 1% where it is known to occur |

NPWS (2014) Conservation Objectives: Great Island Channel SAC 1058. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Cork Harbour SPA (Site Code 4030) - Site Data

Qualifying Interests

| | |
|------|--------------------------|
| A004 | Little Grebe |
| A005 | Great Crested Grebe |
| A017 | Cormorant |
| A028 | Grey Heron |
| A048 | Shelduck |
| A050 | Wigeon |
| A052 | Teal |
| A054 | Pintail |
| A056 | Shoveler |
| A069 | Red-breasted |
| A130 | Oystercatcher |
| A140 | Golden Plover |
| A141 | Grey Plover |
| A142 | Lapwing |
| A149 | Dunlin |
| A156 | Black-tailed Godwit |
| A157 | Bar-tailed Godwit |
| A160 | Curlew |
| A162 | Redshank |
| A179 | Black-headed Gull |
| A183 | Common Gull |
| A183 | Lesser Black-backed Gull |
| A193 | Common Tern |
| A999 | Wetland and Waterbirds |

Conservation Objectives - Attributes and Targets (summary)

| A004 Little Grebe <i>Tachybaptus ruficollis</i> | | | |
|---|---|--|---|
| To maintain the favourable conservation condition of Little Grebe in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by little grebe, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A005 Great Crested Grebe <i>Podiceps cristatus</i> | | | |
|--|---|---|---|
| To maintain the favourable conservation condition of Great Crested Grebe in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by great crested grebe, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A017 Cormorant <i>Phalacrocorax carbo</i> | | | |
|--|--|--|--|
| To maintain the favourable conservation condition of Cormorant in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |

| Attribute | Measure | Target | Notes |
|------------------|---|---|---|
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by cormorant, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A028 Grey Heron Ardea cinerea | | | |
|---|---|--|---|
| To maintain the favourable conservation condition of Grey Heron in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by Grey Heron, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A048 Shelduck Tadorna tadorna | | | |
|---|-------------------|---|---|
| To maintain the favourable conservation condition of Shelduck in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and | No significant decrease in | Waterbird distribution from the 2010/2011 waterbird survey |

| | | | |
|--|---------------------------|---|--|
| | intensity of use of areas | the range, timing or intensity of use of areas by Shelduck, other than occurring from natural patterns of variation | programme is discussed in part five of the conservation objective supporting document. |
|--|---------------------------|---|--|

| A050 Wigeon <i>Anas penelope</i> | | | |
|---|---|--|---|
| To maintain the favourable conservation condition of Wigeon in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by Wigeon, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A004 Teal <i>Anas crecca</i> | | | |
|---|---|--|---|
| To maintain the favourable conservation condition of Teal in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by teal, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A052 Pintail <i>Anas acuta</i> | | | |
|---|---|--|---|
| To maintain the favourable conservation condition of Pintail in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by pintail, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |
| A056 Shoveler <i>Anas clypeata</i> | | | |
| To maintain the favourable conservation condition of Shoveler in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by shoveler, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |
| A069 Red-breasted Merganser <i>Mergus serrator</i> | | | |
| To maintain the favourable conservation condition of Red-breasted Merganser in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and | No significant decrease in | Waterbird distribution from the 2010/2011 waterbird survey |

| | | | |
|--|---------------------------|---|--|
| | intensity of use of areas | the range, timing or intensity of use of areas by Red-breasted merganser, other than occurring from natural patterns of variation | programme is discussed in part five of the conservation objective supporting document. |
|--|---------------------------|---|--|

| A130 Oystercatcher Haematopus ostralegus | | | |
|--|---|---|---|
| To maintain the favourable conservation condition of Oystercatcher in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by oystercatcher, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A140 Golden Plover Pluvialis apricaria | | | |
|--|---|---|---|
| To maintain the favourable conservation condition of Golden Plover in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by golden plover, other than occurring from natural patterns of | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| | | | |
|--|--|-----------|--|
| | | variation | |
|--|--|-----------|--|

| A141 Grey Plover <i>Pluvialis squatarola</i> | | | |
|--|---|---|---|
| To maintain the favourable conservation condition of Grey Plover in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by grey plover, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A142 Lapwing <i>Vanellus vanellus</i> | | | |
|--|---|---|---|
| To maintain the favourable conservation condition of Lapwing in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by lapwing, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A004 Dunlin <i>Calidris alpina alpina</i> | | | |
|---|-------------------|---|---|
| To maintain the favourable conservation condition of Dunlin in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |

| | | | |
|--------------|---|--|---|
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by dunlin, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |
|--------------|---|--|---|

| A156 Black-tailed Godwit <i>Limosa limosa</i> | | | |
|--|---|---|---|
| To maintain the favourable conservation condition of Black tailed Godwit in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by black-tailed godwit, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A157 Bar-tailed Godwit <i>Limosa lapponica</i> | | | |
|--|---|---|---|
| To maintain the favourable conservation condition of Bar-tailed Godwit in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by bar-tailed godwit, | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| | | | |
|--|--|---|--|
| | | other than occurring from natural patterns of variation | |
|--|--|---|--|

| A160 Curlew Numenius arquata | | | |
|---|---|--|---|
| To maintain the favourable conservation condition of Curlew in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by curlew, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A162 Redshank Tringa totanus | | | |
|---|---|--|---|
| To maintain the favourable conservation condition of Redshank in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by redshank, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| | | | |
|---|--|--|--|
| Greenshank Tringa nebularia | | | |
| To maintain the favourable conservation condition of Greenshank in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |

| Attribute | Measure | Target | Notes |
|------------------|---|--|---|
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by greenshank, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A179 Black-headed Gull <i>Chroicocephalus ridibundus</i> | | | |
|--|---|---|---|
| To maintain the favourable conservation condition of Black-headed Gull in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Population trend | Percentage change | Long term population trend stable or increasing | Waterbird population trends are presented in part four of the conservation objectives supporting document |
| Distribution | Range, timing and intensity of use of areas | No significant decrease in the range, timing or intensity of use of areas by black-headed gull, other than occurring from natural patterns of variation | Waterbird distribution from the 2010/2011 waterbird survey programme is discussed in part five of the conservation objective supporting document. |

| A193 Common Tern <i>Sterna hirundo</i> | | | |
|--|---------|------------------------|--|
| To maintain the favourable conservation condition of Common Tern in Cork Harbour SPA, which is defined by the following list of attributes and targets: | | | |
| Attribute | Measure | Target | Notes |
| Breeding population abundance : apparently | Number | No significant decline | Measures based on standard tern survey methods (see Walsh et al., 1995). In 2012 the total population of common terns that nested within |

| | | | |
|--|---|--|--|
| occupies nests (AONs) | | | the wider Cork Harbour was between 85 and 95 pairs , a proportion of which now breeds outside the SPA (RPS, 2014) |
| Productivity rate: fledged young per breeding pair | Mean number | No significant decline | Measure based on standard tern survey methods (see Walsh et al., 1995). The Seabird Monitoring Programme (SMP) (JNCC, 2014) provides population data for this species. |
| Distribution: breeding colonies | Number, location , area (hectares) | No significant decline | Common tern breeding colonies can be sited in both coastal and inland areas using a wide variety of habitats including sandy, rocky or well – vegetated islands in estuaries, lakes and rivers. This species can also use artificial substrates (Del Hoyo et al., 1996). First recorded nesting in saltmarsh in 1969-1970 (Smiddy,1985) , the colony now largely breeds on artificial structures in at least two locations (see Wilson et al., 2000 and RPS, 2014) |
| Prey biomass available | Kilogrammes | No significant decline | Key prey items: Small fish, crustaceans, insects and occasionally squid. Key habitats: common tern forage in/over shallow coastal waters, bays inlets ,shoals,tidal-rips,drift lines, beaches, saltmarsh creeks, lakes, ponds or rivers. Foraging range: max. 37km , mean ma.33.81km , mean 8.67km (BirdLife International Seabird Database(Birdlife International,2014) |
| Barriers to connectivity | Number; location; shape; area(hectares) | No significant increase | Seabird’s species can make extensive use of marine waters adjacent to their breeding colonies. Foraging range: maz.37km , mean max.33.81km , mean 8.67km (Birdlife International Seabird Database 2014) |
| Disturbance at the level of impact breeding site | Level of impact | Human activities should occur at levels that do not adversely affect the breeding common tern population | In the Cork Harbour area, this species largely breeds on artificial structures (see Wilson et al., 2000 and RPS, 2014) |

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| A999 Wetlands |
| To maintain the favourable conservation condition of wetland habitats in Cork Harbour SPA, as a recourse for the regularly – occurring migratory waterbirds that utilise it. This is defined by the following attribute and target: |

| Attribute | Measure | Target | Notes |
|------------------|----------------|--|--|
| Habitat area | Hectares | The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,587 hectares, other than that occurring from natural patterns of variation | The wetland habitat area was estimated as 2,587ha using OSI data and relevant orthophotographs. For further information see part three of the conservation objectives supporting documents |

NPWS (2014) Conservation objective for Cork Harbour SPA {4030}. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs

