

Strategic Environmental Assessment Statement
Amendment No. 4 of the Carrigaline Electoral Area
Local Area Plan 2011 incorporating
Shannonpark Framework Master Plan
January 2016

In accordance with Article 9 of 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 (SEA Directive)

1	<u>INTRODUCTION STRATEGIC ENVIRONMENTAL ASSESSMENT STATEMENT</u>	5
1.1	CONTEXT	5
1.2	SUMMARY OF THE SEA PROCESS	5
1.3	CONTENT OF THE SEA STATEMENT	6
2	<u>HOW ENVIRONMENTAL CONSIDERATIONS WERE INTEGRATED INTO THE AMENDMENT</u>	7
2.1	INTRODUCTION	7
2.2	SCOPE OF THE AMENDMENT	7
2.3	INTEGRATION OF ENVIRONMENTAL CONSIDERATIONS	8
2.4	ENVIRONMENTAL REPORT AND BASELINE DATA COLLECTION	9
2.5	PROPOSED MITIGATION	9
2.6	COMPLIANCE WITH EU HABITATS DIRECTIVE – APPROPRIATE ASSESSMENT	10
3	<u>SUBMISSIONS AND OBSERVATIONS</u>	11
3.1	INTRODUCTION	11
3.2	SEA SCOPING STAGE	11
3.3	PUBLIC CONSULTATION	11
4	<u>REASONS FOR CHOOSING THE AMENDMENT AS ADOPTED</u>	19
4.1	INTRODUCTION	19
4.2	CORK-RINGASKIDDY NATIONAL ROAD	19
4.3	REQUIRED GROWTH IN THE METROPOLITAN AREA	19
5	<u>MONITORING</u>	20
5.1	INTRODUCTION	20
5.2	RESPONSIBILITY FOR MONITORING	20

List of Tables

Table 1-1	Summary of SEA Process	5
Table 3-1	Details of submissions on the Amendment	10
Table 1-2	Details of submissions on the Environmental Report	15
Table 5-1	Provision for the Monitoring of Significant Environmental Effects.	21

List of Figures

Figure 1: Zoning Map of the Shannonpark Framework Master Plan.

1 Introduction Strategic Environmental Assessment Statement

1.1 Context

- 1.1.1 This is the SEA Statement for Amendment No. 4 of Carrigaline Electoral Area Local Area Plan 2011, which was adopted on the 25th January 2016 incorporating the Shannonpark Framework Master Plan. Strategic Environmental Assessment (SEA) is a process for evaluating, at the earliest appropriate stage, the likely environmental effects of implementing a Plan, an amendment to a Plan or other strategic action in order to ensure that environmental considerations are appropriately addressed in the decision-making process during the preparation, and prior to adoption, of a Plan or an amendment to a Plan.
- 1.1.2 The European Directive (2001/42/EC) on the Assessment of the Effects of Certain Plans and Programmes have on the Environment (the SEA Directive) was transposed into national legislation by the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435/2004) and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. 436/2004). These regulations were subsequently amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations, 2011 (S.I. No. 200 of 2011) and the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations, 2011 (S.I. No. 201 of 2011).
- 1.1.3 The legislation requires that the Plan-making authority must make available an SEA Statement summarising how the SEA and consultations have been taken into account in the making of the Plan or the amendment. This document comprises the SEA Statement.
- 1.1.4 The planning process involved two public consultation stages; a preliminary stage whereby the draft amendment was subject to changes arising from submissions received and the final (formal) public consultation stage where changes made can only be minor in nature.

1.2 Summary of the SEA process

Table 1-1 Summary of SEA Process	
SEA Stage	Amendment No 4 to the Carrigaline Electoral Area Local Area Plan.
1 – Screening	Decision on whether or not an SEA of the Plan is required. SEA is mandatory for this amendment because the population of the area the subject of the amendment is greater than 5,000 persons.
2 – Scoping	Consultation with defined statutory bodies on the scope and level of detail to be considered in the preparation of the environmental report. A scoping consultation with the Environmental Authorities was undertaken as required under Section 14C(c) of the Planning and Development Strategic Environmental Assessment Regulations 2004- 2011 in December 2014. A response was received from the EPA which provided guidance on the preparation of the Environmental Report for the Draft Amendment.
3 – Environmental Assessment and Environmental Report on Shannonpark	The next stage of the SEA process comprised an assessment of the likely significant impacts on the environment as a result of the proposed Amendment and the preparation of the Environmental Report at the preliminary stage of the process. The Environmental Report went out on

Table 1-1 Summary of SEA Process	
preliminary draft master plan and preliminary proposed amendment	public display with the Proposed Amendment. 10 submissions were received at the preliminary stage of the process which included submissions from the Department of the Environment, Community and Local Government, Dublin Airport Authority, Tipperary County Council, Environmental Protection Agency, National Transport Authority (NTA), Department of Education and Skills, Irish Water and several private landowners. The submissions were considered and discussed in the Chief Executive's Report to Members in September 2015. Having regard to the interim nature of the amendment it was decided to make a number of changes in accordance with the submissions made.
4– Environmental Assessment and Environmental Report on final draft master plan and proposed amendment	The next stage of the SEA process comprised an assessment of the likely significant impacts on the environment as a result of the proposed Amendment and the preparation of the Environmental Report. The Environmental Report went out on public display with the Proposed Amendment. 91 submissions were received including submissions from the EPA, the Department of Education and Skills, the NTA, the TII (formerly NRA), OPW and several private landowners. The submissions were considered and discussed in the Chief Executive's Report to Members in December 2015. Notwithstanding the large number of submissions, 77 of them were complaints about connectivity with Herons Wood. Having regard to the final nature of the amendment only minor non material changes in accordance with the submissions can be made to the amendment.
4- SEA Statement	Preparation and publication of the SEA Statement identifying how environmental considerations and consultation have been integrated into the Final Plan. This document is the SEA Statement.

1.3 Content of the SEA Statement

- 1.3.1 The SEA Statement is described in Article 9 of the SEA Directive as a statutory requirement and should be made available with the adopted plan. This statement is required to be issued to the environmental authorities that were previously consulted, with a view to presenting a record of the key elements of the SEA process and illustrating how environmental considerations have been integrated into the plan and the key decisions taken in the plan as a consequence of the SEA.
- 1.3.2 The SEA Statement is required under Article 13I, SI No 436 of 2004 (as amended), to include information on:
- a) How environmental considerations have been integrated into the Plan;
 - b) How the Environmental Report, submissions and observations made to the planning authority on the Plan and Environmental Report, and any trans-boundary consultations (where relevant) have been taken into account during the preparation of the Plan;
 - c) The reasons for choosing the Plan, as adopted, in the light of the other reasonable alternatives dealt with; and
 - d) The measures decided upon to monitor the significant environmental effects of implementation of the Plan.

2 How Environmental Considerations were integrated into the Amendment

2.1 Introduction

- 2.1.1 This section outlines the scope of Amendment No 4 of the Carrigaline Electoral Area Local Area Plan and deals with how environmental considerations and the findings of the SEA as presented in the Environmental Report were taken into account during the preparation of the Amendment.
- 2.1.2 The protection and conservation of the environment has been a key consideration throughout the preparation of the Amendment. However the scope for making changes to fundamental provisions of the amendment was constrained by the nature and purpose of the amendment, as explained below.

2.2 Scope of the Amendment

- 2.2.1 The existing Carrigaline Electoral Area Local Area Plan 2011 sets out the Council's planning policy and objectives for development within the Carrigaline Electoral Area and includes the settlement of Carrigaline as a Metropolitan town.
- 2.2.2 The Shannonpark Framework Masterplan Study was completed in 2015 and comprises a set of land use proposals for the development of the site which is currently known as X-01 in the Carrigaline Local Area Plan. The Masterplan Study was also adopted in 2015. The findings and recommendations from the Masterplan Study have been included in Amendment No 4 of the Carrigaline Electoral Area Local Area Plan.
- 2.2.3 The Framework Master Plan is a response to providing for additional housing in Carrigaline and balancing this with the provision for better transportation, environment and community facilities. The FMP is being prepared under the strategic planning document of the Carrigaline Electoral Area Local Area Plan (2011), which identified a Special Policy Areas north of the Carrigaline Town Centre.
- 2.2.4 In developing a clear vision and delivery methodology for these lands, development on this site at Shannonpark must deliver a person-centred development built around enhanced opportunities for walking, cycling and public transport use that provides for a high quality environment for people to live. The key components of such a place are:
- Quality housing to meet the needs of citizens from all walks of life;
 - Well designed movement corridors to create good permeability throughout the site for cyclists and pedestrians (segregated where appropriate);
 - Effective connectivity to public transport and high quality amenity provision;
 - Attractive open space, recreation and quality green infrastructure offering the opportunity for a high quality of life; and
 - Best practice in overall urban design, building design and layout.
 - A vibrant mix of community facilities; including primary and secondary schools sites and a neighbourhood centre.
- 2.2.5 The amendment seeks to incorporate the key provisions of the master plan prepared for Shannonpark into the 2011 Local Area Plan as shown on Figure 1 below. When the new Municipal District Local Area Plan is prepared, the planning framework for the

town in its entirety will be reconsidered and updated in light of current planning and environmental policy, legislation and guidance.

- 2.2.6 The amendment acknowledges that a number of issues need to be addressed before development of any significance can take place on the Shannonpark site including:
- Significant investment in roads and transportation infrastructure is required in order to facilitate development;
 - Provision of a Water Supply;
 - Provision of capacity of Waste Water Treatment and Collection;
 - A SUDS study
- 2.2.7 The Environmental Report highlights a number of issues that need to be addressed in order to avoid, reduce or mitigate potential adverse impacts of the proposed amendment on biodiversity, soil, landscape, habitats etc. Measures to address these issues have been incorporated into the SEA and the amendment.



Figure 1: Zoning Map of the Shannonpark Framework Master Plan

2.3 Integration of Environmental Considerations

- 2.3.1 Notwithstanding the limited scope of the amendment process, environmental considerations were integrated into the amendment in a number of ways through:
- Preparation of the Environmental Report including baseline data collection and evaluation of potential impacts.
 - Statutory and Non Statutory Consultation
 - Mitigation measures
 - Compliance with the Habitats Directive – Appropriate Assessment.

2.4 Environmental Report and Baseline Data Collection

- 2.4.1 In order to assess the likely significant impacts of the Amendment, baseline data on the current state of the environment was collected and evaluated. This has been done with reference to existing databases held by the Council and other organisations such as the EPA, National Parks and Wildlife Service (NPWS), South West River Basin District (SWRBD), Geological Survey of Ireland (GSI) etc. GIS mapping has been used where possible in the Environmental Report to illustrate the data. In accordance with legislation and guidance, the existing environment was 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. Collection and analysis of this information has allowed the identification of key resources and sensitivities within the area covered by the amendment and allowed for the identification of potential threats to the environment.
- 2.4.2 As the data was compiled and amendment policies evolved, the likely significant effects of implementing the amendment were identified, described and evaluated. This process formed a core element of the Environmental Report. The potential effects of the amendment were then considered using a system of Environmental Protection Objectives, Targets and Indicators which were formulated having regard to the issues emerging from the baseline assessment, consultations with the environmental authorities and internal consultation with other departments within the Council. The assessment of the baseline environment also enabled those preparing the amendment to consider how the environment might evolve in the absence of the proposed amendment.
- 2.4.3 Following the assessment, the Environmental Report identified a number of issues of concern which are discussed in Chapter 6 of the Environmental Report which includes the issue of flood risk on the site.

2.5 Proposed Mitigation

- 2.5.1 As outlined in section 2.2, the Shannonpark Framework Masterplan Study was completed in 2015 and comprises a set of land use proposals for the development of the site currently known as X-01 in the Carrigaline chapter of the Carrigaline Local Area Plan. Mitigation Measures are set out in detail in Chapter 10 of the Environmental Report.
- 2.5.2 Whilst an examination of the proposed development policies in the Framework Master Plan would appear to indicate that mitigation may be required in some circumstances, it is considered that where potential conflict or uncertainty has been demonstrated, that there are in general adequate compensatory measures to negate any potential significant impacts from the proposed Framework Master Plan. This demonstrates that the preparation of the Framework Master Plan has been very pro-active in including positive environmental objectives in relation to key infrastructural improvements and protection of heritage and amenity.
- 2.5.3 In response to the HDA process land zoned for development identified as being “at risk” of flooding were zoned as “open space”.
- 2.5.4 The results of the Ecological Appraisal for the Shannonpark site is that, while the site is connected ecologically to the Cork Harbour (via Glounatouig stream), it is suitable for development because it has largely agricultural habitats that are widespread. The

report has identified some area of greater sensitivity, it has recommended a number of additional surveys to be undertaken before development can take place:-

- A mammal survey to assess potential for a badger sett, presence of otter holts
- A bat survey in the tree line along the Glounatouig stream
- A freshwater aquatic survey to assess the quality of water for vegetation, fisheries and other fauna
- Retain existing tree lines and hedgerows where possible (specify types of trees)
- Provide green spaces and/or corridors within the site to maintain habitat connectivity
- The report concludes that the undertaking of further surveys and impact assessment resulting in targeted mitigation should enable the proposed development to proceed without any large adverse effects on the ecology of the site or adjacent environment.

2.6 Compliance with EU Habitats Directive – Appropriate Assessment

- 2.6.1 A further aspect of the assessment of the Plan was the undertaking of an Appropriate Assessment under the EU Habitats Directive (92/43/EEC). This parallel process ensured that environmental considerations, specifically focused on Natura 2000 sites, were integrated into the Amendment to the Plan as it was developed.
- 2.6.2 Under the EU Habitats Directive, any plan or project not directly connected with or necessary to the management of a Natura 2000 site, e.g. Special Area of Conservation (SAC) or Special Protection Area (SPA), but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to an appropriate assessment of its implications for the site in view of the site's conservation objectives. There are no Natura 2000 sites or Proposed Natural Heritage Areas within, adjacent or in close proximity to the boundary of the site however there are designated sites within a 5km radius of the site which include Cork Harbour (SPA 4030) and the Great Island Channel (SAC 1058).
- 2.6.3 The AA process was applied to the Amendment process to determine if it would have significant effects on these European designated sites. The Assessment concluded that the Masterplan for Shannonpark will not give rise to significant impacts on any Natura 2000 site.

3 Submissions and Observations

3.1 Introduction

- 3.1.1 This section deals with how submissions and observations from prescribed bodies and members of the public, received throughout the process of preparing the amendment and relevant to the SEA process, were taken into account in the preparation of the Amendment
- 3.1.2 There have been two periods of consultation over the course of the preparation of the Local Area Plan amendment. A preliminary round of non statutory public consultation on the Shannonpark Framework Masterplan, the proposed amendment to the Carrigaline LAP, the Environmental Report and the Appropriate Assessment was held in June/July 2015. A second period of statutory public consultation on the Proposed Amendment to the Carrigaline Local Area Plan, the Environmental Report and associated Appropriate Assessment Screening Report was held between September and November 2015.
- 3.1.3 At all stages of consultation, the content of the submissions received have been considered by the Plan, SEA and AA teams.

3.2 SEA Scoping Stage

- 3.2.1 A scoping consultation with the Environmental Authorities was undertaken as required under Section 14C(c) of the Planning and Development Strategic Environmental Assessment Regulations 2004- 2011. Following receipt of comments on the scoping report from the relevant environmental agencies, the preparation of the Environmental Report was completed in February 2015.

3.3 Public Consultation

- 3.3.1 During the **non statutory public consultation** period the Environmental Report went out on public display with the Proposed Amendment, the Shannonpark Masterplan and the Appropriate Assessment.
- 3.3.2 10 submissions were received at the preliminary stage of the process which included submissions from the Department of the Environment, Community and Local Government, Dublin Airport Authority, Tipperary County Council, Environmental Protection Agency, National Transport Authority (NTA), Department of Education and Skills, Irish Water and several private landowners.
- 3.3.3 The EPA submission on the preliminary amendment highlighted a range of issues to be considered as follows;
- The EPA request CCC to clarify whether the flood risk assessment carried out are consistent with the approach carried out for the national CFRAMS programme in terms of flood zone classification (Flood Zone A through C) and whether flood risk scenario modelling has been considered also. The flood risk assessment carried out for the South west CFRAMS, where available, and which should be taken into account and integrated as appropriate.
 - The flood risk assessment does not identify whether these lands at risk of flooding are flood zone A or B.

- The EPA submission also states that any future amendments must be screened and an SEA statement prepared following adoption of the Amendment.
- Monitoring, include monitoring frequency. Any future amendments should be screened for likely significant effects in accordance with the criteria as set out in Schedule 2A of the SEA regulations.

- 3.3.4 All the submissions were considered and discussed in the Chief Executive’s Report to Members in September 2015. Having regard to the interim nature of the amendment, it was decided to make a number of changes in accordance with the submissions made.
- 3.3.5 Changes made to the Preliminary Amendment following the receipt of submissions include the following;
- Insert new text in paragraph 1.4.16: “The Council agreed that the Stage 3 Flood Risk Assessment for the lands would form the basis of a flood risk map for the area. Consequently the layout design of the site reflects the land potentially at risk of flooding and these lands have been zoned as open space/amenity on the site. The draft flood risk assessment was undertaken on part of the site the remaining portion was not assessed. The existing flood maps in the Local Area Plan relate to the Stage 1 Flood Risk Maps prepared by the OPW and JBA.”
 - Insert new text in paragraph 1.4.17: However since 2011 the OPW have produced Preliminary Flood Risk Assessment Maps (PFRA) for Cork and the entire Shannonpark site has been mapped. There is a pluvial flood risk identified through the PFRA and the OPW have advised that any development will require more detailed Flood Risk Assessment (FRA) as required by the Flood risk guidelines.
 - Insert flood risk paragraph in Objective R-14 for Shannonpark Amendment.
- 3.3.6 Any proposed zoning changes were screened against the Strategic Environmental Objectives and included in the Environmental Report (see table 3-1). Based on the screening exercise, the Planning Authority determined, in accordance with the requirement of Section 12 (7)(a) of the Planning and Development Act 2000 (as amended), that any uncertain interaction as a result of implementing these proposed changes could be screened out through mitigation measures.

Table 3-1 – Impact of Proposed Amendments arising from Non Statutory Pubic Consultation						
Ref. No.	Title of amendment	Impact on EPO’s				Conclusion
		+	-	?	Ne (neutral)	
	Zoning Objectives					
R-17 Medium Density	<i>Phase 3: Medium density residential development to include a mix of house types. The layout shall allow for permeability between housing areas and shall include the construction of the Greenway (U-13) and east - west link street (U-14). The Rock Road (U-12) will need to be upgraded in accordance with the specifications of the DMURS Guidance document and to the satisfaction of Roads Section in Cork County Council.</i> <i>If Phase 3 is developed independently the following infrastructure is required;</i> <i>• A two-lane approach to the Shannonpark</i>	POP1, POP2, POP3, W2, W3, A1,MAT1 MAT2, MAT3,			MAT 1	Screened Out

Table 3-1 – Impact of Proposed Amendments arising from Non Statutory Pubic Consultation						
Ref. No.	Title of amendment	Impact on EPO's				Conclusion
		+	-	?	Ne (neutral)	
	<p><i>roundabout from Ringaskiddy. This additional lane of around 70m will serve both left turning and right turning traffic,</i></p> <ul style="list-style-type: none"> <i>Provision of two exiting northbound lanes to Cork that merge prior to the L6469 local road.</i> <p><i>Parts of this site are at risk of flooding. Any development proposals on this site will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines 'The Planning system and Flood Risk Management' as described in sections FD 1-4, 1-5 and 1-6 in Section 1 of this plan.</i></p>					

- 3.3.7 The final amendment to the Carrigaline Electoral Area Local Area Plan went on public display from the 28th September to the 9th November 2015. This amendment was accompanied by an Environmental Report which was published in August 2015.
- 3.3.8 91 submissions were received following formal public consultation on the Amendment. These submissions and the recommendation of the Chief Executive were outlined in a Report to Members in December 2015.
- 3.3.9 All the submissions received at the amendment stage were summarised and responded to in the Chief Executive's Report to Members in December 2015. Some minor changes of a non material nature were recommended in the CEO report (See Table 3-2). Following consideration by the members of the Chief Executives report it was considered that it was reasonable and appropriate to proceed with the amendment in order to provide for the continuation of the planning framework for the development of the X-01 lands in Shannonpark.

Table 3-2	
Amendment	Proposed Changes Arising from Statutory Public Consultation Process
Mapping change	Remove the indicative connectivity arrows between the proposed new development and Herons Wood housing estate on the map. This would not affect the red arrow across the R611 and the proposed greenway at

	U-13.
Delete the second sentence of paragraph 1.4.38	It is critical that the layout and design of this area allows for connectivity with the existing Herons Wood housing estate to the south.
Insert additional text in paragraph 1.3.4:	The masterplan proposals have been included in this Electoral Area Local Area Plan by amendment in order to accelerate the delivery of much needed new housing. The review of the EALAP's and the preparation of the new plan for the Municipal District presents an opportunity, in consultation with the public, for the County Council to refine the detail of the proposed development, including the infrastructure requirements.

3.3.10 Following the consideration by Members of the Amendment, Environmental Report, Habitats Directive Screening Report, and the Chief Executive's report, the Amendment was adopted on the 25th January 2016.

3.3.11 The EPA submissions received during both the preliminary amendment consultation stage and the amendment consultation stage in relation to this process are summarised in Table 3-3 below, together with the response of the Chief Executive.

Table 3-3 Details of submissions on the Environmental Report at the Non Statutory Stage and the Statutory Stage of the Consultation Process

Submitter	Environmental Submissions	Response
EPA September 2015	<ol style="list-style-type: none"> The EPA request CCC to clarify whether the flood risk assessment carried out are consistent with the approach carried out for the national CFRAMS programme in terms of flood zone classification (Flood Zone A through C) and whether flood risk scenario modelling has been considered also. The flood risk assessment carried out for the South west CFRAMS, where available, and which should be taken into account and integrated as appropriate. The flood risk assessment does not identify whether these lands at risk of flooding are flood zone A or B. The EPA have made additional comments on the Environmental Report <p>- Chapter 1 review the requirements of Schedule 2b of the SEA Regulations</p> <p>-Chapter 5 read in conjunction Irish Water's water services strategic plan</p>	<ul style="list-style-type: none"> Comments regarding the Environmental Report will be considered. The Stage 3 FRA carried out by one of the landowners is the most up to date information CCC has at the moment. In conjunction with the OPW Preliminary Flood Risk Assessment Maps showing pluvial flood risk on site is now available and will be used in the revision. This FRA is available in the SEA Environmental Report accompanying the proposed Amendment

Table 3-3 Details of submissions on the Environmental Report at the Non Statutory Stage and the Statutory Stage of the Consultation Process		
Submitter	Environmental Submissions	Response
	<p>-In Chapter 6 clarify subsection 6.2.1 Baseline Assessment whether the environmental impacts described refers to the Waterrock or Shannonpark Framework Masterplan or both.</p> <p>-In mitigation measures Chapter 8 suggested alternatives. If no mitigation proposed highlight policies/objectives of the Carrigaline EALAP.</p> <p>-Monitoring, include monitoring frequency.</p> <p>Any future amendments should be screened for likely significant effects in accordance with the criteria as set out in Schedule 2A of the SEA regulations.</p>	
EPA 27 th November 2015	<p>Acknowledge the commitment given to phasing, undertake flood risk assessment and a transport assessment. This assessment should take into account the potential cumulative effects relating to the relocation of the Port of Cork including associated potential additional traffic and associated air quality aspects.</p> <p>Where future amendments are proposed these should be screened for likely significant effects. Following adoption an SEA statement should be sent to any environmental authority consulted during the SEA process.</p>	<p>Flood Risk Maps used in this assessment of this amendment were based on the Lee CFRAMs and JBA Maps which were used in the 2011 Electoral Area Local Area Plan for Carrigaline and represent the most up to date information available. Because the site contained an area of flood risk, the County Council requested the landowner prepare a site specific flood risk assessment of their land.</p> <p>A draft site specific Flood Risk Assessment was prepared by Denis O Sullivan and Associates for 34 hectares of the 44 hectare site in 2014. The detailed flood risk assessment report identified an extended area at risk of flooding based on more detailed topographical and hydrological analysis and higher levels of mathematical modelling, consistent with a site specific FRA. It identified areas defined as Flood Zones A, B and C on a map. This flood risk map was used as a basis for guiding the zoning for the new framework master plan in 2015. Details of the draft flood risk assessment together with the flood</p>

Table 3-3 Details of submissions on the Environmental Report at the Non Statutory Stage and the Statutory Stage of the Consultation Process		
Submitter	Environmental Submissions	Response
		<p>risk map were included in the SEA Environmental Report and sent to all statutory bodies (including OPW) during the public consultation process in April and September.</p> <p>The zoning of land use used the sequential approach as outlined in the Flood Risk Guidelines, whereby avoidance should be the starting point for flood-prone lands. Consequentially, all of the land indentified as subject to flood risk (Zone A) was zoned for water compatible uses (open space and recreation).</p> <p>During the preliminary public consultation in June/July 2015, the County Council and OPW used the current CFRAMs PFRA's to identify pluvial flooding on the 'Cooneys land' (10 hectares). In consultation with the OPW at this stage, advice was given that the pluvial flood risk on Cooney's land is "indicative in nature" and that if the land was to be developed for uses other than open space and recreation, a more detailed flood risk assessment needs to be carried out on the land affected.</p> <p>The draft amendment was then changed to include a specific objective in R-17 as follows:-</p> <p>"Parts of this site are at risk of flooding. Any development proposals on this site will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines 'The</p>

Table 3-3 Details of submissions on the Environmental Report at the Non Statutory Stage and the Statutory Stage of the Consultation Process		
Submitter	Environmental Submissions	Response
		<p>Planning system and Flood Risk Management' as described in sections FD 1-4, 1-5 and 1-6 in Section 1 of this plan."</p> <p>In view of the submissions received regarding the pluvial flood risk and the advice given by the OPW it is therefore recommended that this specific objective (R-17) be modified by the deletion of "are" and the inclusion of "may be" as follows:-</p> <p>"Parts of this site are may be at risk of flooding. Any development proposals on this site will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines 'The Planning system and Flood Risk Management' as described in sections FD 1-4, 1-5 and 1-6 in Section 1 of this plan."</p>

4 Reasons for choosing the Amendment as Adopted

4.1 Introduction

4.1.1 This section of the Environmental Statement sets out the reasons for adopting the Amendment.

4.2 Cork-Ringaskiddy National Road

4.2.1 Shannonpark is located directly to north of the Metropolitan Town of Carrigaline and adjoins the N28 national road to Ringaskiddy and the Shannonpark Roundabout. The Transport Assessment (TA) for the master plan site outlined the total infrastructure requirements for the provision of up to 1000 houses. For the benefit of constructing the traffic model 0-200 houses and 200-500 houses and upwards to 1000 houses were tested. The conclusion of the model detailed a list of infrastructure that is required to facilitate the development. The network improvements relate to the Shannonpark roundabout and the R611 and it would be preferable that the upgrades to the R611 are completed as early as possible to minimise disruption and to reduce costs.

4.2.2 In the longer term and to facilitate the Shannonpark Masterplan and the development of services within the Carrigaline area, improvements within the town centre will be required which will both manage the demand to travel by car and provide additional transport capacity to support additional trips within the town. In addition, the requirement for a park and ride facility on the site would stimulate the modal shift from car to public transport.

4.3 Required Growth in the Metropolitan Area

4.3.1 It is an objective of the Cork County Development Plan 2014 to maximise new development, for both employment and housing in the Metropolitan towns and to enhance the capacity of these towns to provide services and facilities to meet the needs of their population. The Cork County Development Plan 2014 has therefore identified Carrigaline for moderate growth with a population target of 17,870 by 2022 which will require the construction of an additional 2,422 dwelling units and it is an objective to accommodate a substantial portion of this growth target for the town on the Shannonpark lands.

5 Monitoring

5.1 Introduction

- 5.1.1 The SEA Directive requires that the significant environmental effects of the implementation of plans are monitored. The purpose of monitoring is to assess the effects of the Amendment which have been predicted during the SEA process as well as identifying some effects which may not have been envisaged during the implementation stage.
- 5.1.2 Monitoring enables, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action. In addition to this, monitoring can also play an important role in assessing whether the LAP is achieving its environmental objectives and targets measures which the LAP can help work towards, whether these need to be re-examined and whether the proposed mitigation measures are being implemented.
- 5.1.3 The Environmental Report also includes a list of key indicators for monitoring the implementation of the Plan Amendment and indicates that some or all of these indicators will be used subject to adequate resources being available. The indicators used relate primarily to issues within the remit of the Planning Department.
- 5.1.4 Table 5.1 identifies details of the environmental protection objectives, targets and indicators included in the Environmental Report, and the list of indicators to be monitored. Some of the indicators will be monitored by other Council departments e.g. water quality issues are monitored by the environmental department. In other cases the information can be extracted from the Odyssey Planning Application Management System or the Planning Register e.g. development in areas of flood risk or high landscape value.
- 5.1.5 Sources of data from other organisations (NRA, NTA, IW, ESRI, Forfas, NESC and CSO etc) which is readily available will also be used where appropriate to assess progress in implementing the Amendment to the plan.

5.2 Responsibility for Monitoring

- 5.2.1 Monitoring and implementing the Local Area Plan is primarily the responsibility of the Planning Directorate of Council, mainly through the development management function. However, the Carrigaline Local Area Plan also co-ordinates the work and objectives of other key departments within the local authority, such as Economic Development, Roads, Environment, Housing and Community Development. In some cases, the body responsible for the implementation of certain plan objectives may be external, such as Transport Infrastructure Ireland, the National Transport Authority or Irish Water.

Table 5.1 EPO's & Monitoring Targets and Indicators					
	Environmental Objective	Targets	Monitoring Indicators	Data Source	Accessibility
Biodiversity					
B1	Conserve the diversity of habitats and species and to avoid significant adverse impacts (direct, cumulative and indirect).	No significant adverse impacts, (direct, cumulative and indirect impacts), to relevant habitats, species or their sustaining resources and to improve protection for protected sites and species including a provision of adequate and appropriate buffer zones. Conserve the diversity of habitats and species in non-designated sites.	Retain integrity of existing habitats and species relative to the baseline year of 2011.	The Heritage Section of Cork County Council, Department of the Environment, Community and Local Government, National Parks and Wildlife Service.	Dependent on external information. Some information potentially available from Cork County Council.
B2	Protect habitats from invasive species and promote awareness of and support control and eradication programmes for invasive species	No new invasive species in County Cork and no increase in coverage of existing invasive species	New types of invasive species or increase in coverage of existing invasive species	National Biodiversity Centre	Dependent on external information.
B3	Protect designated sites include Natura 2000 sites (SACs and SPAs) under Article 6 of the Habitats Directive. Conserve	No significant adverse impacts, (direct, cumulative and indirect impacts), to relevant	Number and extent of designated sites	National Parks and Wildlife Service	Dependent of external information

	and protect, or maintain and restore Natura 2000 sites and the Natura 2000 Network	habitats, species or their sustaining resources and to improve protection for protected sites and species including provision of adequate and appropriate buffer zones. Conserve the diversity of habitats and species in non-designated sites.			
Population and Human Health					
POP1	Improve people's quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns.	Enhance provision of, and access to, amenity space within Shannonpark. Increase number of walking and cycle friendly measures associated with Shannonpark. Increase modal shift to public transport and reduction in journey to work (time/distance).	Number of inappropriate uses permitted within the town.	Cork County Council	Available from Cork County Council
		Enhance provision of, and access to, amenity space within Shannonpark.	Numbers of amenity areas provided within Shannonpark, number of accesses to amenities	Cork County Council.	Available from Cork County Council

			areas within Shannonpark		
		Increase number of cycle friendly measures associated with Shannonpark	Number of cycle friendly measures provided in the area.	Cork County Council.	Available from Cork County Council
		Increase number of pedestrian friendly measures associated with Shannonpark.	Number of pedestrian friendly measures provided in the area.	Cork County Council.	Available from Cork County Council
		Increase modal shift to public transport and reduction in journey to work (time/distance)	Journey to work times; % of commuters using public transport; % of commuters cycling to work; % of commuters walking to work;	CSO	Dependent on external information
		Use of Construction Management Plans to minimise adverse impacts during construction phase(s)	Number of Construction Management Plans provided to inform development proposals in Shannonpark.	Cork County Council	Available from Cork County Council
POP2	To protect human health from risks or nuisances arising from exposure to incompatible land uses/developments	Avoid the location of inappropriate activities that impact on the quality of the town centre.	Number of inappropriate uses permitted within the town centre	Cork County Council	Available from Cork County Council

POP3	Minimise noise, vibration and emissions from traffic, industrial processes and extractive industry	Use of Construction Management Plans to minimise adverse impacts during construction phase(s).	Number of Construction Management Plans provided to inform development proposals	Cork County Council	Available from Cork County Council
Soils and Geology					
S1	Maintain soil integrity and quality	Soil management to inform detailed designs within study area. Use of Waste Management Plans to minimise adverse impacts arising from pollution	Number of Soil Management Plans provided within the Development Plan area.	Cork County Council	Available from Cork County Council
		Use of Waste Management Plans to minimise adverse impacts arising from pollution	Number of Waste Management Plans provided within the Development Plan area	Cork County Council	Available from Cork County Council
S2	To maximise the sustainable reuse of Brownfield lands and the existing built environment, rather than developing Greenfield lands while also protecting agriculturally productive lands.	Identification of Brownfield lands within the town centre area and assessing the reduction in quantity of Brownfield lands during the lifetime of the Amendment.	Reduction in quantity of Brownfield lands available during the lifetime of the plan	Cork County Council	Available from Cork County Council
Water Quality					
W1	Improve water quality and the management of	Improvement, or at least no deterioration, in	Achievement of the Objectives of the River Basin	Water Framework Directive: RBD's, EPA,	Dependent on external information. Some

	watercourses to comply with the standards of the Water Framework Directive and incorporate the objectives of the Floods Directive into sustainable planning and development	water quality in Cork Harbour and groundwater. Appropriate management of zones vulnerable to flooding.	Management Plans; % increase or decrease in numbers of water bodies at good status compared with baselines of 2009.	Cork County Council	information potentially available from Cork County Council
		Appropriate management of zones vulnerable to flooding	Compliance with <i>The Planning System and Flood Risk Management Guidelines 2009</i> , amount of new developments within flood plain	Cork County Council	Available from Cork County Council
W2	Make best use of existing water infrastructure and promote the sustainable development of a new town centre.	Ensure that connectivity is maintained to the existing water and waste water infrastructure in Shannonpark.	Operation of Lower Harbour Sewerage Scheme serving Shannonpark	EPA and Cork County Council	Dependent on external information and information available from Cork County Council
W3	To maintain and improve the quality of drinking water supplies	Maintain and improve drinking water quality to comply with the requirements of the European Communities (Drinking Water) Regulations and to prevent leakage in new systems	Compliance with Regulations, % leakage within system	EPA and Cork County Council	Dependent on external information and information available Cork County Council
Air Quality and Climate					

A1	Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency	Maintain good air quality standards	To remain within good air quality standards	EPA	Dependent on external information
Cultural Heritage					
CH1	Promote the protection and conservation of cultural heritage	To protect all cultural features within the plan area and where necessary to impact upon same to manage and record action in accordance with National Heritage Policies.	Number of cultural features lost within Shannonpark	Cork County Council	Available from Cork County Council
Landscape					
L1	Protect natural and historic landscapes and features within them in a sustainable manner	Integrate natural & historic landscape features into detailed design	% of natural and historic landscape lost within village boundary, number of features within natural and historic landscape lost within town boundary.	Cork County Council	Available from Cork County Council
Material Assets					
Mat 1	Reduce risk of flooding	Avoidance of development in flood plains or in areas at risk of flooding	Compliance with the Flood Risk Guidelines 2009.	Cork County Council and OPW	Available from Cork County Council

Mat 2	To ensure that drinking water supplies are free of contamination	Improve efficiency in distribution of potable water to the population	Compliance with European Communities (Drinking Water) Regulations and reduce leakages in existing infrastructure	Cork County Council	Available from Cork County Council
Mat 3	Maximise sustainable modes of transport	Provide for ease of movement for all road users and to promote development patterns that protect and enhance road safety	Compliance with sustainable travel targets in Smarter Travel	Cork County Council	Available from Cork County Council

