

**BANDON ELECTORAL AREA
LOCAL AREA PLAN
2011**



2

Volume 2

**Habitats Directive Assessment, Natura Impact Report
Strategic Environmental Assessment Statement
Strategic Flood Risk Assessment**

**Cork County Council
Planning Policy Unit**

Bandon Electoral Area Local Area Plan

August 2011

Volume 2
Habitats Directive Assessment Natura Impact
Report
Strategic Environmental Assessment Statement
Strategic Flood Risk Assessment

Bandon Electoral Area Local Area Plan

Natura Impact Report

August 2011

Table of Contents

1	Introduction.....	1
1.1	Preamble	1
1.2	Habitats Directive Assessment	2
2	Methodology.....	5
2.1	Data Sources	5
2.2	Consultation	5
2.3	Approach	5
3	Habitats Directive Assessment of the draft Plan and Proposed Amendments.	5
3.1	Description of the Plan	5
3.2	Habitats Directive Assessment of draft Plan	6
4	Appropriate Assessment Conclusion – Finding of No Significant Effects Matrix	21
5	References and Data Used.....	24
	Appendix I Timetable for the making of the Bandon Electoral Area Local Area Plan.	26

1 Introduction

1.1 Preamble

1.1.1 Cork County Council has recently prepared the Bandon Electoral Area Local Area Plan under the provisions of the Planning and Development Acts 2000-2010. The plan focuses on the local level implementation of the overall planning strategy for the County as set out in the County Development Plan 2009. The plan also adheres to the core strategies set down in higher level plans including the National Spatial Strategy (2002-2020) and the Regional Planning Guidelines (2010) for the South West Region.

1.1.2 In accordance with requirements under the EU Habitats Directive (43/92/EEC) and EU Birds Directive (79/409/EEC), 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 and animal species for which these sites are designated. This assessment process is called a **Habitats Directive Assessment** (HDA) and has been carried out for all stages of the plan making process.

1.1.3 The draft Bandon Electoral Area Local Area Plan was assessed to determine whether the plan or its policies could have significant impacts on any Natura 2000 sites. The results of that assessment are contained in the first Natura Impact Report for this plan (Natura Impact Report (I) for the draft Bandon EA Local Area Plan), which was published in February 2011. The findings and recommendations of that process were presented to Council members as part of the Managers Report on 23rd February 2011. The Managers Report also contained recommendations relating to all amendments proposed to the plan arising from the public consultation process (Nov. 2010-Jan 2011). Council members voted to accept or reject the recommendations contained in the Managers Report on 30th and 31st March. In addition, they themselves proposed and voted to include other amendments to the plan at that time. The proposed amendments to the plan were published on 21st April 2011.

1.1.4 The proposed amendments to draft Bandon Electoral Area Local Area Plan were also assessed to determine whether these could have significant impacts on any Natura 2000 sites. The results of that assessment are contained in the second Natura Impact Report (Natura Impact Report (II) for the proposed

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.

amendments to the draft Bandon EA Local Area Plan, April 2011), which was published on 21st April 2011. That report contained an examination of all amendments proposed to be made to the plan, which were approved by Council Members on 30th and 31st March, and a determination as to whether the amendments have the potential to have significant impacts on Natura 2000 sites. Where impacts could not be ruled out, recommendations were made for modifications to be made to the amendments, or for the removal of these. These recommendations were contained in the Managers Report on June 15th. Council members voted on the recommendations contained in the Managers Report on July 25th 2011.

1.1.5 This is the final Natura Impact Report for the Bandon Electoral Area Local Area Plan, 2011. It summarises how the recommendations arising from the initial Natura Impact Reports, and how ecological considerations generally, have been integrated into the Local Area Plan. Finally the report contains the **AA Conclusion Statement** which finds that there will be no significant impact on the network as a whole, nor to individual Natura 2000 sites or their dependant habitats and species. This report should be read in conjunction with the Bandon Electoral Area Local Area Plan.

1.1.6 The first and second Natura Impact Reports have been made available to statutory consultees and the general public. In addition, the National Parks and Wildlife Service was consulted and advised on the content of each of the Natura Impact Reports.

1.1.7 The full timetable for the making of the plan and the parallel Habitats Directive Assessment process is set out in **Appendix 1**.

1.2 Habitats Directive Assessment

1.2.1 Habitats Directive Assessment, also referred to as Appropriate Assessment, is a process which involves the evaluation of the potential impacts of plans and projects on Natura 2000 sites and the habitats and species that they support and, where necessary, the development of mitigation measures to avoid any such impacts. It is an iterative process which runs parallel to and informs the plan making process, involving analysis and review of draft policies, or amendments/variations, as they emerge during each stage of plan making. Within this process, regard must also be had to the potential for policies or amendments to 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.

1.2.2 Articles 6(3) of the Directive sets out the requirement for the assessment of plans and projects affecting Natura 2000 sites as follows:

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 and subject to the provision 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.

1.2.3 Article 6(4) of the Directive deals with derogation procedures, where it is considered necessary to proceed with a plan/project despite a finding that negative impacts are likely.

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 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.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance to the environment, or further to an opinion from the Commission, to other imperative reasons of overriding public interest.

1.2.4 In relation to plan making, the process of assessment may result in the modification or removal of policies proposed to the plan or in the adoption of new policies, or, if significant impacts arise which cannot be avoided, a recommendation not to proceed with the policy.

1.2.5 The European Union has provided guidance as to how to complete a Habitats Directive Assessment for land use plans which identifies four main stages in the process as follows:

Stage One: Screening

The process which identifies what might be likely impacts arising from a plan on Natura 2000 sites, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant. If the effects are deemed to be significant, potentially significant, or uncertain, then the process must proceed to Stage Two.

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 consideration of the impact of the plan on the integrity of the Natura 2000 site, either alone or in combination with other projects or plans, having regard to the site's ecological structure and function, and its conservation objectives.

Additionally, where there are adverse impacts, it involves an assessment of the potential mitigation of those impacts.

Stage Three: Assessment of alternative solutions

Should the conclusion of the appropriate assessment be that there are likely to be impacts which will affect the overall integrity of Natura 2000 site, then it is required to examine alternative ways of achieving the objectives of the plan that avoids such adverse impacts. Stage three of a Habitats Directive Assessment involves the assessment of alternative solutions or options that could enable the plan or project to proceed without adverse effects on the integrity of any Natura 2000 sites. The process must return to stage two as alternatives will require appropriate assessment in order to proceed. Demonstrating that all reasonable alternatives have been considered and assessed, and that the least damaging option has been selected, is necessary to progress to Stage four. Alternatives must be compared with respect to the significance of their likely effects on the integrity of the site/sites. Other assessment criteria, such as economic criteria cannot be seen as overruling ecological criteria.

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

This is the main derogation process of Article 6(4) which examines whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan that will have adverse effects on the integrity of a Natura 2000 site to proceed in cases where it has been established that no less damaging alternative solution exists. Such a plan may only proceed if compensatory measures have been put in place to offset the impacts to be incurred and these compensatory measures must be assessed as part of the AA process. The EU Commission must be informed of the compensatory measures and these must be approved by the Minister. Compensatory measures are a last resort attempt to maintain the integrity of the Natura 2000 network and they must be practical, implementable, likely to succeed, proportionate and enforceable.

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

1.2.6 Development plans including County Development Plans, Local Area Plans, Town Plans and variations to these may only be adopted if it is demonstrated that impacts on the integrity of any Natura 2000 sites which could be affected by the plan have been ruled out. Where such impacts have not been ruled out, the plan may only proceed where it has been demonstrated that there are no reasonable alternative solutions, that there are imperative reasons of overriding public interest to proceed with the plan, and that compensatory measures have been designed, assessed, approved by the Minister, and have been put in place in advance of the adoption of the plan. In every case in which a local authority envisages approving or proceeding with a

plan or project on the grounds of overriding public interest, the Minister must be consulted.

2 Methodology

2.1 Data Sources

2.1.1 The assessment of potential impacts on the integrity of Natura 2000 sites in this study is based on a desktop review of information relating to these sites and to the habitats and species that they support, and personal knowledge of many of the sites. References and data used are cited in the back of this report.

2.2 Consultation

2.2.1 Consultation was carried out with the NPWS in relation to the Appropriate Assessment of the draft Bandon Electoral Area Local Area Plan and on the proposed amendments to same. This process assisted the Planning Authority to identify the principle threats of concern for individual sites and to amend the plan accordingly. The draft plan and amendments as well as the Natura Impact Reports and Environmental Report for the plan were referred to statutory consultees, and were made available to the general public for review at the various consultation stages of the plan making process.

2.3 Approach

2.3.1 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*.

3 Habitats Directive Assessment of the draft Plan and Proposed Amendments.

3.1 Description of the Plan

3.1.1 The draft plan consists of a written statement and maps. It takes cognisance of the County Development Plan (2009) and relevant aspects of the South West Regional Planning Guidelines (2010) in terms of its objectives relating to population targets, housing strategy, settlement strategies and boundaries, economic development, flood risk assessment, climate change and biodiversity strategies. It contains three sections as follows:

Section 1: Introduction to the Bandon Electoral Area Local Area Plan

This section summarises the content of the plan and its relationship to other plans. It contains information relating to the process that has been followed in the making of the plan including the approach to consultation and zoning etc. The main towns, villages and other settlements within the electoral area are identified in this section. Policies relating to assessment

of flood risk and the protection of the green belt which apply to the entire electoral area are also included in this section.

Section 2: Local Area Strategy

This section of the plan sets out the overall strategy for Bandon Electoral Area as a whole. It presents a summary and analysis of the growth and population targets used in the plan and gives details of the main employment and economic considerations, education and infrastructure requirements and key environmental considerations. It sets out an overall vision for the electoral area as follows:

- o The local area strategy is to implement the objectives contained in the County Development Plan 2009 to make the Ring towns more attractive as places to live, and on the other hand maintain positive growth in the villages and rural areas but at more moderate rates in line with the CASP update.
- o The local area strategy adds Riverstick, Belgooly and Ballinspittle to the key villages in the electoral area in order to provide for an enhanced spatial balance within the electoral area itself and as a more realistic way of achieving the growth forecasts outlined in the CASP update and County Development Plan 2009.
- o Bandon town is designated as a district employment centre with a proposed increase in employment and population over the period of the Local Area Plan.
- o Kinsale town is designated as a district employment centre with a proposed increase in employment and population over the period of the Local Area Plan.

This section contains policy statements relating to the provision of a sustainable water supply and treatment system as well as environmental assessment requirements.

Section 3: Settlements and Other Locations.

This section of the document sets out more specific objectives relating to population targets, residential, commercial and industrial development, the provision of infrastructural, community and recreational facilities etc for each of the two main towns Bandon and Kinsale, four key villages Innishannon, Riverstick, Ballinspittle, Belgooly, four other villages Ballinadee, Halfway, Kilbrittain, Old Chapel and nine village nuclei and eleven small settlements within the electoral area.

3.2 Habitats Directive Assessment of draft Plan

3.2.1 The draft Plan was reviewed in January 2011 to determine whether the policies or zonings contained therein would be likely to have significant impacts

on the Natura 2000 network. As part of this assessment, all Natura 2000 sites within the boundary of the Local Area Plan Area, all Natura 2000 sites within 15km of the boundary of the Local Area Plan area, and all downstream Natura 2000 sites designated for water dependant habitats and/or species were screened for potential impacts arising from the plan. A total of four Special Areas of Conservation and seven Special Protection Areas were identified as part of the screening process. These are shown in **Table 3.1** below.

Table 3.1 Natura 2000 Sites Identified for Screening for Appropriate Assessment for the draft Bandon EA Local Area Plan

Site Name	Site Type	Site Code	Habitats for which site is designated	Species for which site is designated	Other species and habitats of note occurring within the site	Potential Threats
Clonakilty Bay	SAC	91	Mudflats and sandflats not covered by seawater at low tide; Annual vegetation of drift lines, Embryonic shifting dunes; Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes); Fixed coastal dunes with herbaceous vegetation (grey dunes); Atlantic decalcified fixed dunes (<i>Callunetum</i>)	n/a	Habitats: Lagoon; Brackish grassland; Freshwater marsh; Alder scrub; Species: Waterfowl.	Habitats: Water pollution and enrichment of muddy substrates; Pressure for development along the shoreline and within the estuary; Recreational and other activities causing disturbance to wintering birds. Mechanised removal of sea lettuce from beaches.

Site Name	Site Type	Site Code	Habitats for which site is designated	Species for which site is designated	Other species and habitats of note occurring within the site	Potential Threats
Great Island Channel	SAC	1058	Mudflats and sandflats not covered by seawater at low tide; Atlantic salt meadows.	n/a	Habitats: Wet grassland. Species: Wintering waterfowl.	Habitats: Water pollution; reclamation; spread of invasive species; pressure for development in coastal zone - marinas, coastal protection works, infrastructural projects, residential and commercial development; Disturbance to marine mammals and wintering birds arising from boating and other activities.
Courtmacsherry Estuary	SAC	1230	Estuaries; Mudflats and sandflats not covered by seawater at low tide; Annual vegetation of drift lines; Perennial vegetation of stony banks;	n/a	Species: Wintering waterfowl.	Habitats: Water pollution; reclamation; spread of cord grass; pressure for development in coastal zone - marinas, coastal protection works, residential and

Site Name	Site Type	Site Code	Habitats for which site is designated	Species for which site is designated	Other species and habitats of note occurring within the site	Potential Threats
			Salicornia and other annuals colonising muds and sand; Atlantic salt meadows; Mediterranean salt meadows; Embryonic shifting dunes; Shifting dunes along the shoreline with ammophila areanaria (white dunes); Fixed coastal dunes with herbaceous vegetation (grey dunes).			commercial development; Disturbance to marine mammals and wintering birds.
Bandon River	SAC	2171	Water courses of plain to montane levels with the Ranunculus fluitans and Callitriche-Batrachion vegetation; Alluvial	Freshwater Pearl Mussel; Brook lamprey.	Habitats: Wet broad-leaved woodland; Species: Salmon; Kingfisher.	Habitats and species: Activities which could cause water pollution including waste water discharges and water abstractions; River bank protection

Site Name	Site Type	Site Code	Habitats for which site is designated	Species for which site is designated	Other species and habitats of note occurring within the site	Potential Threats
			forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (alno-padion, alnion incanae, salicion albae).			works; Spread of invasive species; Infilling; Development pressure within the river catchment causing habitat loss; Species: Fish and invertebrates: All activities which could impact on water quality;
Old Head of Kinsale	SPA	4021	n/a	Guillemot and Kittiwake (nationally important numbers)	Habitats: Heath; Maritime grassland; Sea cliffs. Species: Fulmar; Shag; Herring Gull; Razorbill.	No information available.
Cork Harbour	SPA	4030	n/a	Cormorant; Shelduck; Oystercatcher; Golden plover; Lapwing; Dunlin; Black-tailed godwit; Curlew; Redshank; Common tern; 20,000 wintering waterbirds.	Species: Little grebe; Great crested grebe; Grey heron; Wigeon; Teal; Pintail; Shoveler; Red-breasted merganser; Grey plover; Black-headed gull; Common gull; Lesser black-backed gull; Wetland and Waterbirds.	Pressure for development within the coastal zone; pressure arising from recreational activities; boating activities.
Clonakilty Bay	SPA	4081	n/a	Black-tailed godwit	Species: Shelduck; Dunlin; Curlew; Wetland and Waterbirds.	Pressure for development within the coastal zone;

Site Name	Site Type	Site Code	Habitats for which site is designated	Species for which site is designated	Other species and habitats of note occurring within the site	Potential Threats
						water pollution causing enrichment of estuarine substrates affecting the food supply for wintering birds.
Sovereign Islands	SPA	4124	n/a	Cormorant	Species: Herring Gulls; Greater Black-backed Gulls; Black Guillemot.	No known threats.
Galley Heat to Duneen Point	SPA	4190	n/a	Chough	Species: Fulmar; Gull spp; Shag; Cormorant; Peregrine Falcon. Habitats: Sea cliffs; Heath; Improved, semi-improved and unimproved grassland.	Agricultural abandonment ; Activities which could interfere with food supplies of breeding birds; Activities which could cause disturbance to breeding birds.
Seven Heads	SPA	4191	n/a	Chough	Species: Fulmar; Gull spp; Cormorant; Peregrine Falcon. Habitats: Sea cliffs; Heath; Improved, semi-improved and unimproved grassland.	Agricultural abandonment ; Activities which could interfere with food supplies of breeding birds; Activities which could cause disturbance to breeding birds.

Site Name	Site Type	Site Code	Habitats for which site is designated	Species for which site is designated	Other species and habitats of note occurring within the site	Potential Threats
Courtmacsherry Estuary	SPA	4219	n/a	Golden Plover; Black-tailed Godwit; Curlew; Common Gull	Species: Great Northern Diver; Shelduck; Wigeon; Red-breasted Merganser; Lapwing; Dunlin; Bar-tailed Godwit; Blackheaded Gull. Habitat: Coastal Habitats.	Impacts on water quality; Activities which could cause disturbance to feeding birds.

3.2.2 All of the draft plan objectives were reviewed as part of the Habitats Directive screening process. Consideration was given to direct and indirect impacts which may arise from development which could be encouraged by objectives contained in the draft plan. This could include new residential, commercial, infrastructural, recreational or other development which may give rise to direct impacts on habitats or species (loss of habitat, disturbance to species); as well as activities which could have indirect impacts (e.g. activities which could affect water quality or hydrology which could in turn affect the status/health of populations of water dependant habitats or species). Proposals which could give rise to impacts which were considered include:

- policies promoting development which would give rise to habitat loss within Natura 2000 sites – i.e. proposed development zonings directly on lands designated for nature conservation.
- policies promoting development in areas with inadequate provision for water and waste water infrastructure.
- policies promoting development in areas which could give rise to pressure on water quality during the construction and operational phase, in particular proposals for development within flood zones of Natura 2000 sites with water dependant habitats and species.
- policies promoting development which could give rise to disturbance to protected species, in particular proposals for paths and walkways within or adjacent to sensitive bird feeding and roosting sites.

3.2.3 These were considered both on their own as well as in relation to potential cumulative impacts when considered in combination with other plans and projects. No objectives were identified in this plan which might give rise to potentially significant impacts on any Special Area of Conservation or Special Protection Area. No designated land was zoned for development. No Natura 2000 sites occur within or close to the boundaries of any settlements within this electoral area. While potential for impact on water quality arising from discharges to Courtmacsherry Estuary were considered in relation to Kilbrittain, it was established that the waste water treatment plant for this settlement has capacity to treat the current and target population and is not contributing to impacts on water quality in the estuary, and that there are no proposals in the plan for amenity walks within or near Special Areas of Conservation or Special Protection Areas.

Table 3.2 Summary of potential impacts on Natura 2000 sites identified through screening of draft plan and consideration of cumulative impacts.
(See first Natura Impact Report for Bandon EA Local Area Plan for full details.)

Natura 2000 Sites	Potential Impacts	Other Plans Which Could Give Rise to Potential Cumulative Impacts on Natura 2000 sites
Clonakilty Bay SAC	None identified	n/a

Natura 2000 Sites	Potential Impacts	Other Plans Which Could Give Rise to Potential Cumulative Impacts on Natura 2000 sites
Great Island Channel SAC	None identified	n/a
Courtmacsherry Estuary SAC	None identified	n/a
Bandon River SAC	None identified	n/a
Old Head of Kinsale SPA	None identified	n/a
Cork Harbour SPA	None identified	n/a
Clonakilty SPA	None identified	n/a
Sovereign Islands SPA	None identified	n/a
Galley Heat to Duneen Point SPA	None identified	n/a
Seven Heads SPA	None identified	n/a
Courtmacsherry Estuary SPA	None identified	n/a

3.2.4 Recommendations for modifications were made to two objectives relating to the protection of water quality generally and committing Cork County Council to the carrying out of Habitats Directive Assessment for projects put forward as a consequence of the plan. In addition, two new objectives to the plan were included in the plan setting out the Councils commitment to the protection of biodiversity both within and outside designated sites. Recommendations made for changes to these policies were put before Cork County Council in the *Report to Members, Bandon Electoral Area Local Area Plan, Public Consultation Draft, Managers Opinion on the Issues Raised by Submissions and Recommended Amendments* (February 2011), and these were accepted in full by the Council at their meeting of March 30th/31st. These were published as proposed amendments to the draft Local Area Plan on 21st April 2011, in addition to other amendments arising from the public consultation process or proposed by Council members.

3.2.5 The recommendations which arose from the AA of the draft plan are set out in **Table 3.3** below. The full assessment is available for review in *Natura Impact Report I for the draft Bandon EA Local Area Plan*, (February, 2011). The proposed amendments to the plan are set out in the *Bandon Electoral Area*

Local Area Plan, Proposed Amendment to the Draft Plan, Public Consultation Document (April, 2011).

Table 3.3 Summary of recommendations arising from appropriate assessment of draft plan.

Proposed wording changes for policies are set out in bold.

Obj No	Amendment Ref	Original wording of obj in draft plan	Recommendation from AA process	Proposed changes arising from AA
LAS 2-1	BN 02.02.01	In line with the principles set out in the County Development Plan 2009 and the provisions of objectives INF 5-6, INF 5-7 and INF 5-8 of the County Development Plan, development proposed in this plan will only take place where appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, is already in a programme or is to be provided in tandem with the development	Recommendation from Natura Impact Report on draft plan – amend wording of objective.	In line with the principles set out in the County Development Plan 2009 and the provisions of objectives INF 5-6, INF 5-7 and INF 5-8 of the County Development Plan, development proposed in this plan will only take place where appropriate and sustainable water and waste water infrastructure is in place which will secure the objectives of the relevant River Basin Management Plan and the protection of sites designated for nature conservation. This must be provided and be operational in advance of the commencement of any discharges from all residential and other development.
LAS 2-2	BN 02.02.02	This plan, and individual projects based on the plans proposals, will be subject (as appropriate) to Strategic Environmental Assessment, Appropriate Assessment (Habitats Directive.	Recommendation from Natura Impact Report on draft plan – amend wording of objective.	This plan, and individual projects based on the plans proposals, will be subject (as appropriate) to Strategic Environmental Assessment, Appropriate Assessment (Habitats Directive and Birds Directive) and Environmental Impact Assessment to ensure the parallel development and implementation of a

Obj No	Amendment Ref	Original wording of obj in draft plan	Recommendation from AA process	Proposed changes arising from AA
				range of sustainable measures to protect the integrity of the biodiversity of the area.
LAS 2-3	BN 02.02.03	N/A	Recommendation from Natura Impact Report on draft plan – add new objective and maps.	It is an objective to provide protection to all proposed and designated natural heritage sites and protected species within this planning area in accordance with env 1-5, 1-6, 1-7 and 1-8 of the County Development Plan, 2009. This includes Special Areas of Conservation, Special Protection Areas and Natural Heritage Areas.
LAS 2-4	BT.02.02.04		Recommendation from Natura Impact Report on draft plan – add new objective and maps.	It is an objective to maintain where possible important features of the landscape which function as ecological corridors and areas of local biodiversity value and features of geological value within this planning area in accordance with env 1-9, 1-10, 1-11 and 1.12 of the County Development Plan, 2009.

3.3 Habitats Directive Assessment of Proposed Amendments

3.3.1 In April 2011, proposed amendments to the draft plan were screened to determine whether these were likely to give rise to significant impacts on Natura 2000 sites. Significant impacts were objectively ruled out for all sites.

Table 3.4 Possible impacts considered during screening of the proposed amendments.

Issues examined	y/n	Amendment Ref. No	Relevant Settlement	Natura 2000 site which may be impacted	Potential Impact
Population target increases for settlements giving rise to possible impacts on Natura 2000 sites	N	n/a	n/a	n/a	n/a
Proposed new zonings within Natura 2000 sites	N	n/a	n/a	n/a	n/a
New zonings adjacent to Natura 2000 sites	N	n/a	n/a	n/a	n/a
Re-establishment of zonings from 2005 plan which could have impacts on Natura 2000 sites	N	n/a	n/a	n/a	n/a
Re-instatement of areas from 2005 plan into development boundaries, previously removed on grounds of flood risk which could have impacts on Natura 2000 sites.	N	n/a	n/a	n/a	n/a
Recommendations from NIR I not	N	n/a	n/a	n/a	n/a

included in amendments					
Other proposed amendments which could give rise to impacts on Natura 2000 site	N	n/a	n/a	n/a	n/a

3.3.2 Ten submissions were made in relation to these proposed amendments during the public consultation process on the proposed amendment. These submissions and any further changes to the plan which were considered by the Manager arising from same, were reviewed to determine whether changes arising from the submissions would have implications for the Natura 2000 network. No further impacts were identified, and therefore, no further recommendations for modifications to the plan which might give rise to impacts on Natura 2000 sites were made arising from the submissions received on the proposed amendments.

4 Appropriate Assessment Conclusion – Finding of No Significant Effects Matrix

Information Relating To The Plan And Natura Sites Within Potential Impact Zone	
Plan name	Bandon EA Local Area Plan, 2011
Natura 2000 sites within potential impact zone of the plan	<p>Special Areas of Conservation: Clonakilty Bay SAC 000091; Courtmacsherry Estuary SAC 001230; Bandon River SAC 002171; Great Island Channel SAC 0001058.</p> <p>Special Protection Areas: Old Head of Kinsale SPA 004021; Cork Harbour SPA 004030; Clonakilty Bay SPA 004081; Sovereign Islands SPA 004124; Galley Head to Duneen Point SPA 4190; Seven Heads SPA4191; Courtmacsherry Estuary SPA 4219</p>
Description of the plan	<p>The Bandon EA Local Area Plan sets out the approach for the local level implementation of the overall planning strategy for the County as set out in the County Development Plan 2009. It consists of a written statement with objectives relating to population targets, housing strategy, settlement strategies and boundaries, economic development, flood risk assessment, climate change and biodiversity strategies. It contains three main sections as follows:</p> <p>Section 1: Introduction to the Bandon Electoral Area Local Area Plan This section summarises the content of the plan and its relationship to other plans. It contains information relating to the process that has been followed in the making of the plan including the approach to consultation and zoning etc. The main towns, villages and other settlements within the electoral area are identified in this section. Policies relating to assessment of flood risk and the protection of the green belt which apply to the entire electoral area are also included in this section.</p> <p>Section 2: Local Area Strategy This section of the plan sets out the overall strategy for Bandon Electoral Area as a whole. It presents a summary and analysis of the growth and population targets used in the plan and gives details of the main employment and</p>

	<p>economic considerations, education and infrastructure requirements and key environmental considerations. It sets out an overall vision for the electoral area and contains policy statements relating to the provision of a sustainable water supply and treatment system as well as environmental assessment requirements.</p> <p>Section 3: Settlements and Other Locations. This section of the document sets out more specific objectives and zonings relating to population targets, residential, commercial and industrial development, the provision of infrastructural, community and recreational facilities etc for each of the main towns, key villages, and other villages, village nuclei and small settlements within the electoral area.</p>
<p>Is the proposed plan directly connected with or necessary to the management of the Natura 2000 sites identified above</p>	<p>No</p>
<p>Are there other projects or plans that together with the plan being assessed could affect the site (provide details)</p>	<p>None identified.</p>
<p>Assessment of Significant Effects</p>	
<p>Describe how the plan (alone or in combination is likely to</p>	<p>No impacts identified. All settlements within the Bandon electoral area within the potential impact zone of the plan have sufficient wastewater treatment systems to deal with existing and proposed development during the lifetime of this plan. There are no proposed zonings to settlements</p>

affect Natura 2000 sites).	within or adjacent to Natura 2000 sites which could give rise to impacts on Natura 2000 sites were identified. There are no proposals in this plan to develop recreational walkways within or close to Natura 2000 sites.
Explain why these effects are not considered significant	n/a
Appropriate Assessment Conclusion	On the basis of this assessment, it is concluded that the Bandon Electoral Area Local Area Plan will not give rise to impacts on the integrity of the Natura 2000 network.
List of agencies consulted	The National Parks and Wildlife Service was consulted and advised at all stages of the appropriate assessment process for this plan. Natura Impact Reports were referred to statutory consultees and were available for review and consultation through the CCC website.
Response to consultation	All of the recommendations made by the NPWS were integrated into the Natura Impact Reports.
Data Collected To Carry Out The Assessment	
Who carried out the assessment	Planning Policy Unit, Cork County Council
Sources of data	National Parks and Wildlife Service Site Synopses and other data relating to Natura 2000 sites.
Level of assessment completed	Screening for potential impacts on all Natura 2000 sites within the plan.
Where can the full results of the assessment be accessed and viewed	The full AA process may be tracked through Natura Impact Report I, prepared for draft plan, Natura Impact II , prepared for draft amendments and this final report.

5 References and Data Used

Cork County Council, Bandon Draft Electoral Area Local Area Plan, November, 2010.

Cork County Council, Natura Impact Report on Bandon Draft Electoral Area Local Area Plan, February 2011.

Cork County Council, Report to Members, Bandon Electoral Area Local Area Plan, Public Consultation Draft, Managers Opinion on the Issues Raised by Submissions and Recommended Amendments, February 2011.

Cork County Council, Bandon Electoral Area Local Area Plan, Public Consultation Draft, Proposed Amendment to the Draft Plan. April 2011.

Cork County Council, Natura Impact Report II on proposed amendment to Bandon Electoral Area Local Area Plan, April 2011.

Cork County Council, Report to Members, Bandon Electoral Area Local Area Plan, Proposed Amendment, Managers Opinion on the Issues Raised by Submissions on proposed Amendments, April 2011.

Cork County Council, Bandon Electoral Area Local Area Plan, September 2011.

Cork County Council, Final Natura Impact Report and Conclusion Statement for Bandon Electoral Area Local Area Plan, September 2011.

Crowe, Olivia. 2005. Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland.

Environment, Heritage and Local Government, National Parks and Wildlife Service. 2008. The Status of EU Protected Habitats and Species in Ireland.

Environment, Heritage and Local Government, National Parks and Wildlife Service. Various Years. Natura 2000 Site Synopses.

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

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

European Communities. 2002. 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. Luxembourg.

South Western River Basin District. 2009. Water Matters Our Plan, South Western River Basin Management Plan (2009-2015).

Appendix I Timetable for Integration of Habitats Directive with making of the Bandon Electoral Area Local Area Plan.

Date	Plan Making Stage	Habitats Directive Assessment Stage	Comment
22 nd Nov 2010	Publication of draft plan.		
22 nd Nov 2010– 12 th Jan 2011	Public consultation on draft plan.	Preparation of first Natura Impact Report on draft plan. Consultation with National Parks and Wildlife Service.	
23 rd Feb 2011	Publication of Managers Report summarising consultation submissions and containing recommendations of manager on same. This report incorporated the recommendations of the first Natura Impact Report on the draft plan.	Issue of first Natura Impact Report on draft plan.	All recommendations contained in first Natura Impact Report were subsumed into the Managers Report to Council.
30 th /31 st Mar 2011	Council members vote to propose amendments to plan.		All recommendations in Managers Report arising from the AA process were accepted by Council and were therefore proposed as amendments to the plan. In addition, a number of new amendments were proposed by Councillors which required screening

Date	Plan Making Stage	Habitats Directive Assessment Stage	Comment
			for AA.
31 st Mar – 20 th Apr 2011	Preparation of proposed amendments to draft plan for publication.	Preparation of second Natura Impact Report on proposed amendments to plan. Consultation with National Parks and Wildlife Service.	
21 st Apr 2011	Proposed amendments to draft plan published.	Publication of second Natura Impact Report on proposed amendments to plan.	
21 st April – 18 th May	Public consultation on proposed amendments.	Public consultation on second Natura Impact Report (proposed amendments to plan).	
19 th May – 10 th June.	Review of consultation submissions and preparation of 2 nd Managers Report	Review of consultation submissions and managers opinion on same to identify issues which might give rise to impacts on Natura 2000 sites.	Ten submissions received in relation to proposed amendments to plan. No modifications were recommended by the Manager to be made to amendments on foot of these submissions which might give rise to impacts on Natura 2000 sites.
15 th June	Publication of 2 nd Managers Report summarising consultation submissions on proposed amendments to plan and containing recommendations of manager on	Preparation of final Natura Impact Report for Bandon Electoral Area Local Area Plan.	

Date	Plan Making Stage	Habitats Directive Assessment Stage	Comment
	same. This report incorporated the recommendations of the second Natura Impact Report.		
19 th July	Council meeting to review Managers Report and consider recommendations in relation to proposed amendments.		
26 th July	Council members vote to make or modify Local Area Plan.		All amendments arising from AA process were accepted by Council members.

Colour pages
to be agreed with printer

Colour pages
to be agreed with printer

Bandon Electoral Area Local Area Plan

Environmental Statement

August 2011

Section 1 – Introduction

Terms of Reference

This is the SEA Statement of the **Bandon Electoral Area Local Area Plan** and forms the final part of the requirements for the Strategic Environmental Assessment (SEA) of the Plan.

SEA Definition

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

Legislative Context

Directive 2001/42/EC of the European Parliament and of the Council, of 27 June 2001, on the assessment of the effects of certain plans and programmes on the environment, referred to hereafter as the SEA Directive, introduced the requirement that SEA be carried out on plans and programmes, which are prepared for a number of sectors, including land use planning. The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI No. 435 of 2004), and, the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Both sets of regulations became operational on the 21st of July 2004. The SEA Directive and the instruments transposing it into Irish Law require that after the adoption of a plan or programme, the plan or programme making authority is required to make a Statement available to the public, the competent environmental authorities and, where relevant, neighbouring countries. This Statement is referred to as an SEA Statement.

Content of the SEA Statement

The SEA Statement is required to include information summarising:

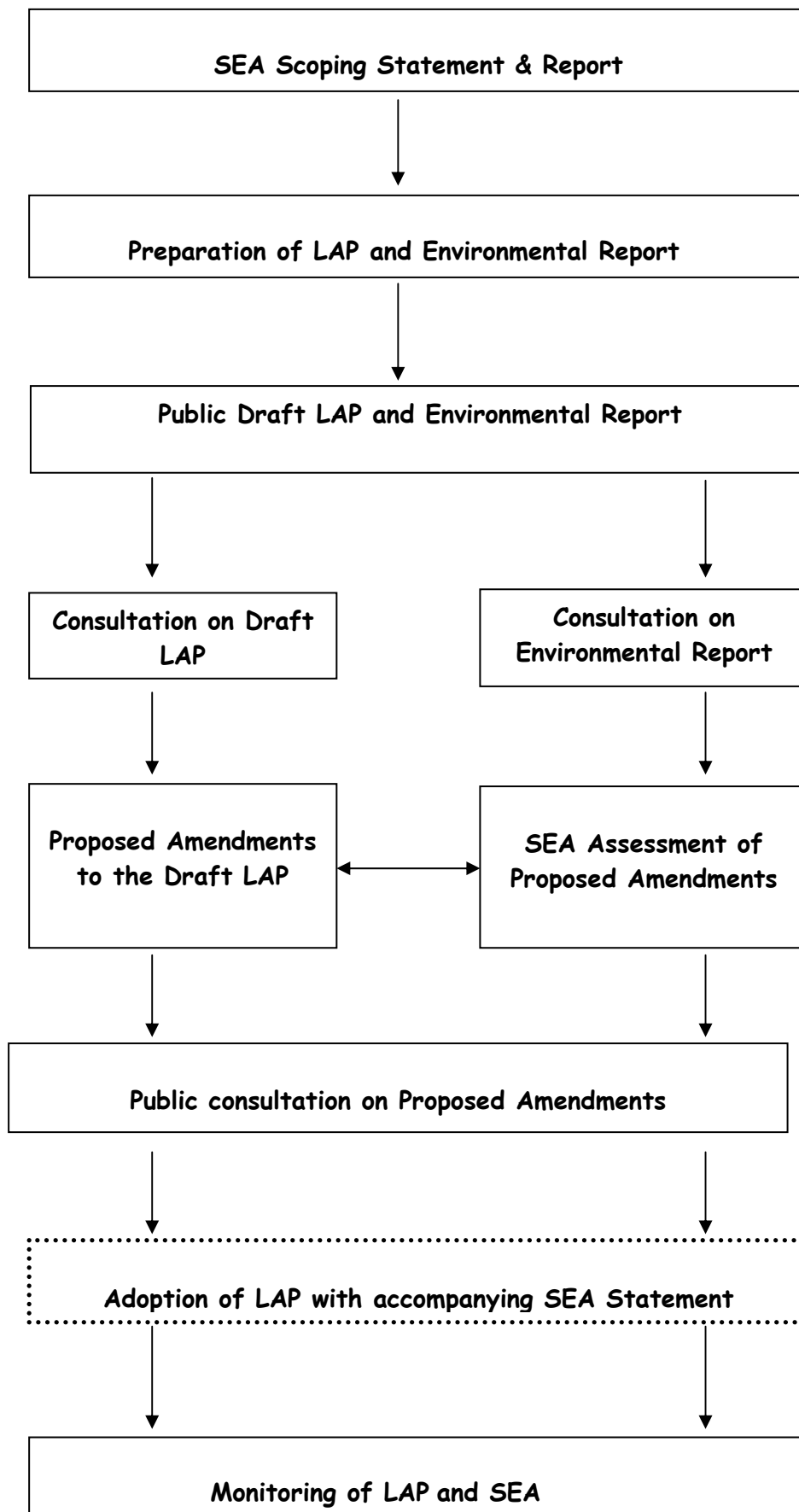
- (a) how environmental considerations have been integrated into the plan
- (b) how
 - the environmental report,
 - any submission or observation to the planning authority in response to a notice under section 20(3) of the Act, and
 - any consultations under article 14 Fhave been taken into account during the preparation of the plan,
- (c) the reasons for choosing the plan, as adopted, in light of the other reasonable alternatives dealt with, and
- (d) the measures decided upon to monitor, in accordance with Article 14J, the significant environmental effects of implementation of the plan.

The Guidelines on the implementation of the SEA Directive state that the SEA statement should summarise the issues and concisely address them. Each of the above points have been addressed and are included in the various sections of the SEA statement which follow. The influence of the SEA on the LAP making process is outlined in the following flow chart (**Figure 1**).

The SEA statement tracks the progression of the plan as presented in the diagram, highlights how environmental considerations have been taken into account and sets

out the detailed monitoring for the plan in the final section which it is intended will be reviewed over the lifetime of the plan.

Influence of SEA on the LAP Review Process: (Figure 1)



Section 2 - How Environmental Considerations and the Environmental Report were factored into the plan:

This Local Area Plan as well as the other nine Electoral Area Local Area Plans are considered to be middle order plans fitting between the County Development Plan and small scale plans and local area plans for example for an individual settlement. Because of this the approach taken needed to look at the overall issues of the Local Area Plan while also relating to individual settlements and objectives. While environmental issues related to individual sites/ settlements and objectives it is considered that the environmental process' most effective input was on the broader/wider scale. This is also reflected in the methodology for the provision of mitigation measures outlined in Chapter 10 of the Environmental Report which addressed the strategic level through assessment of the scenario/alternatives while the second approach addressed the common issues repeated throughout the Local Area Plan.

These middle order plans cover an entire electoral area with the broad distribution of population of main towns, villages and rural areas coming from the County Development Plan 2009. In some cases there may have been some minor changes made to the figures in the Local Area Plan but in general the figures used were in line with those of the Strategic Planning Areas set out in the County Development Plan and were consistent with the figures outlined in the Regional Planning Guidelines 2010.

Consultation:

In terms of the SEA and AA, there have been a number of consultations over the course of the preparation of the Bandon Electoral Area Local Area Plan 2011-2017 which was prepared at the same time as the remaining nine electoral areas in the county. An Outline Strategy was prepared for the Bandon LAP and included a broad checklist of the main environmental indicators within the electoral Area. The Strategy was on public display during January and February 2010.

Following this a scoping report was prepared and sent to the statutory consultees including the Environmental Protection Agency, the Department of Environment Heritage and Local Government and the Department of Communications, Marine & Natural Resources. Five submissions on the Scoping Report were received which in some cases were also applicable to the other Electoral Area Local Area Plans being prepared simultaneously. The comments made at this stage of the process by the statutory consultees related to the scope and level of detail to be included in the SEA and were brought forward into the Environmental Report.

The next period of consultation included public display of the Draft Bandon Electoral Area Local Area Plan alongside the SEA Environmental Report during the period of 22nd November 2010 to 12th January 2011. A total of 46 submissions were received on this suite of documents, including submissions from the EPA and DoEHLG.

It was agreed that some of the comments in the submissions made be incorporated as non material changes in the final document while other changes were put forward as proposed changes to the text and objectives to the Draft Plan.

The final stage of consultation took place between 21st April and 18th May 2011 when amendments to the Draft Plan and a SEA Screening Report and Natura Impact Report (II) were on public display. 10 submissions were received at this stage of public consultation including submissions from the EPA and DOEHLG.

Section 3 of this Statement deals specifically with the Submissions and Observations received and the issues raised in these submissions.

Strategic Environmental Assessment

A number of distinct stages of the process during which environmental issues have been highlighted and the SEA methodology applied are outlined in this section. These are as follows:

Stage 1 – Preparation of the Draft LAP (Scoping and Environmental Report)

Stage 2 – Screening Matrix and Evaluation of the Draft LAP Objectives

Stage 3 – The Amendment Stage (SEA of the Proposed Material Amendment to the Draft Plan)

Stage 1 – Preparation of the Draft LAP (Scoping and Environmental Report)

Scoping:

Chapter 4 of the Environmental Report outlines the methodology of the preparation of the LAP and Environmental Report.

Initially, the Planning Authority engaged in a scoping exercise to determine the range of environmental issues and the level of detail to be included in the Environmental Report, which were decided upon, in consultation with the prescribed environmental authorities as a requirement of the SEA Regulations and Guidelines. The scoping and information gathering stage allowed for the collection of existing environmental baseline information in order to describe the current state of the environment in the Electoral Area. This is outlined in the Scoping Statement. The comments made at this stage of the process by the statutory consultees related to the scope and level of detail to be included in the SEA and were brought forward into the Environmental Report.

The Environmental Report:

Having established in the Scoping Report the environmental baseline the key aspect of the SEA was the collection of relevant environmental baseline data for the Bandon Electoral Area. The collection of this information has informed the identification of key environmental sensitivities, sensitive areas and areas of pressure within the electoral area.

The SEA used a system of Environmental Protection Objectives (EPOs) with targets and indicators in the assessment of the Draft Local Area Plan. Baseline data collection and the preparation of sensitivity mapping has focussed the EPOs at the plan level and at issues relevant to the Bandon Electoral Area.

Where it was demonstrated that conflict with environmental objectives arose, measures were proposed which sought to mitigate against any potential negative environmental effects. This has occurred throughout the preparation of the LAP and the Amendments.

Alternative frameworks:

The Environmental Report is required by the SEA Directive to consider reasonable alternatives taking into account the objectives and the geographical scope of the

plan or programme and the significant environmental effects of the alternatives selected. Alternatives were formulated having regard to the objectives of the LAP. The alternatives are explored in Chapter 8 of the Environmental Report and a further expansion on these alternatives is outlined in **Section 4** of this SEA Statement.

Stage 2 – Matrix and Evaluation of the Draft LAP Objectives:

Before the publication of the Draft LAP, the objectives contained in the Draft Local Area plan were evaluated against the Environmental Protection Objectives (EPO's) which were created for the LAP SEA within a series of matrices. These completed matrices are outlined in **Chapter 9** of the Environmental Report.

This stage identified whether the Draft LAP objectives would be likely to have either:

- No likely interaction with EPOs (they are likely to have no interaction with the status of the environment);
- A positive interaction with EPOs (they are likely to improve the status of the environment);
- A potentially conflicting interaction with EPOs
- An uncertain interaction with EPOs (the interaction with the status of the environment is uncertain)

Arising from this analysis and where a negative assessment was recorded, the SEA provided/ suggested mitigation measures in the form of:

- Changing the wording of an existing objective
- Deleting the objective
- Addition of a new objective

The matrix in Chapter 9 of the Environmental Report includes a 'tick' where the Environmental Report's recommendation was accepted in full and changes made appropriately in the Local Area Plan document. A 'dash' was entered where the Environmental Report's recommendation was partly accepted. A 'cross' was entered where the Environmental Report's recommendation was rejected and not entered into the Local Area Plan document.

This process was carried out simultaneously on the other nine other Electoral Area Local Area Plans throughout the county and the environmental impacts of these plans were considered as part of the overall assessment of this plan.

Mitigation Measures were detailed in Chapter 10 of the Environmental Report which related to wastewater infrastructure, impacts on biodiversity, provision for individual housing within settlements, serving of developments by private schemes or private group water schemes, the need to screen for SEA and AA masterplan, studies and other landuse plans referred to in the Draft Local Area Plan, references to walkways and roadways, waste management, flooding objectives, water quality tables, inclusion of definition of sustainable and tourism. One of the main environmental issue was the correlation between the population targets and growth of settlements and the waste water infrastructure of these settlements within the electoral area. A number of mitigation measures had been incorporated into the the local area plan and it was stated in the Environmental Report that there was an opportunity for the outstanding mitigation measures be incorporated at the amendment stage.

Stage 3: The Amendment Stage (SEA of the Proposed Material Amendment to the Draft Plan)

The amendments as outlined in the Managers Report (February 2011) in line with Section 20(3) of the Planning and Development Acts were examined in order to assess the significant effects on the environment that were likely to occur as a result of the recommended amendments to the Draft LAP. The same methodology was used in the Environmental Report thus a matrix was prepared and all the proposed amendments were assessed. The matrix was used as a screening process where new and modified policies, objectives and text were formally assessed by identifying whether the change(s) would be likely to have significant environmental effects. Generally it was found that the amendments fitted into the following broad categories:

- 1) Changes to text which have minor significance
- 2) Changes to text which have major significance
- 3) Changes to objective which have minor significance
- 4) Changes to objective which have major significance
- 5) New designation of GB 1-2 within the greenbelt
- 6) Extension to development boundary
- 7) New Settlement

After screening (using the matrix approach) a proposed amendment was either 'screened out' or was concluded as 'possible environmental effects identified'. In relation to the latter it was necessary to provide mitigation measures where potential conflict were found with the EPOs. The assessment was carried out having regard also to the parallel process of Appropriate Assessment where relevant mitigation measures from the AA were carried through into the SEA (**See Appendix One**).

Mitigation measures took the form of:

- Changing the wording of an amendment
- Deleting the amendment
- Addition of a new amendment

EU Habitats Directive- Appropriate Assessment

Another key aspect of the assessment process was the undertaking of an Appropriate Assessment of the plan. This parallel process ensured that environmental considerations, specifically focused on Natura 2000 sites, were integrated into the plan as it was developed. The Natura Impact Report III includes details of all the changes made to the Draft LAP as a result of Appropriate Assessment.

One of the main influences of the Environmental Assessment on the Local Area Plan was the introduction of an approach to protect water quality of water bodies identified in the Water Framework Plan. This was incorporated into the Local Area Plan with an overall aim to provide a fail safe mechanism to prevent development in the plan which would result in the degradation of water quality. Having assessed the carrying capacity of settlements changes have been made to the population distribution in some cases from smaller and rural areas to the main towns based on sustainable environmental capacity while the overall population target for the electoral area remains the same. This is further supported by the revision of the wording of general objectives relating to settlements contained in Section 2 of the plan e.g. LAS 2-1 (in Section 2) and in the DB (Development Boundary) objectives in Section 3 relating to specific settlements. Connected to population distribution was the matter of demographic pressure in rural hinterlands for individual housing. In order

to meet this pressure, the approach taken by the local area plan was to provide lands in more sustainable locations i.e. the towns, with the effect of keeping the population targets in the villages lowered.

In relation to Flood Risk Assessment at Draft Stage of the plan the environmental assessment sought clarification and some changes to development in areas at risk of flooding. In the Draft Plan, if land was located within a flood risk area it was generally not included within the development boundary. Where such land was included then objectives relating to that land included a requirement for a more detailed flood risk assessment to be carried out. At the amendment stage of the process, and following public consultation on the proposed amendments, the approach of the plan to zoning land

in areas of flood risk was modified in recognition of lands already been zoned in an earlier development plan or planning permission had already been granted for their development, or there were some local ambiguities in the flood risk mapping. Where such zonings were included in the plan, precautionary text was included in the specific objective to highlight the need for a flood risk assessment as part of the development management process. In the smaller settlements which do not have specific zoning objectives, the flood risk areas are protected by the more general development boundary objectives and by objectives in Section One of the Plan.

In the SEA Screening of the Proposed Amendments document the SEA response was to exclude these sites from development boundaries. Although this was the preferred approach of the SEA it is recognised however, that the development in flood risk areas objectives (which have been modified as part of the process and included in site specific objectives) provide an adequate mitigation measure in relation to flooding concerns of these sites.

In relation to biodiversity in general and Natura 2000 sites a number of changes to objectives have been made recognising the importance of the biodiversity of the Local Area Plan as a whole with the inclusion of a number of new objectives LAS 2-2 to 2-4 which firstly ensure the parallel development and implementation of a range of sustainable measures to protect the integrity of the biodiversity of the area while also linking the objectives relating to biodiversity in the County Development Plan 2009 to the Local Area Plan. The SEA process also highlights issues in relation to some settlement specific objectives within or in close proximity to Natura 2000 sites as well as NHAs. With the integration of the SEA and AA process a number of changes have been made to specific objectives relating to settlements while the majority of zonings or development boundaries located within Natura 2000 sites have been removed with the only exception being where a site was zoned for open space and it was considered that retaining this type of zoning was the best means of protecting the biodiversity of the site.

Table 2.1 Summary of Recommendations For Changes Arising From SEA

Amendment/Objective No.	Amendment Ref	Issue	Recommendation from SEA process	Change made to plan arising from SEA process
Paragraph 1.6.4	BN 01.01.01	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
New Objective	BN 01.01.02	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out

Amendment/Objective No.	Amendment Ref	Issue	Recommendation from SEA process	Change made to plan arising from SEA process
Paragraph 1.7.9	BN.01.01.03	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
Replace Paragraph 1.7.10 with new text	BN.01.01.04	Issue Nine in the Environmental Report*	SEA raised concerns in relation to zoning/inclusion of sites within development boundaries.	The inclusion of paragraph 1.7.10 partially addresses the concerns of SEA in the Final Plan.
Replace Paragraph 1.7.12 with new text	BN.01.01.05	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
Amend Paragraph 1.7.13	BN.01.01.06	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
Replace Objective FD 1-4	BN.01.01.07	Change introduced at Amendment Stage. Previous amendment made at Draft Stage.	Screened Out at Proposed Amendment Stage	Screened Out
LAS 2-1	BN.02.02.01	Issue raised at pre draft stage and Issue One in Environmental Report	Included objective in Draft Plan Modify wording of objective.	Inclusion of Objective LAS 2-1 in Draft Plan which was further modified and incorporates HDA recommendations in the Final Plan
LAS 2-2	BN.02.02.02	Issue raised at pre draft stage	Include wording to acknowledge that future projects will be subject to SEA, HDA and EIA	Objective LAS 2-2 included in Draft Plan and wording amended in Final Plan.
LAS 2-3	BN.02.02.03	Issue Two		New objective LAS 2-3 included in Final Plan
LAS 2-4	BN.02.02.04	Issue Two		New objective LAS 2-4 included in Final Plan
U-03 Bandon	BN.03.01.02	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
O-04 Bandon	BN.03.01.03	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
R-09 Bandon	BN.03.01.04	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
R-06 Bandon	BN.03.01.05	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
R-15 Bandon	BN.03.01.06	Change introduced at Amendment	Screened Out at Proposed Amendment Stage	Screened Out

Amendment/Objective No.	Amendment Ref	Issue	Recommendation from SEA process	Change made to plan arising from SEA process
		Stage		
R-10 Bandon	BN.03.01.07	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
R-17 Bandon	BN.03.01.08	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
I-01 Bandon	BN.03.01.09	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
I-02 Bandon	BN.03.01.10	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
B-04 Bandon	BN.03.01.11	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
B-05 Bandon	BN.03.01.12	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
B-06 Bandon	BN.03.01.13	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
U-02 Bandon	BN.03.01.14	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
R-15 Bandon	BN.03.01.15	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
Paragraph 1.4.23 Bandon	BN.03.01.16	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
DB-02(a) Bandon	BN.03.01.17	Insert word 'sustainable' in objective recommended at proposed Amendment Stage.	Amend wording to objective at proposed Amendment Stage	SEA recommendation included in Final Plan
B-07 Bandon	BN.03.01.18	Change introduced at Amendment Stage to extend boundary to B-07	Omit extension to boundary of B-07	SEA recommendation was not incorporated in Final Plan
I-02 Bandon	BN.03.01.19	Change introduced at Amendment Stage to extend boundary to I-02	Omit extension to boundary of I-02	SEA recommendation was not incorporated in Final Plan
B-02 Bandon	BN.03.01.20	Change introduced at Amendment Stage to extend boundary to B-02	Omit extension to boundary of B-02	SEA recommendation was not incorporated in Final Plan

Amendment/Objective No.	Amendment Ref	Issue	Recommendation from SEA process	Change made to plan arising from SEA process
T-04 Bandon	BN.03.01.21	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
B-08 Bandon	BN.03.01.22	Change introduced at Amendment Stage to extend boundary to B-08	Omit extension to boundary of B-08	SEA recommendation was not incorporated in Final Plan
C-02 Kinsale	BN.03.02.01	Change introduced at Amendment Stage to extend boundary to C-02	Omit extension to boundary of C-02	SEA Recommendation was not incorporated in Final Plan
Paragraph 2.4.4 Kinsale	BN.03.02.02	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
B-03 Kinsale	BN.03.02.03	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
DB-02(a) Kinsale	BN.03.02.04	Insert word 'sustainable' in objective recommended at proposed Amendment Stage.	Amend wording to objective at proposed Amendment Stage	SEA recommendation included in Final Plan
Paragraph 2.2.36 Kinsale	BN.03.02.05	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
R-01 Kinsale	BN.03.02.06	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
C-04 Kinsale	BN.03.02.07	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
Paragraph 4.2.12 Belgooly	BN.03.04.01	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
DB-01(b) Belgooly	BN.03.04.02	Increase in number of dwellings provided for the settlement	Omit amendment	SEA recommendation was not incorporated in Final Plan
Paragraph 3.4.12 Ballinspittle	BN.03.03.01	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	None recommended
Paragraph 3.4.17 Ballinspittle	BN.03.03.02	Recommendation to include additional wording in objective C-01	Screened Out at Proposed Amendment Stage	Partially addresses SEA recommendation in Final Plan
DB-01(b) Ballinspittle	BN.03.03.03	Increase in number of dwellings provided for the settlement	Omit amendment	SEA recommendation was not incorporated in Final Plan

Amendment/Objective No.	Amendment Ref	Issue	Recommendation from SEA process	Change made to plan arising from SEA process
B-01 Inishannon	BN.03.05.01	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
DB-02 Inishannon	BN.03.05.02	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
DB-02 (o) Inishannon	BN.03.05.03		Include reference to retention of stone walls	SEA recommendation included in Final Plan
DB-01(b) Inishannon	BN.03.03.04	Increase in number of dwellings provided for the settlement	Omit amendment	SEA recommendation was not incorporated in Final Plan
O-01 Riverstick	BN.03.06.01		Include wording 'to include the protection and improvement of River Stick amenities'	SEA recommendation included in Final Plan
C-01 Riverstick	BN.03.06.02	Issue in relation to septic tank located in flood risk area.	Include wording in relation to septic tank's location in flood risk area and implications of this.	Objective included revised wording in relation to development in flood risk assessment which partially addresses SEA recommendation.
DB-01(b) Riverstick	BN.03.06.03	Increase in number of dwellings provided for the settlement	Omit amendment	SEA recommendation was not incorporated in Final Plan
DB-01 Ballyfeard	BN.03.12.01		Include wording 'to maintain the rural character of the area and protect existing mature trees and hedgerows'	SEA recommendation included in Final Plan
DB-01(h) Garrettstown/Garrylucas	BN.03.17.01	Issue Two and protection of landscape and environmental setting.	Include wording 'to protect the landscape and environmental setting of the settlement and biodiversity of the area.	SEA recommendation included in Final Plan
Paragraph 17.2.9 Garrettstown/Garrylucas	BN.03.17.02	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
DB-01 Tinkers Cross	BN.03.19.01	.	Include wording 'to ensure that development reflects the character of the settlement and does not dominate the wider landscape.	SEA recommendation included in Final Plan
Paragraph 30.4.2 Sandy Cove	BN.03.30.01		Include wording 'avoid development on sensitive coastal locations and discourage large-	SEA recommendation included in Final Plan

Amendment/Objective No.	Amendment Ref	Issue	Recommendation from SEA process	Change made to plan arising from SEA process
			scale holiday accommodation..'	

*Issues identified in the Environmental Report **Issue One** –The Correlation between Population Targets for the Main Towns and Infrastructure **Issue Two**- impacts on Biodiversity **Issue Three**- Provision for individual dwellings in settlements or small scale development in areas without public infrastructure to provide individual treatment systems. **Issue Four**- References to development being served by private schemes or private group water schemes. **Issue Five**- Inclusion of requirement for screening for SEA and AA as part of preparation of Masterplans, Traffic/Transportation Studies, Other Studies and Land use Plans in the specific objective. **Issue six**- References are made to specific roadways and walkways provision which have not been clarified whether have been subject to SEA or AA assessment. **Issue seven**-References made in open space objectives to landscaping and provision of walkways without any wording relation to protection biodiversity etc. **Issue eight**-Waste Management **Issue nine**- Flooding Objectives **Issue ten**-Water Quality tables **Issue Eleven**- Inclusion of Definition of Sustainable **Issue Twelve**-Tourism

Section 3 - Summary of how submissions and consultations were taken into account:

Introduction

This section details how the submissions and observations made on the Environmental Report and SEA process have been taken into account during the preparation of the plan.

SEA Scoping Consultations

Public Consultation regarding the local area plans commenced in January 2010 with the publication of the Outline Strategies and public meetings to facilitate consultation. 76 submissions were received on this pre-draft document mainly relating to zoning issues.

A Scoping Report was then prepared by the Planning Policy Unit in August 2010 which identified the key environmental issues that would be addressed appropriately in the Environmental Report and was sent to the statutory Environmental Authorities.

Five submissions on the Scoping Report were received from the Environmental Protection Agency, Shannon River Basin District, Cork City Council, Development Applications Unit, Department of the Environment, Heritage and Local Government, and Department of Communications, Energy and Natural Resources that related to a number of issues and were taken into account in the preparation of the Environmental Report.

Submissions and Observations on the Environmental Report and Draft Plan

The Bandon Electoral Area Local Area Plan, Public Consultation Draft, was published on the 22nd November 2010 and was made available to the public until the 12th January 2011. 46 submissions were made during the Draft Plan stage. Most of the submissions received were related to specific issues included in the plan itself rather than on the content of the SEA Environmental Report. The submissions received from the Environmental Protection Agency and the Department of the Environment, Heritage and Local Government related to the Environmental Report and on the SEA process. These submissions related to a number of issues and any changes necessitated as a result of the submissions received were reviewed by the SEA team and recommendations were made accordingly.

The following table outlines submissions which related to matters raised in the Environmental Report and the general environmental assessment received from Statutory Bodies. The Manager's Report on the Draft Plan includes a summary of all submissions received.

Table 3.1 Summary of Submissions on the Draft Local Area Plan received from Statutory Bodies

Name of Submitter	Summary of Submission	How this was taken on board
EPA	A comprehensive submission was received from the EPA relating to a) Integration of environmental considerations in the landuse plans, b)General comments on the EALAP Environmental Report c)General	The EPA recommendation informed the SEA Team's recommendations for changes to the Draft Plan which in many cases were incorporated into the Final Plan. Table 2.1 outlines the changes made from the Draft to Final Plan stage

	<p>comments on the EALAP and d) Specific comments on the EALAP. The EPA include a number of key recommendations to be included in the local area plan in the form of policy/objectives. These relate to water quality, drinking water, waste water, fisheries, flooding, biodiversity, groundwater, landscape and master plans.</p> <p>The overall comment relates to the lack of integration of the environmental considerations and recommendations that have been set out in the EALAP Environmental Report and the need to better address and incorporate in the Draft EALAP the implications of infrastructural deficiencies and further development, and associated potential implications of cumulative development on environmental sensitivities and vulnerabilities identified.</p>	
<p>DoEHLG</p>	<p>Submission complements the Council on its approach to setting housing targets in villages, revised zoning categories and definitions, introduction of a clear policy guidance on flooding, incorporating clear guidance on appropriate scale of new residential development and inclusion of the islands into the settlement network.</p> <p>Emphasises the importance of adopting the Core Strategy into CDP by September 2011 and ensuring that LAP's policies (in particular Phasing of development, towns/village growth balance, growth in CASP Ring) are aligned with it.</p> <p>Note that Appropriate Assessment should be undertaken at the draft LAP stage.</p> <p>Need further clarification of how housing and population targets were arrived at. If there is an excessive amount of residentially zoned land then a clear phasing regime or rezoning is required. Need to indicate clearly how the significant turnaround in the growth balance between rural areas and main towns is to be achieved.</p> <p>Guidance is given on what constitutes Archaeological heritage and it is suggested that Recorded and National Monuments should be shown on settlement maps including lines of medieval town walls. Suggest that specific policies and objectives on archaeological heritage should be included in LAP's. Specific comments are made about Architectural Heritage in some LAP's</p>	<p>Many of the recommendations made have been incorporated through amendments to overall and site specific objectives of the plan.</p>

	expressing the need for grater clarity. Changes/additions relating to objectives relating to nature Conservation in some LAP's are proposed.	
OPW	<p>The submission welcomes the approach taken to flooding and recommends a number of changes:</p> <p>Section 1.7.7 - broaden the list of information to include, where applicable, reports or flood maps from localised flood studies. Section 1.7.9 -references to the Draft Indicative Flood Extent Maps should include reference to "three areas of flood risk", including Zone C (low probability of flooding) and that text describing Flood Zone B should reference, where applicable, the implementation of the Justification Test, similar to the text on Zone A.</p> <p>Objective FD1-4 - amend to include reference to the planning principles and the sequential approach and to the avoidance of flood-prone areas when designing the layout of development. Zoning Objectives - amend plans to ensure the planning principles, sequential approach and the justification test is included with each objective. Strengthen wording so that development proposals <i>shall / should be</i> accompanied by an FRA.</p> <p>All settlements - Plan should note than "possible local flood issues should be considered with respect to all sites, with a detailed site-specific flood risk assessment undertaken as appropriate. Submission continues to highlight the need for a consistent approach to the use of the Sequential Approach and the Justification Test (in some areas lands are zoned even through they are almost entirely within both Flood Zones A and B). Justification Test be fully applied to confirm the suitability of such zoned sites.</p>	The recommendations of OPW are incorporated into the Flood Risk Assessment of the electoral area and into the revised wording of site specific objectives.

The submissions received at Draft Plan stage in relation to or relevant to the SEA process were reviewed and discussed and which informed the SEA recommendations of changes to be made to the Draft Plan. Following on from the assessment of submissions received the SEA Team prepared a series of recommendations which were generally in the form of new objectives or additions to wording of existing objectives or deletions of objectives. Some of the matters raised in the submissions received related to issues which were dealt with through the Appropriate Assessment process. Many of the SEA recommendations were incorporated into the Final Plan.

In relation to draft plan stage of the LAP, the Manager's Report 20(3) outlines how the submissions were taken into consideration and make recommendations in relation to proposed changes to the draft plan. It was also referred to in this report that some changes as a result of considerations of submissions required 'non material' changes

which did not require to be part of the proposed amendment for public consultation. A copy of the Manager's Report is published separately.

Submissions and Observations for the Proposed Amendments

10 submissions were received during the public consultation period of the proposed amendments to the Draft Bandon Electoral Area Local Area Plan including two from the Environmental Protection Agency and the Department of the Environment, Heritage and Local Government.

The following table outlines submissions which related to matters raised in the Environmental Report and the general environmental assessment received from Statutory Bodies. The Manager's Report on the Draft Plan includes a summary of all submissions received.

Table 3.2 Summary of Submissions on the Proposed Amendments to the Draft Local Area Plan received from Statutory Bodies

Name of Submitter	Summary of Submission	How this was taken on board
EPA	The submission notes that a number of amendments have potential to conflict with the status of the Environmental Protection Objectives and recommends that the mitigation measures set out in the SEA screening be implemented.	Many of the recommendations from the EPA and the SEA process were incorporated into the Final Plan and are outlined in Table 2.1
OPW	With respect to the consideration of flood risk in the proposed amendments to the Draft LAPs, the OPW notes that areas which, based on the best-available information are indicated as being prone to flood risk, are being proposed (under the amendments) for zoning for development. The OPW does not consider this desirable, noting that it is the intent of the Guidelines on the Planning System and Flood Risk Management (November 2009) to address flood risk within the planning system at the forward planning stage, rather than at the development management stage, and the precautionary approach advocated within the Guidelines would suggest that such sites should not be zoned for development. The OPW does however recognise that there may be localised inaccuracies within the flood maps currently available, and welcome the clear requirement for a flood risk assessment to be undertaken for all sites where the flood maps indicate that the site may be prone to flooding. The OPW strongly urges the council to apply this requirement rigorously, and to ensure that flood risk assessments submitted are carefully audited to ensure that all relevant and available information has been captured, collated and considered, and that the assessment has been undertaken accurately using best-practice methodologies and techniques.	The recommendations of OPW are incorporated into the Flood Risk Assessment of the electoral area and into the revised wording of site specific objectives.

In relation to proposed amendments stage of the LAP, the Manager's Report 20(K) outlines how the submissions were taken into consideration and make recommendations in relation to the proposed amendments. Some of the Manager's

Report Recommendations incorporate SEA considerations while others recommend to proceed with the change. A copy of the Manager's Report is published separately.

Section 4 - Reasons for choosing the plan as adopted, in light of other reasonable alternatives considered.

Introduction

This Section details the alternatives, which were identified and evaluated for likely environmental and planning effects as part of the SEA process for the LAP.

Selecting the Alternative Plan Options

The alternative scenarios that were proposed in the Local Area Plan for the electoral area were provided in the Environmental Report and the preferred strategy from an environmental perspective was 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 were identified where applicable.

During the preparation process of the draft LAP, 3 Scenarios were proposed. These are outlined in details in Chapter 8 of the Environmental Report and the LAP's preferred Scenario (i.e. the Scenario that forms the basis of the draft LAP) has been presented.

The Scenarios

The Scenarios considered were set at the electoral area level rather than having Scenarios for every settlement. In this way the cumulative impact of development and population distribution across the electoral area could be assessed. The SEA scenario assessment was based on these alternative growth scenarios and each of the proposed development options were assessed against the EPO's, types of cumulative effects, the cumulative environmental sensitivity map and individual environmental issues that were identified in the environmental baseline (see table 4.1 below).

For the Bandon Electoral Area, 3 alternative scenarios have been identified that could achieve the objectives set out above and manage the level of growth targeted for the Bandon Electoral Area, as set out in the Cork County Development Plan 2009. The scenarios that were considered in the preparation of the Local Area Plan are as follows;

- High Urban and Modest Rural Growth – this is the scenario wherein a significant proportion of the target growth is concentrated within the principle urban areas within the electoral area with provision included for relatively modest growth in the smaller settlements.
- Low Urban and High Rural Growth- this alternative is to focus growth in the key villages, villages and village nuclei, while limiting the level of growth in the urban areas.
- Amend settlement hierarchy and revise growth in fewer areas in line with infrastructural provision – this alternative is to amend the number of settlements within the electoral area, reducing the number of smaller settlements, and targeting growth in a fewer number of locations where appropriate infrastructure is in place.

Findings of Scenario Evaluation

From an examination of the above scenarios it is considered that **Scenario 2** was the least preferred Scenario from an environmental perspective. **Scenario 1** and 3 are quite similar in that they propose significant population growth in the main urban settlements but both require a substantial amount of funding and infrastructure to reach their targets. Overall the scenario assessment has found that **Scenario 3** was the preferred Scenario from an environmental perspective but there remains serious concerns over the provision of infrastructure in a timely manner to accommodate the proposed population targets. However **Scenarios 1** is the preferred scenario in the LAP thus mitigation measures were outlined in Chapter 8 and 10 of the Environmental Report and as stated in Section 2 of this document a number of changes have been made to address these concerns.

Table 4.1 below outlines the assessment of the Scenarios.

Types of Cumulative Effects								
Cumulative Effects	Affected Receptor				Causes			
Habitat fragmentation	Biodiversity				Use of land for flood management, transport infrastructure and industrial development. Zoning of Greenfield lands			
Climate Change	Air and Climate				Greenhouse gas emissions from industrial development and increases in traffic volumes			
Loss of tranquillity	Population and Human Health				Industrial development and increases in traffic volumes			
Deterioration in drinking water quality	Population and Human Health				Inappropriate wastewater treatment and inappropriate drinking water treatment			
Deterioration in water quality	Water				Inappropriate wastewater treatment			
Loss of agricultural lands	Soils and Geology				Zoning of Greenfield lands			
Loss of natural landscape features	Landscape				Zoning of Greenfield lands. Road infrastructure			
Comparison of Alternatives - Cumulative Effects								
LAP Objective	Possible Cumulative Effects							
	Habitat fragmentation	Climate Change	Loss of tranquillity	Deterioration in drinking water quality	Deterioration in water quality	Loss of agricultural lands	Loss of natural landscape features	COMMENT
Option 1	-	+	-	-	-	0	+	
Option 2	-	-	-	-	-	-	-	Most likely to have significant cumulative effects
Option 3	+	+	0	?	?	+	+	Least likely to have significant cumulative effects
Key: + likely to have no significant effect - likely to have a negative effect 0 neutral ? uncertain								

Section 5 - Monitoring Measures:

Introduction

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 LAP 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.

Cork County Council is thus required to monitor the significant environmental effects arising from the implementation of the LAP. This SEA statement identifies the final proposals for monitoring the LAP (see tables on EPOs & monitoring targets and indicators below). These EPOs, monitoring targets and indicators have been revised/updated based on submissions received, issues raised in AA and from consultation with internal sections of the Council. The primary purpose of monitoring is to cross check significant environmental impacts which arise during the implementation stage against those predicted during the preparation stage of the plan.

Monitoring Methodology:

Indicators and Targets

The monitoring proposals are based around the indicators which were chosen earlier in the process but which now have been refined. These indicators allow quantitative measures of trends and progress over time relating to the Environmental Protection Objectives used in the evaluation. Focus will be given to indicators that are relevant to the likely significant environmental effects of implementing the LAP and existing monitoring arrangements will be used in order to monitor the selected indicators. Each indicator to be monitored is accompanied by targets derived from the relevant legislation and from the advice of bodies consulted.

Monitoring Process:

The monitoring process assesses the progress of environmental components of the Plan and environmental targets through monitoring indicators.

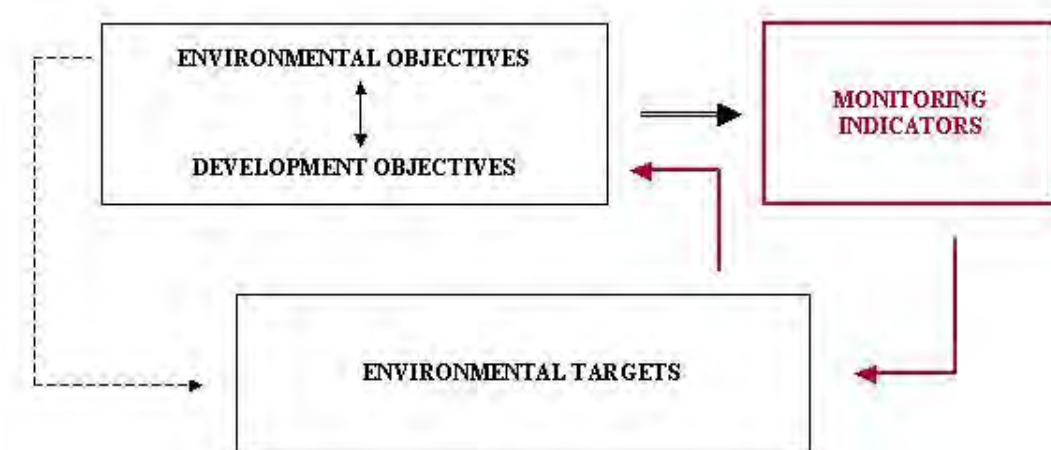


Figure 2

The emphasis in the monitoring of objectives and targets is on those monitoring indicators which are available within Cork County Council.

A dependence on external information may be required in certain areas, however it is difficult to ascertain if this information will become frequently and readily available during the monitoring period. This reality is reflected in the matrix that follows relating to the monitoring indicators.

The monitoring process system can be split into several following stages:

- Collection of data (acquisition)
- Processing the data (analysis of collected data)
- Evaluation and interpretation
- Consideration of consequences (review of Plan policies)

A Geographical Information System (GIS) based monitoring system could be used to monitor and assess the implementation of the plan.

Table 5.1 EPO's, MONITORING TARGETS AND INDICATORS

<i>EPO</i>	<i>ENVIRONMENTAL OBJECTIVE</i>	<i>TARGET</i>	<i>MONITORING INDICATORS</i>	<i>DATA SOURCE</i>	<i>ACCESSIBILITY</i>
B1	Avoid significant adverse impacts (direct, cumulative and indirect) arising from the implementation of this Plan and also protecting the integrity of Protected Sites.	No significant adverse impacts, (direct, cumulative and indirect impacts), to relevant habitats, species or their sustaining resources arising from the implementation of this plan.	Refer to the monitoring protocols of the AA process.	PPU, National Parks and Wildlife Service.	Potentially available within Cork County Council
B2	Protect habitats and species of biodiversity value where these occur outside designated sites.	No net loss of biodiversity through the implementation of this plan.	<p>Number of new developments arising from the implementation of this plan which include SUDS and discharge within, adjacent to or upstream from Natura 2000 sites with water dependant habitats or species.</p> <p>Number of new water abstractions and increases in water abstractions within or upstream from Natura 2000 sites with water dependant habitats or species.</p> <p>Number of wastewater treatments plants which are operating at over capacity and discharge within or upstream from Natura 2000 sites with water dependant habitats or species.</p>	PPU which will be dependent on the development of a monitoring system and the establishment of existing baselines, National Parks and Wildlife Service.	Potentially available within Cork County Council

<i>EPO</i>	<i>ENVIRONMENTAL OBJECTIVE</i>	<i>TARGET</i>	<i>MONITORING INDICATORS</i>	<i>DATA SOURCE</i>	<i>ACCESSIBILITY</i>
S1	To maximise the sustainable re-use of Brownfield lands and the existing built environment, rather than developing Greenfield lands while also protecting agriculturally productive lands.	<p>The ratio of urban housing should not be less than rural housing.</p> <p>Identification of Brownfield lands within the electoral area and the preparation of planning briefs for these lands during the lifetime of the plan</p>	<p>Ratio of urban housing to rural housing during the Plan lifetime (i.e. Ratio of dwellings permitted inside the development boundaries of settlements to dwellings permitted outside the development boundary).</p> <p>Ratio of dwellings permitted inside the development boundaries of Main Towns to dwellings permitted in the Greenbelts of the Main Towns.</p> <p>Number of planning briefs for Brownfield lands prepared during the LAP lifetime</p>	Cork County Council	Potentially available within Cork County Council
<i>EPO</i>	<i>ENVIRONMENTAL OBJECTIVE</i>	<i>TARGET</i>	<i>MONITORING INDICATORS</i>	<i>DATA SOURCE</i>	<i>ACCESSIBILITY</i>
W1	Improve water quality to comply with the standards of the Water Framework Directive	Improvement or at least no deterioration in water quality in rivers, lakes and groundwater.	<p>Achievement of the Status Objectives of the River Basin Management Plans;</p> <p>% increase or decrease in numbers of water bodies at good status compared with the baselines of 2011.</p> <p>% of municipal wastewater</p>	Water Framework Directive; RBD's, EPA, Cork County Council	Dependent on external information. Some information potentially available within Cork County Council

			discharges achieving secondary and tertiary treatment in the electoral area. Q values recorded downstream from existing wastewater treatment plants.		
	To manage zones vulnerable to flooding in a sustainable manner	Avoid development in areas at risk of flooding, particularly floodplains identified in the Local Area Plan, unless there are proven wider sustainability grounds that justify appropriate development and where the flood risk can be reduced or managed to an acceptable level without increasing flood risk elsewhere	Amount of new developments permitted within flood plains; Annual costs of damage related to flood events.	OPW, Cork County Council	Dependent on external information. Some information potentially available within Cork County Council
W2	Protect and improve the status of coastal waters, including enhancing the status of all bathing waters in the electoral area, and the marine environment while taking into account the Action Measures of the Pollution Reduction Programmes of Shellfish Waters	Improve water quality in coastal and transitional waters	Achievement of the coastal and transitional waters status objectives of the Transitional & Coastal Waters Action Programmes and RBD's. % of municipal wastewater discharges achieving secondary and tertiary treatment in the electoral area. Number of Blue Flag Beaches in the electoral area	Water Framework Directive: SWRBD, EPA, Cork County Council	Dependent on external information. Some information potentially available within Cork County Council
EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
A1		To remain within good air quality	Air quality monitoring standards within the County.	EPA	Dependent on external information

	Maintain and where possible improve air quality standards through the reduction of emissions through the promotion of sustainable commuting	standards			
		To increase the number of sustainable cycle friendly measures in the electoral area within the lifetime of the Plan.	Number of cycle friendly measures provided in the electoral area within the lifetime of the Plan.	Cork County Council	Potentially available within Cork County Council
		To increase the number of sustainable walking routes within settlements in the electoral area within the lifetime of the Plan.	Number of walking route provided and constructed within settlements in the electoral area within the lifetime of the Plan.	Cork County Council	Potentially available within Cork County Council
A2	Improve people's quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns;	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
<i>EPO</i>	<i>ENVIRONMENTAL OBJECTIVE</i>	<i>TARGET</i>	<i>MONITORING INDICATORS</i>	<i>DATA SOURCE</i>	<i>ACCESSIBILITY</i>
PH1	Ensure that adequate wastewater infrastructure is in place and promote the sustainable development of new infrastructure	Settlements especially main towns, key villages and villages to be adequately served by a public waste water treatment plant over the lifetime of the LAP.	Number of Wastewater Discharge Licences and Certs granted by EPA for wastewater treatment plants. Number of wastewater treatment plants which are in compliance or are in breach of	EPA, Engineering Section of Cork County Council	Dependent on external information. Some information available within Cork County Council

			Wastewater Discharge Licences and Certs. % of settlements in electoral area which have an appropriate and sustainable municipal wastewater treatment system that is operating in a sustainable manner and is not operating at capacity or over capacity.		
PH2	To maintain and improve the quality of drinking water supplies to comply with regulations and to reduce leakages in existing drinking water infrastructure.	To maintain and improve drinking water quality in the LAP to comply with the requirements of the European Communities (Drinking Water) Regulations and to reduce leakage in existing infrastructure.	Number of occurrences in the EPA's Remedial Action List (RALs) over the lifetime of the LAP. % leakage in existing drinking water infrastructure.	EPA, Environmental Section of Cork County Council	Dependent on external information. Some information available within Cork County Council
<i>EPO</i>	<i>ENVIRONMENTAL OBJECTIVE</i>	<i>TARGET</i>	<i>MONITORING INDICATORS</i>	<i>DATA SOURCE</i>	<i>ACCESSIBILITY</i>

CH1	Promote the protection and conservation of the cultural heritage including Gaeltachtaí, architectural and archaeological heritage;	<p>To maintain the number of Architectural Conservation Areas (ACAs) and structures under the Record of Protected Structures (RPS).</p> <p>To maintain and/or increase the extent of existing Architectural Conservation Areas (ACAs)</p> <p>To increase the number of Architectural Conservation Areas (ACAs) in the electoral area and to extend the Record of Protected Structures (RPS)</p> <p>To maintain the archaeological monuments and their setting of identified in the Sites and Monuments Record (SMR) and the Record of Monuments (RMP).</p>	<p>Number of ACAs and Protected Structures added to the County Development Plan or LAPs.</p> <p>Area and extent of existing Architectural Conservation Areas (ACAs).</p> <p>% of villages that have design statements in the Electoral Area</p> <p>The number of monuments on the Sites and Monuments Record (SMR) and the Record of Monuments (RMP) and their Zones of Archaeological Potentials impacted by development granted planning permission.</p>	<p>Heritage Department of Cork County Council</p> <p>The Archaeological Survey of Ireland's data base; Heritage Unit Cork County Council</p>	Potentially available within Cork County Council
<i>EPO</i>	<i>ENVIRONMENTAL OBJECTIVE</i>	<i>TARGET</i>	<i>MONITORING INDICATORS</i>	<i>DATA SOURCE</i>	<i>ACCESSIBILITY</i>
L1	Protect natural and historic landscapes and features within them in a sustainable manner	Maintain clear urban/rural distinctions To achieve a higher ratio of residential development in settlements compared to residential development	Ratio of urban housing to rural housing during the Plan lifetime (i.e. Ratio of dwellings permitted inside the development boundaries of settlements to dwellings permitted	Cork County Council	Potentially available within Cork County Council

		in areas outside settlement development boundaries	outside the development boundary).		
		Enhance provision of, and access to, green space within the development boundary of Main Towns in the Electoral Area.	Number of passive and active recreational uses (including sporting facilities) that have been provided and made available to public within the development boundary of Main Towns in the Electoral Area over the lifetime of the Plan.	Cork County Council	Potentially available within Cork County Council
M1	To minimise waste production and reduce the volume of waste to landfill and to operate sustainable waste management practices	To promote sustainable waste management infrastructure and practices by increasing the number of bring banks, civic amenity facilities and other recycling and waste reduction facilities provided in the electoral area during the lifetime of the Plan.	The number of bring banks, civic amenity facilities and other recycling and waste reduction facilities provided in the electoral area during the lifetime of the Plan. % landfill waste % of waste recycled % diversion of biodegradable waste from landfill	Environmental Section of Cork County Council	Potentially available within Cork County Council

Appendix One

Screening of Amendments to Draft Plan

Proposed Amendment	<u>No likely</u> interaction with status of EPOs	Likely to improve status of EPOs	Potential <u>Conflict</u> with status of EPOs	Uncertain interaction with status of EPOs	SEA Conclusion
BN.01.01.01	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.01.01.02	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.01.01.03	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.01.01.04	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.01.01.05	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.01.01.06	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.01.01.07	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.02.02.01	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.02.02.02	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out

BN.02.02.03	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.02.02.04	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.02	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.03	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
Proposed Amendment	No likely interaction with status of EPOs	Likely to improve status of EPOs	Potential Conflict with status of EPOs	Uncertain interaction with status of EPOs	SEA Conclusion
BN.03.01.04	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.05	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.06	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.07	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.08	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.09	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.10	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1				Screened

	M1				Out
BN.03.01.11	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.12	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.13	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.14	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.15	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.16	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.17	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
Proposed Amendmen t	<u>No likely</u> interaction with status of EPOs	Likely to improve status of EPOs	Potential <u>Conflict</u> with status of EPOs	Uncertai n interacti on with status of EPOs	SEA Conclusion
BN.03.01.18	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.19	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.01.20	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1				Screened

	M1				Out
BN.03.01.21	B2		B1 W1 W2 PH1 PH2 S1 A1 A2 CH1 L1 M1		Possible environmental effects identified
BN.03.01.22	B2		B1 W1 W2 PH1 PH2 S1 A1 A2 CH1 L1 M1		Possible environmental effects identified
BN.03.02.01	B2		B1 W1 W2 PH1 PH2 S1 A1 A2 CH1 L1 M1		Possible environmental effects identified
BN.03.02.02	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.02.03	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.02.04	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.02.05	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.02.06	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.02.07	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.04.01	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
Proposed Amendment	<u>No likely</u> interaction with status of EPOs	Likely to improve status of EPOs	Potential <u>Conflict</u> with status of EPOs	Uncertain interaction with	SEA Conclusion

				status of EPOs	
BN.03.04.02			B1 W1 W2 PH1 PH2	B2 S1 A1 A2 CH1 L1 M1	Possible environmental effects identified
BN.03.03.01	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.03.02	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.03.03			B1 W1 W2 PH1 PH2	B2 S1 A1 A2 CH1 L1 M1	Possible environmental effects identified
BN.03.05.01	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.05.02	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.05.03	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.05.04			B1 W1 W2 PH1 PH2	B2 S1 A1 A2 CH1 L1 M1	Possible environmental effects identified
BN.03.06.01	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.06.02	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.06.03			B1 W1 W2 PH1 PH2	B2 S1 A1 A2 CH1 L1 M1	Possible environmental effects identified

BN.03.12.01	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.17.01	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
Proposed Amendment	<u>No likely</u> interaction with status of EPOs	Likely to improve status of EPOs	Potential <u>Conflict with</u> status of EPOs	Uncertain interaction with status of EPOs	SEA Conclusion
BN.03.17.02	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.19.01	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out
BN.03.30.01	B1 B2 S1 W1 PH1 PH2 A1 A2 CH1 L1 M1				Screened Out

Mitigation Measures

There are a number of concerns regarding the following amendment reference numbers:

BN.03.01.21, BN.03.01.22, BN.03.02.01, BN.03.02.01. Significant environmental impacts are likely due to:

- a) Concerns over wastewater facilities to deal with additional discharges arising from any future development of these areas
- b) possible negative impacts on water quality resulting from additional wastewater discharges,
- c) may lead to urban sprawl rather than consolidation of the settlement
- d) reduction in agricultural productive soil.

Mitigation Measure: omit amendments BN.03.01.21, BN.03.01.22, BN.03.02.01, BN.03.02.01

There are a number of concerns regarding the following amendment reference number:

BN.03.04.02, BN.03.03.03, BN.03.05.04 and BN.03.06.03 as the number of houses provided for has increased. This will place further pressure on wastewater and drinking water infrastructure and may have possible negative impacts on water quality and human health.

Mitigation Measure: omit amendments BN.03.04.02, BN.03.03.03, BN.03.05.04, BN.03.06.03

Colour pages
to be agreed with printer

Colour pages
to be agreed with printer

Bandon Electoral Area Local Area Plan

Strategic Flood Risk Assessment Final Report

August 2011

Document Verification

Page 1 of 1

Job Title: Bandon Electoral Area Local Area Plan Strategic Flood Risk Assessment						
Document Title: Bandon Electoral Area Local Area Plan Strategic Flood Risk Assessment.						
Document Ref: Strategic Flood Risk Assessment.						
Revision	Date	Filename:				
		Description: This report outlined the process involved in assessing the lands zoned within the Bandon Electoral Area for potential flood risk.				
			Prepared by	Drawn by	Checked by	Approved by
1.0		Name	MR	N/A	PM	AH

Contents

Section 1	Introduction	
1.1	Scope and Objectives	1
1.2	Report Structure	1
1.3	The Planning System and Flood Risk	1
1.4	Definition of Flood Risk	2
Section 2	Local Study Area	
2.1	Introduction: The Bandon Electoral Area	4
2.2	Population and household growth	4
2.3	Environment and Heritage	5
2.4	Infrastructure	6
Section 3	Flood Risk in the Bandon Electoral Area	
3.1	Flooding Data	7
3.2	Sources of Flooding	7
3.3	Fluvial Flooding	8
3.4	Coastal Flooding	9
3.5	Other Sources of Flooding	9
Section 4	Addressing Flood Risk in the Bandon LAP	
4.1	Introduction	10
4.2	Flood Risk Management Strategy	11
4.3	Indicative Flood Extent Maps/Flood Zones A and B	11
4.4	The Approach to Zoning in the Local Area Plan in Areas at Risk of Flooding	16
4.5	Requirements for Site Specific Flood Risk Assessments	20
Section 5	Managing Flood Risk in the Future	
5.1	What has the LAP Achieved	24
5.2	Flood Risk and Development Management	24
5.3	Monitoring and Review	25

Section 1 Introduction

1.1 Scope and Objectives

- 1.1.1 As part of the review of its Electoral Area 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. This assessment provides a broad assessment of flood risk within the county and has informed strategic land-use planning decisions within the local area plan process.
- 1.1.2 The assessment provides for an improved understanding of flood risk issues within the County and includes a series of flood extent maps covering the main settlements. The maps identify the extent of floodplains 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.
- 1.1.3 This report sets out how the Flood Risk Assessment was undertaken, as well as how its findings were addressed and integrated into the Blarney Local Area Plan. The report should be read in conjunction with the Blarney Local Area Plan and the associated maps. The Electoral Area Map, on page iii of the Local Area Plan, identifies the specific areas covered by the Flood Risk Assessment.

1.2 Report Structure

- 1.2.1 Section 2 of this report provides a brief introduction to the Bandon Electoral Area, 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 electoral area and recent flood events.
- 1.2.3 Section 4 will examine how the issue of managing flood risk was addressed in the review of the Bandon Local Area Plan and outlines the main provisions of the adopted strategy.
- 1.2.4 Section 5 will set out what this assessment has achieved in terms of managing the adverse effects of flooding within the Bandon Electoral Area. It will also identify how the flood risk management strategy identified in the local area plan should be reviewed and monitored over the lifetime of the plan.

1.3 The Planning System and Flood Risk

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. The frequency and severity of flooding is likely to increase in the future, due to the effects of climate change.

1.3.1 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 control purposes. For this to be achieved, flood risk must be assessed as early as possible in the planning process.

1.3.2 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".

1.3.3 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 Planning System and Flood Risk Management 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:

Flood risk = Probability of flooding x 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;

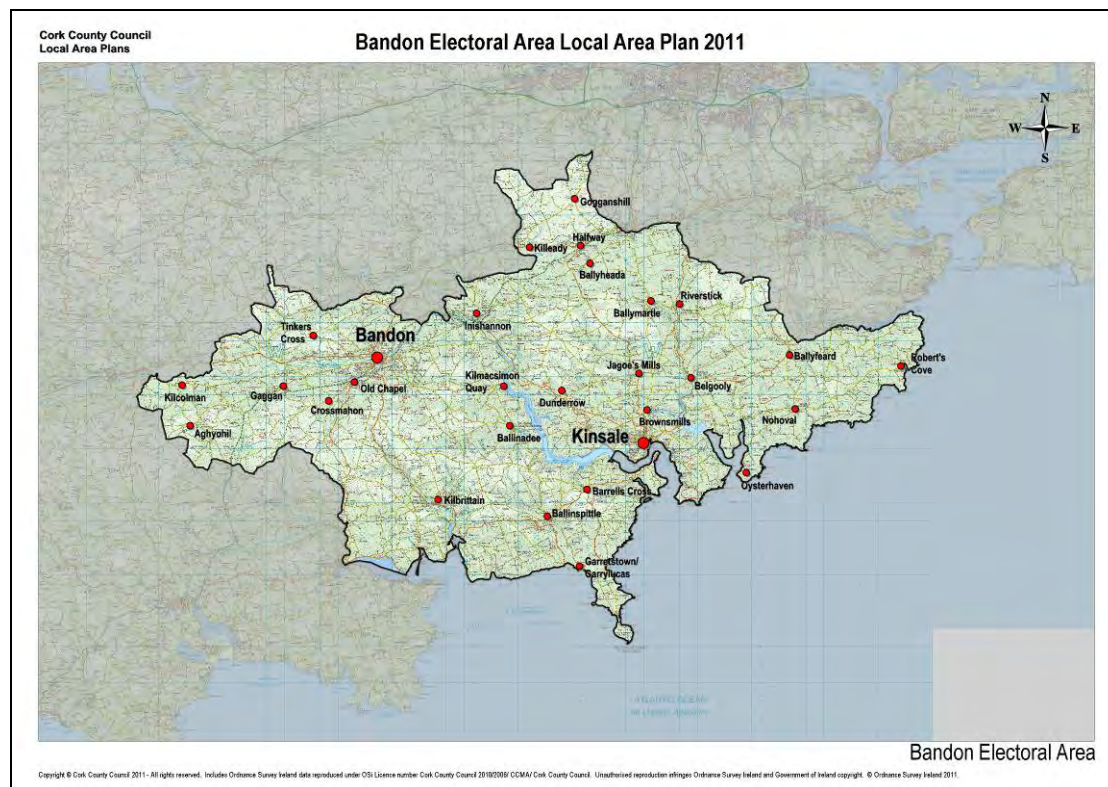
- o **Flood Zone A:** where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding);
- o **Flood Zone B:** where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 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);
- o 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' provides three vulnerability categories, based on the type of development, which are 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 Bandon Electoral Area

2.1.1 The Bandon Electoral Area largely lies within the CASP area and is split between the County Metropolitan Strategic Planning Area (5%), CASP Ring Strategic Planning Area (90%) and the West (5%) Strategic Planning Area. The CASP Update, published in 2008 raised concerns at the high level of growth particularly in the villages and rural areas, at over 14% within the CASP Ring Strategic Planning Area. There are two designated 'Main Towns' in the Bandon Electoral Area, Bandon and Kinsale Environs. These are supported by 4 'key villages', 4 'villages', 9 'village nuclei' and 'other location' settlements.

2.2 Population and Household Growth

2.2.1 The table below shows a population growth target of 3,285 for the Bandon Electoral Area to 2020. The focus for population growth will be the main settlements of Bandon and Kinsale Environs. Bandon has an additional population growth target of 1,557 persons up to 2020, which is approximately 26% of the overall growth envisaged for the Electoral Area. By 2020, if these population targets are achieved 39% of the population of the electoral area will reside within the towns and 61% within the villages and rural areas. Kinsale has a growth target of an additional 10%, focusing on accelerated growth within the town up to 2020.

Table 2.1 Population Target in Bandon Electoral Area 2006-2020			
Settlement Hierarchy Bandon Electoral Area	Population		
	2006	Growth 2006-2020	2020 Target
Bandon	5,822	1,557	7,379
Kinsale	4,099	420	4,519
Villages and Rural	17,287	1,308	18,595
	27,208	3,285	30,493

2.2.2 Table 2.2 outlines the corresponding households based on the above population targets to 2020 and also gives an indication as to the overall requirement of new dwellings in the electoral area as a whole. It is assumed that average household size will continue to fall in line with EU trends and a generous allowance has been made for vacancies in order to accommodate the target population up to 6,390 new dwellings could be required for the period 2006-2020.

Table 2.2 Households Target in Bandon Electoral Area 2006-2020			
Settlement Hierarchy Bandon Electoral Area	Households		
	2006	Growth 2006-2020	2020 Target
Bandon	1,980	1,142	3,122
Kinsale	1,394	555	1,949
Villages and Rural	5,814	3,218	9,032
Total Households	9,188	4,915	14,103
New Dwellings Required		6,390	

2.3 Environment and Heritage

2.3.1 European and National legislation now protect 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 2009 and is shown on the Heritage and Scenic Amenity Maps in Volume 3 in that Plan. Designated sites in the Bandon Electoral Area are detailed in the table below.

Table 2.3 Designated Sites in the Bandon Electoral Area

Code	Description	Natura 2000 Site
pNHA 1034	Bandon Valley West of Bandon	No
pNHA 1740	Bandon Valley above Innishannon	No
pNHA 1037	Bateman's Lough	No
pNHA 1230	Courtmacsherry Estuary	No
pNHA 1515	Bandon Valley below Innishannon	No
pNHA 1053	Garretstown Marsh	No
pNHA 0087	Garrylucas Marsh	No
pNHA 1060	James Fort	No
pNHA 0105	Sovereign Islands	No
cSAC 1230	Courtmacsherry Estuary	Yes
SPA 4124	Sovereign Islands	Yes

2.3.2 In the meantime, Cork County Council recognises the importance of geological heritage and to this end has listed in the County Development Plan 2009 the important geological features within the County with the intention of maintaining their possible conservation value. The list has been produced in consultation with the Geological Survey of Ireland and the Geology Department of the National University of Ireland, Cork. Some of the areas included in the Bandon Electoral Area the list are; Ballyheedy, Ballinspittle and Sandycove to East Toe Head.

2.3.3 In terms of built heritage, there are numerous recorded monuments and protected structures throughout the electoral area and these are detailed in the County Development Plan 2009.

2.4 Infrastructure

2.4.1 There are significant infrastructural deficiencies within the electoral area 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 electoral area are to be achieved. Particular infrastructural improvements will include upgrading of waste water treatment plant facilities and the rolling out of water conservation measures across the Electoral Area.

2.4.2 The National Secondary Route N71 runs through the electoral area.

Section 3 Main sources of Flood Risk in the Bandon Electoral Area

3.1 Flooding Data

3.2.1 In order to provide information about possible flood risks, the County Council, in close association with the OPW, compiled a series of indicative maps showing areas that could be at risk from flooding. To facilitate the preparation of the Bandon Local Area Plan, the maps concentrated on the areas close to recognised settlements. The information about flood risks that has been used in the preparation of this plan has been collated from a number of sources including:

- Draft River Lee Catchment Flood Risk Assessment and Management Study (Lee CFRAMS) commissioned and published by the Office of Public Works. The CFRAM Study for the River Lee Catchment is one of three such studies being carried out as 'pilots' for a national programme of similar studies to be implemented over the coming years. The methodology of the CFRAM Study is based on 'best international practice' for the assessment and management of flood risks and includes data for the fluvial and tidal flood risks in the catchment. It is anticipated that this study will be finalised during early 2011 and that the final outputs of the study can be included in this plan before it is finalised.
- '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 provide flood extent information for river catchments where a more detailed CFRAMS study is not currently available.

3.2.2 In line with advice from the OPW, the County Council has amalgamated the information from these sources into a single 'Draft Indicative Flood Extent Map' for the settlements of this electoral area. The map has been used as the basis for the flood risk assessment of this plan and extracts from it appear on the various maps prepared for the settlements of this electoral area.

3.2 Sources of Flooding

3.2.1. This SFRA has primarily reviewed flood risk from fluvial and coastal 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 risks must be individually assessed at the project stage.

3.2.2. This approach has been adopted for two main reasons. Firstly, the review of flooding in the Blarney Electoral Area shows rivers and coastal flooding to be the most common source of damage. It is these sources of flooding that have been taken account of in the Local Area Plan process. Other sources of flooding are considered to present a lesser risk in this Electoral Area 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. In addition, the SFRA should be based on readily derivable information, and records and indicators for fluvial flood risk are generally more abundant than for other sources of flooding.

3.3 Fluvial Flooding

3.2.1 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. Generally there are two main types of catchments; large and relatively flat or small and steep, the two giving two very different responses during large rainfall events.

3.2.2 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.

3.2.3 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.

3.2.4 Rivers are the primary cause of flooding in the Bandon Electoral Area; with flood events attributed to fluvial sources ranging from the major rivers, including the River Bandon, and the River Stick to the smaller tributaries and drains.

Rivers in the Bandon Electoral Area

3.2.5 There are a number of rivers which flow through settlements in the electoral area which include; Bandon River (Bandon, Innishannon and Kinsale) and the River Stick (Belgooly). The River Bandon, flows in a valley cut in rocks of the Carboniferous Period (about 360 to 300 million

years ago) but covered with glacial drift and alluvium. The river rises in the Maughanaclea Hills in western Cork and flows east to a point west of Caha Bridge where it turns south, before turning east again to the southeast of Dunmanway. It then flows in a broad fertile valley, with woodlands, to Bandon, and loops in an arc past Inishannon, where it flows southeast and then east, becoming an estuary reaching the sea in Kinsale Harbour.

3.4 Coastal Flooding

3.4.1 Coastal flooding, which is caused by higher sea level than normal, largely as a result of storm surge, resulting in the sea overflowing onto the land. Coastal flooding is influenced by the following three factors;

- High tide level
- Storm surges caused by high winds
- Wave action, which is dependant upon wind speed and direction, local topography and exposure

3.5 Other Sources of Flooding

3.4.1 Other sources of flooding including pluvial, ground water, drainage systems and reservoirs are detailed below. Risks from these sources have not specifically addressed in the Flood Risk Assessment undertaken for the Bandon Electoral Area and need to be assessed 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 with 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 significant sections of Cork City.

Section 4 Addressing Flood Risk in the Bandon LAP

4.1 Introduction

4.1.1 This section details the approach to Flood Risk Management adopted in the Bandon Electoral Area Local Area Plan.

4.2 Flood Risk Management Strategy

4.2.1 In preparing its Local Area Plan strategy for the management of flood risks, the Council has had regard to its obligations under the Guidelines and has conferred with officials of the OPW, the lead agency for flood risk management in Ireland, in completing the county wide assessment of flood risks and in formulating the strategy which has informed the preparation the Local Area Plan.

4.2.2 The majority of towns, villages and smaller settlements within the electoral area 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

4.2.3 The approach adopted has generally been to

- Include 'Indicative Flood Extent Maps' to Identify the areas within settlements which are at risk of flooding;
- 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.

4.2.4 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.

4.3 Indicative Flood Extent Maps / Flood Zones A & B

4.3.1 Completion of the county wide flood risk assessment has provided information in relation to the areas at risk of flooding within the settlements and this has been included within the Local Area Plan in the form of 'Indicative Flood Extent Maps' which provide information on three main areas of flood risk:

- 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, and water-compatible development might be considered appropriate in this zone.
- 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.

4.3.2 The inclusion of Draft indicative Flood Extent maps for the settlements of the electoral area is the first step in managing flood risk in the future. 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 will be refined where possible over time as more detailed flood risk assessments are completed by the OPW. The maps do not take into account flood defences or manmade structures such as bridges, weirs or culverts. This is accordance with the requirements of the Guidelines which specify an undefended assessment of risk.

4.3.3 Flood risk to each settlement has been appraised based on the Flood Zones which cross the settlement boundary, and is summarised in Table 4.1. Where settlements are identified as being wholly outside flood zone A or B no further review of fluvial flood risk is required. Where some of the settlement is within either Flood Zone A or B, the need for a further review of flood risk, and the specific zoning objectives, is required.

Table 4.1: Flood Risk by Settlement		
Settlement	Fluvial/Coastal Flood Risk within Development Boundary	Comment
Main Settlements		

Table 4.1: Flood Risk by Settlement		
Settlement	Fluvial/Coastal Flood Risk within Development Boundary	Comment
Bandon	Yes	All development proposals within the Indicative Flood Risk Areas must satisfy the 'Development Plan' justification test for projects in Flood Zone A/B either as part of the preparation of this LAP (see table 4.2) or at the planning application stage. Where the 'Development Plan' justification test is satisfied, site specific Flood Risk Assessment is necessary.
Kinsale Environs	Yes	

Table 4.1: Flood Risk by Settlement		
Settlement	Fluvial/Coastal Flood Risk within Development Boundary	Summary of Provisions of Local Area Plan
Key Villages		
Ballinspittle	Yes	All development proposals within the Indicative Flood Risk Areas must satisfy the 'Development Plan' justification test for projects in Flood Zone A/B either as part of the preparation of this LAP (see table 4.2) or at the planning application stage. Where the 'Development Plan' justification test is satisfied, site specific Flood Risk Assessment is necessary.
Belgooly	Yes	
Innishannon	Yes	
Riverstick	Yes	
Villages		
Ballinadee	Yes	All development proposals within the Indicative Flood Risk Areas must satisfy the
Halfway	Yes	

Table 4.1: Flood Risk by Settlement		
Settlement	Fluvial/Coastal Flood Risk within Development Boundary	Summary of Provisions of Local Area Plan
Kilbrittain	Yes	'Development Plan' justification test for projects in Flood Zone A/B either as part of the preparation of this LAP (see table 4.2) or at the planning application stage. Where the 'Development Plan' justification test is satisfied, site specific Flood Risk Assessment is necessary.
Old Chapel	Yes	
Village Nuclei		
Aghyohill	No	Proceed as zoned in the Local Area Plan
Ballyfeard	Yes	All development proposals within the Indicative Flood Risk Areas must satisfy the 'Development Plan' justification test for projects in Flood Zone A/B either as part of the preparation of this LAP (see table 4.2) or at the planning application stage. Where the 'Development Plan' justification test is satisfied, site specific Flood Risk Assessment is necessary.
Ballyheada	No	Proceed as zoned in the Local Area Plan
Crossmahon	No	Proceed as zoned in the Local Area Plan
Dunderrow	Yes	All development proposals within the Indicative Flood Risk Areas must satisfy the 'Development Plan' justification test for

Table 4.1: Flood Risk by Settlement		
Settlement	Fluvial/Coastal Flood Risk within Development Boundary	Summary of Provisions of Local Area Plan
		projects in Flood Zone A/B either as part of the preparation of this LAP (see table 4.2) or at the planning application stage. Where the 'Development Plan' justification test is satisfied, site specific Flood Risk Assessment is necessary.
Gaggan	No	Proceed as zoned in the Local Area Plan
Garrettstown/Garrylucas	No	
Nohoval	Yes	All development proposals within the Indicative Flood Risk Areas must satisfy the 'Development Plan' justification test for projects in Flood Zone A/B either as part of the preparation of this LAP (see table 4.2) or at the planning application stage. Where the 'Development Plan' justification test is satisfied, site specific Flood Risk Assessment is necessary.
Tinkers Cross	No	Proceed as zoned in the Local Area Plan

4.4 The Approach to Zoning in the Local Area Plan in Areas at Risk of Flooding

4.4.1 Within the areas identified 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, proposals for development within the Indicative Flood Risk Areas have been included in the plan where either:

- The proposal has satisfied the ‘Development Plan Justification Test’ set out in the Ministerial Guidelines;
- The proposals stemmed from a similar proposal 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; or
- In a limited number of cases, for another reason

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 In the preparation of the Bandon 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 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 :

- 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.
- the zoning is required to achieve the proper planning and sustainable development of an urban settlement and is
 1. Essential to facilitate the regeneration and/or expansion of the centre of the urban settlement;
 2. Comprises significant previously developed and/or under-utilised lands;
 3. Is within or adjoining the core of an established or designated urban settlement;
 4. Will be essential to achieving compact and sustainable urban growth; and
 5. 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

- A flood 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.
- 4.4.4 In the preparation of the Bandon Local Area Plan the final element of the justification test, which requires a site specific flood risk assessment to be carried out, was not undertaken. Instead, precautionary text has been included in the specific objective recognising the need for a Site Specific Flood Risk Assessment at the project stage.
- 4.4.5 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. This approach also allows for local ambiguities in the flood risk mapping to be tested at the project stage. Transitional measures have also been included in the Local Area Plan to deal with outstanding planning permissions. Where such zonings are included in the Plan, precautionary text was included in the specific objective to highlight the need for a flood risk assessment at the project stage. Development proposals on zonings 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.
- 4.4.6 The table below lists the specific zoned sites within the Bandon Electoral Area that are located within either Flood Zone A or B and the circumstances of their inclusion.

Settlement	Zoning Objective	Development Plan Justification Test and Other Assessment Criteria	Reason for Inclusion in the LAP	Comment
Bandon	R-04	Justification Test	N/A	-
		Historic Zoning	√	Only a small part of this site is subject to flood risk. Precautionary text has been included in the specific objective recognising the need for a Site Specific Flood Risk Assessment at the project stage.

Table 4.2 Specific land Use Zonings located within Flood Zone A or B				
Settlement	Zoning Objective	Development Plan Justification Test and Other Assessment Criteria	Reason for Inclusion in the LAP	Comment
		Other	n/a	-
	T-01 T-02 T-03 T-04	Justification Test	√	Precautionary text has been included in the specific objective recognising the need for a Site Specific Flood Risk Assessment at the project stage.
		Historic Zoning	n/a	-
		Other	n/a	-
	X-01	Justification Test	√	Only a small part of this site is subject to flood risk. Precautionary text has been included in the specific objective recognising the need for a Site Specific Flood Risk Assessment at the project stage.
		Historical Zoning	n/a	-
		Other	n/a	-
Kinsale Environs	C-03	Justification Test	n/a	-
		Historical Zoning	√	Only a small part of this site is subject to flood risk. Precautionary text has been

Table 4.2 Specific land Use Zonings located within Flood Zone A or B				
Settlement	Zoning Objective	Development Plan Justification Test and Other Assessment Criteria	Reason for Inclusion in the LAP	Comment
				included in the specific objective recognising the need for a Site Specific Flood Risk Assessment at the project stage.
		Other	n/a	-
Ballinspittle	C-01	Justification Test	n/a	-
		Historical Zoning	√	Precautionary text has been included in the specific objective recognising the need for a Site Specific Flood Risk Assessment at the project stage.
		Other	n/a	-
Riverstick	C-01	Justification Test	n/a	-
		Historical Zoning	√	Part of this site is subject to flood risk. Precautionary text has been included in the specific objective recognising the need for a Site Specific Flood Risk Assessment at the

Table 4.2 Specific land Use Zonings located within Flood Zone A or B				
Settlement	Zoning Objective	Development Plan Justification Test and Other Assessment Criteria	Reason for Inclusion in the LAP	Comment
				project stage.
		Other	n/a	-
Oldchapel	B-01	Justification Test	n/a	-
		Historical Zoning	√	Only a small part of this site is subject to flood risk. Precautionary text has been included in the specific objective recognising the need for a Site Specific Flood Risk Assessment at the project stage.
		Other	n/a	-

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.

4.5 Requirements for Site Specific Flood Risk Assessments

4.5.1 Within Indicative Flood Risk Areas, only development proposals that are consistent with a specific zoning objective that satisfied the 'Development Plan Justification Test' as part of this LAP (see table 4.2) may proceed to site specific flood risk assessment at the planning application stage. All other proposals on land that does not benefit from a specific objective (such as land within a development boundary), where the specific objective was brought forward from a

previous plan or where the proposal was included in this LAP for another reason must satisfy the 'Development Plan Justification Test' at the planning application stage. Table 4.2 provides detailed guidance.

- 4.5.2 In order to reflect the possibility that the 'Indicative Flood Extent Maps' may inevitably include some localised uncertainties, the site-specific flood risk assessment process is divided into two stages. The initial stage in the process has been provided in order to allow the Indicative Flood Risk Map to be locally verified in cases of uncertainty. This stage is intended to be carried out relatively quickly and at modest expense.
- 4.5.3 The first stage in the assessment process will include:
- 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.
 - 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:
 - further study;
 - revision of proposals to avoid area shown 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 to be not at flood risk).
- 4.5.4 It is recommended that intending applicants for planning permission should carry out this first stage of the site-specific flood risk assessment 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.
- 4.5.5 Where the first stage of the site-specific flood risk assessment indicates further study is required then, if the 'Development Plan Justification Test' was satisfied as part of the making of this LAP (see table 4.2) the normal course of action will be to carry out a detailed site specific

flood risk assessment in line with Chapter 5 of the Ministerial Guidelines before an application for planning permission can be considered. If the 'Development Plan Justification Test' was not satisfied as part of this LAP, then it will normally be considered inappropriate to take the proposal to a further stage of assessment unless the County Council has indicated in writing that the proposal is considered to satisfy that test.

- 4.5.6 Where the County Council have indicated in writing that they are in agreement with any proposals for avoidance or that the initial study shows satisfactorily that the site is not at risk of flooding then, subject to other proper planning considerations, an application for planning permission may be favourably considered.
- 4.5.7 Where it can be satisfactorily shown in the detailed site-specific flood risk assessment 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.
- 4.5.8 However, where the site does **not** benefit from a specific zoning objective and there are significant residual flood risks to the proposed development or its occupiers, conflicting with the approach recommended in the Ministerial Guidelines, it is unlikely that permission will be granted unless all of the following are satisfied:
- The proposal is within an urban settlement, targeted for growth under the National Spatial Strategy, regional planning guidelines, and statutory plans (including this local area plan).
 - The development of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:
 - Is essential to facilitate 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 in achieving compact and sustainable urban growth; and
 - There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.

Section 5 Flood Risk in the Future

5.1 What has the LAP Achieved

5.1.1 The inclusion of Draft indicative Flood Extent maps for the settlements of the electoral area 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 Flood Risk and Development Management

5.2.1 The following key requirements for the management of development in areas at risk of flooding shall be adhered to:

- a) All development proposals within, or incorporating, areas at risk of flooding are required to undertake a flood risk assessment. This can be carried out in two stages as outlined in section 4.5 of this document.
- b) Where the first stage of the site-specific flood risk assessment indicates further study is required then the normal course of action will be to proceed to a Stage Two Strategic Flood Risk Assessment. The findings of this assessment will need to demonstrate that the proposed development satisfies all the provisions of the Development Management Justification Test, as detailed in the Guidelines.
- c) 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.
- d) 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.
- e) 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.
- f) 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.
- g) 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 conveyancing 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.
- h) 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.

5.3 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 information on Flood Risk		
Data	Source	Timeframe
Preliminary flood risk maps - including pluvial and groundwater	OPW under the Floods Directive	2013
CFRAM Studies a) Preliminary Flood Risk Assessment b) Production of the flood maps c) Production of Flood Risk Management Plans	OPW	a) End 2011 b) 2013 c) 2015
County Development Plan Updates	Cork County Council	2015
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 Electoral Area Local Area Plans	Cork County Council	Upon LAP review
SFRAs for Town Plans	Cork County Council / Town Councils	Upon Plan review
Detailed FRAs	Various	Unknown
Flood Defence Feasibility / Design Reports	OPW primarily	Unknown



www.corkcoco.ie