

**MALLOW 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**

Mallow Electoral Area Local Area Plan

August 2011

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Habitats Directive Assessment Natura Impact Report
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Habitats Directive Assessment
Natura Impact Report

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1 Introduction

1.1 Preamble

1.1.1 Cork County Council has recently prepared the Mallow 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 Mallow 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, (Natura Impact Report (I) on the draft Mallow Electoral Area 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 of 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 of 30th/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 the draft Mallow 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) on proposed amendments to the draft Mallow EA Local Area Plan), 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/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

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.

recommendations were contained in the Managers Report of June 15th 2011, Council members voted on the recommendations contained in the Managers Report on July 25th 2011. All of the recommendations for changes to the plan arising from the HDA process were accepted in full by Cork County Council and were integrated into the final draft of the Local Area Plan.

1.1.5 This is the final Natura Impact Report for the Mallow Electoral Area Local Area Plan, 2011. It summarises how all of the recommendations arising from the initial Natura Impact Reports, and how ecological considerations generally, have been integrated into the Local Area Plan. It also contains the details of the monitoring measures which will be implemented to ensure that the undertakings in relation to the protection of the Natura 2000 network, as set out in the Local Area Plan, are met. Finally the report contains the **AA Conclusion Statement** which finds that, subject to a number of changes to text, objectives, settlement boundaries and zonings, which have been accepted by Council and are contained in the final plan, 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 Mallow Electoral Area Local Area Plan 2011.

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 appropriate assessment process is set out in **Appendix I** of this report.

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 a 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 has been 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 appropriate 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 Mallow 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 proposed 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 Mallow 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

The Mallow Electoral Area is split between two strategic planning areas, the CASP Ring Strategic Planning area which includes Mallow, Watergrasshill, Dromahane, Bweeng, Burnfort, Glantane, Lombardstown, Ballyclough, Mourneabbey, Laharn Corss Roads, Gortroe and Old Twopothouse, and the North Strategic Planning Area which includes Buttevant, Doneraile, Shanballymore, Castletownroche, Killavullen, Churchtown, Liscarroll, Newtwopothouse, Cecilstown, Lyre, Ballyhass, Lisgriffen and Nad. This section of the plan sets out the overall strategy for Mallow 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:

- Encourage balanced population growth so that the main towns can achieve their full economic potential;
- Mallow will continue to be the main centre of employment within the electoral area in the future given its status as a 'hub' town on the Atlantic Corridor and an integrated employment centre and has a target jobs growth of approximately 5,000.
- Develop Buttevant as a district employment centre;
- In order to deliver the population and housing targets identified in this plan, significant expenditure is required in water services infrastructure in practically all of the settlements. The strategy of this plan is to prioritise investment in the

main towns, where future demand for housing is likely to be high, investment should be prioritised in the key villages as they offer a rural housing choice to a wider catchment and they have schools and other services.

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 Mallow and Buttevant, three key villages Castletownroche, Doneraile and Watergrasshill, thirteen villages Ballyclogh, Bweeng, Burnfort, Cecilstown, Churchtown, Dromahane, Glantane, Killavullen, Liscarroll, Lombardstown, Lyre, Newtwopothouse and Shanballymore and eight village nuclei and other small settlements within the electoral area.

3.2 Habitats Directive Assessment of the 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 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 one Special Protection Area 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 Mallow EA Local Area Plan

Natura 2000 sites	Site Code	Habitats for which these are designated	Species for which these are 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.		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.
Ballyhoura Mountains SAC	2036	North Atlantic Wet Heaths with <i>Erica tetralix</i> ; European dry heath; Blanket bog and active blanket bog.		Habitats: Streams; Rocky outcrops; Species: Hen Harrier; Peregrine Falcon.	Habitats and Species: Pressure for development of wind energy projects; afforestation.
Carrigeenamronety Hill SAC	2037	n/a	Killarney Fern	Habitats: Rocky outcrops; Heath.	Habitats and Species: Pressure for afforestation.

Natura 2000 sites	Site Code	Habitats for which these are designated	Species for which these are designated	Other species and habitats of note occurring within the site	Potential Threats
Blackwater River (Cork/Waterford) SAC	2170	Mudflats and sandflats not covered by seawater at low tide; Perennial vegetation of stoney banks; Salicornia and other annuals colonising mud and sand; Atlantic salt meadows; Mediterranean salt meadows; Water courses of plain to maintane levels with the Ranunculion fluitantis and Callitricho - batrachion vegetation; Alluvial forest with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ; Old sessile oak woodlands with <i>Ilex</i> and <i>Blechnum</i> ; <i>Taxus baccata</i> woods.	Freshwater pearl mussel; White clawed crayfish; Sea lamprey; Brook lamprey; River lamprey; Twaite shad; Atlantic salmon; Otter.	Habitats: Wet woodland; Dry woodland; Freshwater marsh; Wet grassland; Shingle Spit. Species: Toothwort; Summer Snowflake; Flowering Rush ; Common Calamint; Red Campion; Sand Leek; Wood Club-rush.	Habitats and Species: Aquaculture; Fishing; Coastal development; Activities which could cause water pollution including waste water discharges and water abstractions; Bait digging; Land reclamation; Coastal protection works; River bank protection works; Spread of invasive species; Infilling; Development pressure within the river catchment causing habitat loss; Woodland clearance; Invasive species encroachment; Sub-optimal grazing. Species: Fish and invertebrates: All activities which could impact on water quality; Otter: Disturbance to river banks.
Kilcolman Bog SPA	4095	n/a	Shoveler	Species: Whooper swan; Teal; Wetland and Waterbirds. Habitats: Fen; Freshwater Marsh; Bog; Wet grassland.	Site is managed for nature conservation, no known threats.

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). Policies which could give rise to impacts which were considered include:

- policies promoting development which would give rise to habitat loss within Natura 2000 sites – ie 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 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. Of the Natura 2000 sites which were screened, significant impacts were objectively ruled out for three Special Areas of Conservation and for Kilcolman Bog Special Protection Area. However, potentially significant impacts could not be ruled out for the Blackwater River Special Area of Conservation. This site was brought forward for appropriate assessment and recommendations for alterations to policies, settlement boundaries and zonings were made to offset potential impacts on habitats or species for which this site is designated, and on the overall integrity of the SAC.

3.2.4 A number of proposed policies and zonings were identified which could have a negative impact on the Blackwater River Special Area of Conservation. These included policies which could give rise to negative impacts on water quality or give rise to flooding, by providing for development in areas where there is insufficient capacity to treat current or projected population targets, or attenuate additional surface water flows at Buttevant, Castletownroche, Doneraile, Burnfort, Bweeng, Cecilstown, Dromohane, Glantane, Killavullen, Liscarroll, Lombardstown, Lyre, New Twopothouse, Shanballymore, Ballyhass, Gortroe, Laharn Cross, Mourneabbey and Old Twopothouse; the overlapping of settlement boundaries with designated sites at Killavullen and Lombardstown; business, industrial, residential and amenity zonings adjacent to the Special Area of Conservation in Buttevant, Castletownroche, Doneraile and Killavullen; and proposals for development of an amenity walk within the Blackwater River Special Area of Conservation in Buttevant.

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 Mallow EA Local Area Plan for full details).

Site Name	Potential Impacts	Other Plans Which Could Give Rise to Potential Cumulative Impacts on Natura 2000 sites
Great Island Channel SAC	None identified	n/a
Carrigamronety Hill SAC	None identified	n/a
Blackwater River SAC	<p>Potential impacts on water quality in Blackwater River and its tributaries arising from proposed increases in populations in the settlements of Buttevant, Castletownroche, Doneraile, Burnfort, Bweeng, Cecilstown, Churchtown, Dromohane, Glantane, Killavullen, Liscarroll, Lombardstown, Lyre, New Twopothouse, Shanballymore, Ballyhass, Gortroe, Laharn Cross, Mourneabbey and Old Twopothouse where there is insufficient capacity to treat waste water from current and/or target populations.</p> <p>Potential for downstream flooding/hydrographic peaks arising from increased storm and surface water inputs caused by development provided for in the plan, in particular in settlements located on or adjacent to the river and within zones that are adjacent to the SAC.</p> <p>Settlement boundaries within or adjacent to Natura 2000 sites at Killavullen and Lombardstown – could give rise to impacts on habitats, water quality and increased flood risk potential;</p> <p>Business, industrial, residential and open space zonings adjacent to the Special Area of Conservation which could give rise to impacts on water</p>	<p>This electoral area contains two water management units both within or influencing the Blackwater River Special Area of Conservation. These are the main channel of the Blackwater River and the Blackwater Awbeg Water Management Unit.</p> <p>The Blackwater River WMU has been assigned moderate water quality status, while the tributaries range from high to poor status. The Awbeg River which forms part of the Blackwater River Special Area of Conservation has been assigned poor water quality status while tributaries range from high to moderate status.</p> <p>Additional pressure on water quality in this SAC arises from urban and rural development provided for in the Cork County Development Plan 2009, the Kerry County Development Plan 2009, the Waterford County Development Plan 2010, the Lismore Local Area Plan 2007-2013, as well as the in the Kanturk, Fermoy and Midleton Electoral Area Local Area Plans 2011, the Mallow Special Local Area Plan, 2007, and the Mallow 2010, Midleton (in draft), Fermoy</p>

Site Name	Potential Impacts	Other Plans Which Could Give Rise to Potential Cumulative Impacts on Natura 2000 sites
	<p>quality and increased flood risk potential;</p> <p>Proposed amenity walk within the SAC at Buttevant which could give rise to disturbance to species.</p>	<p>2010 and Youghal 2009 Town Plans (9% of P input is from waste water treatment plants in the catchment, while over 50% of septic tanks (8,586) are located in areas of very high or extreme risk (South Western Region River Basin Management Plan, 2010).</p> <p>Other key pressures in the catchment which contribute to cumulative impacts on water quality are agriculture (69% P inputs, 35 waterbodies in catchment at risk), forestry (7% P inputs and 42 waterbodies in catchment at risk of eutrophication and siltation), quarries (12), landfills (13) and mines (1), (South Western Region River Basin Management Plan, 2010). Two water bodies within the catchment are at risk arising from abstractions.</p> <p>Key pressures in its catchment which contribute to cumulative impacts on the river are agriculture (80% P input, 8 waterbodies in catchment at risk), forestry (7% P input, 2 water bodies at risk from suspended solids and eutrophication), waste water treatment plants with insufficient capacity or that are otherwise non compliant at Buttevant, C'townroche, Churchtown, Doneraile, Liscarroll and Shanballymore.</p>
Ballyhoura Mountains SAC	None identified	n/a
Kilcolman Bog SPA	None identified	n/a

3.2.5 All of the recommendations made for changes to policies, settlement boundaries and zonings arising out of the Appropriate Assessment process were put before Cork County Council in the *Report to Members, Mallow 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.

3.2.6 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 Mallow EA Local Area Plan*, (February, 2011). The proposed amendments to the plan are set out in the *Mallow Electoral Area Local Area Plan, Proposed Amendment to the Draft Plan, Public Consultation Document* (April, 2011).

Table 3.3 Summary Of Recommendations For Changes Arising From Appropriate Assessment Of Draft Plan (wording changes for policies are set out in **bold).**

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
GB 1-1	MW 01.10.02	(b) It is an objective to reserve generally for use as agriculture, open space or recreation uses those lands that lie in the immediate surroundings of towns.	Modify wording of objective.	(b) It is an objective to reserve generally for use as agriculture, open space or recreation uses those lands that lie in the immediate surroundings of towns. Where Natura 2000 sites occur within greenbelts, these shall be reserved for uses compatible with their nature conservation designation.
LAS 1	MW 02.02.03	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	Modify 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 Natura 2000 sites with water dependent habitat or species. This must be provided and be operational in advance of the commencement of any discharges from the all residential from development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				<p>receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) will be required for all developments discharging within or upstream from Natura 2000 sites with water dependant habitats or species.</p> <p>Any new or increased water abstractions from within the Blackwater River Special Area of Conservation will need to be supported by an Appropriate Assessment.</p>
LAS 3	MW 02.02.04	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 range of sustainable measures to protect the integrity of the biodiversity of the area.	Modify wording of objective.	This plan, and individual projects based on the plans proposals, will be subject (as appropriate) to Strategic Environmental Assessment, Habitats Directive Assessment Screening and/or Assessment (Habitats Directive and Birds Directive) and Environmental Impact Assessment to ensure the parallel development and implementation of a range of sustainable measures to protect the integrity of the biodiversity of the area.
LAS 4	MW 02.02.05	N/A	Insert new objective.	It is an objective to provide protection to all proposed

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				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 5	MM 02.02.06	N/A	Insert new objective.	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.
Buttevant DB-02	MW 03.01.05	In order to secure the population growth and supporting development proposed in DB-01, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development.	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01, appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of the Blackwater River Special Area of Conservation, must be provided and be operational in advance of the commencement of any discharges from the development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this area.
Buttevant DB-06	MW 03.01.06	The Awbeg River which runs through the town and forms part of the Blackwater River Candidate Special Area of Conservation, a designated Natura 2000 site. This plan seeks to protect the integrity of this site.	Modify wording of objective	The Awbeg River which runs through the town and forms part of the Blackwater River Candidate Special Area of Conservation, a designated Natura 2000 site. This plan will protect the favourable conservation status of this site. Development proposals in areas adjacent to the SAC may require the provision of a Natura Impact Statement and can only proceed where it can be shown that it will not have significant impacts on the Blackwater SAC. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this area.
Buttevant B-01	MW 03.01.07	These lands are suitable for small to medium scale industrial uses, light industry and incubator units and small to medium scale warehousing and distribution uses.	Modify wording of objective	These lands are suitable for small to medium scale industrial uses, light industry and incubator units and small to medium scale warehousing and distribution uses. This area is immediately adjacent to the Blackwater River SAC. Development proposals must provide for stormwater attenuation and may require the provision of an ecological impact

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				assessment report (Natura Impact Statement) in accordance with the requirements of the Habitats Directive. A buffer zone will be required and shall be retained between any development proposed for this area and the Special Area of Conservation. The size of the buffer zone will be determined at project level.
Buttevant B-02	MW 03.01.08	Business Uses	Modify wording of objective	Business uses. Development proposals in this area must provide for stormwater attenuation.
Buttevant C-01	MW 03.01.09	To provide for the provision of a new secondary school and ancillary uses	Modify wording of objective	To provide for the provision of a new secondary school and ancillary uses. These lands are immediately adjacent to the Blackwater River SAC. Development proposals must provide for stormwater attenuation and may require the provision of an ecological impact assessment report (Natura Impact Statement) in accordance with the requirements of the Habitats Directive. A buffer zone will be required and shall be retained between any development proposed for this area and the Special Area of Conservation. The size of the buffer zone will be determined at project level.
Buttevant	MW 03.01.10	Development and maintain pedestrian	Modify wording of objective	Development and maintain pedestrian route and provide

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
U-01		route and provide access across the river, at an appropriate location, to the public open space on the eastern side of the river.		access across the river, at an appropriate location, to the public open space on the eastern side of the river. The proposed walkway is located within the Blackwater River SAC. River crossings and future upgrade of the pathway could have an impact on water quality and/or cause disturbance to Otter and will require the provision of an ecological impact assessment report (Natura Impact Statement) in accordance with the requirements of the Habitats Directive and may only proceed where it can be shown that they will not have significant negative impact on the SAC. A buffer zone may be required along some parts of the walk to prevent disturbance to habitats or species. The size and location of the buffer zone will be determined at project level.
Buttevant 0-01	MW 03.01.11	Playing pitches and clubhouse	Modify wording of objective	Playing pitches and clubhouse. This area is immediately adjacent to the Blackwater River SAC. Development proposals must provide for stormwater attenuation and may require the provision of an ecological impact assessment report (Natura Impact Statement) in accordance with the requirements of the Habitats Directive. A buffer zone will be required and shall be

Obj No.	Amendment Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				retained between any development proposed for this area and the Special Area of Conservation. The size of the buffer zone will be determined at project level.
Buttevant 0-06	MW 03.01.12	Develop a town park linking with pedestrian route on west side of river. Parts of this site are at risk of flooding. Any development proposals on this site will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines 'The Planning System and Flood Risk Management' as described in objectives FD 1-4, 1-5 and 1-6 in section 1 of this plan.	Modify wording of objective	Develop a town park linking with pedestrian route on west side of river. The proposed park is located within the Blackwater River SAC and is suitable only for uses that are compatible with the conservation objectives of the SAC. Proposals for the development of the park will require the provision of an ecological impact assessment report (Natura Impact Statement) in accordance with the requirements of the Habitats Directive and may only proceed where it can be shown that they will not have significant negative impact on the SAC.
Castletown-roche DB-01(b)	MW 03.02.01	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01 a, appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of Blackwater River Special Area of Conservation, must be provided and be operational in advance of

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
		in tandem with the development.		the commencement of any discharges from the development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this settlement.
Castlet own-roche 0-01	MW 03.02.02	Passive open space. This prominent site makes a significant contribution to the rural character of the town and the setting of the old Bridge Mill in particular. The Mill currently operates as an Enterprise Centre	Modify wording of objective	Passive open space. This prominent site makes a significant contribution to the rural character of the town and the setting of the old Bridge Mill in particular. The Mill currently operates as an Enterprise Centre. This area lies within the Blackwater River Special Area of Conservation and is not suitable for development.
Doner aile DB-01(c)	MW 03.03.02	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01, appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of the Blackwater River Special Area of Conservation, must be provided and be operational in advance of the commencement of any discharges from the

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for all developments within this settlement.
Doner aile DB-01(I)	MW 03.03.03	The Awbeg River which through the village and forms part of the Blackwater River Candidate Special Area of Conservation, a designated Natura 2000 site. This plan seeks to protect the integrity of this site.	Modify wording of objective	The Awbeg River runs through the village and forms part of the Blackwater River Candidate Special Area of Conservation, a designated Natura 2000 site. This plan will protect the favourable conservation status of these sites, and all new development shall be designed to ensure the protection and enhancement of biodiversity generally.
Doner aile X-01	MW 03.03.04	Lands are to remain predominantly open and rural in character. Limited potential for individual dwellings, at very low density, subject to a single agreed landscaping based scheme for all the lands with detailed provision for retaining existing trees and on-site features. Any future development is dependent upon the provision of an	Modify wording of objective	Lands are to remain predominantly open and rural in character. Limited potential for individual dwellings, at very low density, subject to a single agreed landscaping based scheme for all the lands with detailed provision for retaining existing trees and on-site features. Any future development is dependent upon the provision of an adequate access and must have regard to the surrounding woodland and

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
		adequate access and must have regard to the surrounding woodland and scenic setting of Doneraile		scenic setting of Doneraile. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for the development.
Doneraile 0-01	MW 03.03.05	<p>Open Space - Doneraile Court and Demesne (Forest Park). Protect the open space and amenity value of these lands.</p> <p>Parts of this site are at risk of flooding. Any development proposals on this site will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines 'The Planning System and Flood Risk Management' as described in objectives FD 1-4, 1-5 and 1-6 in Section 1 of this plan.</p>	Modify wording of objective	<p>Open Space - Doneraile Court and Demesne (Forest Park). Protect the open space and amenity value of these lands.</p> <p>Parts of this site are at risk of flooding. Any development proposals on this site will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines 'The Planning System and Flood Risk Management' as described in objectives FD 1-4, 1-5 and 1-6 in Section 1 of this plan. Parts of this zone are within the Blackwater River Special Area of Conservation. These areas are not suitable for development. Proposals for the development of areas within this zone not within the SAC may require a buffer zone and are likely to require the provision of an ecological impact assessment report (Natura Impact Statement) in accordance with the requirements of the Habitats Directive. Such developments may only proceed where it can be shown that they will not have significant negative impact on the SAC.</p>

Obj No.	Amendment Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
Doneraile 0-03	MW 03.03.06	Open Space – Golf Course and ancillary facilities. Parts of this site are at risk of flooding. Any development proposals on this site will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines ‘The Planning System and Flood Risk Management’ as described in objectives FD 1-4, 1-5 and 1-6 in Section 1 of this plan	Modify wording of objective	Open Space – Golf Course and ancillary facilities. Parts of this site are at risk of flooding. Any development proposals on this site will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines ‘The Planning System and Flood Risk Management’ as described in objectives FD 1-4, 1-5 and 1-6 in Section 1 of this plan. This area is immediately adjacent to the Blackwater River Special Area of Conservation. Any proposals for development within this zone must provide for the protection of water quality and are likely to require the provision of an ecological impact assessment report (Natura Impact Statement) in accordance with the requirements of the Habitats Directive. Such developments may only proceed where it can be shown that they will not have significant negative impact on the SAC. Development in this zone may require the maintenance of a buffer zone to protect the SAC.
Burnfort DB-01(c)	MW 03.06.01	In order to secure the population growth and supporting development proposed in (a) above,	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01, appropriate and sustainable

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
		appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development		water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of Blackwater Special Area of Conservation, must be provided and be operational in advance of the commencement of any discharges from the development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this area.
Bween g DB-01 (c)	MW 03.07.01	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01, appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of the Blackwater River Special Area of Conservation, must be provided and be operational in advance of the commencement of any discharges from the development. Waste water infrastructure must be capable of treating

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				<p>discharges to ensure that water quality in the receiving river does not fall below legally required levels and that there is no net increase in Phosphorous within the freshwater system. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this area.</p> <p>A wastewater and stormwater plan will be produced during the lifetime of the plan for towns and villages in the catchment of the Munster Blackwater upstream of Mallow to identify and implement the measures necessary to protect this river and its dependant habitats and species. All new development within this settlement must be compliant with this plan.</p>
Cecilstown DB-01 (c)	MW 03.08.01	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01, appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of the Blackwater River Special Area of Conservation, must be provided and be operational in advance of the commencement of any

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
		development		discharges from the development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this area.
Churchtown DB-01 (c)	MW 03.09.02	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01, appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of the Blackwater River Special Area of Conservation(Awbeg), must be provided and be operational in advance of the commencement of any discharges from the development. In particular issues relating to dilution capacity of the receiving waters must be resolved for this settlement. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS)

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				and sufficient storm water attenuation will be required for developments within this area.
Dromahane DB-01	MW 03.10.01	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development	Modify wording of objective	<p>In order to secure the population growth and supporting development proposed in DB -01 (a) ,appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of Blackwater River Special Area of Conservation, must be provided and be operational in advance of the commencement of any discharges from the development.</p> <p>Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels and that there is no net increase in Phosphates within the freshwater system. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this area.</p> <p>A wastewater and stormwater plan will be produced during the lifetime of the plan for towns and villages in the catchment of the Munster Blackwater</p>

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				upstream of Mallow to identify and implement the measures necessary to protect this river and its dependant habitats and species. All new development within this settlement must be compliant with this plan.
Glantane DB-01 (c)	MW 03.11.02	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01, appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of Blackwater Special Area of Conservation, must be provided and be operational in advance of the commencement of any discharges from the development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this area.
Killavullen	MW 03.12.01 (b)		Remove lands within SAC from development boundary.	Map no. MW 03.012.01b in proposed amendments shows the areas of land proposed to be omitted from the development

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				boundary as it lies within the Blackwater SAC.
Killavullen DB-01 (b)	MW 03.12.02	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01, appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of the Blackwater River Special Area of Conservation, must be provided and be operational in advance of the commencement of any discharges from the development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this area.
Killavullen 0-01	MW 03.12.03	Open Space. This prominent site makes a significant contribution to the rural character of the village and the setting of Ballymacmoy House in particular. Parts of this site are at risk of flooding. Any development proposals on this site	Modify wording of objective	Open Space. This prominent site makes a significant contribution to the rural character of the village and the setting of Ballymacmoy House in particular. Parts of this zone lie within the Blackwater River Special Area of Conservation and are not suitable for development. Parts of this site are at risk of flooding.

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
		will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines 'The Planning System and Flood Risk Management' as described in objectives FD 1-4, 1-5 and 1-6 in Section 1 of this plan.		Any development proposals on this site will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines 'The Planning System and Flood Risk Management' as described in objectives FD 1-4, 1-5 and 1-6 in Section 1 of this plan.
Killavullen 0-02	MW 03.12.04	GAA Grounds	Modify wording of objective	GAA Grounds. This site is at risk of flooding. Any development proposals on this site will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines 'The Planning System and Flood Risk Management' as described in objectives FD 1-4, 1-5 and 1-6 in Section 1 of this plan. Development proposals in this zone are likely to require the provision of an ecological impact assessment report (Natura Impact Statement) in accordance with the requirements of the Habitats Directive and may only proceed where it can be shown that they will not have significant negative impact on the SAC. A buffer zone may be required for any such development and shall be retained between any development proposed for this area and the Special Area of Conservation. The size of the buffer zone will

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				be determined at project level.
Liscarr oll DB-01(c)	MW 03.13.03	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01, appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of Blackwater Special Area of Conservation (Awbeg), must be provided and be operational in advance of the commencement of any discharges from the development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this area.
Lombardstown	MW 03.14.01		Modify development boundary to remove SAC	Map pg 40 in proposed amendments shows the areas of land proposed to be omitted from the development boundary as it lies within the Blackwater SAC.
Lombardstown GEN-	MW 03.14.01	In order to secure the population growth and supporting development	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01,

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
01 (c)		proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development		appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of Blackwater Special Area of Conservation, must be provided and be operational in advance of the commencement of any discharges from the development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this area.
Lombardstown GEN-01 (l)	MW 03.14.02	The Blackwater River run adjacent to the village is a Candidate Special Area of Conservation and a designated Natura 2000 site. This plan seeks to protect the integrity of this site.	Modify wording of objective	The Blackwater River runs adjacent to the village. This plan will protect the favourable conservation status of this SAC, and all new development shall be designed to ensure the protection and enhancement of biodiversity generally. A wastewater and stormwater plan will be produced during the lifetime of the plan for towns and villages in the catchment of the Munster Blackwater upstream of Mallow to identify and implement the

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				measures necessary to protect this river and its dependant habitats and species. All new development within this settlement must be compliant with this plan.
Lombardstown Gen-01 (i)	MW 03.14.03	The Blackwater River runs adjacent to the village is a candidate Special Area of Conservation and a designated Natura 2000 site. This plan seeks to protect the integrity of this site.	Modify objective.	The Blackwater River runs adjacent to the village. This plan will protect the favourable conservation status of this SAC, and all new development shall be designed to ensure the protection and enhancement of biodiversity generally.
Lyre DB-01 (c)	MW 03.15.01	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01(a), appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of Blackwater Special Area of Conservation, must be provided and be operational in advance of the commencement of any discharges from the development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
				<p>attenuation will be required for developments within this area.</p> <p>A wastewater and stormwater plan will be produced during the lifetime of the plan for towns and villages in the catchment of the Munster Blackwater upstream of Mallow to identify and implement the measures necessary to protect this river and its dependant habitats and species. All new development within this settlement must be compliant with this plan.</p>
New Twopothouse DB-01 (c)	MW 03.16.02	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01, appropriate and sustainable water and waste water infrastructure that will secure the objectives of the relevant River Basin Management Plan and the protection of Blackwater Special Area of Conservation , must be provided and be operational in advance of the commencement of any discharges from the development.
Shanballymore DB-01(c)	MW 03.17.01	In order to secure the population growth and supporting development proposed in (a) above, appropriate and sustainable water and	Modify wording of objective	In order to secure the population growth and supporting development proposed in DB -01, appropriate and sustainable water and waste water infrastructure that will secure

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
		waste water infrastructure, that will help secure the objectives of the relevant River Basin Management Plan, needs to be provided in tandem with the development.		the objectives of the relevant River Basin Management Plan and the protection of Blackwater Special Area of Conservation (Awbeg), must be provided and be operational in advance of the commencement of any discharges from the development. Waste water infrastructure must be capable of treating discharges to ensure that water quality in the receiving river does not fall below legally required levels. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for developments within this area.
Shanballymore DB-01 (h)	MW 03.17.02	N/A	Insert new objective.	This settlement is situated on the Awbeg River which forms part of the Blackwater River SAC. This plan will protect the favourable conservation status of these sites, and all new development shall be designed to ensure the protection and enhancement of biodiversity generally.
Ballyhass DB-01	MW 03.18.01	Within the development boundary of Ballyhass it is an objective to encourage the development of up to five individual dwelling units in the period 2010-2020, subject to	Modify wording of objective	Within the development boundary of Ballyhass it is an objective to encourage the development of up to five individual dwelling units in the period 2010-2020, subject to normal proper planning and sustainable development considerations.

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
		normal proper planning and sustainable development considerations. Each dwelling unit shall be served by private individual treatment unit and shall provide a sustainable properly maintained private water supply, unless a public supply is available. Such proposals will be assessed in line with the appropriate EPA code of practice and will have regard to any cumulative impacts on water quality		Each dwelling unit shall be served by private individual treatment unit and shall provide a sustainable properly maintained private water supply, unless a public supply is available. Such proposals will be assessed in line with the appropriate EPA code of practice and will have regard to any cumulative impacts on water quality and impacts on the Blackwater River Special Area of Conservation.
Gortroe DB-01	MW 03.19.01	Within the development boundary of Gortroe it is an objective to encourage the development of up to five individual dwelling units in the period 2010-2020, subject to normal proper planning and sustainable development considerations. Each dwelling unit shall be served by private individual treatment unit and shall provide a sustainable properly maintained private water supply, unless a public supply is available. Such proposals will be	Modify wording of objective	Within the development boundary of Gortroe it is an objective to encourage the development of up to five individual dwelling units in the period 2010-2020, subject to normal proper planning and sustainable development considerations. Each dwelling unit shall be served by private individual treatment unit and shall provide a sustainable properly maintained private water supply, unless a public supply is available. Such proposals will be assessed in line with the appropriate EPA code of practice and will have regard to any cumulative impacts on water quality and impacts on the Blackwater River Special Area of Conservation.

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
		assessed in line with the appropriate EPA code of practice and will have regard to any cumulative impacts on water quality and impacts on the Blackwater River Special Area of Conservation.		
Laharn Cross Roads DB-01	MW 03.21.01	Within the development boundary of Laharn Cross Roads it is an objective to encourage the development of up to five individual dwelling units in the period 2010-2020, subject to normal proper planning and sustainable development considerations. Each dwelling unit shall be served by private individual treatment unit and shall provide a sustainable properly maintained private water supply, unless a public supply is available. Such proposals will be assessed in line with the appropriate EPA code of practice and will have regard to any cumulative impacts on water quality.	Modify wording of objective	Within the development boundary of Laharn Cross Roads it is an objective to encourage the development of up to five individual dwelling units in the period 2010-2020, subject to normal proper planning and sustainable development considerations. Each dwelling unit shall be served by private individual treatment unit and shall provide a sustainable properly maintained private water supply, unless a public supply is available. Such proposals will be assessed in line with the appropriate EPA code of practice and will have regard to any cumulative impacts on water quality and on the Blackwater River Special Area of Conservation.
Mourn eabbe y (Athna	MW 03.21.01	Consideration will be given to the development of a limited number of	Modify wording of objective	Consideration will be given to the development of a limited number of individual dwelling units outside the SAC in the

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
leenta) DB-01		<p>individual dwelling units in the period 2010-2020, subject to normal proper planning and sustainable development considerations. Each dwelling unit shall be served by private individual treatment unit and shall provide a sustainable properly maintained private water supply, unless a public supply is available. Such proposals will be assessed in line with the appropriate EPA code of practice and will have regard to any cumulative impacts on water quality</p> <p>The Clyda River flows through the area and forms part of the Blackwater River Candidate Special Area of Conservation, a designated Natura 2000 site. This plan seeks to protect the integrity of this site.</p>		<p>period 2010-2020, subject to normal proper planning and sustainable development considerations. Each dwelling unit shall be served by private individual treatment unit and shall provide a sustainable properly maintained private water supply, unless a public supply is available. Such proposals will be assessed in line with the appropriate EPA code of practice and will have regard to any cumulative impacts on water quality and on the Blackwater River Special Area of Conservation.</p> <p>The Clyda River flows through the area and forms part of the Blackwater River Candidate Special Area of Conservation, a designated Natura 2000 site. This plan will protect the favourable conservation status of these sites, and all new development shall be designed to ensure the protection and enhancement of biodiversity generally.</p>
Old Twopothouse (Hazelwood) DB-01	MW 03.25.01	<p>Within the development boundary of Old Twopothouse (Hazelwood) it is an objective to encourage the development of up to five individual dwelling units in the period 2010-2020, subject to normal</p>	Modify wording of objective	<p>Within the development boundary of Old Twopothouse (Hazelwood) it is an objective to encourage the development of up to five individual dwelling units in the period 2010-2020, subject to normal proper planning and sustainable development considerations. Each dwelling unit shall be</p>

Obj No.	Amendm ent Ref	Original wording of obj. in draft plan	Recommendation from AA process	Changes made to plan arising from AA Process
		<p>proper planning and sustainable development considerations. Each dwelling unit shall be served by private individual treatment unit and shall provide a sustainable properly maintained private water supply, unless a public supply is available. Such proposals will be assessed in line with the appropriate EPA code of practice and will have regard to any cumulative impacts on water quality</p>		<p>served by private individual treatment unit and shall provide a sustainable properly maintained private water supply, unless a public supply is available. Such proposals will be assessed in line with the appropriate EPA code of practice and will have regard to any cumulative impacts on water quality and on the Blackwater River Special Area of Conservation.</p>

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 (see **Table 3.4** below). Potential impacts on Natura 2000 sites were identified which could arise from seven proposed amendments to the Mallow Electoral Local Area Plan. These include issues relating to the proposed inclusion of designated lands into settlement boundaries at Buttevant; proposed new zonings adjacent to designated sites also in Buttevant; and the reinstatement of areas liable to flooding into settlement boundaries in Doneraile and Killavullen within the catchment of the Blackwater River Special Area of Conservation. Recommendations were made in the second Natura Impact Report to modify or reject these proposals as shown in **Table 3.5** below.

Table 3:4 Assessment of potential for impact of proposed amendments to Mallow EA Local Area Plan on Natura 2000 sites.

Issues Examined	y/n	Amendment Ref. No	Relevant Settlement	Natura 2000 site which may be impacted	Details of proposed amendment	Potential Impact
Population target increases for settlements giving rise to possible impacts on water quality in Natura 2000 sites. (Note: only refers only to settlements where water quality impacts were not previously identified.)	n	n/a	n/a	n/a	n/a	n/a
Proposed new zonings within Natura 2000 sites.	y	MW.03.01.14	Buttevant	Blackwater River SAC	Amend boundary of Buttevant to include additional lands and zone these for business use.	Site is within the SAC and floodplain. Direct impacts arising from habitat loss within the SAC. Potential impacts on water quality, habitats and species. Impacts from surface and stormwater overflows.
New zonings adjacent to Natura 2000 sites.	y	MW.03.01.01	Buttevant	Blackwater River SAC	Re-zoning of open space to built up area.	Site is adjacent to SAC (not in floodplain). Development in this location could give rise to impacts on water quality in adjacent SAC

Issues Examined	y/n	Amendment Ref. No	Relevant Settlement	Natura 2000 site which may be impacted	Details of proposed amendment	Potential Impact
						and could result in an increase in stormwater and surface water flooding overflows to river.
	y	MW.03.01.02	Buttevant	Blackwater River SAC	Re-zoning of open space to built up area.	Site is adjacent to SAC (not in floodplain). Development in this location could give rise to impacts on water quality in adjacent SAC and could result in an increase in stormwater and surface water flooding overflows to river.
	y	MW.03.01.15	Buttevant	Blackwater River	Amend boundary of Buttevant to include lands to provide for community facilities, X-01 zoning.	Site is adjacent to SAC (partially within floodplain). Development in this location could give rise to impacts on water quality in adjacent SAC and could result in an increase in stormwater and surface water flooding overflows to river.

Issues Examined	y/n	Amendment Ref. No	Relevant Settlement	Natura 2000 site which may be impacted	Details of proposed amendment	Potential Impact
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.	Y	MW.03.03.01	Doneraile	Blackwater River	Amend boundary to include lands omitted from development boundary on grounds of flood risk.	Site is in flood plain and within 1km of SAC. Development in this location could give rise to impacts on water quality in adjacent SAC and could result in an increase in stormwater and surface water flooding overflows to river.
	y	MW.03.03.07	Doneraile	Blackwater River	Amend boundary to include lands omitted from development boundary on grounds of flood risk.	Site is adjacent to Special Area of Conservation and within floodplain. Development in this location could give rise to impacts on water quality in adjacent SAC and could result in an increase in stormwater and surface water flooding overflows to river.

Issues Examined	y/n	Amendment Ref. No	Relevant Settlement	Natura 2000 site which may be impacted	Details of proposed amendment	Potential Impact
	y	MW.03.12.01	Killavullen	Blackwater River	Amend boundary to include lands omitted from development boundary on grounds of flood risk.	Sites are adjacent to Special Area of Conservation and within floodplain. Development in this location could give rise to impacts on water quality in adjacent SAC and could result in an increase in stormwater and surface water flooding overflows to river.
Recommendations from NIR I not included in amendments.	N	n/a	n/a	n/a	Amend boundary to include lands omitted from development boundary on grounds of flood risk.	n/a
Proposed amendments that may give rise to other impacts on Natura 2000 sites.	N	n/a	n/a	n/a	n/a	n/a

3.3.2 Six 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.

3.3.3 The list of recommendations arising from the AA of the proposed amendments are set out in **Table 3.5** below. The full assessment is available for review in *Natura Impact Report II for the proposed amendments to the draft Mallow EA Local Area Plan, April, 2011*.

3.3.4 All of the recommendations made for changes to proposed amendments arising from the AA process were put before Cork County Council in the *Report to Members Mallow Electoral Area Local Area Plan Public Consultation Draft, Manager's Opinion on the Issues Raised by Submissions on Proposed Amendments and Manager's Recommendations* (June 2011). These were accepted in full by the Council at their meeting of 25th July 2011.

Table 3.5 Summary Of Recommendations For Changes To Be Made To Plan Arising From Appropriate Assessment Of Proposed Amendments.

Obj No.	Amendment Ref	Proposed amendment	Recommendation from appropriate assessment of proposed amendment	Changes made to plan arising from AA of proposed amendments
Buttevant 0-04	MW 03.01.01	Change of zoning from open space to built up area, in area adjacent to SAC.	Modify wording of Objective DB-06	<p>Amend DB-06 as follows:</p> <p>The Awbeg River which runs through the town and forms part of the Blackwater River Candidate Special Area of Conservation, a designated Natura 2000 site.</p> <p>This plan will protect the favourable conservation status of this site.</p> <p>Development proposals in areas adjacent to the SAC may require the provision of a Natura Impact Statement and can only proceed where it can be shown that it will not have significant impacts on the Blackwater River SAC.</p> <p>Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for any development which may be permitted in this area.</p>
Buttevant 0-04	MW 03.01.02	Change of zoning from open space to built up area.	Modify DB-06 as per recommendation for MW 03.01.01	See above.
Buttevant B-03	MW 03.01.14	Amend development boundary of Buttevant to include additional	Retract amendment	Amendment retracted, no change to boundary made.

Obj No.	Amendment Ref	Proposed amendment	Recommendation from appropriate assessment of proposed amendment	Changes made to plan arising from AA of proposed amendments
		lands to the north of the town. B-03 Business and retail uses with provision for an amenity walk and public open space along the bank of the Awbeg River. The Flood Risk Assessment has identified that this site is at risk of flooding. Any development proposals on this site will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines ' The Planning System and Flood Risk Management' as described in objectives FD 1-4, 1-5 and 1-6 in Section 1 of this plan.		
Buttevant X-01	MW 03.01.15	Amend boundary of settlement to include lands to provide for community facilities (X-01) zoning. X-01. Community facilities, institutional uses, employment uses or low density	Modify wording of objective.	X-01. Community facilities, institutional uses, employment uses or low density residential development. The flood risk assessment has identified parts of this zone as being at risk of flooding. Any development proposals in such areas will normally be accompanied by a flood risk assessment that

Obj No.	Amendment Ref	Proposed amendment	Recommendation from appropriate assessment of proposed amendment	Changes made to plan arising from AA of proposed amendments
		residential development. The flood risk assessment has identified parts of this zone as being at risk of flooding. Any development proposals in such areas will normally be accompanied by a flood risk assessment that complies with Chapter 5 of the Ministerial Guidelines "The Planning System and Flood Risk Management" as described in objectives FD-1-4, 1-5 and 1-6 in Section 1 of this Plan. Development proposals		<p>complies with Chapter 5 of the Ministerial Guidelines "The Planning System and Flood Risk Management" as described in objectives FD-1-4, 1-5 and 1-6 in Section 1 of this Plan.</p> <p>Development proposals within the floodplain of the Blackwater River are likely to require the provision of a Natura Impact Statement and can only proceed where it can be shown that it will not have significant impacts on the Blackwater River SAC. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for any development which may be permitted in this area.</p>
Doneraile DB-01k	MW 03.03.01	Amend development boundary of Doneraile to include lands to the south-west of settlement as per the 2005 LAP (includes site of 06/11696 and adjacent lands)	Modify wording objective DB-01k.	All proposals for development within the areas identified as being at risk of flooding will need to comply with Objective FD 1-1 to FD 1-6 detailed in Section 1 of this Plan, as appropriate, and with the provisions of the Ministerial Guidelines- The Planning System and Flood Risk Management'. In particular, a site specific flood risk assessment will be required as described in

Obj No.	Amendment Ref	Proposed amendment	Recommendation from appropriate assessment of proposed amendment	Changes made to plan arising from AA of proposed amendments
				<p>objectives FD-1-4, 1-5 and 1-6.</p> <p>Development proposals within the floodplain of the Blackwater River are likely to require the provision of a Natura Impact Statement and can only proceed where it can be shown that it will not have significant impacts on the Blackwater River SAC. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for any development which may be permitted in this area.</p>
Doneraile	MW 03.03.07	Amend development boundary of Doneraile to include lands to the west of settlement, zoned as 0-04 in the 2005 Local Area Plan.	Modify wording of objective DB-01k as per recommendation for MW 03.03.01	See above.
Killavullen DB-01c	MW 03.12.01(a)	Amend boundary to include lands omitted from development boundary on grounds of flood risk.	Modify wording of objective.	Amend wording of the DB-01 c as follows: All proposals for development within the areas identified as being at risk of flooding will need to comply with Objective FD 1-1 to FD 1-6 detailed in Section 1 of this Plan, as appropriate, and with the provisions of the Ministerial Guidelines-The Planning System and

Obj No.	Amendment Ref	Proposed amendment	Recommendation from appropriate assessment of proposed amendment	Changes made to plan arising from AA of proposed amendments
				<p>Flood Risk Management'. In particular, a site specific flood risk assessment will be required as described in objectives FD-1-4, 1-5 and 1-6.</p> <p>Development proposals within the floodplain of the Blackwater River are likely to require the provision of a Natura Impact Statement and can only proceed where it can be shown that it will not have significant impacts on the Blackwater River SAC. Sustainable Urban Drainage Systems (SUDS) and sufficient storm water attenuation will be required for any development which may be permitted in this area.</p>

4 Appropriate Assessment Conclusion – Finding of No Significant Effects Matrix

Information Relating To The Plan And Natura Sites Within Potential Impact Zone	
Plan name	Mallow EA Local Area Plan, 2011
Natura 2000 sites within potential impact zone of the plan	<p>Special Areas of Conservation: Ballyhoura Mountains SAC 002036; Carrigeenamronety Hill SAC 002037; Blackwater River (Cork/Waterford) SAC 002170; Great Island Channel SAC 001058.</p> <p>Special Protection Areas: Kilcolman Bog SPA 004095</p>
Description of the plan	<p>The Mallow 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 Mallow 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 Mallow 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 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>
Is the proposed plan directly	No

<p>connected with or necessary to the management of the Natura 2000 sites identified above</p>									
<p>Assessment of Significant Effects</p>									
<p>Describe how the plan (alone or in combination is likely to affect Natura 2000 sites)</p>	<p>One Natura 2000 site (the Blackwater River SAC) has been identified which may be impacted by policy proposed in this plan. The following are the key issues where were considered to be of importance.</p> <table border="0" data-bbox="500 768 1445 1367"> <thead> <tr> <th data-bbox="500 768 885 800">Potential Impacts</th> <th data-bbox="906 768 1386 800">Activities which could give rise to these</th> </tr> </thead> <tbody> <tr> <td data-bbox="500 842 885 905">Impacts on water quality and levels.</td> <td data-bbox="906 842 1445 978">Targeted increases in population of settlements without provision for adequate waste water treatment or sustainable water supply.</td> </tr> <tr> <td data-bbox="500 1020 885 1125">Direct impacts on habitats giving rise to habitat loss, deterioration or fragmentation.</td> <td data-bbox="906 1020 1445 1157">Zoning of land within Natura 2000 sites, extension of settlement boundaries into Natura 2000 sites, reinstatement of development zonings in areas liable to flood.</td> </tr> <tr> <td data-bbox="500 1188 885 1220">Disturbance to species.</td> <td data-bbox="906 1188 1445 1367">Zoning for development within or close to sites used as breeding or feeding areas by protected species. In particular proposals for recreational walkways in riverine areas adjacent to Blackwater SAC</td> </tr> </tbody> </table>	Potential Impacts	Activities which could give rise to these	Impacts on water quality and levels.	Targeted increases in population of settlements without provision for adequate waste water treatment or sustainable water supply.	Direct impacts on habitats giving rise to habitat loss, deterioration or fragmentation.	Zoning of land within Natura 2000 sites, extension of settlement boundaries into Natura 2000 sites, reinstatement of development zonings in areas liable to flood.	Disturbance to species.	Zoning for development within or close to sites used as breeding or feeding areas by protected species. In particular proposals for recreational walkways in riverine areas adjacent to Blackwater SAC
Potential Impacts	Activities which could give rise to these								
Impacts on water quality and levels.	Targeted increases in population of settlements without provision for adequate waste water treatment or sustainable water supply.								
Direct impacts on habitats giving rise to habitat loss, deterioration or fragmentation.	Zoning of land within Natura 2000 sites, extension of settlement boundaries into Natura 2000 sites, reinstatement of development zonings in areas liable to flood.								
Disturbance to species.	Zoning for development within or close to sites used as breeding or feeding areas by protected species. In particular proposals for recreational walkways in riverine areas adjacent to Blackwater SAC								
<p>Are there other projects or plans that together with the plan being assessed could affect the site (provide details)</p>	<p>Cork County Development Plan 2009. Development provided for by this plan (chap 4) could give rise to cumulative impacts on water quality in the Blackwater River Special Area of Conservation.</p> <p>Kerry County Development Plan, 2009. Development provided for by this plan (chap 3) could give rise to additional pressure on water quality Blackwater River SAC.</p> <p>Waterford County Development Plan, 2010. Development provided for in chapter 3 of this plan could give rise to additional pressure on water quality Blackwater River SAC.</p>								

	<p>Development provided for in the Lismore Local Area Plan (2007-2013), Kanturk Electoral Area Local Area Plan, 2011; Fermoy Electoral Area Local Area Plan, 2011; Midleton Electoral Area Local Area Plan, 2011; Mallow Special Local Area Plan, 2007; Mallow Town Plan 2010-2016; Fermoy 2010; Midleton Town Plan (in draft) and the Youghal Town Plan (2009-2015), will give rise to additional pressures on water quality, increase potential for flood risk, and possibly cause direct impacts habitats and species in the Blackwater River Special Area of Conservation.</p>
<p>Explain why these effects are not considered significant</p>	<p>Impacts on water quality and levels.</p> <ol style="list-style-type: none"> 1. Modifications were made to policies in the following settlements Buttevant, Castletownroche, Doneraile, Burnfort, Bweeng, Cecilstown, Churchtown, Dromohane, Glantane, Killavullen, Liscarroll, Lombardstown, Lyre, New twopothouse, Shanballymore, Ballyhass, Gortroe, Laharn Cross, Mourneabbey and Old Twopothouse to ensure that development in the relevant settlements can only proceed when adequate provision has been made for waste water treatment and to make the provision of SUDS and Stormwater Attenuation measures a requirement where necessary. 2. Provision was made for the establishment of buffer zones between development and watercourses susceptible to pollution for the following zones – Buttevant B-01; Buttevant C-01; Buttevant U-01; Buttevant O-01; Doneraile O-01; O-03; and Killavullen O-02. 3. The provision of a catchment based stormwater and wastewater plan was made a requirement for the settlements of Bweeng, Dromahane and Lombardstown. <p>Direct impacts on habitats.</p> <ol style="list-style-type: none"> 4. A proposed boundary change and zoning in Buttevant was retracted to avoid zoning for development within sites designated for nature conservation. 5. Alterations were made to the boundaries of the following settlements Killavullen and Lombardstown to exclude sites designated for nature conservation. 6. Modifications were made to the following open space zonings Buttevant O-06; Doneraile O-01; Castletownroche O-01; Killavullen O-01 and O-02 which occur within the Special Area of Conservation to clarify that these spaces are not suitable for development. 7. Modifications were made to objectives, settlement boundaries and zonings as set out under impacts on water quality above, will also provide for the protection of water dependant habitats. <p>Species protection.</p>

	<p>8. Modifications made to objectives, settlement boundaries and zonings as set out under impacts on water quality above, will also provide for the protection of water dependant species.</p> <p>9. Modifications were made to the wording of the Buttevant U-01 to ensure that the provision of proposed amenity walks in areas which could give rise to disturbance to species will only be completed following ecological assessment.</p> <p>Potential impacts arising from policies providing for development on sites close to or within Natura 2000 sites.</p> <p>10. Modifications were made to objectives Buttevant B-01, C-01 and O-01; Doneraile X-01 and O-03 where settlement boundaries or zonings are located close to or within Natura 2000 sites and where development could potentially have an impact on these sites.</p> <p>Introduction of new objectives to the plan.</p> <p>11. Two new objectives were included into the plan arising from the AA process. These commit CCC to the protection of Natura 2000 sites, ecological corridors, areas and habitats of local biodiversity value within the plan area and its environs. Maps and lists of all designated sites were added to the final draft of the plan.</p>
Appropriate Assessment Conclusion	On the basis of the changes set out above, it is concluded that the Mallow EA 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. This was completed through bilateral meetings which were held with local and regional staff of the NPWS. 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 impacts on all Natura 2000 sites within the potential impact zone of the plan. Appropriate assessment the Blackwater River

	Special Area of Conservation.
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 Implementation of Mitigation and Monitoring Measures

The following table summarises the changes made to the plan to ensure the protection of the Natura 2000 network, and sets out how the implementation of these measures will be monitored over the lifetime of the plan.

Table 5.1 Mitigation and Monitoring Measures for the Mallow EA Local Area Plan, 2011

Mitigation measure	How will mitigation measures reduce adverse impacts on integrity of Natura 2000 sites.	How will measures be implemented and by whom	When will measures be implemented	How will mitigation be monitored
Commitment to ensure protection of Natura 2000 sites within green belts for lifetime of plan (GB 1-1 b).	Natura 2000 sites also overlap with green belts in certain cases. The wording of the green belt policy has been modified to ensure that it is clear in the plan that the priority for such lands is the maintenance of its nature conservation values.	Implementation will be achieved by CCC. Development in these zones is not encouraged, but where planned should only proceed where full assessment of potential impacts on Natura 2000 sites has been completed.	For lifetime of the plan	Establish current level of development and ecological status of designated areas within green belts in identified areas by end of 2011. Examine status of these areas at plan review stage to determine if any development or has taken place.
Commitment in plan to prevent commencement of discharge from new developments in certain settlements until sufficient capacity for treatment of waste water is in place to ensure that legal water quality standards are met; to ensure the integration of SUDS and stormwater attenuation into planned	The aim of this measure is to protect water quality and minimise flood risk. Its implementation will ensure that there will be no additional nutrient input to designated	Implementation will be achieved through the planning process by CCC. Permissions can only be granted for developments within LAP settlements where there is	For lifetime of plan.	Review progress with planned upgrades for treatment plants. Review planning permissions granted/population increases in specified settlements during lifetime of plan and cross check against

Mitigation measure	How will mitigation measures reduce adverse impacts on integrity of Natura 2000 sites.	How will measures be implemented and by whom	When will measures be implemented	How will mitigation be monitored
developments in specified zones (LAS 2-1 and development objectives for a number of specified settlements); and to develop a stormwater and wastewater plan for the entire catchment which will inform future management of same.	waterbodies arising from development provided for by this plan. It will help to prevent siltation of the freshwater system, and will provide for the attenuation of surface / flood waters for any development provided for by this plan with specified zones, thereby protecting freshwater systems from storm surges.	sufficient capacity to treat waste water to required standards and where adequate provision has been made for SUDS and stormwater attenuation in specified zones. Development of stormwater and waste water plan to be agreed with National Parks and Wildlife Service and EPA.		individual waste water treatment plant capacity at plan review stage. Review conditions of grant for developments permitted in accordance with plan policy within specified zones to establish numbers of these that have incorporated required measures at plan review stage.
Commitment in plan to ensure that all development facilitated through this plan is subject to the appropriate level of environmental assessment in accordance with the Habitats, Birds, EIA and SEA Directives; to provide protection to sites (proposed and designated) for nature conservation; and to maintain where possible features of the landscape of biodiversity	The aim of these measures is to commit CCC to protecting sites designated for nature conservation and biodiversity generally. This will be achieved by assessing all development proposals provided for by	This measure will be implemented through the planning process.	Throughout the lifetime of this plan.	To be determined.

Mitigation measure	How will mitigation measures reduce adverse impacts on integrity of Natura 2000 sites.	How will measures be implemented and by whom	When will measures be implemented	How will mitigation be monitored
value outside designated sites (LAS 2-2, 2-3 and 2-4 and development objectives for a number of specified settlements).	this plan in accordance with the provisions of the relevant legislation. This measure will reduce the risk of the Council authorising any activity which could have a negative impact on the Natura 2000 network, or on ecological features of the landscape which connect the network.			
Removal of designated land from settlement boundaries and retraction of proposed amendment to include designated land within settlement boundary at Buttevant.	This measure will reduce pressure for development within designated sites.	Measure to be implemented by CCC during plan making stage.	This measure has been implemented.	Establish current level of development and ecological status of areas removed from settlement boundaries during plan making process by end of 2011. Examine status of these areas at plan review stage to determine if any development or alteration has taken place arising from policies set

Mitigation measure	How will mitigation measures reduce adverse impacts on integrity of Natura 2000 sites.	How will measures be implemented and by whom	When will measures be implemented	How will mitigation be monitored
				out in this plan.
Provision for maintenance of buffer zones between Natura 2000 sites and proposed development.	This measure has been specified for zones or areas adjacent to Natura 2000 sites, where it is considered that development could give rise to impacts on habitats or disturbance to species for which the Natura 2000 sites are designated. Developments in such locations will require the provision of Natura Impacts Statements where significant impacts on designated sites cannot be ruled out.	Implementation will be achieved through the planning process by CCC. Development proposals within certain zones or settlement areas adjacent to Natura 2000 sites must provide for the maintenance of a buffer zone between the development site and the Natura 2000 site.	Lifetime of plan.	Establish current level of development and ecological status of identified areas by end of 2011. Examine these areas during review of LAP to determine if buffers have been provided for developments that have been permitted and/or built within the relevant zones.
Commitment to protect open space zones primarily for nature conservation where these overlap with designated areas.	Some Natura 2000 sites where they occur within settlement	Implementation will be achieved by CCC. Development in these zones	Lifetime of plan.	Establish current level of development and ecological status of identified areas by

Mitigation measure	How will mitigation measures reduce adverse impacts on integrity of Natura 2000 sites.	How will measures be implemented and by whom	When will measures be implemented	How will mitigation be monitored
	<p>boundaries have been zoned for open space in this plan. In these cases, the wording of the policy linked to particular zones where this has occurred has been modified to clarify that such areas are not generally suitable for development. The purpose of this modification is to avoid direct loss of habitat or potential for disturbance to species within Natura 2000 sites arising from zonings set out in this plan.</p>	<p>should not be encouraged, but where planned should only proceed where full assessment of potential impacts on Natura 2000 sites has been completed. This is likely to apply to planning permissions and to projects proposed by CCC itself.</p>		<p>end of 2011.</p> <p>Review status of these areas at plan review stage to determine if any development or alteration has taken place.</p>
<p>Requirement for provision of ecological reports to be prepared for recreational initiatives where these are within or adjacent to Natura 2000 sites.</p>	<p>The aim of this measure is to ensure that full consideration of impacts on habitats and species is made at the planning stage for such</p>	<p>Implementation will generally be achieved by CCC as most of these developments are completed by the Council. Where</p>	<p>Lifetime of the plan.</p>	<p>Establish current level of development and ecological status in identified areas by end of 2011.</p> <p>Review status of these areas at plan</p>

Mitigation measure	How will mitigation measures reduce adverse impacts on integrity of Natura 2000 sites.	How will measures be implemented and by whom	When will measures be implemented	How will mitigation be monitored
	projects to ensure that they are designed in a manner which avoids such impacts.	walkways or cyclepaths are planned in or close to Natura 2000 sites, these should only proceed where full assessment of potential impacts on Natura 2000 sites has been completed. This will normally be done as part of the Part 8 process.		review stage to determine if any development or alteration has taken place.
Requirement for provision of Natura Impact Statements to be prepared for developments proposed in areas close to and/or within floodplains of Natura 2000 sites.	This measure has been incorporated for particular zones adjacent to Natura 2000 sites, where it is considered that development within the zone could give rise to impacts on habitats or disturbance to species for which the adjacent Natura 2000 site is	Implementation will be achieved through the planning process by CCC. Development proposals within certain zones or settlement areas adjacent to Natura 2000 sites can only proceed where it shown that such development will not have a significant impact on	Lifetime of plan.	Establish current level of development and ecological status in identified areas by end of 2011. Examine status of these areas at plan review stage to determine if any development or alteration has taken place.

Mitigation measure	How will mitigation measures reduce adverse impacts on integrity of Natura 2000 sites.	How will measures be implemented and by whom	When will measures be implemented	How will mitigation be monitored
	<p>designated. Of particular concern in this regard are zoned areas within Natura 2000 catchments which have been identified as being susceptible to flooding. It makes it a requirement that proposals for development in these zones will be subject to appropriate assessment.</p>	<p>Natura 2000 sites within the potential impact zone.</p>		

6 References and Data Used

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Appendix I: Timetable for the making of the Mallow 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 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	

Date	Plan Making Stage	Habitats Directive Assessment Stage	Comment
		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.	6 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 same. This report incorporated the recommendations of the second Natura Impact Report.	Preparation of final Natura Impact Report for Mallow Electoral Area Local Area Plan.	
19 th July	Council meeting to review Managers Report and consider		

Date	Plan Making Stage	Habitats Directive Assessment Stage	Comment
	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.

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to be agreed with printer

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Mallow Electoral Area Local Area Plan

Strategic Environmental Assessment
Statement

August 2011

Section 1 – Introduction

Terms of Reference

This is the SEA Statement of the **Mallow 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

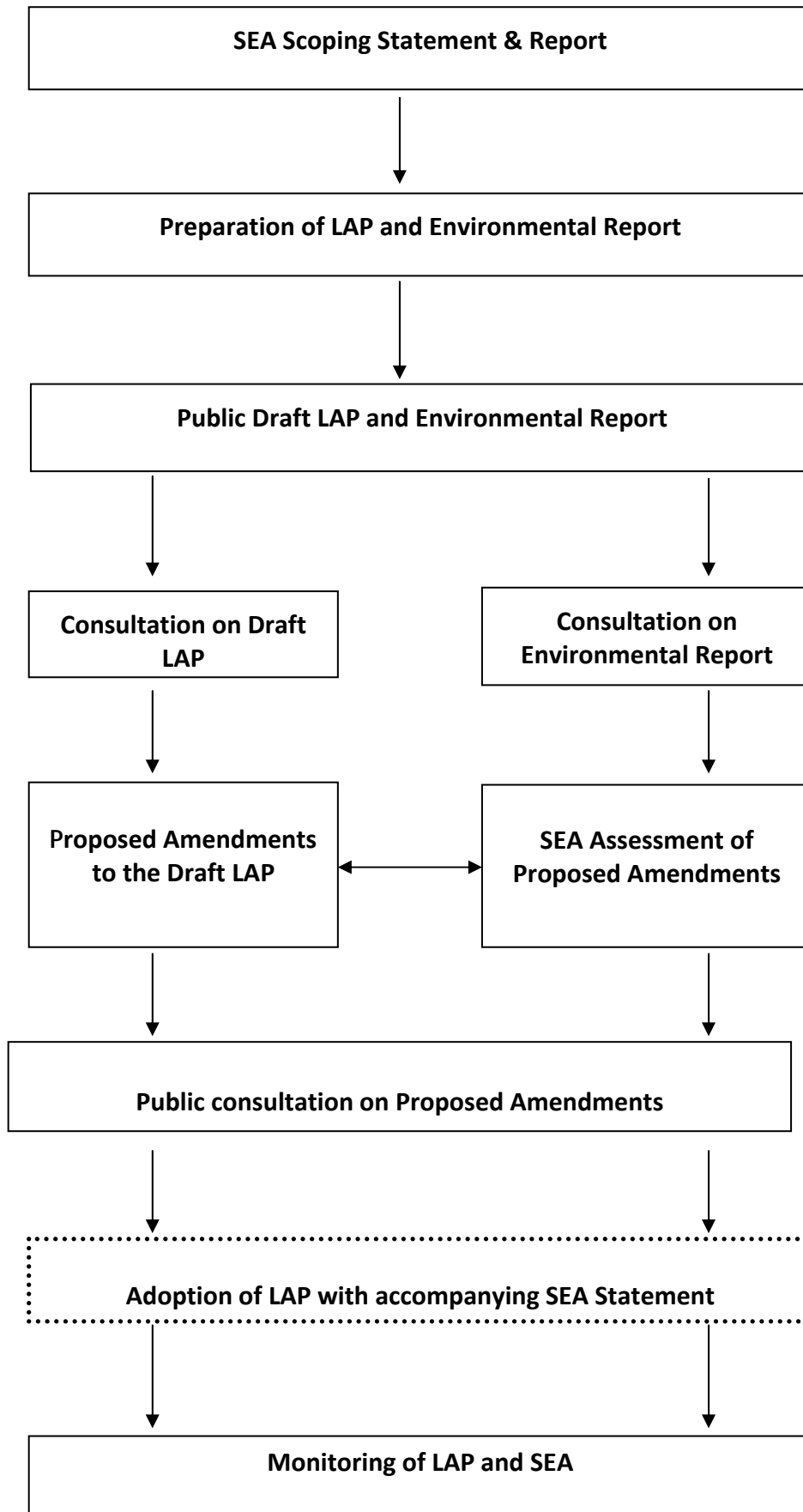
The SEA Statement is required to include information summarising:

- (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 Mallow 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 Mallow 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 Mallow Electoral Area Local Area Plan alongside the SEA Environmental Report during the period of 22nd November 2010 to 12th January 2011. A total of 55 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. 6 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 Mallow 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 Mallow 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 Sites removed from settlements due to their Natura 2000 designation

Change No.	Settlement Name	Zoning Ref. If applicable
MW 03.12.01B	Killavullen	Lands omitted from development boundary located within SAC
MW 03.14.01	Lombardstown	Exclude areas located within SAC from the development boundary

Table 2.2 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
GB1-1	MW 01.10.02	Issue raised at pre draft stage and Issue Two in Environmental Report	Amend wording of objective	SEA recommendations included while also incorporates HDA recommendations
Paragraph 1.6.6	MW 01.10.03	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
New Objective	MW 01.10.04	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
Paragraph 1.7.9	MW 01.10.05	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
Replace Paragraph 1.7.10 with new text	MW.01.10.06	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	MW.01.10.07	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
Amend Paragraph 1.7.13	MW.01.10.08	Change introduced at	Screened Out at Proposed	Screened Out

Amendment/Objective No.	Amendment Ref	Issue	Recommendation from SEA process	Change made to plan arising from SEA process
		Amendment Stage	Amendment Stage	
Replace Objective FD 1-4	MW.01.07.09	Change introduced at Amendment Stage. Previous amendment made at Draft Stage.	Screened Out at Proposed Amendment Stage	Screened Out
Table	MW 02.02.01	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
New Objective	MW 02.02.02	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
LAS 2-1	MW 02.02.03	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 incorporated HDA recommendations in the Final Plan
LAS 2-2	MW.02.02.04	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	MW.02.02.05	Issue Two		New objective LAS 2-3 included in Final Plan
LAS 2-4	MW.02.02.06	Issue Two		New objective LAS 2-4 included in Final Plan
O-04 Buttevant	MW 03.01.01	Change of extent of open space zoning and to include as built up area	Omit amendment	SEA recommendation was not incorporated in Final Plan
O-04 Buttevant	MW 03.01.02	Change of extent of open space zoning and to include as built up area	Omit amendment	SEA recommendation was not incorporated in Final Plan
Buttevant	MW 03.01.03	Change introduced at	Screened Out at Proposed	Screened Out

Amendment/Objective No.	Amendment Ref	Issue	Recommendation from SEA process	Change made to plan arising from SEA process
		Amendment Stage	Amendment Stage	
B-02 Buttevant	MW 03.01.04	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
DB-02 Buttevant	MW 03.01.05	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-06 Buttevant	MW 03.01.06	Issue Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
B-01 Buttevant	MW 03.01.07	Issue Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
B-02 Buttevant	MW 03.01.08	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
C-01 Buttevant	MW 03.01.09	Issue Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
U.01 Buttevant	MW 03.01.10	Issue Two and Seven	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
O-01 Buttevant	MW 03.01.11	Issue Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
O-06 Buttevant	MW 03.01.12	Issue Two and Seven	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations

Amendment/Objective No.	Amendment Ref	Issue	Recommendation from SEA process	Change made to plan arising from SEA process
DB-01 Buttevant	MW 03.01.13	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-03 Buttevant	MW 03.01.14	Additional lands to be included within the development boundary	Omit amendment	SEA recommendation included in Final Plan and lands omitted
X-01 Buttevant	MW 03.01.15	Additional lands to be included within the development boundary	Omit amendment	SEA recommendation was not incorporated in Final Plan
DB-08 Buttevant	MW 03.01.16			Screened Out
DB-01 Castletownroche	MW 03.02.01	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
O-01 Castletownroche	MW 03.02.02	Issue Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
Doneraile	MW 03.03.01	Additional lands to be included within the development boundary	Omit amendment	SEA recommendation was not incorporated in Final Plan
DB-01(d) Doneraile	MW 03.03.02	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01(l) Doneraile	MW 03.03.03	Issue Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
X-01 Doneraile	MW 03.03.04	Change introduced at	Screened Out at Proposed	Screened Out

Amendment/Objective No.	Amendment Ref	Issue	Recommendation from SEA process	Change made to plan arising from SEA process
		Amendment Stage	Amendment Stage	
O-01 Doneraile	MW 03.03.05	Issue Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
O-03 Doneraile	MW 03.03.06	Issue Two and issues in relation to flooding	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
Doneraile	MW 03.03.07	Additional lands to be included within the development boundary	Omit amendment	SEA recommendation was not incorporated in Final Plan
X-02 Doneraile	MW 03.03.08	Additional lands to be included within the development boundary	Omit amendment	SEA recommendation was not incorporated in Final Plan
DB-01(k) Doneraile	MW 03.03.09			Screened Out
DB-01(m) Doneraile	MW 03.03.10			Screened Out
B-01 Watergrasshill	MW 03.04.01	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
X-01 Watergrasshill	MW 03.04.02	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
C-01 Watergrasshill	MW 03.04.03	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
B-02 Watergrasshill	MW 03.04.04	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
Ballyclough	MW 03.05.01	Additional lands to be included within the development boundary	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
DB-01(h) Ballyclough	MW 03.05.02	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
DB-01(c) Burnfort	MW 03.06.01	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01(c) Bweeng	MW 03.07.01	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01(c) Cecilstown	MW 03.08.01	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
Churchtown	MW 03.09.01	Additional lands to be included within the development boundary	Omit amendment	SEA recommendation was not incorporated in Final Plan
DB-01(c) Churchtown	MW 03.09.02	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01(c) Dromahane	MW 03.10.01	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
Glantane	MW 03.11.01	Additional lands to be included within the development boundary	Omit amendment	SEA recommendation was not incorporated in Final Plan
DB-01(c) Glantane	MW 03.11.02	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations

Amendment/Objective No.	Amendment Ref	Issue	Recommendation from SEA process	Change made to plan arising from SEA process
Killavullen	MW 03.12.01A	Additional lands to be included within the development boundary	Omit amendment	SEA recommendation was not incorporated in Final Plan
Killavullen	MW 03.12.01B	Lands omitted from development boundary located within SAC	Omit lands within SAC	SEA recommendation included in Final Plan while also incorporates HDA recommendations and area within SAC removed
DB-01(c) Killavullen	MW 03.12.12	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
O-01 Killavullen	MW 03.12.03	Issue Two and issues relating to flooding	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
O-02 Killavullen	MW 03.12.04	Issue Two and issues relating to flooding	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
Paragraph 12.2.8 Killavullen	MW 03.12.05	Change introduced at Amendment Stage	Screened Out at Proposed Amendment Stage	Screened Out
DB-01 (e) Killavullen	MW 03.12.06	Issue Two and issues relating to flooding	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
Liscarroll	MW 03.13.01	Additional lands to be included within the development boundary	Omit amendment	SEA recommendation was not incorporated in Final Plan
Liscarroll	MW 03.13.02	Additional lands to be included within the development	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
		boundary		
DB-01(c) Liscarroll	MW 03.13.03	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
Lombardstown	MW 03.14.01	Exclude areas located within SAC from the development boundary	Exclude areas located within SAC from the development boundary	SEA recommendation included in Final Plan while also incorporates HDA recommendations and area within SAC removed
GEN-01(c) Lombardstown	MW 03.14.02	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01(i) Lombardstown	MW 03.14.03	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01(c) Lyre	MW 03.15.01	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
Newtwopothouse	MW 03.16.01	Additional lands to be included within the development boundary	Omit amendment	SEA recommendation was not incorporated in Final Plan
DB-01(c) Newtwopothouse	MW 03.16.02	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
Newtwopothouse	MW 03.16.03	Additional lands to be included within the development boundary	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
DB-01(c) Shanballymore	MW 03.17.01	Issue One and Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01(h) Shanballymore	MW 03.17.02	Issue Two	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01 Ballyhass	MW 03.18.01	Issue Two and Three	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01 Gortroe	MW 03.19.01	Issue Two and Three	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01 Laharn Cross Roads	MW 03.21.01	Issue Two and Three	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01 Mourneabbey(Athnaleenta)	MW 03.23.01	Issue Two and Three	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations
DB-01 Old Twopothouse (Hazelwood)	MW 03.25.01	Issue Two and Three	Amend wording to objective	SEA recommendation included in Final Plan while also incorporates HDA recommendations

***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. 50 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 Mallow 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. 55 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 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	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 2.2 outlines the changes made from the Draft to Final Plan stage

	<p>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</p>	<p>Many of the recommendations made have been incorporated through amendments to overall and site specific objectives of the plan.</p>

	included in LAP's. Specific comments are made about Architectural Heritage in some LAP's expressing the need for greater 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. 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 that “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 though 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

6 submissions were received during the public consultation period of the proposed amendments to the Draft Mallow 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 2.2
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 detail 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 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 **Mallow** Electoral Area, 3 alternative scenarios were identified that could achieve the level of growth targeted for the **Mallow** 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 were 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 including the hub town of Mallow, the county town of Buttevant and the three key villages with provision included for relatively modest growth in the smaller settlements.
- Low Urban and High Rural Growth - this alternative is in effect a continuation of current trends which will focus growth across the twenty one smaller settlements 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 was considered that **Scenario 2** was the least preferred Scenario from an environmental perspective. **Scenario 1** and 3 are quite similar in that they proposed 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 remain serious concerns over the provision of infrastructure in a timely manner to accommodate the proposed population targets. However **Scenarios 1** was the preferred scenario in the LAP thus mitigation

measures were required and included 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 assessme

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 Obj	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	COMMENTS
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 table 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.

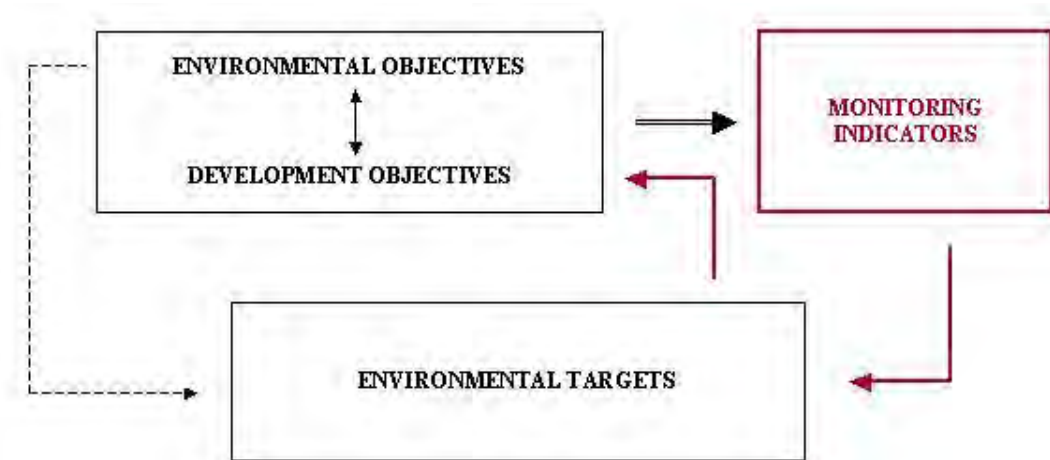


Figure 2

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

EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
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 and a provision of adequate and appropriate buffer zones.	Buffer zones provided in relation to development proposed as per Objectives: Buttevant B-01, C-01, U-01 and O-01, Doneraile O-01 and O-03 and Killavullen O-02 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.	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. Number of new water abstractions and increases in water abstractions within or upstream from Natura 2000 sites with water dependant habitats or species. 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.	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

EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
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
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; % increase or decrease in numbers of water bodies at good status compared with the baselines of 2011.</p> <p>% of municipal wastewater discharges achieving secondary and tertiary treatment in the electoral area.</p> <p>Q values recorded downstream from existing wastewater treatment plants.</p>	Water Framework Directive: RBD's, EPA, Cork County Council	Dependent on external information. Some information potentially available within Cork County Council
	To manage zones vulnerable to flooding in a sustainable manner	Avoid development in areas at risk of flooding,	<p>Amount of new developments permitted within flood plains;</p> <p>Annual costs of</p>	OPW, Cork County Council	Dependent on external information. Some information potentially available within Cork County Council

EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
		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	damage related to flood events		
A1	Maintain and where possible improve air quality standards through the reduction of emissions through the promotion of sustainable commuting	To remain within good air quality standards	Air quality monitoring standards within the County.	EPA	Dependent on external information
		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

EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
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 Certificatess granted by EPA for wastewater treatment plants. Number of wastewater treatment plants which are in compliance or are in breach of Wastewater Discharge Licences and Certificates. % 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.	EPA, Engineering Section of Cork County Council	Dependent on external information. Some information available within Cork County Council
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

EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
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
L1	Protect natural and historic landscapes and features within them in a sustainable manner	<p>Maintain clear urban/rural distinctions</p> <p>To achieve a higher ratio of residential development in settlements compared to residential development in areas outside settlement</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</p>	Cork County Council	Potentially available within Cork County Council

EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
		development boundaries	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
SEA Screening of the Proposed Amendments

Proposed Amendment	<u>No likely</u> interaction with status of EPOs	Likely to improve status of EPOs	<u>Potential Conflict with</u> status of EPOs-likely to be mitigated	Uncertain interaction with status of EPOs	<u>Neutral</u> interaction with status of EPOs	Conclusion
MW 01.10.02	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 01.10.03	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 01.10.04	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 01.10.05	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 01.10.06	B1 B2 S1 W1 W2 PH1 PH2 A1 A2 CH1 L1 M1					Screened Out
MW 01.10.07	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 01.10.08	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 01.10.09	B1 B2 A1 A2 S1 W1 PH1 PH2 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-likely to be mitigated	Uncertain interaction with status of EPOs	Neutral interaction with status of EPOs	Conclusion
MW 02.02.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 02.02.02	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 02.02.03	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 02.02.04	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 02.02.05	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 02.02.06	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.01.01				B1 W1 PH1 PH2 CH1 L1	B2 A1 A2 M1	Possible environmental effects identified
MW.03.01.02				B1 W1 PH1 PH2 CH1 L1	B2 A1 A2 M1	Possible environmental effects identified
MW.03.01.03	B1 B2 A1 A2 S1 W1 PH1 PH2 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-likely to be mitigated	Uncertain interaction with status of EPOs	Neutral interaction with status of EPOs	Conclusion
MW.03.01.04	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.01.05	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW03.01.06	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.01.07	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.01.08	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.01.09	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.01.10	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.01.11	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.01.12	B1 B2 A1 A2 S1 W1 PH1 PH2 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-likely to be mitigated	Uncertain interaction with status of EPOs	Neutral interaction with status of EPOs	Conclusion
MW 03.01.13	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.01.14	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified
MW.03.01.15	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified
MW 03.02.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.02.02	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.03.01	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified
MW 03.03.02	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.03.03	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.03.04	B1 B2 A1 A2 S1 W1 PH1 PH2 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-likely to be mitigated	Uncertain interaction with status of EPOs	Neutral interaction with status of EPOs	Conclusion
MW 03.03.05	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.03.06	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW.03.03.07	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified
MW.03.03.08	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified
MW.03.04.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW.03.04.02	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW.03.04.03	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW.03.04.04	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW.03.05.01	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified

Proposed Amendment	No likely interaction with status of EPOs	Likely to improve status of EPOs	Potential Conflict with status of EPOs-likely to be mitigated	Uncertain interaction with status of EPOs	Neutral interaction with status of EPOs	Conclusion
MW 03.06.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.07.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.08.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW.03.09.01	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified
MW 03.09.02	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.10.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW.03.11.01	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified
MW 03.11.02	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW.03.12.01(a)	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified

Proposed Amendment	No likely interaction with status of EPOs	Likely to improve status of EPOs	Potential Conflict with status of EPOs-likely to be mitigated	Uncertain interaction with status of EPOs	Neutral interaction with status of EPOs	Conclusion
MW.03.12.01(b)	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.12.02	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.12.03	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.12.04	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.12.05	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW.03.13.01	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified
MW.03.13.02	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified
MW 03.13.03	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW.03.14.01	B1 B2 A1 A2 S1 W1 PH1 PH2 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-likely to be mitigated	Uncertain interaction with status of EPOs	Neutral interaction with status of EPOs	Conclusion
MW 03.14.02	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.14.03	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.15.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW.03.16.01	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified
MW 03.16.02	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.16.03	B2			B1 S1 W1 A1 A2 PH1 PH2 CH1 L1 M1		Possible environmental effects identified
MW 03.17.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.17.02	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.18.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out

Proposed Amendment	<u>No likely interaction with status of EPOs</u>	Likely to improve status of EPOs	<u>Potential Conflict with status of EPOs-likely to be mitigated</u>	Uncertain interaction with status of EPOs	<u>Neutral interaction with status of EPOs</u>	Conclusion
MW 03.19.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.21.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.23.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out
MW 03.25.01	B1 B2 A1 A2 S1 W1 PH1 PH2 CH1 L1 M1					Screened Out

Mitigation Measures

There are a number of concerns regarding the following amendment reference number:
MW 03.01.14

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) site located within a SAC.

Mitigation Measure: omit amendment MW 03.01.14

There are a number of concerns regarding the following amendment reference numbers:
MW 03.01.15, MW 03.03.01, MW 03.03.07, MW 03.03.08, MW 03.05.01, MW 03.09.01, MW 03.11.01, KK 03.12.01(a), MW 03.13.01, MW 03.13.02, MW 03.16.01, and MW 03.16.03.

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,
MW 03.01.15, MW 03.03.01, MW 03.03.07, MW 03.03.08, MW 03.05.01, MW 03.09.01, MW 03.11.01, KK 03.12.01(a), MW 03.13.01, MW 03.13.02, MW 03.16.01, and MW 03.16.03.**

There are concerns regarding amendment reference numbers: **MW 03.01.01 and MW 03.01.02** due to the change in zoning from open space which includes a specific objective to protect the amenity and setting of the 'Castle' and St. John's Church to built up area.

Mitigation Measure: omit amendment MW 03.01.01 and MW 03.01.02

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Mallow Electoral Area Local Area Plan

Strategic Flood Risk Assessment

August 2011

Document Verification
Page 1 of 1

Job Title: Mallow Electoral Area Local Area Plan Strategic Flood Risk Assessment						
Document Title: Mallow Electoral Area Local Area Plan Strategic Flood Risk Assessment.						
Document Ref: Strategic Flood Risk Assessment.						
Revision	Date	Filename:				
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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 Mallow Local Area Plan. The report should be read in conjunction with the Mallow 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 Mallow 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 Mallow 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 Mallow 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

- 1.3.1 'The Planning System and Flood Risk Management: Guidelines for Planning Authorities', published in November 2009, describe flooding as a natural process that can occur at any time and in a wide variety of locations. Flooding can often be beneficial and many habitats rely on periodic inundation. However, when flooding interacts with human development, it can threaten people, their property and the environment. Flooding may be from rivers, the sea, groundwater, sewers or overland flow caused by intense or prolonged periods of rainfall. Climate change effects suggest that the frequency and severity of flooding is likely to increase in the future.
- 1.3.2 The Guidelines describe good flood risk practice in planning and development management and seek to integrate flood risk management into the planning process, thereby assisting in the delivery of sustainable development. Planning authorities are directed to have regard to the guidelines in the preparation of Development Plans and Local Area Plans, and for development control purposes. For this to be achieved, flood risk must be assessed as early as possible in the planning process.
- 1.3.3 Paragraph 1.6 of the Guidelines states that the core objectives are to:
- avoid inappropriate development in areas at risk of flooding;
 - avoid new developments increasing flood risk elsewhere, including that which may arise from surface run-off;
 - ensure effective management of residual risks for development permitted in floodplains;
 - avoid unnecessary restriction of national, regional or local economic and social growth;
 - improve the understanding of flood risk among relevant stakeholders; and
 - ensure that the requirements of EU and national law in relation to the natural environment and nature conservation are complied with at all stages of flood risk management.
- 1.3.4 The guidelines aim to facilitate the transparent consideration of flood risk at all levels of the planning process, ensuring a consistency of approach throughout the country. The guidelines work on a number of key principles, including:
- Adopting a staged and hierarchical approach to the assessment of flood risk;
 - Adopting a sequential approach to the management of flood risk, based on the frequency of flooding (identified through Flood Zones) and the vulnerability of the proposed land use.

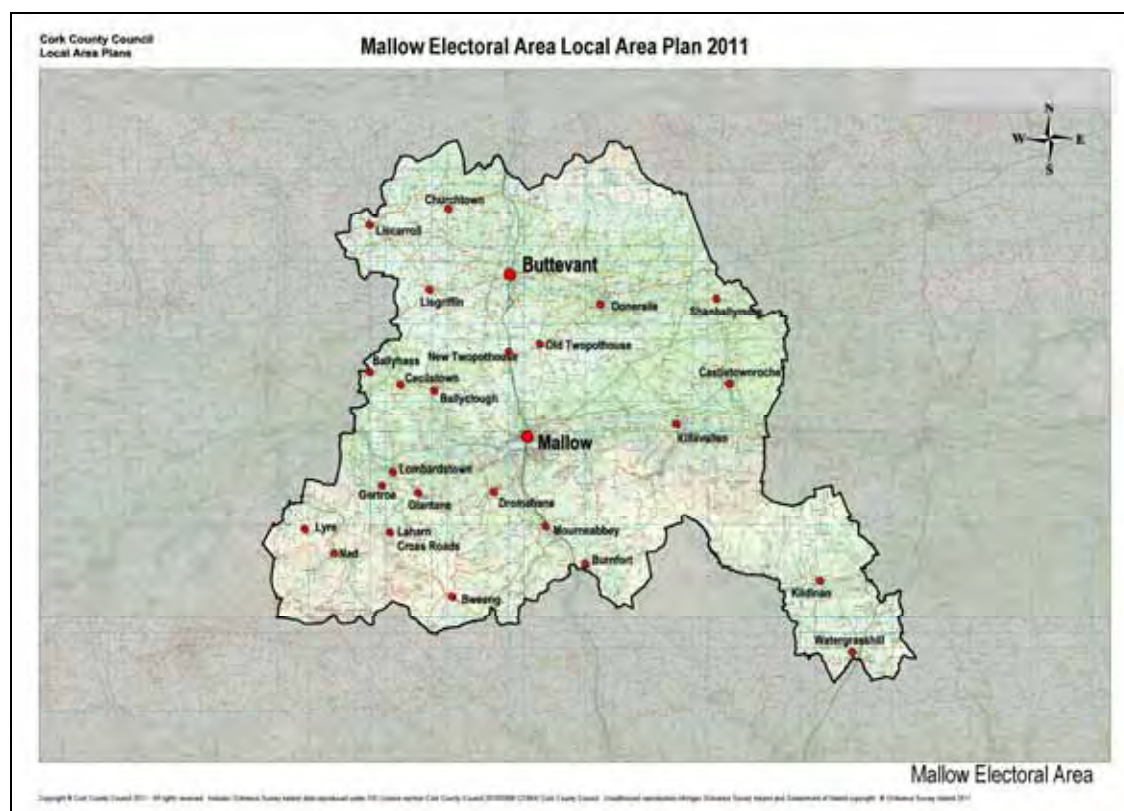
1.4 Definition of Flood Risk

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

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

- 1.4.3 Likelihood of flooding is normally defined as the percentage probability of a flood of a given severity occurring in any given year. For example, a 1% probability indicates the severity of a flood that is expected to be exceeded on average once in 100 years, i.e. it has a 1 in 100 chance of occurring in any given year.
- 1.4.4 In the Local Area Plan, flood risks are defined in relation to the following zones;
- **Flood Zone A:** where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding);
 - **Flood Zone B:** where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding or between 0.1% or 1 in 1000 and 0.5% or 1 in 200 for coastal flooding);
 - **Elsewhere**, sometimes referred to as **Zone C**, the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding). This zone covers all areas of the plan which are not in zones A or B.
- 1.4.5 Consequences of flooding depend on the hazards caused by flooding (depth of water, speed of flow, rate of onset, duration, wave-action effects, water quality) and the vulnerability of receptors (type of development, nature, e.g. age-structure of the population, presence and reliability of mitigation measures etc).
- 1.4.6 The 'Planning System and Flood Risk Management' 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 Mallow Electoral Area

2.1.1 The Mallow Electoral Area is split between two Strategic Planning Areas, the CASP Ring Strategic Planning area and the North Strategic Planning Area as defined in the County Development Plan 2009. It is a predominantly rural electoral area that accommodates an extensive network of settlements as follows:

- 2 Main Settlements comprising the “hub” town of Mallow and the county town of Buttevant.
- 3 Key Villages comprising Castletownroche, Doneraile and Watergrasshill.
- 13 Villages comprising Ballyclough, Bweeng, Burnfort, Cecilstown, Churchtown, Dromahane, Glantane, Killavullen, Lisacarril, Lombardstown, Lyre, New Twopothouse and Shanballymore
- 8 Village Nuclei comprising Ballyhass, Gortroe, Kildinan, Laharn Cross Roads, Lisgriffin, Mourneabbey, Nad and Old Twopothouse.

2.2 Population and Household Growth

2.2.1 The table below summarises the population targets for the Mallow Electoral Area up to 2020, set out in the Cork County Development Plan 2009, as

varied. The 2020 population target for this electoral area is 41,029 persons, a 42% increase over 14 years.

Settlement Hierarchy Mallow Electoral Area	2006	Growth 2006-2020	2020 Target
Mallow	10,241	9,759	20,000
Buttevant	914	587	1,501
Villages and Rural	17,751	1,777	19,528
Total Population	28,906	12,123	41,029

2.2.2 The population growth targets indicate that Mallow will continue as the largest settlement in the electoral area growing to 20,000 persons by 2020, a 95% increase on the 2006 population. Growth in Buttevant will be more moderate, with a population target of 1,501 persons, equivalent to growth of 64% on the 2006 level. The remaining growth for all the villages and rural areas, including the key villages Doneraile and Watergrasshill amounts to 1,777 persons (10%), bringing the overall target to 19,528. Within the villages and rural areas, it is envisaged that the key villages will account for a significant part of this growth. Growth in the smaller settlements and rural areas needs to moderate in order to build up the larger settlements and reduce the extent of commuting.

2.2.3 The following table outlines the corresponding households based on the above population targets to 2020 (excluding Mallow as it is covered by the Mallow Special Local Area Plan 2007). The table 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 2044 new dwellings could be required within Buttevant and the villages and rural areas for the period 2006-2020.

Settlement Hierarchy Mallow Electoral Area	2006	Growth 2006-2020	2020 Target
Buttevant	323	310	633
Villages and Rural Areas	6,398	1,262	7,660
Total Households	6,721	1,572	8,293
New Dwellings Required		2044	

2.2.4 In reviewing the Mallow Local Area Plan a detailed assessment of villages was completed which indicated that many villages and smaller settlements could not, for a variety of reasons, accommodate large numbers of dwellings. The Strategy adopted therefore makes provision for relatively modest growth in the village network. To compensate, increased provision has been made for

additional growth in the towns, where infrastructure is more readily available or can more be provided in a more sustainable manner and the extra housing can be more readily assimilated.

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 Mallow Electoral Area are detailed in the table below.

Designated Sites in the Mallow Electoral Area		
Code	Description	Natura 2000 Site
pNHA	Blackwater Valley (Ballincurrig Wood) 1793	No
pNHA	Blackwater Valley (Kilcummer) 1794	No
pNHA	Blackwater Valley (Killavullen) 1080	No
pNHA	Awbeg Valley (Castletownroche) 1561	No
pNHA	Awbeg Valley (above Doneraile) 75	No
pNHA	Awbeg Valley (below Doneraile) 74	No
pNHA	Ballyhoura Mts 2036	No
pNHA	Ballintlea Wood 2086	No
pNHA	Ballinvonear Pond 12	No
pNHA	Kilcolman Bog 92	No
pNHA	Eagle Lough 1049	No
cSAC	Ballyhoura Mts 2036	Yes
cSAC	Blackwater 2170	Yes
SPA	Kilcolman Bog 92	Yes

2.3.2 To date, sites of geological interest have not been comprehensively covered by the existing nature conservation designations. Cork County Council recognises the importance of geological heritage and to this end has listed in the County Development Plan 2009 the important geological features within the County with the intention of maintaining their possible conservation value. Some of the areas included in the Mallow Electoral Area include Ballybeg Quarry (Buttevant) - Lower Carboniferous bryozoan reef facies;

Ballyclough Quarry (Ballyclough) - Lower Carboniferous stratigraphy;
Castlepook Cave (Castlepook South) - Karst – maze cave with rich fossil
mammal fauna.

- 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, as varied.

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 Primary Route N20 runs through the electoral area and is scheduled to be upgraded to motorway. This should greatly decrease travel times with particular reference to access from Mallow and Buttevant to both Limerick and Cork. The train services from Mallow provide the area with rail connections to Cork and Dublin.

Section 3 Flood Risk in the Mallow Electoral Area

3.1 Flooding Data

3.1.1 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 Mallow 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:

- '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.

3.1.2 In line with advice from the OPW, the County Council has amalgamated the information from these sources into a single '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 sources. Flood risks from pluvial and groundwater sources or 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 Mallow Electoral Area shows rivers to be the most common source of damage and it is this source of flooding that has 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.

Fluvial Flooding

- 3.2.3 Flooding of watercourses is associated with the exceedance of channel capacity during higher flows. The process of flooding on watercourses depends on a number of characteristics associated with the catchment including; geographical location and variation in rainfall, steepness of the channel and surrounding floodplain and infiltration and rate of runoff associated with urban and rural catchments. 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.
- 3.2.4 In a large, relatively flat catchment, flood levels will rise slowly and natural floodplains may remain flooded for several days, acting as the natural regulator of the flow. In small, steep catchments, local intense rainfall can result in the rapid onset of deep and fast-flowing flooding with little warning. Such “flash” flooding, which may only last a few hours, can cause considerable damage and possible threat to life.
- 3.2.5 The form of the floodplain, either natural or urbanised, can influence flooding along watercourses. The location of buildings and roads can significantly influence flood depths and velocities by altering flow directions and reducing the volume of storage within the floodplain. Critical structures such as bridge and culverts can also significantly reduce capacity creating pinch points within the floodplain. These structures are also vulnerable to blockage by natural debris within the channel or by fly tipping and waste.
- 3.2.6 Rivers are the primary cause of flooding in the Mallow Electoral Area with flood events attributed to fluvial sources ranging from the Blackwater River in particular to smaller tributaries, drains and natural lakes.

Rivers in the Mallow Electoral Area.

- 3.2.7 The Blackwater River flows through counties Kerry, Cork and Waterford. It rises in the Mullaghareirk Mountains in Co. Kerry and subsequently flows in an easterly direction across Co. Cork, through the centre of Mallow and adjacent to Lombardstown and Killavullen. It has several major tributaries including the Clyda and the Awbeg within the Mallow Electoral Area.
- 3.2.8 Mallow town has a long history of flooding, primarily from the Blackwater River and the Munster Blackwater (Mallow) Drainage Scheme is currently being implemented in the town by the OPW. These will assist in future flood prevention/protection/alleviation in several areas of the town. However, the implementation of these measures will not completely eradicate flood risk.
- 3.2.9 The Clyda River flows parallel to the existing N20 in a northerly direction to its confluence with the Blackwater, just upstream of the town of Mallow. The River Clyda drains an area south of Mallow and along with other water courses comprises the Peastinagh River, Glen Stream and Abbey Stream. There is some history of flooding from the Clyda to the south west of Mallow at Quarterstown.

- 3.2.10 The Awbeg River is part of the Munster Blackwater catchment. North of Buttevant the river flows through flat agricultural land, while south of Buttevant the river generally flows through a narrow, steep-sided valley with wooded sides. The upper reaches of the river were subjected to an arterial drainage programme in the 1950's, and to regular maintenance since. (O'Sullivan, 1996). The floodplain of the upper sections of the Awbeg is approx. 30-100m wide whereas the floodplain of the low lying areas of the Awbeg is expected to be in the range of up to 1000m wide during extreme events. The Awbeg River gives rise to a risk of flooding in Buttevant, Doneraile and Castletownroche.
- 3.2.11 The Spa Glen River located north east of Mallow connects to the Blackwater at the town of Mallow. This tributary is noted as having a history of flooding. As its name suggests, there are a number of hydrogeological features associated with the Spa Glen, including springs in the area of 'Energy Park' in Mallow.
- 3.2.12 Smaller watercourses give rise to the risk of flooding in other settlements including Churchtown, Liscarroll, Ballyclough, Glantane, Newtwopothouse, Gortroe, Mourneabbey and Nad.
- 3.2.13 The following table highlights the watercourses contributing to flood risk in the settlements of the Mallow EA;

Settlement	WaterCourse
Mallow	Blackwater River
<u>Buttevant</u>	Blackwater/ Awbeg
<u>Castletownroche</u>	Blackwater/ Awbeg
<u>Doneraile</u>	Blackwater/ Awbeg
Ballyclough	Finnow Stream (runs to south of village)
Churchtown	Watercourse to east of the village
Glantane	Stream off River Blackwater
Killavullen	Blackwater
Liscarroll	Blackwater / Duvglasha
Lombardstown	Blackwater
New Twopothouse	Unnamed Stream
Gortroe	Duvglasha River
Nad	Nad River

3.3 Other Sources of Flooding

3.3.1 Other sources of flooding including pluvial, ground water, drainage systems and reservoirs are detailed below. Risks from these sources have not specifically addressed in the Flood Risk Assessment undertaken for the Mallow 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 when flow entering a system, such as an urban storm water drainage system, exceeds its discharge capacity, it becomes blocked or it cannot discharge due to a high water level in the receiving watercourse. Sewer flooding problems will often be associated with regularly occurring storm events during which sewers and associated infrastructure can become blocked or fail.
- **Flooding from Reservoirs, Lakes and other Artificial Sources:** Reservoirs can be a major source of flood risk, as demonstrated in the 2009 flooding, when waters released from the Inniscarra dam flooded significant sections of Cork City.

Section 4 Addressing Flood Risk in the Mallow Local Area Plan

4.1 Introduction

4.1.1 This section details the approach to Flood Risk Management adopted in the Mallow 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 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 Flood Risk within Development Boundary	Comment
Main Settlements		
Buttevant	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.
Key Villages		
Castletownroche	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.
Doneraile	Yes	
Watergrasshill	Yes	
Villages		
Ballyclogh	No	Proceed as zoned in the Local Area Plan
Burnfort	No	
Bweeng	No	
Cecilstown	No	
Churchtown	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.
Dromahane	No	Proceed as zoned in the Local Area Plan
Glantane	No	
Killavullen	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

Table 4.1: Flood Risk by Settlement		
Settlement	Fluvial Flood Risk within Development Boundary	Comment
		specific Flood Risk Assessment is necessary.
Liscarroll	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.
Lombardstown	No	Proceed as zoned in the Local Area Plan
Lyre	No	
New Twopothouse	No	
Shanballymore	No	
Village Nuclei		
Ballyhass	No	Proceed as zoned in the Local Area Plan
Gortroe	No	
Kildinan	No	
Laharn Cross Roads	No	
Lisgriffin	No	
Mourneabbey	No	
Nad	No	
Old Twopothouse	No	

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 an other 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 Mallow 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, 200, as amended.
- the zoning is required to achieve the proper planning and sustainable development of an urban settlement and is
 - (a) Essential to facilitate the regeneration and/or expansion of the centre of the urban settlement;
 - (b) Comprises significant previously developed and/or under-utilised lands;
 - (c) Is within or adjoining the core of an established or designated urban settlement;
 - (d) Will be essential to achieving compact and sustainable urban growth; and
 - (e) 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 Mallow Local Areas Plans 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 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 Mallow 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 & Other Assessment Criteria	Reason for Inclusion in the LAP	Comment
Buttevant	T-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 Zonings	-	-
		Other	n/a	-
Buttevant	C-01	Justification Test	Not applied	-
		Historical Zonings	✓	Previously zoned for education use in the 2005 LAP. 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	-
Buttevant	X-01	Justification Test	Not applied	-

Table 4.2: Specific land Use Zonings located within Flood Zone A or B				
Settlement	Zoning Objective	Development Plan Justification Test & Other Assessment Criteria	Reason for Inclusion in the LAP	Comment
		Historical Zonings	-	-
		Other	Included by Resolution	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.

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 Managing Flood Risk in the Future

5.1 What has the LAP Achieved

5.1.1 The inclusion of 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 <ul style="list-style-type: none"> ▪ Preliminary Flood Risk Assessment ▪ production of the flood maps ▪ production of Flood Risk management Plans 	OPW	a) End 2011 b) 2013 c) 2015
County Development Plan Updates	Cork County Council	2012
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



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