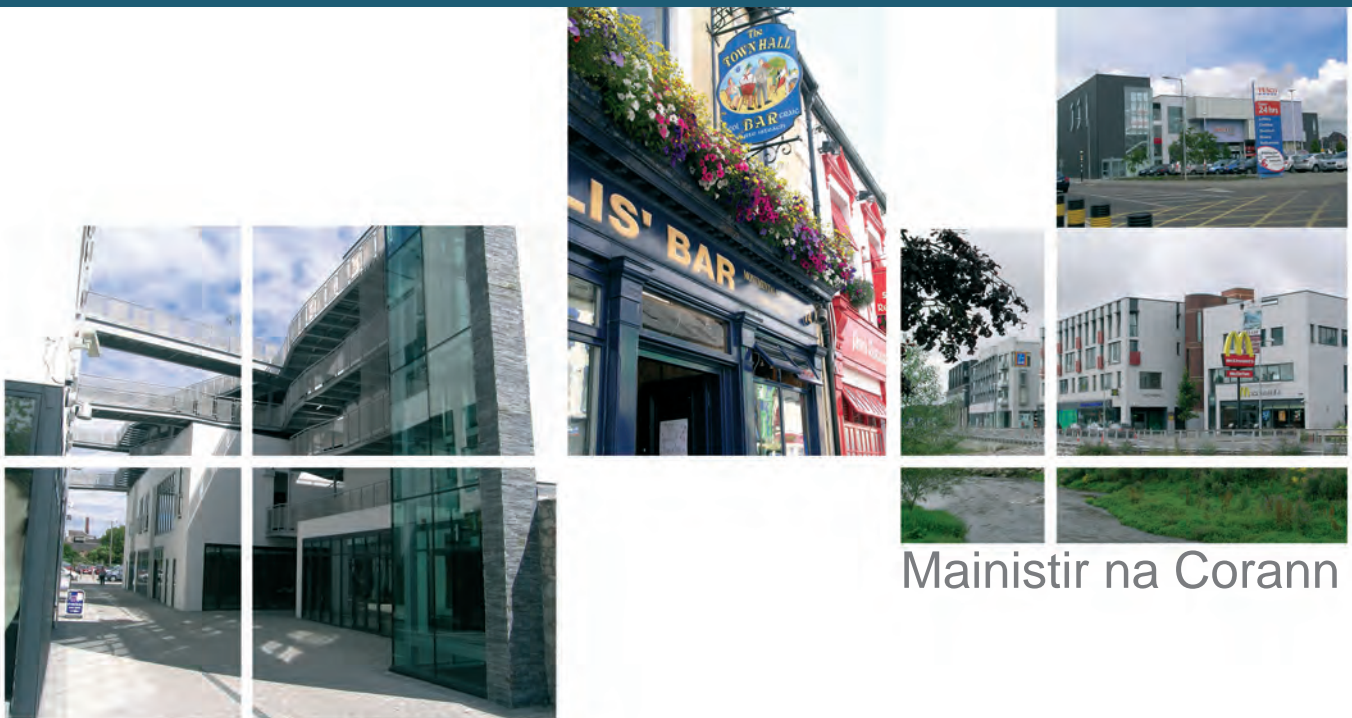




Midleton

Town Development Plan 2013



Mainistir na Corann

Volume 2

Strategic Environmental Assessment Statement
 Habitats Directive Assessment Screening Statement
 Strategic Flood Risk Assessment

April 2013

Document Verification
Page 1 of 1

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Midleton Town Council

Town Development Plan

April 2013



MIDELTON TOWN COUNCIL

Volume 2

SEA Statement of the Midleton Town Development Plan 2013
Habitats Directive Assessment Screening Statement
Strategic Flood Risk Assessment

SEA Statement

SEA STATEMENT

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1 Section 1 Introduction

1.1 SEA Definition

- 1.1.1 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 appropriate stage of decision-making on a par with economic and social considerations.

1.2 Legislative Context

- 1.2.1 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.
- 1.2.2 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 21 July 2004.
- 1.2.3 The legislation was updated by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I. No. 200 of 2011 and the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 (S.I. 201 of 2011).
- 1.2.4 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 (DEHLG, 2004).

1.3 Content of the SEA Statement

- 1.3.1 The SEA Statement is required to include information summarising:
- a) how environmental considerations have been integrated into the Plan,
 - b) how
 - the environmental report, and
 - submissions and observations made to the planning authority on the proposed Plan and Environmental Report,have been taken into account during the preparation of the Plan,
 - c) the reasons for choosing the Plan, as adopted, in the light of the other reasonable alternatives dealt with, and
 - d) the measures decided upon to monitor the significant environmental effects of implementation of the Plan.

1.4 Implications of the SEA for the Plan

- 1.4.1 As a result of the aforementioned legislation, the review of the Midleton Town Development Plan was required to undergo a Strategic Environmental Assessment.
- 1.4.2 The findings of the SEA were expressed in a Draft Environmental Report which was submitted to the Elected Members alongside the proposed Draft Plan. The purpose of the report was to provide a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of growth in Midleton.

- 1.4.3 Changes made to the proposed Draft Plan were evaluated for their environmental consequences and the Draft Environmental Report was updated to become the Environmental Report.
- 1.4.4 The Environmental Report and the Draft Plan were placed on public display in March 2012.
- 1.4.5 Proposed Amendments to the Draft Plan were evaluated for their environmental consequences and these were placed on public display alongside the Proposed Amendments in October 2012.
- 1.4.6 On adoption of the Draft Plan, an Environmental Statement was prepared that now accompanies the adopted Plan.

2 How Environmental Considerations were integrated into the Development Plan

2.1 Consultations

- 2.1.1 In terms of the SEA, there have been a number of consultations over the course of the preparation of the Midleton Town Council, Town Development Plan 2013.
- 2.1.2 A Scoping Report was prepared by the Planning Policy Unit in June 2011 which identified the key environmental issues that would be addressed appropriately in the Environmental Report. The Environmental Protection Agency (EPA), the Department of the Environment, Community and Local Government (DECLG) and the Department of Communications, Energy and Natural Resources (DCENR) were then sent SEA scoping notices indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the Environmental Report could be made to the Councils. A SEA scoping submission was received from the EPA which was taken into account during the formulation of the Environmental Report. In addition, the DECLG made a submission on the Development Plan and Environmental Report while they were on public display and the EPA made a submission on the Proposed Amendments when they were on public display. Further information on the aforementioned submissions is provided under Section 3.2.

2.2 The SEA Process

- 2.2.1 The SEA had a direct input into the preparation of the Midleton Town Plan at a number of distinct stages. These are as follows:
- a) Stage 1 – Preparation of the Draft LAP (Scoping and Environmental Report)
 - b) Stage 2 – Screening Matrix and Evaluation of the Draft LAP Objectives
 - c) Stage 3 – The Amendment Stage (SEA of the Proposed Material Amendment to the Draft Plan)

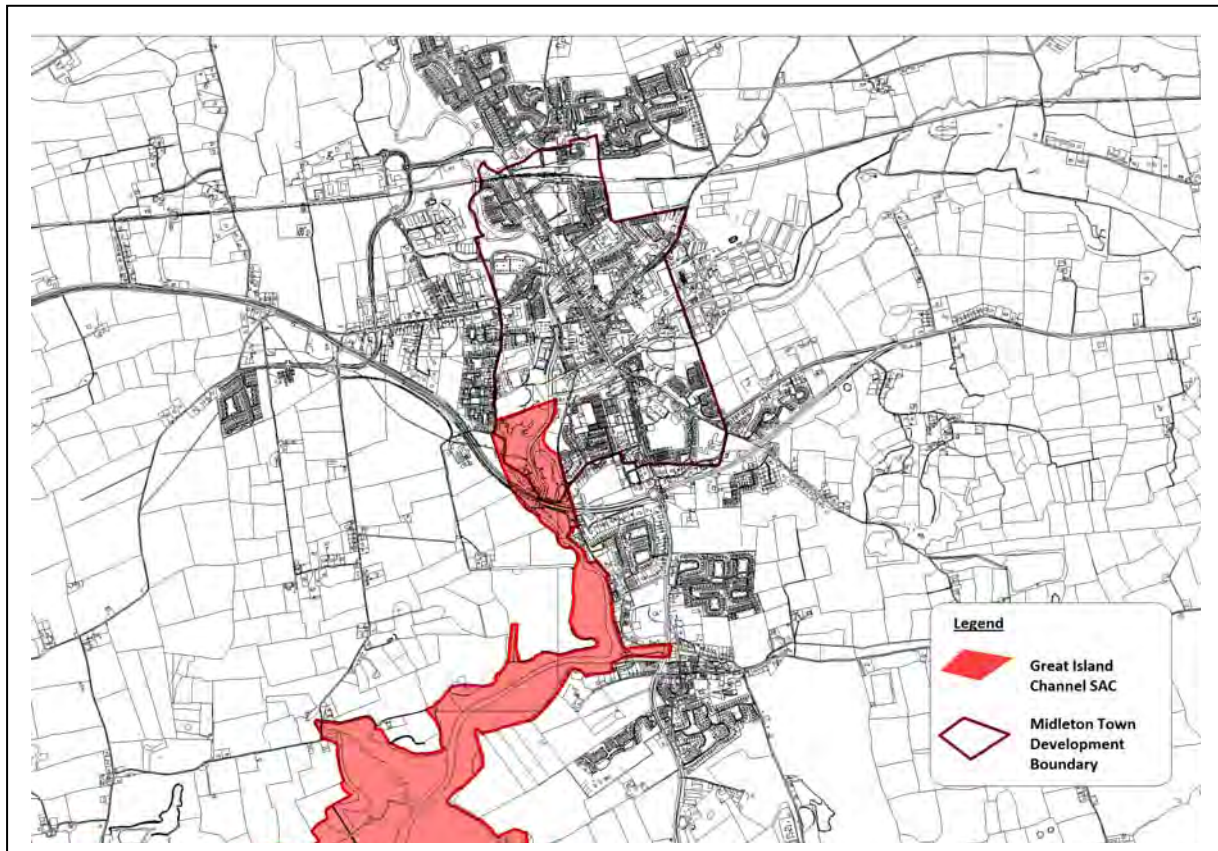
2.3 Stage 1- Preparation of the Draft Town Plan

Scoping

- 2.3.1 Chapter 4 of the Environmental Report outlines the methodology of the preparation of the Midleton Town Plan and the associated Environmental Report.
- 2.3.2 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 Town. 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.

Environmental Sensitivities

- 2.3.3 A key element of the scoping stage was the mapping of various environmental sensitivities, which served to identify those areas that would be most sensitive to development and would suffer the most adverse effects if growth was to be accommodated in those areas unmitigated.
- 2.3.4 The sensitivities considered by the SEA are set out in the figures below

*Overlay mapping***Special Area of Conservation / Special Protection Areas****Figure 2-1 Great Island Channel Special Area of Conservation**

2.3.5 Special Areas of Conservation (SACs) have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) - referred to as the Habitats Directive, by the DECLG due to their conservation value for habitats and species of importance in the European Union. Part of the Great Island SAC lies within Midleton Town Councils Administrative area. Special consideration is therefore required to ensure developments proposals in the Midleton area do not compromise the environmental integrity of this important habitat for wintering waterfowl.

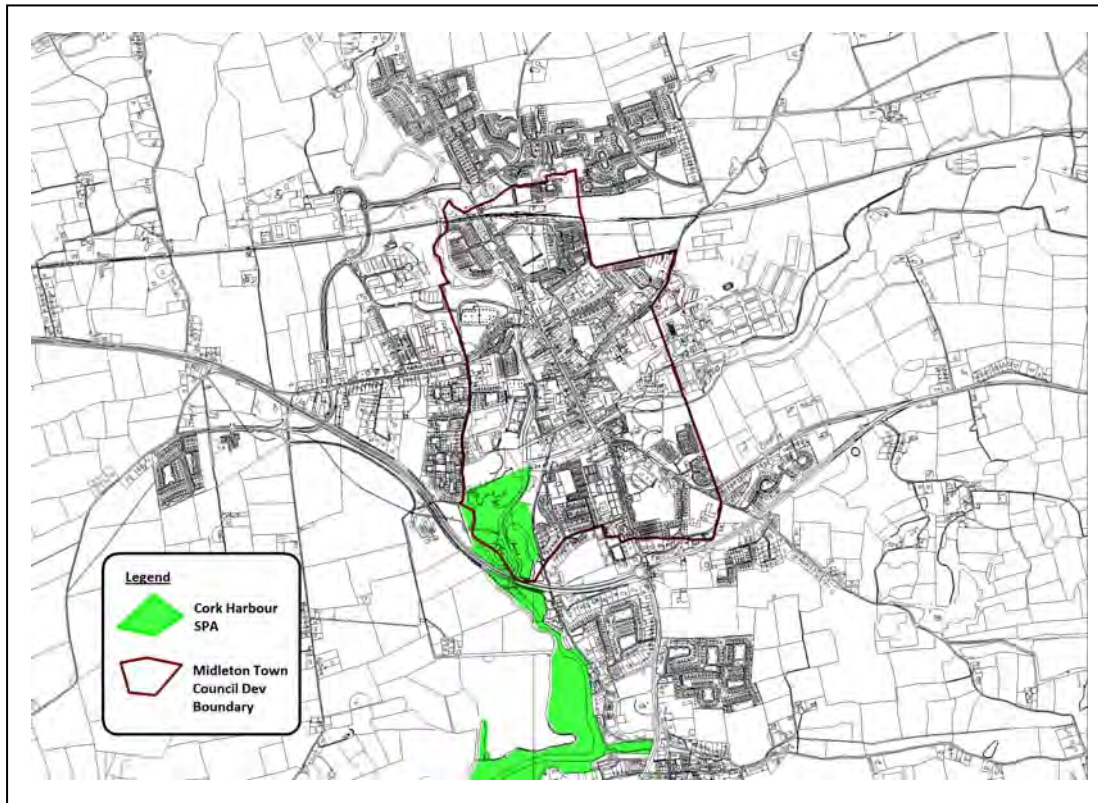


Figure 2-2 Cork Harbour Special Protection Area (SPA)

2.3.6 Special Protection Areas (SPAs) have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) - referred to as the Birds Directive - by the DECLG due to their conservation value for birds of importance in the European Union. Part of the Cork Harbour Special Protection Area is located within the town development boundary. There is a hydrological linkage between this site, and the town of Midleton, and increased levels of development within the town which may have an impact on water quality in the harbour, could have an impact on this site.

Sites of Biodiversity Value

- 2.3.7 **Dungourney River at Roxborough and Churchtown:** This site consists of three small areas of wet willow ash woodland and mixed broadleaved woodland situated along the Dungourney River in Roxborough and Churchtown.

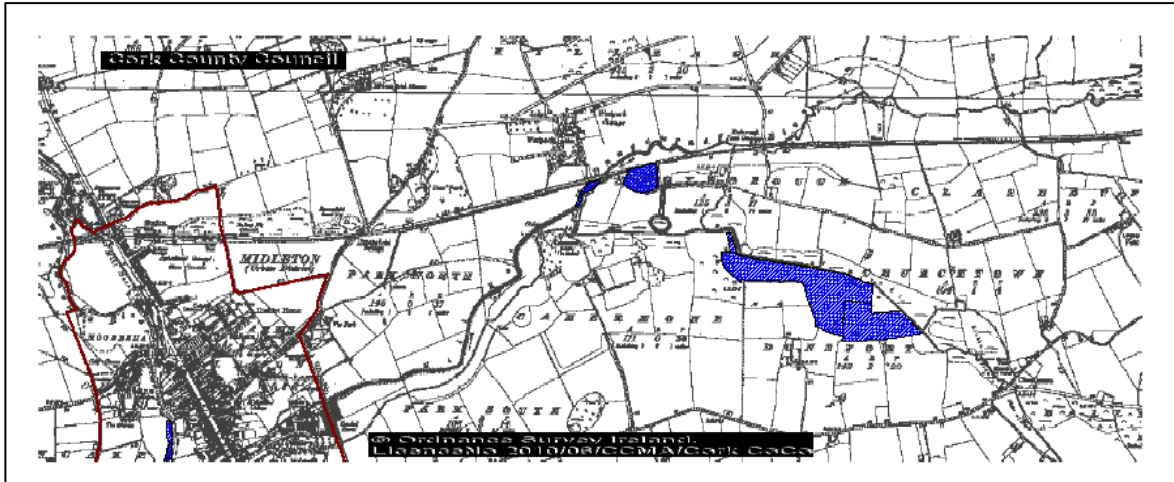


Figure 2-3 Dungourney River at Roxborough and Churchtown (sites of biodiversity value in blue)

- 2.3.8 **Ballyannan Wood :** This Coillte owned woodland is located to the south of Midleton and serves as an important amenity for the town. The woodland is composed primarily of sycamore, beech, Scots pine, oak, ash, lawsons cypress, larch and sitka spruce. The site holds a diverse range of woodland habitats with notable features including a visually spectacular ground flora, veteran trees, and a breeding population of Little Egret. While the woodland has been modified and is primarily made of non native species, it is a site which has been continuously covered by woodland for many hundreds of years. It contains a rare and important invertebrate community reflecting the occurrence of veteran trees at the site, as well as populations of Red Squirrel and Whiskered Bat.

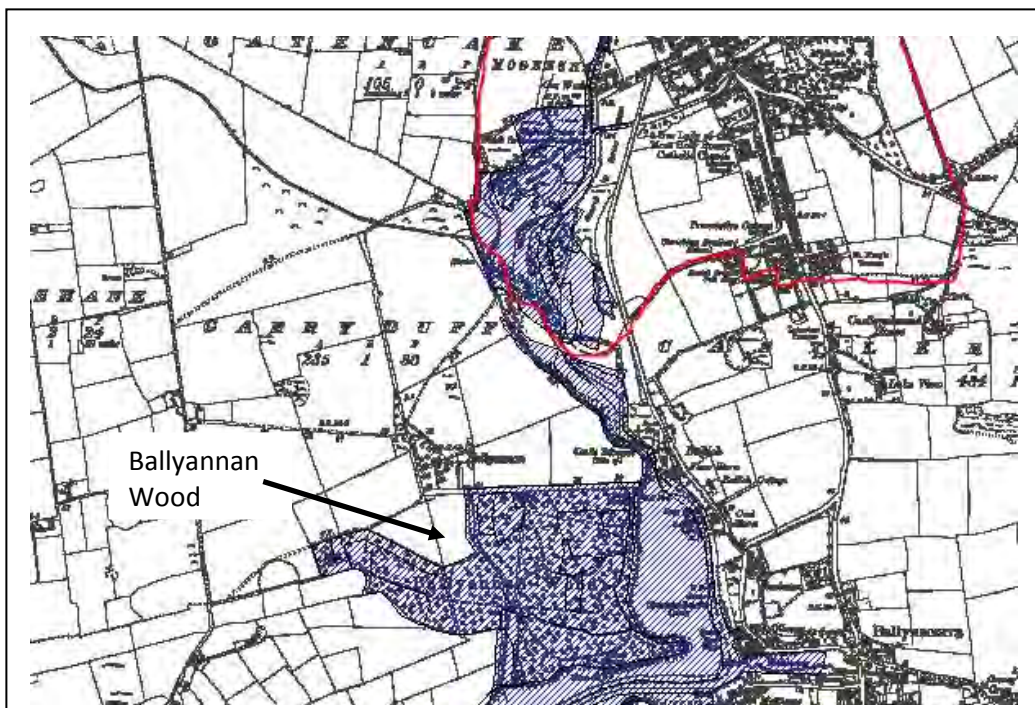


Figure 2-4 Ballyannan Wood and sites of Biodiversity value in blue.

2.3.9 **Carrigshane-Coppingerstown Limestone Outcrops** - This site includes a number of small pockets of scrub and woodland located on limestone outcrops in the townlands of Carrigshane and Coppingerstown. The habitats within this area include scrub, mixed broadleaved woodland and horticultural land. The site supports a rich calcicole flora including species such as Sheeps Fescue, Bird’s Foot Trefoil, Thick-leaved Stonecrop, Marjoram, Shining Crane’s-bill and long-stalked Crane’s-bill. It is the only known extant location in Cork for Salad Burnet. Other species which occur include Carline Thistle, Pale Flax, Bee Orchid, Musk Stork’s-bill, Common Stork’s-bill, Round-leaved Crane’s-bill, Wild Thyme, Kidney Vetch and Common Gromwell.

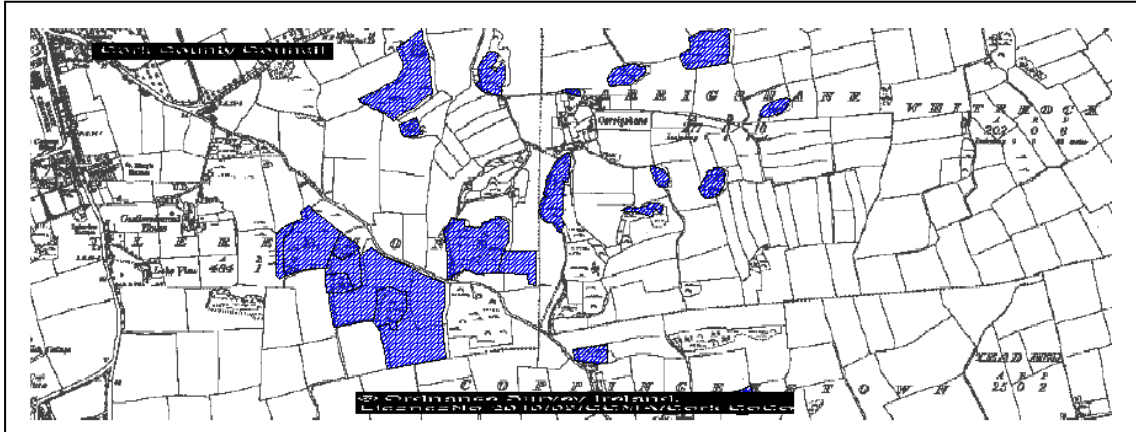
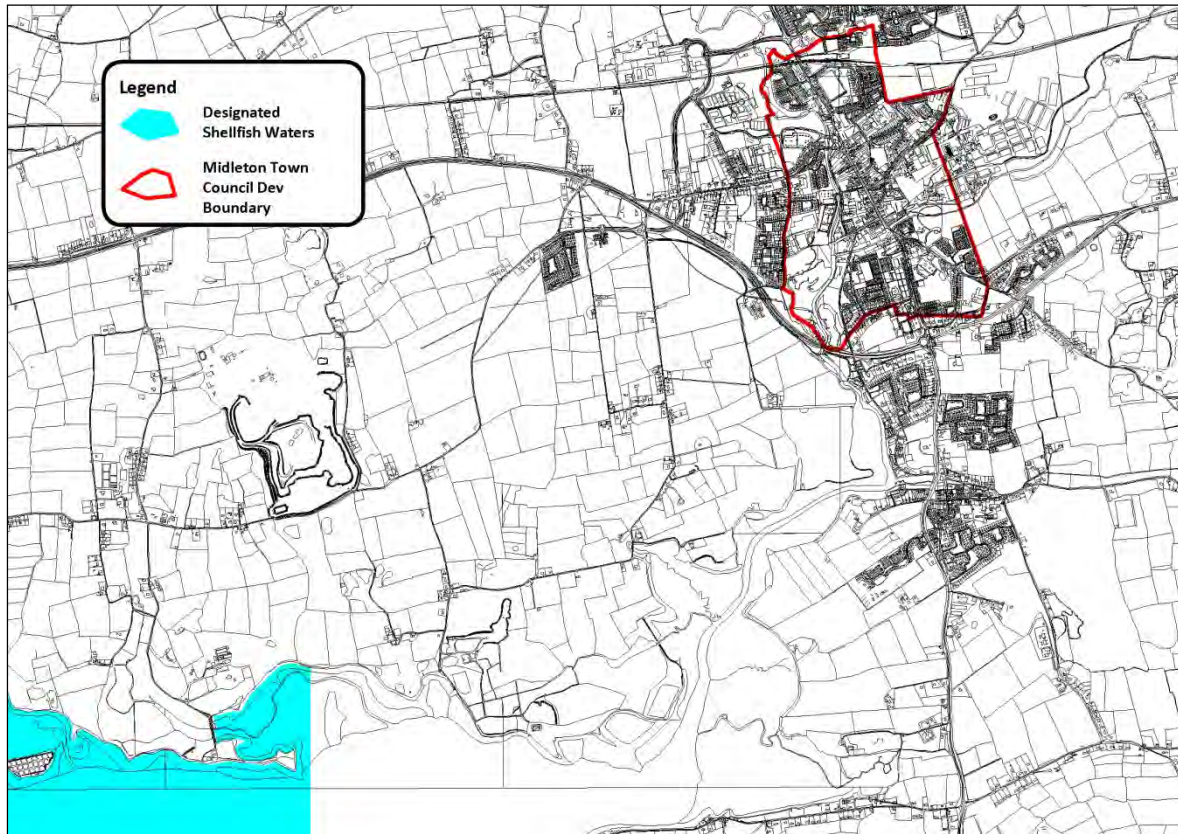


Figure 2-5 Carrigshane Coppingerstown Limestone Outcrops (sites of biodiversity value in blue)

Protected areas**Figure 2-6 Shellfish waters**

2.3.10 The aim of the Shellfish Waters Directive is to protect or improve shellfish waters in order to support shellfish life and growth. It is designed to protect the aquatic habitat of bivalve and gastropod molluscs, which include oysters, mussels, cockles, scallops and clams. The Directive requires Member States to designate waters that need protection in order to support shellfish life and growth; these waters are set out in Figure 2.6 above. The Directive sets physical, chemical and microbiological requirements that designated shellfish waters must either comply with or endeavor to improve. The Directive also provides for the establishment of pollution reduction programmes for the designated waters.

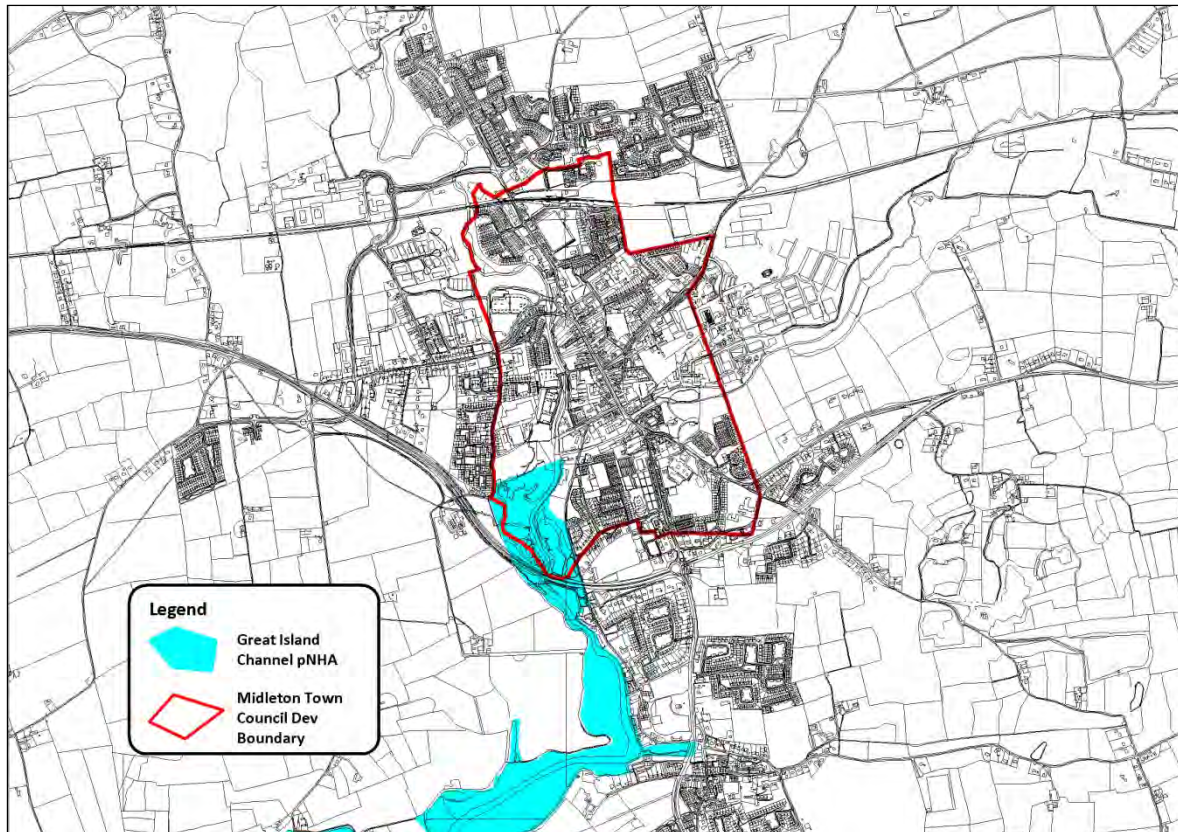


Figure 2-7 NHA and PNHA

2.3.11 Natural Heritage Areas (NHAs) are designated due to their national conservation value for ecological and/or geological/geomorphological heritage. They cover nationally important eminent natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000. Proposed NHAs were published on a non statutory basis in 1995, but have not since been statutorily proposed or designated. Great Island Channel is one such pNHA. As with the SPA, part of this pNHA lies within the Midleton Town boundary. There is a hydrological linkage between this pNHA and the town of Midleton. Increased levels of development within the town which may have an impact on water quality in the harbour, could have an impact on this site.

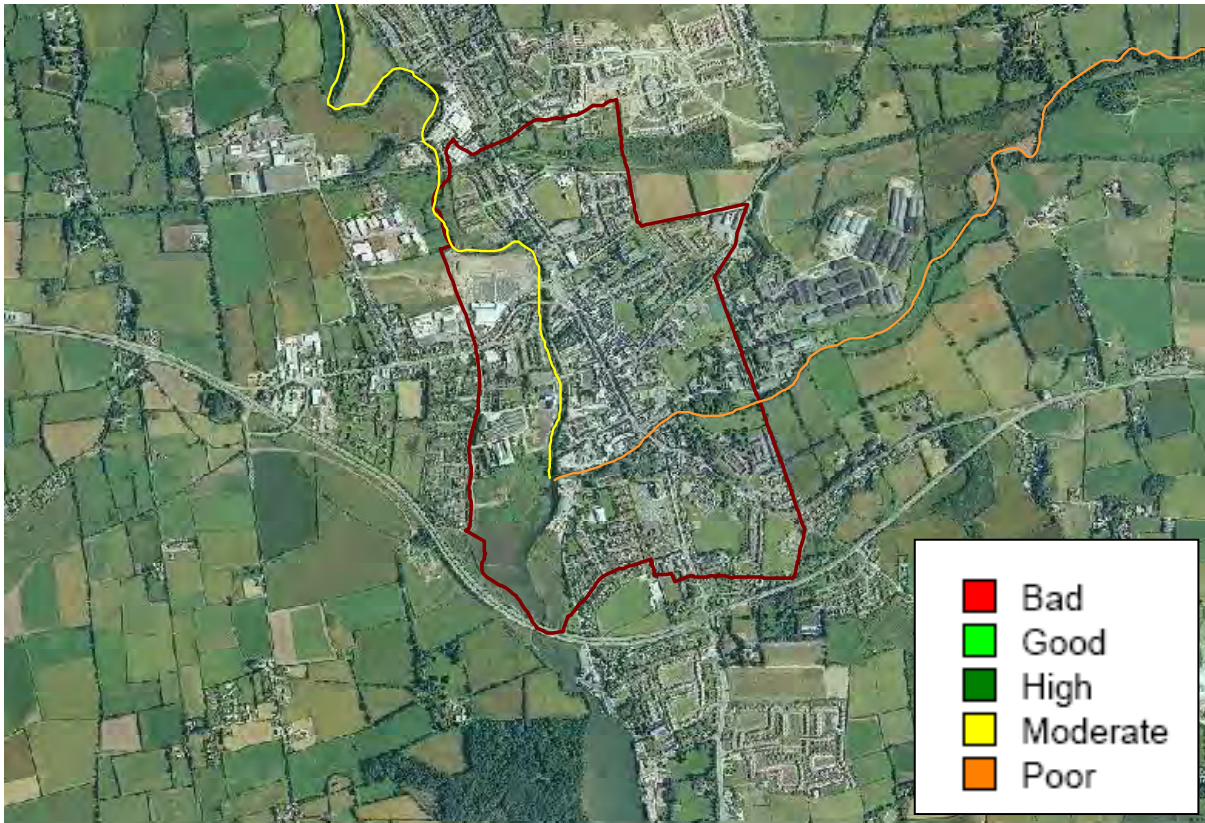


Figure 2-8 River Quality Status

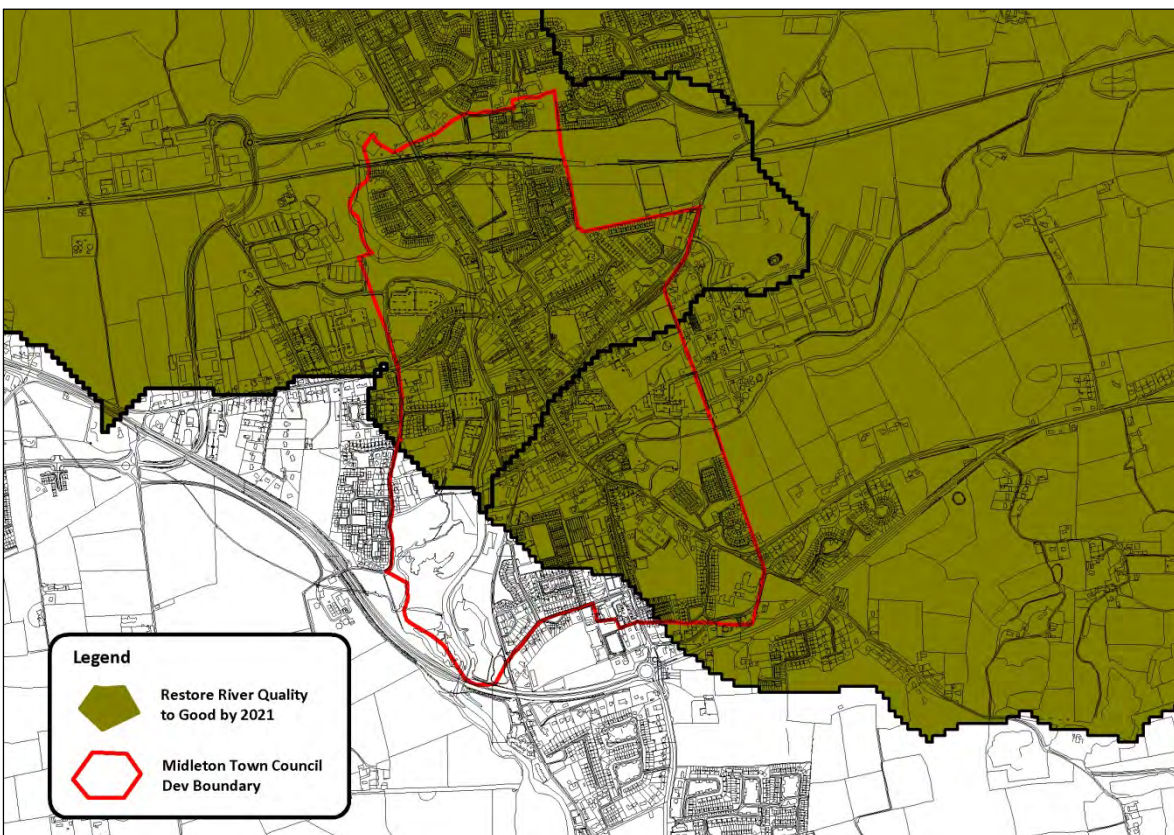


Figure 2-9 Overall Objectives for Rivers

2.3.12 With regard to water quality, the Owenacurra and Dungourney Rivers, which run through the town, have been identified as being at risk in the South West River Basin Management Plan. The overall objective for 2015 is to restore these waterbodies to good status. Water quality in the Dungourney River has been identified as poor and the Owenacurra River is only moderate and these rivers are therefore at risk of not achieving good quality status by 2015. The WWTP serving the town was upgraded to cater for 15,000 PE in 2012. Although other issues such as agricultural practices and septic tanks are significant factors affecting water quality, completion of the programme of remedial action on the waste water infrastructure (in relation to storm water overflows etc) will aid the achievement of this objective.

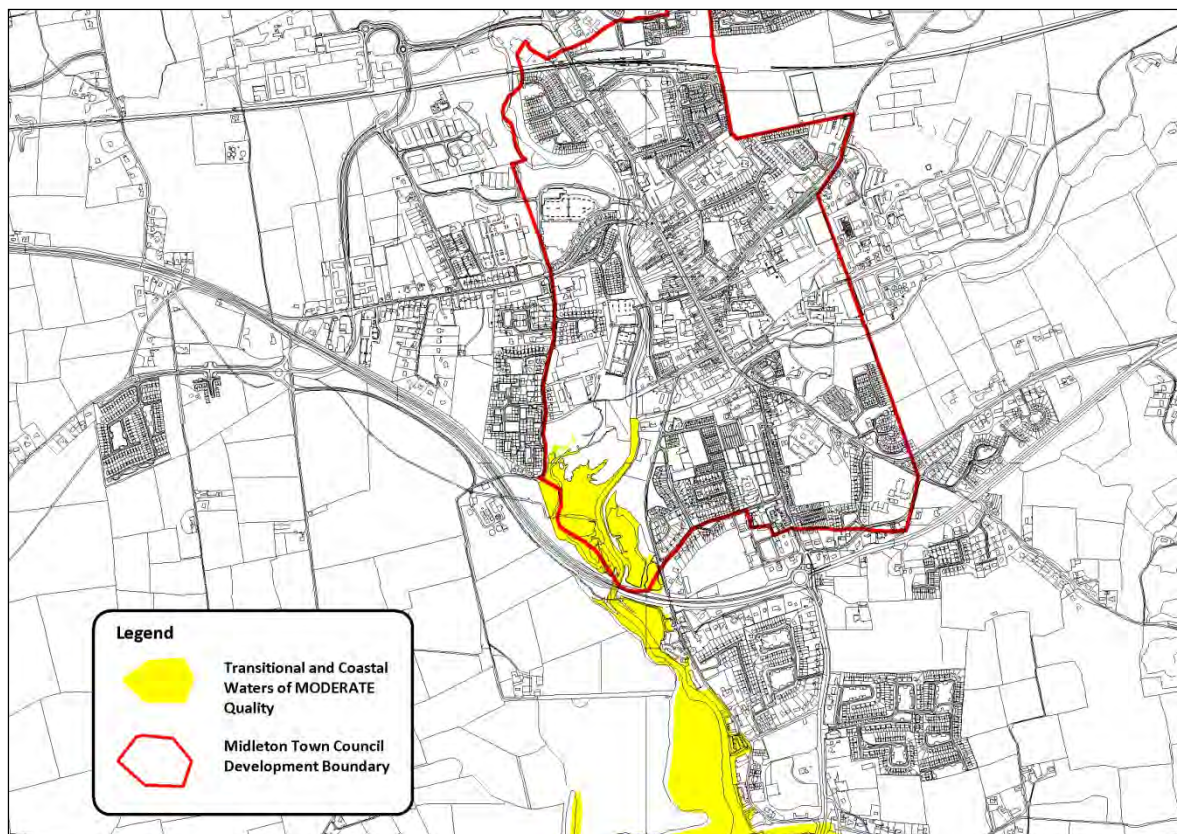


Figure 2-10 Transition & Coastal Quality Status

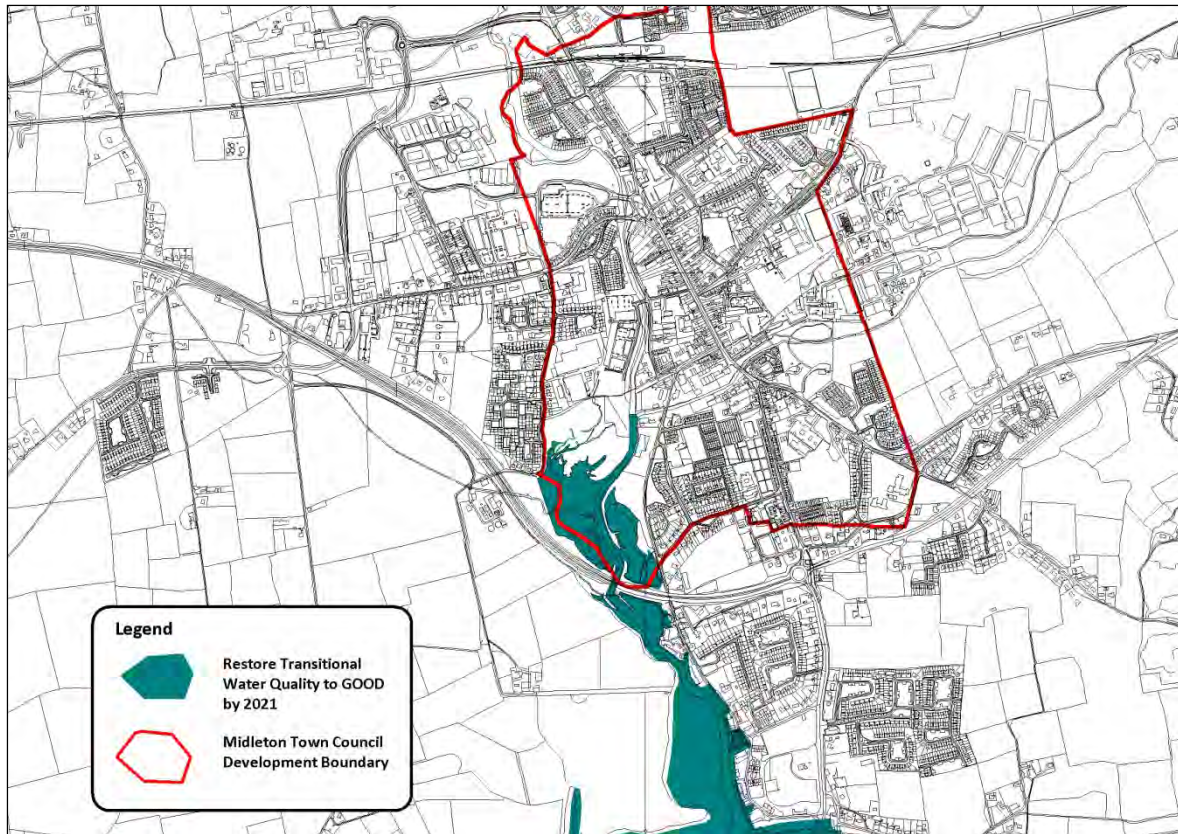


Figure 2-11 Overall Objectives for Transitional & Coastal waters

2.3.13 The estuarine and coastal waters are designated as a 'Protected Area' which requires special protection under EU legislation because they are bathing waters, nutrient sensitive and designated as an SPA and cSAC. According to the EPA's most recent study on the quality of Estuarine and Coastal Waters, the Owenacurra Estuary was deemed to be of moderate quality. In line with the Objectives of the Water Framework Directive, it is an objective of the South West River Basin Management plan to restore these waters to a least good status.

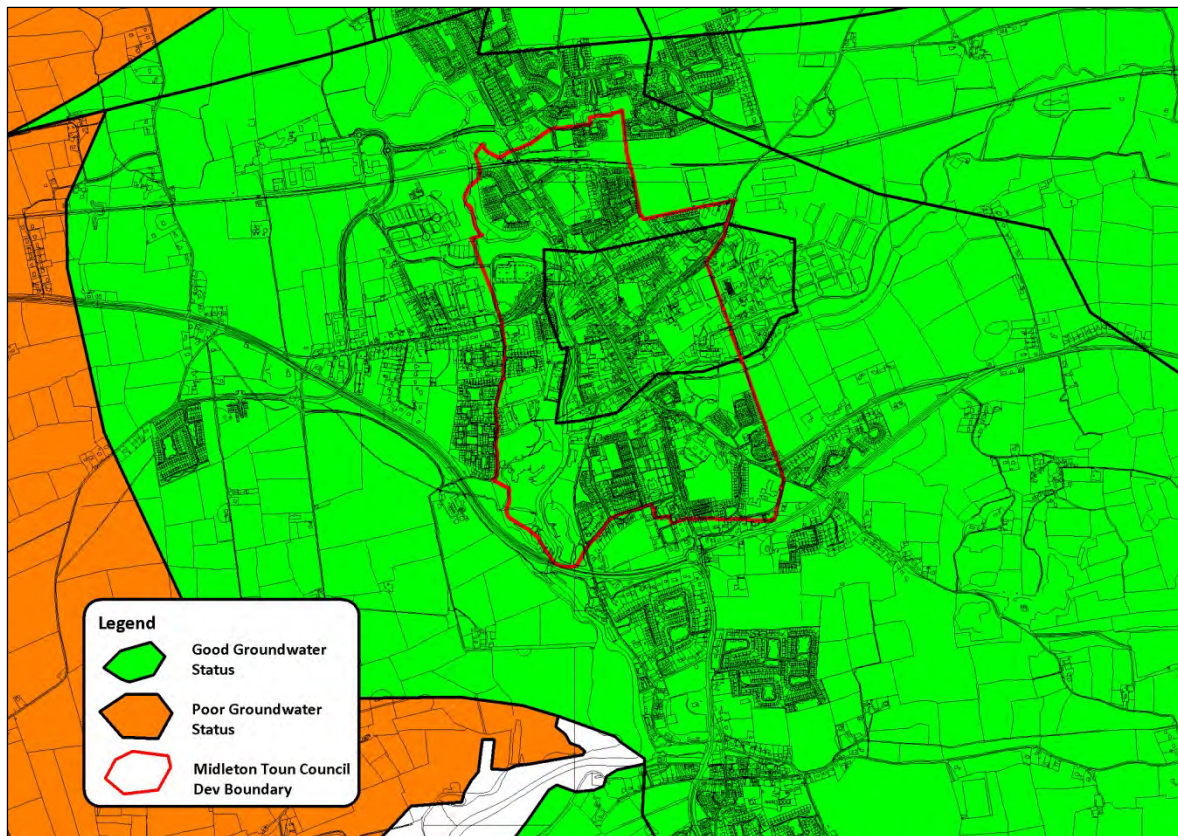


Figure 2-12 Groundwater Status

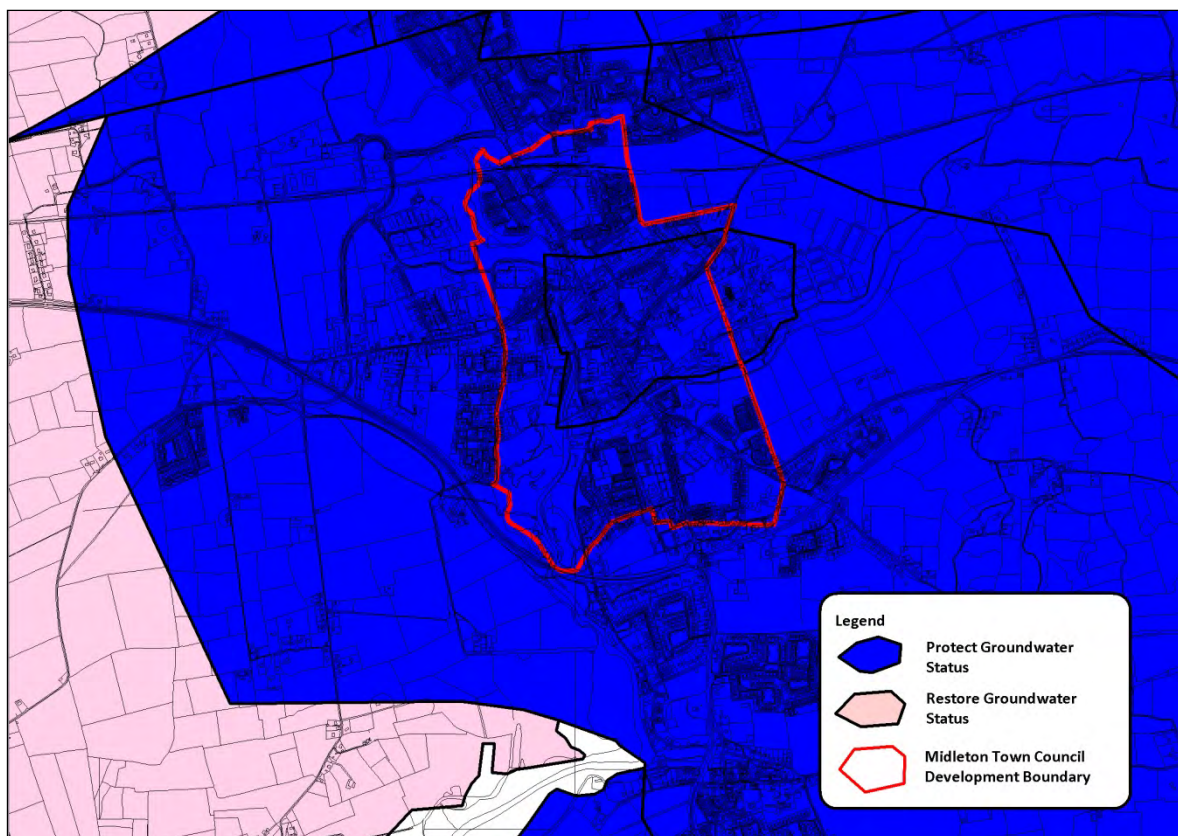


Figure 2-13 Overall Objectives for Groundwater

2.3.14 According to a groundwater monitoring programme undertaken in conjunction with the preparation of the South West River Basin Management Plan, groundwater in the vicinity of Midleton is of good status. Ground water however is of poor status to the west of Midleton. Again it is an objective of the SWRBMP to maintain the good status of groundwater in Midleton while restoring the quality of those waters deemed to be of poor status in areas adjacent to Midleton.

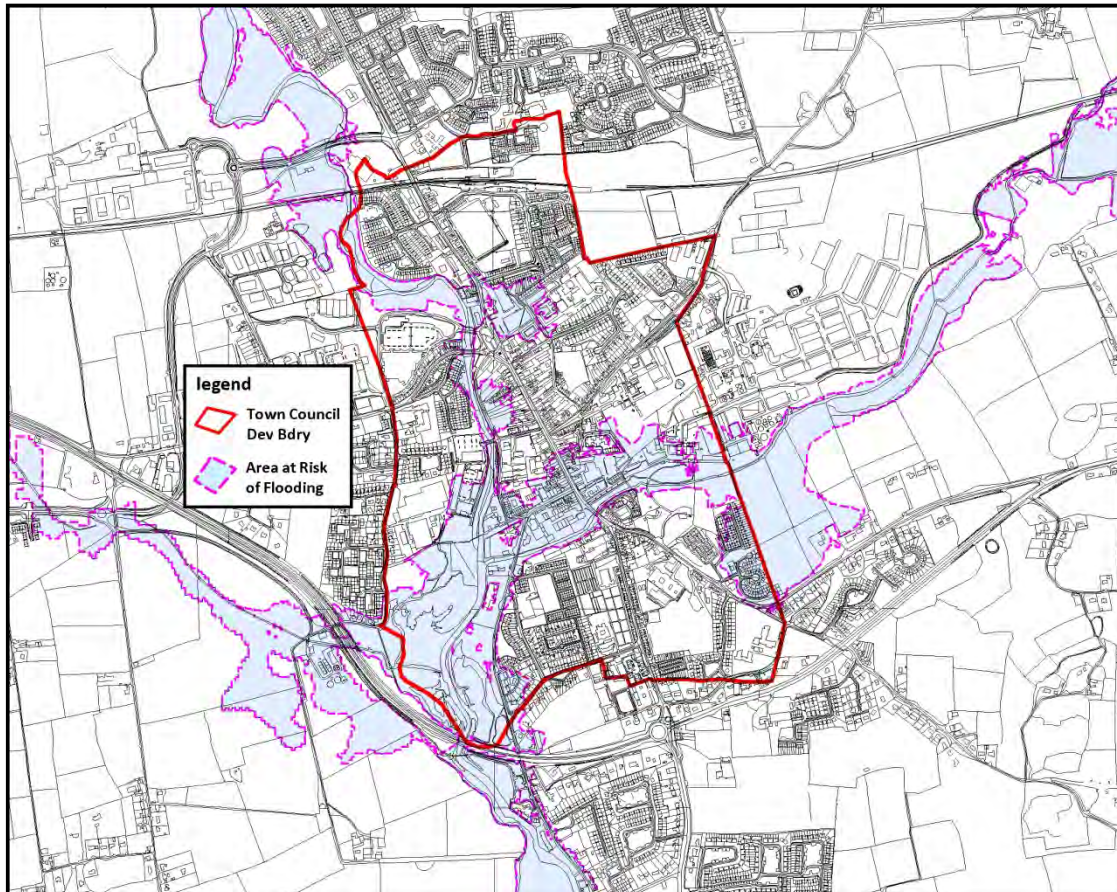


Figure 2-14 Flood Risk Areas

2.3.15 In order to provide information about possible flood risks, the Town Council, compiled a series of indicative maps showing areas that could be at risk from flooding. The information about flood risks that has been used in the preparation of this plan has been collated from a number of sources including:

- a) Draft River Lee Catchment Flood Risk Assessment and Management Study (Lee CFRAMS) commissioned and published by the Office of Public Works.
- b) 'Floodmaps.ie' – The national flood hazard mapping website operated by the Office of Public Works, and
- c) 'Flood Hazard Mapping' for fluvial and tidal areas commissioned by Cork County Council from JBA Consulting.

2.3.16 In line with advice from the OPW, the Town Council has amalgamated the information from these sources into a single 'Draft Indicative Flood Extent Map' for Midleton. The map has been used as the basis for the flood risk assessment of this plan.

The Environmental Report

- 2.3.17 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 Midleton Area. The collection of this information has informed the identification of key environmental sensitivities, sensitive areas and areas of pressure within the town as set out in the above figures.
- 2.3.18 The SEA then used a system of Environmental Protection Objectives (EPOs) with targets and indicators in the assessment of the Draft Plan. Baseline data collection and the preparation of sensitivity mapping helped focussed the EPOs at the plan level and at issues relevant to the town.
- 2.3.19 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 Plan and the Amendments.

Early Identification and Evaluation of Alternatives

- 2.3.20 A range of potential alternative scenarios for the types of planning strategies adopted for the Development Plan were identified at an early stage in the process and evaluated for their likely significant environmental effects (see Section 4).
- 2.3.21 The environmental sensitivities and overlay mapping shown on Figures 2.6 to 2.13 were used in order to predict and evaluate the environmental effects of implementing the scenarios.

2.4 Stage 2 – Matrix and Evaluation of the Draft Plan Objectives:

- 2.4.1 Before its publication, the objectives contained in the Draft Local Area plan were evaluated against the Environmental Protection Objectives (EPO's). This completed evaluation was outlined in Chapter 9 of the Environmental Report.
- 2.4.2 This stage identified whether the Draft Plan 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)
- 2.4.3 Arising from this analysis it was considered that there were adequate compensatory objectives to negate any potential significant impacts from the objectives in the proposed Development Plan. This demonstrates that the preparation of the Draft Plan has been very pro-active in including positive environmental objectives in relation to key infrastructural improvements and the protection of heritage and amenity and so on.

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

- 2.5.1 The amendments as outlined in the Managers Report (September 2012) in line with Section 12(7) 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, 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.
- 2.5.2 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 was found with the EPOs. Only one proposed amendment was found to have a potential conflict with the EPO's, Proposed amendment 01.11.05.
- 2.5.3 While the SEA stated that the most appropriate mitigation would be the removal of the proposed amendment, it found that given that the proposed amendment was approved by the members by resolution, against the advice of both the Senior Planner and the executive of Midleton Town Council, at a special council meeting on the 21st of January 2013, adequate provisions were in place in the plan to help mitigate the potential negative impacts of the proposed amendment. 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

2.6 EU Habitats Directive- Appropriate Assessment

- 2.6.1 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 include details of all the changes made to the Draft Plan as a result of Appropriate Assessment.

3 How Submissions & Observations were taken into Account

3.1 Introduction

3.1.1 This section details how the submissions and observations made at each stage of the SEA process were taken into account during the preparation of the Plan.

3.2 SEA Scoping: Submissions and Observations

3.2.1 Three agencies, the EPA, DECLG and DAHG were sent SEA scoping notices indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the Environmental Report could be made to the Councils.

3.2.2 The only submission received on the scope of the SEA was from the EPA. This submission was taken into account during the formulation of the scope of the SEA and while undertaking the SEA. The EPA's submission outlined the issues that were to be considered in the preparation of the Environmental Report.

3.3 Environmental Report: Submissions and Observations

3.3.1 The findings of the SEA were expressed in a Draft Environmental Report which was submitted to the Elected Members alongside the proposed Draft Plan. The purpose of the report was to provide a clear understanding of the likely environmental consequences of decisions regarding the future accommodation of growth in Midleton. Changes made to the proposed Draft Plan were evaluated for their environmental consequences and the Draft Environmental Report was updated to become the Environmental Report.

3.3.2 The Environmental Report and the Draft Plan were placed on public display in April 2012.

3.3.3 The DEHLG made a submission on the Development Plan and Environmental Report while they were on public display. The information contained in this submission was taken into account by the SEA as well as the Habitats Directive Appropriate Assessment which was undertaken for the Plan. The submission from the DEHLG did not directly result in the updating of the Environmental Report however a number of amendments were proposed and made to the Draft Plan and these were taken into account by the SEA. These included the following amendments in relation to the Core Strategy (01.02.01, 01.02.02 and 01.04.03), Flood risk Management (01.05.01, 01.05.02, 01.06.01 and 01.06.02), Water Quality (01.07.01 and 01.07.02), Environmental / Appropriate Assessment (01.07.03) and Sustainable Design (01.09.01).

3.3.4 The EPA made a detailed submission in relation to the Draft Plan. The information contained within the submission directly resulted in a number of amendments to the draft plan. These included amendments in relation to the Core Strategy (01.02.01, 01.02.02 and 01.04.03), Flood Risk Management (01.05.01, 01.05.02, 01.06.01 and 01.06.02), Water Quality (01.07.01 and 01.07.02, Environmental / Appropriate Assessment (01.07.03) and Sustainable Design (01.09.01).

3.4 Proposed Amendments: Submissions and Observations

3.4.1 A number of material amendments were made to the Midleton Revised Draft Development Plan, following consideration of the submissions and observations received from members of the public and statutory bodies, and from the deliberations of Midleton Town Council at the Council meetings of the 9th of October 2012. These amendments were published for public consultation on October 2012.

3.4.2 A supplementary Environmental report was also prepared at this stage that considered the likely significant impacts of implementing the proposed amendments to the Draft Plan by assessing the amendments against the environmental objectives set out in the Environment Report. This report highlighted that one of the proposed amendments (01.11.05) which

relates to the rezoning of land at Mogeeshia from open space to town centre use, does raise some concern re potential for conflict with a number of environmental protection objections.

- 3.4.3 The report indicated that the Lee CFRAMS study identifies the lands as being within Zone A where there is a high probability of flooding (tidal and fluvial). The report also noted that the lands are greenfield in nature, form part of the estuarine flood plain and abut / lie adjacent to the Great Island Channel Special Area of Conservation (SAC), Cork Harbour Special Protection Area (SPA) and the Great Island Channel Proposed Natural Heritage Area (pNHA).
- 3.4.4 The report further noted that the zoning of this site for town centre uses would be contrary to the Governments Guidelines – ‘*The Planning System and Flood Risk Management*’ as the zoning cannot be justified under the provisions of the Guidelines as there are ample alternative lands available to accommodate town centre expansion, which are not at risk of flooding. The lands are greenfield in nature and are removed from the core of the town and cannot be considered ‘essential’ to the future development of the town centre.
- 3.4.5 The report noted that the rezoning of this land has the potential to conflict with
- a) EPO Ref B1 which seeks to conserve the diversity of habitats and species and to avoid significant adverse impacts.
 - b) EPO Ref Q1 which seeks to Protect human health from hazards or nuisance and improve people’s quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns,
 - c) EPO Ref S2 which seeks 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 and,
 - d) EPO Ref W1 which seeks to Improve water quality and the management of watercourses to comply with the standards of the Water Framework Directive and incorporate the objectives of the Floods Directive into sustainable planning and development
- 3.4.6 Submissions on the Proposed Amendments and the SEA of the Amendments were received from the Office of Public Works, the Environmental Protection Agency and a local resident (Catherine White). Of particular concern was proposed amendment 01.11.05, which proposed the rezoning of an area of open space to town centre use.
- 3.4.7 The EPA sought clarification / justification for the change in zoning in the context of the potential for significant effects on the SAC and the potential for inappropriate development in areas at risk of flooding. The OPW stated that as the site has been identified in an area at risk of flooding in the Lee CFRAMS study, which is to a stage 2 FRA level of detail, a stage 3 FRA may be required to establish the specific extent of the flood risk prior to it being considered for inclusion in the development plan.
- 3.4.8 Arising from the concerns highlighted in the SEA of Proposed Amendment 01.11.05, the issues raised in the submissions from the EPA, the OPW and Ms. Catherine White, the Managers Report on the proposed amendments issued to the members of Midleton Town Council in December 2012 included a strong recommendation that the proposed amendment not be included in the final plan.

3.4.9 However, at a meeting on 21 January 2013, Members of Midleton Town Council passed a resolution to adopt proposed amendment 01.11.05, to rezone the lands at Mogeeshas to town centre uses. Members determined that the zoning of land at Mogeeshas was required in order to achieve the proper planning and sustainable development of the town and the expansion of the town centre in a compact, cohesive and integrated manner. Members consider that the lands are currently underutilised, adjoin the town core and have long been identified for town centre expansion. In addition Members felt that there were no other suitable alternative lands, in areas at lower risk of flooding within or adjoining the core of the town, which would deliver this quantum of development. Members further considered that flooding in the area has been alleviated by the development of lands to the north and the construction of N25/E30 across the estuary to the south and the requirement for a site specific flood risk assessment at the project stage was the appropriate means by which flood risks on site should be assessed.

3.4.10 There are a number of mitigating measures built into the town centre zoning objective affecting the Mogeeshas lands which should ensure development on the site does not have any significant adverse effects. The Town Centre Zoning objective identifies the flood risk and requires all development proposals to be supported by a site specific flood risk assessment that complies with the requirements of the Ministerial Guidelines. Development on lands with the potential to impact on designated natural heritage sites are required to submit a Natura Impact Statement and can only proceed where it can be shown that development will not have significant adverse impacts on the site and buffer zones may also be required. Finally, the objective provides for the provision for SUDs and storm water attention measures.

3.5 Ministerial Direction under S.31 of the Planning and Development Act, 2000 (as amended)

3.5.1 Subsequent to the adoption of the Midleton Town Plan in January 2013, the Minister of State at the Department of the Environment, Community and Local Government issued a Draft Direction in February 2013 directing that the zoning of the lands at Mogeeshas be changed from town centre to open space use (OS-2). This Direction was confirmed in April 2013 and has been reflected in the final text and maps of the Plan.

3.6 Environmental Statement

3.6.1 On adoption of the Draft Plan, the various supplementary Environmental reports were used in order to update the original Environmental Report into this final Environmental Statement that accompanies the adopted Plan.

4 Section 4 Alternatives and the Plan

4.1 Introduction

4.1.1 This section describes the alternative scenarios for the Development Plan, summarises the evaluation for likely environmental effects which is provided in the Environmental Report and identifies the reasons for choosing the Plan, as adopted, in the light of the other reasonable alternatives dealt with.

4.2 The Scenarios

4.2.1 The SEA assessment was based on alternative scenarios and each of the proposed development options were assessed against the EPO's, types of cumulative effects and individual environmental issues that were identified in the environmental baseline.

4.2.2 For the town area, 3 alternative scenarios have been identified that could achieve the objectives set out above and manage the level of growth targeted for the town as set out in the South Western Regional Planning Guidelines 2010-2022. The scenarios that were considered in the preparation of the plan are as follows;

Scenario 1 – Rapid Economic Growth Scenario

- Scenario characterised by an almost unplanned or weak planning approach to development within the town with a very loose overall development strategy and an emphasis on market-led growth.
- The growth envisaged in the National Spatial Strategy and Regional Planning Guidelines would be incorporated along with a more ad-hoc approach to development proposals with little regard to environmental protection.
- There would be no specific cap on the level of development permissible with potential for resultant pressures on infrastructure such as roads, water, etc. Growth would be governed by market pressures.
- Fewer restrictions would exist in relation to the scale of appropriate development. A fragmented approach with little heed for development frameworks or co-ordinated planning with development pursued at the expense of other environmental and amenity considerations.

Planning/Environmental Impacts

- Strategy would have the potential to adversely impact upon the more environmentally sensitive areas of the town from a built and natural heritage perspective. Potential negative impacts on ecology with ecological networks likely to be compromised.
- Potential to maximise access to public transport in an urban location.
- May lead to pressure for development in circumstances where services may be unavailable or do not have sufficient capacity to accommodate the levels of development being proposed, increasing the likelihood of negative environmental impacts.
- Potential for increased pressures on Owenacurra and Dungourney water bodies which are identified as being at risk according to the South Western River Basin District (SWRBD) plan. Estuarine and coastal waters are designated as a 'Protected Area'.
- Development pressure coinciding with concentrations of archaeology and protected structures would increase risk of impacts on archaeology and built heritage.

Scenario 2 – Environmental Scenario

- In this scenario there would be strict controls on all development with a large emphasis on protection of the environment, ensuring that in managing development that there would be no negative impacts on the environment or deterioration in environmental quality in the town. Little development in protected areas or in areas of sensitivity
- All sites which are the subject of European Directive designations would be very carefully managed to ensure that their conservation value is maintained and not undermined or threatened by development.
- Any surplus growth in the area would be directed primarily to other settlements in Metropolitan Cork and further increase pressure on rural areas.
- Development in the urban area would have to be served by appropriate wastewater treatment facility, treated to the highest standards, to ensure that the environment is not negatively impacted upon, particularly in the area of water quality, involving drinking water, groundwater, surface water, rivers, coastal and estuarine waters. High standards for the treatment of waste water would be required at a minimum.

Planning/Environmental Impacts

- Stricter controls would be applied on the standards regarding the treatment of waste water. Developments should not be considered in isolation and care should be taken to have regard to the cumulative effects of development on the environment, particularly in areas which have been identified as being “at risk” or “probably at risk” in terms of compliance with the Water Framework Directive within the SWRBD to ensure that environmental quality is not compromised.
- Avoidance of development on sites where there would be any environmental risks adopting a strict ‘precautionary approach’. This would rule out the potential of some sites for regeneration.
- Potential reduction in population and investment resulting from lack of suitable development options in the town centre.
- Areas of the town covered by the designations NHAs, SACs and SPAs will need strict management as natural amenities.
- Development would only be allowed where the landscape value, character and sensitivity would be able to accommodate development, without undermining or threatening the landscape or environmental quality.
- Careful consideration would have to be taken of any proposals for development to ensure that the any impacts on archaeology are anticipated and avoided.
- The landscape would be afforded a high level of protection and there would be little development permitted due to the high landscape value/high landscape sensitivity.

Scenario 3 – Sustainable Development Scenario

- In this scenario the four components of sustainable development – economic development, social well-being, environmental protection and enhancement, and resource conservation are integrated in the Plan. Allowance is made in this scenario for some trade off between development and environmental protection. The sustainable development scenario also incorporates the relevant national/regional planning strategies including the National Spatial Strategy and the Regional Planning Guidelines and follows on from a number of strategies carried out within the County including the Housing Strategy, Retail Strategy and Land Availability studies.

- Midleton is seen as having an important strategic role within the County lying within the Metropolitan Area where balanced spatial development in accordance with the Cork Area Strategic Plan is carried forward.
- The delivery of timely and adequate physical infrastructure is seen as being a key factor in ensuring the objectives of the town plan are achieved and is also critical to achieving the objectives and requirements of environmental legislation.
- Appropriate social infrastructure, particularly with regard to community facilities should be developed in tandem with the provision of new development in the town.
- Areas which are the subject of ecological designations would be carefully managed and sustained in the town to ensure that their biodiversity and features which merit protection are not compromised.
- This scenario allows for the co-ordination of employment, public infrastructure, amenities, community facilities, schools, public transport etc.
- Strong emphasis on development frameworks and co-ordinated planning.

Planning/Environmental Impacts

- Sustainable development involves pursuing new and innovative approaches to future development.
- Use of Brownfield sites and sites close to the town centre is favoured on the grounds of sustainable development. Sites are considered on their merits based on their location, environmental considerations and where appropriate with adequate mitigation for flooding and other environmental considerations and prescribed in specific objectives.
- Growth apportioned to Midleton in terms of population change and households on the basis of higher order plans and town has a strategic role to play in the future sustainable development of the County.
- Physical and social infrastructure would have to be provided in tandem or ideally prior to new development.
- Developments would have to be served by appropriate waste water treatment infrastructure to avoid impacts upon abstraction sources of water, groundwater, rivers, lakes, estuarine waters and coastal waters, and will have to be carefully analysed to anticipate and avoid any further negative impacts on the status of water quality, in an effort to comply with the requirements of the Water Framework Directive.
- Developments should not be considered in isolation and care should be taken regarding the cumulative effects of development on the environment, particularly in areas which have been identified as being “at risk” or “probably at risk” in terms of compliance with the Water Framework Directive to ensure that environmental quality is not compromised.
- The density of new residential development would be appropriate to the scale of Midleton and its role within the settlement network. Any new residential developments would have to be accompanied by social infrastructure, i.e. open space, child care facilities and community facilities, proportionate to the scale of the new development.
- Emphasis would be placed on more sustainable forms of commuting and development would continue to be directed to areas best served by public transport.
- Developments in areas that are the subject of EU Directives would be carefully managed and considered where they would not affect the inherent conservation value or biodiversity of these areas.

- There may be occasions where there is conflict between the environment and social, economic and resource conservation issues, however, where such conflicts arise, it will be necessary to ensure the environment is afforded appropriate protection and that adequate mitigation measures are put in place.

4.3 Preferred Development Plan Scenario – Reasons for its selection

4.3.1 Having considered each proposal, it was decided in the Town Development Plan that Scenario 3 – Sustainable Development was the preferred approach to take when setting the future development framework for the town of Midleton. This scenario was deemed the most appropriate for a number of reasons;

- It presented a sustainable, equitable model of development, which balanced environmental concerns with the need to facilitate population growth and economic development. The aim of scenario 1 was to target population growth to the town with a very loose overall development strategy and an emphasis on market led growth with limited consideration for the proper co-ordinated development of the town. Scenario 1 could result in an unsustainable demand for infrastructure and services while potentially relegating environmental considerations to the periphery. The adoption of scenario 2 would place environmental concerns directly to the forefront with the potential for overly strict or narrowly focused controls to effect the further development of physical and social infrastructure thus undermining attempts to promote development in a more sustainable and balanced manner.
- The development strategy as outlined in scenario 3 is more consistent with the growth targets set out in the South Western Regional Planning Guidelines 2010-2022, is in line with the objectives of the Cork Area Strategic Plan and represents an approach more in line with the proper planning and sustainable development of the town than either scenario 1 or 2.

Figure 4-1 Types of Cumulative Effects

Cumulative Effects	Affected Receptor	Causes
Habitat fragmentation	Biodiversity	Use of land for flood management, transport Infrastructure, buildings, zoning of Greenfield lands
Climate Change	Air and Climate	Greenhouse gas emissions from development and increases in traffic volumes
Loss of Tranquillity	Population and Human Health	Development and increases in traffic volumes
Deterioration in Water Quality	Population and Human Health /Water	Inappropriate Wastewater Treatment, pollution
Loss of Agricultural Lands	Soils and Geology	Zoning of Greenfield lands
Loss of Natural Landscape Features	Landscape	Zoning of Greenfield lands, Roads Infrastructure

Figure 4-2 Comparison of Alternatives - Cumulative Effects

Scenario Type	Possible Cumulative Effects						Comments
	Habitat fragmentation	Climate Change	Loss of tranquillity	Deterioration in water quality	Loss of agricultural lands	Loss of natural landscape features	
Scenario 1	-	?	-	?	+	-	Most likely to have significant cumulative effects.
Scenario 2	+	?	+	+	-	+	-
Scenario 3	0	?	0	+	+	0	Least likely to have significant cumulative effects.
Key: + likely to have no significant effect - likely to have a negative effect 0 neutral ? uncertain							

5 Section 5 Monitoring Measures

5.1 Introduction

- 5.1.1 The SEA Directive requires that the likely significant environmental effects of the implementation of plans and programmes are monitored. This section and Section 10 of the Environmental Report contain the measures for monitoring the likely significant effects of implementing the Development Plan.
- 5.1.2 Monitoring enables, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action. In addition to this, monitoring can also play an important role in assessing whether the Plan is achieving its environmental objectives and targets - measures which the Plan can help work towards - whether these need to be re-examined and whether the proposed mitigation measures are being implemented.

5.2 Indicators and Targets

- 5.2.1 Monitoring is based around the indicators which were chosen earlier in the process. These indicators allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives used in the evaluation. Focus is given to indicators which are relevant to the likely significant environmental effects of implementing the Development Plan and existing monitoring arrangements are to be largely used in order to monitor the selected indicators. Each indicator to be monitored is accompanied by the relevant target(s) which were identified with regard to the relevant legislation. Table 5.1 shows the indicators and targets which have been selected with regard to the monitoring of the plan.

5.3 Sources

- 5.3.1 Measurements for indicators should come from existing monitoring sources and no new monitoring should be required to take place. Existing monitoring sources exist for each of the indicators and include those maintained by the Council and the relevant authorities e.g. the Environmental Protection Agency, the National Parks and Wildlife Service and the Central Statistics Office.
- 5.3.2 Where significant adverse effects – including positive, negative, cumulative and indirect – are likely to occur upon, for example, entries to the RMP, entries to the RPS or ecological networks as a result of the undertaking of individual projects or multiple individual projects such instances should be identified and recorded and should feed into the monitoring evaluation.

5.4 Reporting

- 5.4.1 A preliminary monitoring evaluation report on the effects of implementing the Plan will be prepared to coincide with the Manager's report to the elected members on the progress achieved in securing Plan objectives within two years of the making of the Plan (this Manager's report is required under section 15 of the 2000 Planning Act).
- 5.4.2 Indicators and targets will be reviewed during the preparation of the preliminary monitoring evaluation report.

5.5 Responsibility

- 5.5.1 The Council is responsible for collating existing relevant monitored data, the preparation of a monitoring report, the publication of this report and, if necessary, the carrying out of corrective action.

Figure 5-1 EPO's & Monitoring Targets and Indicators

EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
B1	Conserve the diversity of habitats and species and to avoid significant adverse impacts (direct, cumulative and indirect)	No significant adverse impacts, (direct, cumulative and indirect impacts), to relevant habitats, species or their sustaining resources and to improve protection for protected sites and species including a provision of adequate and appropriate buffer zones	Retain integrity of existing habitats and species relative to the baseline year of 2011.	The Heritage Section of Cork County Council, Department of the Environment, Community and Local Government, National Parks and Wildlife Service.	Dependent on external information. Some information potentially available within Midleton Town Council & Cork County Council.
		Conserve the diversity of habitats and species in non-designated sites	Retain integrity of existing habitats and species relative to the baseline year of 2011.	The Heritage Section of Cork County Council, Department of the Environment, Community and Local Government, National Parks and Wildlife Service.	Dependent on external information. Some information potentially available within Midleton Town Council and Cork County Council.
B2	Protect habitats from invasive species and promote awareness of and support control and eradication programmes for invasive species	No new invasive species in County Cork and no increase in coverage of existing invasive	New types of invasive species or increase in coverage of existing invasive species	National Biodiversity Centre	Dependent on external information.

EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
		species.			
Q1	Improve people’s quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns	Avoid the location of inappropriate activities that impact on the quality of the town.	Number of inappropriate uses permitted within the town.	Midleton Town Council & Cork County Council	Available within Cork County Council
		Enhance provision of, and access to, amenity space within Midleton	Numbers of amenity areas provided within Midleton, number of accesses to amenities areas within Midleton	Midleton Town Council & Cork County Council.	Available from within Midleton Town Council & Cork County Council
		Increase number of cycle friendly measures associated with Midleton	Number of cycle friendly measures provided in the area	Midleton Town Council & Cork County Council.	Available from within Cork County Council and Midleton Town Council.
		Increase number of pedestrian friendly measures associated with Midleton.	Number of pedestrian friendly measures provided in the area	Midleton Town Council & Cork County Council.	Available from within Midleton Town Council & Cork County Council
		Increase modal shift to public transport and reduction in journey to work (time/distance)	Journey to work times; % of commuters using public transport; % of commuters cycling to	CSO	Dependent on external information

EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
			work; % of commuters walking to work;		
		Use of Construction Management Plans to minimise adverse impacts during construction phase(s)	Number of Construction Management Plans provided to inform development proposals in Midleton	Midleton Town Council	Available from Midleton Town Council & within Cork County Council
S1	Maintain soil integrity and quality	Soil management to inform detailed designs within Development Plan area.	Number of Soil Management Plans provided within the Development Plan area.	Midleton Town Council	Available from Midleton Town Council & within Cork County Council
		Use of Waste Management Plans to minimise adverse impacts arising from pollution	Number of Waste Management Plans provided within the Development Plan area	Midleton Town Council	Available from Midleton Town Council & within Cork County Council
S2	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.	Identification of Brownfield lands within the town area and assessing the reduction in quantity of Brownfield lands during the lifetime of the plan	Reduction in quantity of Brownfield lands available during the lifetime of the plan	Midleton Town Council	Potentially available from Midleton Town Council

EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
W1	Improve water quality and the management of watercourses to comply with the standards of the Water Framework Directive and incorporate the objectives of the Floods Directive into sustainable planning and development	Improvement, or at least no deterioration, in water quality in rivers and groundwater	Achievement of the Objectives of the River Basin Management Plans; % increase or decrease in numbers of water bodies at good status compared with baselines of 2009.	Water Framework Directive: RBD's, EPA, Cork County Council	Dependent on external information. Some information potentially available within Cork County Council
		Appropriate management of zones vulnerable to flooding	Compliance with <i>The Planning System and Flood Risk Management Guidelines 2009</i> , amount of new developments within flood plain	Midleton Town Council & Cork County Council	Available from within Cork County Council
W2	Make best use of existing water and wastewater infrastructure and promote the sustainable development of new infrastructure	Development Plan Area to be adequately served by a public waste water treatment plant system	Operational waste water treatment plant serving the town.	Midleton Town Council, EPA, Cork County Council	Dependent on external information and information available within Cork County Council
W3	To maintain and improve the quality of drinking water supplies	Maintain and improve drinking water quality to comply with the requirements of the	Compliance with Regulations, % leakage within system	Midleton Town Council & EPA, Cork County Council	Dependent on external information and information available within Cork County Council

EPO	ENVIRONMENTAL OBJECTIVE	TARGET	MONITORING INDICATORS	DATA SOURCE	ACCESSIBILITY
		European Communities (Drinking Water) Regulations and to prevent leakage in new systems			
A1	Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency	Maintain good air quality standards	To remain within good air quality standards	EPA	Dependent on external information
CH1	Promote the protection and conservation of the cultural heritage	To protect all cultural features within the DEVELOPMENT PLAN and where necessary to impact upon same to manage and record action in accordance with National Heritage Policies	Number of cultural features lost within town plan area.	Middleton Town Council	Available from within Middleton Town Council
L1	Protect natural and historic landscapes and features within them in a sustainable manner	Integrate natural & historic landscape features into detailed design	% of natural and historic landscape lost within town boundary, number of features within natural and historic landscape lost within town	Middleton Town Council	Available from within Middleton Town Council

<i>EPO</i>	<i>ENVIRONMENTAL OBJECTIVE</i>	<i>TARGET</i>	<i>MONITORING INDICATORS</i>	<i>DATA SOURCE</i>	<i>ACCESSIBILITY</i>
			boundary.		

Habitats Directive Assessment Screening Statement

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1 Introduction

1.1 Context

1.1.1 Midleton Town Council has prepared the Midleton Town Plan under the provisions of the Planning and Development Acts 2000-2010. The plan sets out the planning strategy and other policy for the town of Midleton in the functional area of Midleton Town Council. The plan adheres to the core strategies set down in higher level plans including the National Spatial Strategy (2002 to 2020) and the Regional Planning Guidelines (2010) for the South West Region. A separate plan for the environs of the town has been adopted by the neighbouring planning authority, Cork County Council, and is contained within the Midleton Electoral Area Local Area Plan 2011.

1.1.2 In accordance with requirements set out under section 177 of the Planning and Development (Amendment) 2010, and in the EU Habitats Directive, 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 the plan. This is to determine whether or not the implementation of plans and their 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 must be carried out at all stages of the plan making process.

1.1.3 Habitats Directive Screening Assessments were completed for the draft Midleton Town Development Plan, and for the Midleton Town Development Plan proposed amendments. The results of those assessments were referred to the statutory authorities and made available during each of the relevant public consultation periods.

1.1.4 This report briefly summarises the assessment processes which were completed at each stage of the making of the Midleton Town Development Plan. It also incorporates an Appropriate Assessment Screening Conclusion Statement. It should be read in conjunction with the Midleton Town Development Plan. You are referred to the Habitats Directive Screening Report for the draft Midleton Town Development Plan, and the Habitats Directive Screening Report for the proposed amendments to the draft Midleton Town Plan for more detailed information in relation to the assessments which were carried out at each of these stages.

1.2 Legislative Background Habitats Directive Assessment

1.2.1 Habitats Directive Assessment is an iterative process which runs parallel to and informs the plan making process. It involves analysis and review of draft policies, objectives or zonings as they emerge during each stage of plan making, to ensure that their implementation will not impact on sites designated for nature conservation, nor on the

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.

habitats or species for which they are designated. Within this process, regard must also be had to the potential for policies, objectives or zonings 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 Article 6 (2) of the Habitats Directive sets out the principle requirements in relation to the protection of these sites – *“Member states shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of the Directive”*.

1.2.3 Article 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.

1.2.4 Article 6(4) of the Directive deals with derogation procedures, where it is decided to proceed with a plan/project despite a finding that the potential for the site to incur significant negative impacts cannot be ruled out.

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.

1.2.5 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:

Screening assessment

The process which identifies whether the plan, either alone or in combination with other projects or plans, could affect any Natura 2000 sites and considers whether these impacts could be significant. No further assessment is required if potentially significant impacts on Natura 2000 sites are ruled out at this stage.

Appropriate assessment

Where the possibility of significant impacts on one or more Natura 2000 sites has been identified during the screening process, detailed assessment of the plan and its potential to impact on identified sites is required. This is called an Appropriate Assessment. It involves consideration as to whether the plan could have adverse impacts on the integrity of any Natura 2000 sites identified during screening, either alone or in combination with other projects or plans, having regard to the site's structure and function and their conservation objectives. Additionally, where impacts are identified, it involves an assessment of the potential mitigation of those impacts. No further assessment is required, if it can be concluded that the plan will not give rise to adverse impacts on the integrity of any Natura 2000 site, having regard to mitigation which is proposed.

Assessment of alternative solutions

Should the Appropriate Assessment fail to rule out the potential for adverse impacts on the overall integrity of one or more Natura 2000 sites, and where it is decided that the plan should proceed, despite such impacts, then it is required to demonstrate that no alternative solutions exist. Stage three of a Habitats Directive Assessment involves the assessment of alternative solutions. To proceed any further, it must be proven that no viable alternatives exist.

Assessment where no alternative solutions exist and where adverse impacts remain.

Where it has been shown that there are no viable alternative solutions to avoid adverse impacts on one or more Natura 2000 sites, then it must also be shown that there are imperative reasons of overriding public interest to allow the plan to proceed. In such cases, compensatory measures must be put in place in advance of the implementation of the plan. The fourth stage of the habitats directive assessment process involves the assessment of the proposed compensatory measures.

1.2.6 The process may result in the development of new policy areas and/or the modification or removal of certain policies to be presented in the final plan. The results of this analysis and review may be presented in a Habitats Directive Screening Report, or in a Natura Impact Report which must be produced for each iteration of the plan (draft plan, post consultation amendments, final amendments, and final plan). At the end of the plan making process, a Habitats Directive Conclusion Statement is produced which contains a summary of how ecological considerations in relation to Natura 2000 sites have been integrated into the plan.

1.2.7 Landuse plans may be adopted if it is clear that there is no potential for the plan to give rise to adverse impacts on any Natura 2000 site. Where such impacts have not been ruled out, the plan may only be adopted 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, and approved by the Minister for Arts, Heritage, Gaeltacht, 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 on the grounds of overriding public interest, the Minister must be consulted.

1.3 Approach

1.3.1 The approach taken in the preparation of this report 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*.

1.4 Data Sources

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

2 Summary of Screening of Draft Plan

2.1 Draft Plan Summary

2.1.1 The draft plan was published on the 16th March 2012. It set out a draft planning strategy and other policies relating to economic development, tourism, the development of the town centre and waterfront, housing, infrastructure, the provision of social and community facilities, heritage and transport, for the town of Midleton in the functional area of Midleton Town Council. A more detailed summary of the draft plan is set out in the Habitats Directive Screening Report for the Draft Plan which was also published on 16th March, and the draft plan is available for review at the Midleton Town Council offices and online on the Cork County Council website.

2.2 Sites Screened

2.2.1 There are two Natura 2000 sites within the boundary of Midleton Town. These are Cork Harbour Special Protection Area and the Great Island Channel Special Area of Conservation. A further two Natura 2000 sites occur within 15km of the boundary of Midleton Town. These are the Blackwater River Special Area of Conservation which is located approximately 14km north of the town, and Ballycotton Special Protection Area which is located approximately 13km east of the town. No other Natura 2000 sites were identified which could be impacted by the plan. Having regard to distance and lack of any hydrological connection, no potential for impact arising from this plan on either the Blackwater River SAC or on Ballycotton SPA has been identified at any stage of the plan making process. These sites are not considered any further in this document.

2.2.2 The Great Island Channel SAC is designated as it supports important mudflat and saltmarsh habitats. The Cork Harbour SPA is designated as it supports nationally and internationally important numbers of a range of wintering waterbird species as well as a breeding population of Common Tern. Having regard to the location to Midleton in relation

to these sites more careful consideration has been given to the potential for the plan to give rise to impacts on the species for which the SPA is designated and their supporting habitats, and upon the habitats for which the SAC is designated, at all stages of the planning process.

2.3 Habitats Directive Screening of Draft Plan

2.3.1 The work of the Appropriate Assessment team commenced with the production of a Biodiversity Issues Paper for Midleton Town in November 2011. This paper identified the Natura 2000 sites within the potential impact zone of the town, policies within the then current plan which could potentially give rise to negative impacts on Natura 2000 sites, and proposed policy relating to the protection of natural heritage. This was provided to the Midleton Town Planning Team and was used during the formulation of the draft plan policy, zoning and objectives.

2.3.2 The AA team reviewed various iterations of the plan as it was being developed, and worked with the Midleton Town Planning Team to ensure that conflicts with Natura 2000 sites were identified and avoided early in the process. The team made a number of recommendations to the Planning Team in relation to certain policy areas prior to publication of the draft plan as follows.

2.3.3 The removal of Town Centre Zoning from a small part of the Cork Harbour SPA at the plan review stage was recommended prior to the publication of the draft plan. In addition where development zones were identified to have potential flood risk issues, or to occur in close proximity to the SAC or the SPA, it was recommended that the particular sensitivity of these sites would be highlighted in the text of the zoning. It was also recommended that it be highlighted in the relevant objectives for particular zonings that the incorporation of buffer zones may be required to be integrated into individual project proposals.

2.3.4 At the time of writing the draft plan, the Midleton Waste Water Treatment Plant in Midleton did not have the capacity to treat then current loadings. Nor did it have capacity to treat the target population provided for in the plan. While recognised as important environmental issue in its own right, this was also identified by the AA team as an issue which needed to be addressed in the draft plan. The draft plan acknowledges and requires the resolution of this issue prior to the commencement of any discharge from new developments facilitated by the plan in order to provide for the proposed increase in population, in order to ensure compliance with water quality regulations and standards and to ensure the protection of the Natura 2000 network. The Waste Water Treatment Plant has since been upgraded and now has capacity to treat current loadings. It will however require extension of capacity to treat wastewater from the population provided for in the final plan. This requirement is reflected in the draft plan.

2.3.5 A number of objectives in the plan promote the improvement of pedestrian / cycling access along river corridors. While this is welcomed generally, there is potential for increased pedestrian / cycling movement around the estuary to give rise to disturbance to feeding and roosting birds. Such an impact could be significant, when considered cumulatively with other developments and activities that can cause disturbance to feeding and roosting birds in the Harbour area. On foot of recommendations from the AA team, objectives relating to the development of greenways, walking and cycling routes in and around Midleton Town require that proposals would divert movement away from the

immediate vicinity of the estuary, or that any such walkways would incorporate screen planting or other buffering to avoid potential for disturbance to birds. This requirement is reflected in the text of the draft plan.

2.3.6 All of the recommendations made by the AA team as set out above were incorporated into the draft Plan.

2.4 Screening Outcome

2.4.1 A Habitats Directive Screening Report was prepared and issued with the Public Consultation Draft of the draft Midleton Town Development Plan on 16th March 2012.

2.4.2 The above issues are referred to in the screening report. No additional issues were identified at this stage of the plan making process, and having regard to the approach taken in the drafting of the plan, the potential for the plan to give rise to significant impacts on any Natura 2000 site was screened out.

3 Summary of Screening of Proposed Amendments

3.1 Draft Amendments Summary

3.1.1 A total of twelve submissions were made in respect of the draft plan during the public consultation process. The EPA raised an issue relating to the Natura Impact Report which was produced in respect of the draft Plan. The EPA was not clear whether the Planning Authority had screened out the potential for significant impacts, or if the Planning Authority had determined that full Appropriate Assessment was required for the draft Plan. In the Planning Authorities response, set out in the Managers Report, it was clarified that the document issued was a Screening Report, that issues identified in the report had been incorporated into the draft plan before issue, and that on that basis it was concluded that no significant impacts on the SAC or on the SPA were predicted. It is acknowledged that this may not have been clear in the original report which was mistitled as a Natura Impact Report rather than a Screening Statement.

3.1.2 Following consideration of submissions made during the public consultation phase on the draft plan, Midleton Town Council proposed to make a number of amendments to the plan. The proposed amendments are set out in full in a document titled proposed Amendments to the Draft Plan which was published by Midleton Town Council, October 2012. The proposals included amendments to chapters 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11. There were also proposals to increase the number of land use zonings from 6 to 7 to include Industrial land use within the town to cater for future expansion of Midleton Distillery. The amendments were screened to determine whether the adoption of these could have the potential to give rise to impacts which could be significant in relation to any Natura 2000 site.

3.2 Sites Screened

3.2.1 The Cork Harbour SPA and the Great Island Channel SAC were screened to determine whether the proposed amendments to the plan had the potential to give rise to impacts on these sites. No additional sites were identified to be screened in relation to the proposed amendments.

3.3 Habitats Directive Screening of Proposed Amendments

3.3.1 One amendment (01.11.05), which was proposed by Council members against the recommendation of the Town Manager, was identified to be of potential concern, having

regard to the proximity of this zone to the SAC and the SPA. This amendment proposed the reinstatement of Town Centre zoning on land zoned OS2 in the draft plan to Town Centre. The site comprises reclaimed land adjacent to the SAC and the SPA. The construction of buildings or hard flood defences in this area could have the potential to affect natural coastal processes and give rise to coastal squeeze, thereby potentially affecting habitats for which the SAC is designated, and species for which the SPA is designated. However it is also stated in the amendment that any development on this land will have to be supported by a site specific flood risk assessment demonstrating compliance with the Flood Risk Management Guidelines, including the justification tests. The objective also states that development in this zone may be subject to Appropriate Assessment of its impacts on the SAC and the SPA. Any such development could only proceed where it is shown that it will not give rise to impacts on integrity of any Natura 2000 site. Notwithstanding the zoning, taking into account the precautionary clauses appended to the objective, and the legal impediments that pertain to permitting inappropriate development within flood plains, and development that has been identified as likely to have an impact on the integrity of any Natura 2000 sites, it was considered that the SAC and the SPA will be protected against inappropriate development, and accordingly the potential for significant negative impacts was screened out.

3.3.2 No other proposed amendments were identified which could have the potential to give rise to negative impacts on any Natura 2000 site.

3.4 Screening Outcome

3.4.1 A Habitats Directive Screening Report was prepared and issued with the proposed amendments to the draft plan in October 2012. Public Consultation on the proposed amendments ran from the 26th October to 26th November 2012. On the basis of the screening assessment which was completed, it was concluded, that there was no potential for the proposed amendments to give rise to impacts on any Natura 2000 site.

4 Final Modifications To Amendments, Adoption of the Plan

4.1.1 Eight submissions were received by Midleton Town Council relating to the proposed amendments. None of these submissions related directly to the Habitats Directive Screening Report. One of these, the submission from the EPA, raised concerns in relation to amendment 01.11.05, concerning the re-instatement of Town Centre zoning on land proposed to be zoned as Open Space in the draft plan. The EPA submission requested justification for the proposed change in the context of the potential for significant effects on the adjacent Natura 2000 sites.

4.1.2 Council members voted to adopt all proposed amendments as published in the Midleton Town Council Proposed Amendments to Midleton Town Plan published October 2012 at their meeting of 21 January 2013. This included proposed amendment 01.11.05. The adoption of amendment 01.11.05 was against the recommendations of the Town Manager as the site is located within an area that is known to be at risk of flooding. No modifications were made to any of the amendments at this meeting.

4.1.3 While the EPA has raised concerns in relation to the reinstatement of Town Centre zoning on land adjacent to the SAC and SPA (amendment 01.11.05), the potential for this amendment to give rise to impacts on these sites was screened out at proposed amendments stage, as it was considered, notwithstanding the zoning, that inappropriate

development is precluded here having regard to the precautionary clauses relating to Flood Risk Assessment and Appropriate Assessment that have been appended to the objective, and having regard also to the legal constraints on granting permission for development that are likely to apply to the site, taking into account the EU Floods Directive, as well as the Habitats and Birds Directives.

5 Finding of No Significant Impacts Report Matrix

Screening Conclusion Statement Midleton Town Development Plan

Midleton Town Development Plan FONSI Report Matrix	
Name and Location of Natura 2000 sites subject to screening for appropriate assessment	<p>Cork Harbour Special Protection Area (4030) – within the Town Council Boundary.</p> <p>Great Island Channel Special Area of Conservation (1058) – within the Town Council Boundary.</p>
Description of the plan	<p>The Midleton Town plan sets out the planning strategy and other policies relating to economic development, tourism, the development of the town centre, housing, infrastructure, the provision of social and community facilities, heritage and transport, for the town of Midleton in the functional area of Midleton Town Council. The plan is available to view on the Cork County Council website, and at the Midleton Town Council offices.</p>
Is the plan directly connected with or necessary to the management of the Natura 2000 sites identified above	<p>No</p>
Are there other projects or plans that together with the amendments being assessed could affect the site (provide details)	<p>There is continuous pressure to increase development around Cork Harbour. This is promoted through a range of plans including the Cork County and City Development Plans and the Local Area Plans for Midleton; Carrigaline and Blarney as well as plans for development and expansion of port activities and marine recreation and tourism activities. Many of these plans could give rise to projects which result in increased pressure on water quality, pressure to infill and to reclaim parts of the shoreline; to increase port, cruise line and recreational marine activity, as well as recreational activity along the shoreline. Any such projects could contribute to habitat loss and give rise to significant disturbance to species within the harbour when considered cumulatively.</p>
Assessment of Significant Effects	

<p>Describe how the plan (alone or in combination is likely to affect Natura 2000 sites)</p>	<p>A number of potentially negative impacts were considered during the screening of the draft plan and its amendments. These are set out below:</p> <p>The plan provides for an increase in the population of Midleton. While a new upgrade to the WWTP for the town means that it has capacity to deal with current loadings, the plant does not have the capacity to deal with the projected population as provided for in the plan.</p> <p>Any failure at the plant could result in the discharge of untreated wastewater to the Ballynacorra River which has the potential to contribute to negative impacts on estuarine habitats in the north channel of Cork Harbour which form part of the Cork Harbour SPA and the Great Island Channel SAC.</p> <p>Other impacts on water quality could arise as a result of increasing levels of surface water run-off in the town facilitated by additional development pressure, or by permitting inappropriate development in areas at risk of flooding.</p> <p>The plan encourages the development of cycleways and walking routes within and around the town. Further development of any such routes around the estuary has the potential to increase levels of disturbance to wintering birds.</p> <p>An area of land close to the estuary have been zoned as Town Centre. Inappropriate development in this area could affect habitat quality in the SAC, and could cause disturbance to wintering bird species for which the SPA is designated.</p>
<p>Explain why these effects are not considered significant</p>	<p>Protection of water quality The recent completion of the upgrade of the waste water treatment plant in Midleton brings the capacity of the plant to 15,000pe. Further upgrades will be required in the future in order to meet the population targets set out in the plan in order to prevent any risk. This is recognised in the plan, and objectives INF 7-1 and INF 7-2 reflect the requirement to provide additional capacity at the WWTP to meet population targets.</p> <p>It will be a requirement that all new development in the town will incorporate SUDS and provide sufficient storm water attenuation to prevent any additional surface water run-off to the estuary.</p>

	<p>Section 7.6 and objectives 7-10-7-15 of the plan sets out Midleton Towns approach to the management of flood risk.</p> <p>Implementation of the above measures in relation to provision of appropriate waste water treatment infrastructure, integration of SUDS and storm water attenuation measures into new developments, and the implementation of a rigorous approach to Flood Management will help to protect water quality in the Owenacurra Estuary and at the discharge point of the Waste Water Treatment Plant on the Ballynacorra River.</p> <p>Protection of SPA from disturbance</p> <p>Objective CRO6-12 recognises the potential for further development of amenity areas or paths along the estuary to give cause disturbance to birds, and requires any proposals relating to same direct movement away from the estuary or incorporate screen planting or other suitable buffering to avoid potential for disturbance to birds. Any such proposals will be subject to Habitats Directive Screening, and may be subject to Appropriate Assessment.</p> <p>Development in areas within and adjacent to the SPA or the SAC.</p> <p>Land zoned OS1 is located within the Cork Harbour SPA and the Great Island Channel SAC. The plan states that this area is not suitable for any development.</p> <p>The potential for development in zones TC, RES, RPZ, OS1, OS2, OS3, OS4 which occur close or adjacent to the SAC and SPA to impact on these sites was highlighted in the objectives relating to these zones. It is stated in the objectives relating to these zones that it may be necessary to complete Habitats Directive Appropriate Assessment in relation to development in these zones, and that it may also be necessary to maintain a buffer between development proposed within these zones and the designated sites.</p>
<p>List of agencies consulted</p>	<p>The draft Midleton Town Development Plan and proposed amendments to same, as well as the Appropriate Assessment Screening Reports for both documents were referred to all of the statutory consultees including the EPA, the Minister for Arts, Heritage and the Gaeltacht, and An Taisce during two public consultation phases.</p>

Response to consultation	<p>The EPA raised an issue relating to the Natura Impact Report which was produced in respect of the draft Plan. The EPA was not clear whether the Planning Authority had screened out the potential for significant impacts, or if the Planning Authority had determined that full Appropriate Assessment was required for the draft Plan. In the Planning Authorities response, set out in the Managers Report, it was clarified that the document issued was a Screening Report, that issues identified in the report had been incorporated into the draft plan before issue, and that on that basis it was concluded that no significant impacts on the SAC or on the SPA were predicted. It is acknowledged that this may not have been clear in the original report which was mis titled as a Natura Impact Report rather than a Screening Statement.</p> <p>The EPA raised concerns in relation to the reinstatement of Town Centre zoning on land adjacent to the SAC and SPA (amendment 01.11.050). While this zoning may be contrary to Flood Risk Guidelines, the potential for it to give rise to negative impacts on the SAC and on the SPA has been screened out on the basis that notwithstanding the zoning, inappropriate development is precluded here having regard to the precautionary clauses relating to Flood Risk Assessment and Appropriate Assessment that have been appended to the objective, and having regard also to the legal constraints on granting permission for development that are likely to apply to the site, taking into account the EU Floods Directive, as well as the Habitats and Birds Directives.</p>
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
Where can the full results of the assessment be accessed and viewed	This report, the Habitats Directive Screening Statement for the draft Midleton Town Plan (April 2012), and the Habitats Directive Screening Statement for the proposed Amendments to the Midleton Town Development Plan (November 2012).

Date Assessment Completed	January 2013
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6 Relevant Documents and References

Midleton Town Council, Draft Development Plan. Published April 2012.

Midleton Town Council, Draft Development Plan, Managers Report on the Issues Raised by Submissions and Recommended Amendments. Published September 2012.

Midleton Town Council Proposed Amendments to Midleton Town Plan. Published October 2012.

Midleton Town Council. Midleton Town Development Plan 2013. Published January, 2013.

Cork County Council, Habitats Directive Screening Report for Draft Midleton Town Development Plan. Published April 2012.

Cork County Council, Habitats Directive Screening Report for proposed Amendments to Midleton Town Plan. Published October 2012.

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

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

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

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

European Communities. 2002. Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Luxemburg.

Strategic Flood Risk Assessment

STRATEGIC FLOOD RISK ASSESSMENT

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1 Introduction

1.1 Scope and Objectives

1.1.1 As part of the review of its Town Development Plan and in order to meet the needs of the Strategic Environmental Assessment process and the requirements of the Department of the Environment, Heritage and Local Government / Office of Public Works Guidelines, "The Planning System and Flood Risk Management" (2009), Midleton Town Council undertook a Strategic Flood Risk Assessment (SFRA) as part of its development plan review. This SFRA provides a broad assessment of flood risk within the town council area and has informed land-use planning decisions within the development plan review process.

1.1.2 The assessment provides for an improved understanding of flood risk issues within Midleton and includes a flood extent map that covers the town. The map identifies 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 Strategic Flood Risk Assessment was undertaken, as well as how its findings were addressed and integrated into the Town Plan. The report should be read in conjunction with the Midleton Town Development Plan and the associated maps.

1.2 Report Structure

1.2.1 Section 2 of this report provides a brief introduction to Midleton Town, identifying the key population and household growth targets for the town as set out in the plan.

1.2.2 Section 3 examines the main sources of flood risk within the 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 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 Midleton. It will also identify how the flood risk management strategy identified in the 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:

- a) avoid inappropriate development in areas at risk of flooding;
- b) avoid new developments increasing flood risk elsewhere, including that which may arise from surface run-off;
- c) ensure effective management of residual risks for development permitted in floodplains;
- d) avoid unnecessary restriction of national, regional or local economic and social growth;
- e) improve the understanding of flood risk among relevant stakeholders; and
- f) 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:

- a) Adopting a staged and hierarchical approach to the assessment of flood risk;
- b) 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 change of occurring in any given year.

1.4.4 In the development plan, flood risks are defined in relation to the following zones;

- a) **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);
- b) **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);
- c) 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:

- a) Highly vulnerable, including residential properties, essential infrastructure and emergency service facilities;
- b) Less vulnerable, such as retail and commercial and local transport infrastructure
- c) Water compatible, including open space, outdoor recreation and associated essential facilities, such as changing rooms.

2 Local Study Area

2.1 Population and Household Growth

2.1.1 In 2011 the population of Midleton town was 3,733 while the combined population of the town and environs was 12,001. Population within the environs of the town has been growing steadily in recent years and has almost doubled in the period since 2002 when it stood at 4,159. Population within the Town Council area has declined to less than 2002 levels, having increased in the period to 2006.

2.1.2 The County Development Plan Strategy makes provision for population growth of 11,734 persons in Midleton town and environs in the period 2011-2020

2.1.3 The target population for the Town Council area is 4,632 persons in 2020 which would be an increase of 899 persons over the 2011 census figure.

2.2 Housing Demand and Land Supply

2.2.1 Given the 2020 population targets for Midleton Town Council (4,632 persons), it is estimated that, taking an average household size of 2.41 in 2020 (as per the RPG) the total number of households in Midleton in 2020 will be 1,921, an increase of 469 households on 2006 levels. the total number of households in Midleton in 2020 will be 1,921, an increase of 417 households on 2011 levels.

2.2.2 Allowing for a vacancy rate of 15%, household growth of 417 within the Town Council area would require the provision of an additional 480 houses to meet the needs of the additional population for the period 2011-2020.

2.3 Environment and Heritage

2.3.1 European and National legislation now protect the areas of ecological importance, through designation of sites as proposed Natural Heritage Areas, candidate Special Areas of Conservation and Special Protection Areas.

2.3.2 Natural Heritage Areas are sites which are designated under the Wildlife (Amendment) Act 2000 and include nationally important semi-natural and natural habitats, landforms and geomorphological features, wild plant and animal species or a diversity of these natural attributes. There are 18 proposed Natural Heritage Areas within a 15km buffer surrounding Midleton Town. These are listed in Table 10.1 below.

Ballycotton, Ballynamone and Shanagarry	Dunkettle Shore
Loughs Aderry and Ballybutler	Whitegate Bay
Carrigshane Hill	Clasharinka Pond
Douglas River Estuary	Ballyquirk Pond
Glanmire Wood	Carrigacrump Caves
Great Island Channel **	Ballycotton Islands
Leamlara Wood	Monkstown Creek
Lough Beg	Rockfarm Quarry
Rostellen Lough, Aghada Shore & Poul nabibe Inlet	Cuskinny Marsh

** occurs within the Development Boundary to the south west of the town centre (marsh area west of Bailick Road)

Special Areas of Conservation (SAC's)

2.3.3 Special Areas of Conservation are designated in accordance with the European Habitats Directive (1992). This Directive contains lists of habitats and species that have been identified to be of conservation concern within the European Community. These habitats and species are protected through the designation of important sites where they are known to occur. In accordance with the Habitats Directive these sites must be managed in such a way as to maintain or restore their favourable conservation status.

2.3.4 There are two candidate Special Areas of Conservation within a 15km buffer zone surrounding Midleton Town. These are the Great Island Channel Special Area of Conservation (which occurs within the Town Development Boundary within the marsh area to the south west of the town) and the Blackwater River Special Area of Conservation. Supplementary information pertaining to these sites is contained in Habitat Directive Assessment of the Plan.

Special Protection Areas (SPA's)

2.3.5 Special Protection Areas are designated in accordance with the European Birds Directive (1979). This Directive contains a list of bird species that are of particular conservation concern and for which the legislation directs that it is necessary to conserve their breeding and/or feeding grounds to ensure their protection. The designated areas are called Special Protection Areas and in accordance with the Birds Directive, they must be managed in such a way as to ensure the continued survival of the species which are dependent on them.

2.3.6 There are two SPAs within a 15km buffer zone of Midleton. These are the Cork Harbour Special Protection Area (which occurs within the Town Development Boundary within the marsh area to the south west of the town) and Ballycotton Bay SPA. Cork Harbour SPA incorporates many of the proposed Natural Heritage Areas listed in Table 10.1. Supplementary information pertaining to these sites is contained in Habitat Directive Assessment of the Plan. Special Areas of Conservation and Special Protection Areas are known collectively as Natura 2000 sites.

2.4 Infrastructure

2.4.1 In Midleton the existing drinking water supply is inadequate, in terms of both the capacity of the water treatment plant and storage. Existing abstractions from the Owenacurra River are shared with Cobh Rural Water Supply Scheme. Further abstractions have been deemed unacceptable because of the possibility that increased demand would abstract too high a proportion of the dry weather flow in the river.

2.4.2 There are some local options to upgrade the supply but given the scale of growth proposed and potential for water supply constraints, it appears the most effective option may be to extend the trunk main recently constructed to Carrigtwohill, as part of the City and Harbour Water Supply scheme, as far as Midleton. This would need to be subject to Strategic Environmental Assessment / Habitats Directive Assessment. In addition the treated water storage capacity should be increased at Broomfield. Given the role of Midleton in the delivery of growth targets in Metropolitan Cork, it is critical that this constraint on the drinking water supply is overcome so development is not constrained.

2.5 Waste Water

2.5.1 Wastewater in Midleton is collected in a partially combined drainage network. The works currently comprises of eight pumping stations. The Midleton wastewater treatment plant (WWTP) provides secondary treatment by extended aeration and advanced treatment

by UV disinfection of the final effluent. Nitrification and denitrification are achieved by the inclusion of an anoxic zone in the aeration plant. The plant was originally designed is designed for a Population Equivalent (PR.) of 10,000 and BOD loading of 600kg/day but was upgraded to provide a capacity of 15,000 PE in 2012. Further upgrades will be required to the treatment plant if the population target is to be achieved.

3 Main Sources of Flood Risk in Midleton

3.1 Introduction

3.1.1 In order to provide information about possible flood risks, the Town Council, compiled a series of indicative maps showing areas that could be at risk from flooding. The information about flood risks that has been used in the preparation of this plan has been collated from a number of sources including:

- a) Draft River Lee Catchment Flood Risk Assessment and Management Study (Lee CFRAMS) commissioned and published by the Office of Public Works. The CFRAM Study for the River Lee Catchment is one of three such studies being carried out as 'pilots' for a national programme of similar studies to be implemented over the coming years. The methodology of the CFRAM Study is based on 'best international practice' for the assessment and management of flood risks and includes data for the fluvial and tidal flood risks in the catchment. It is anticipated that this study will be finalised during early 2011 and that the final outputs of the study can be included in this plan before it is finalised.
- b) '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.
- c) '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 Town Council has amalgamated the information from these sources into a single 'Draft Indicative Flood Extent Map' for Midleton. The map has been used as the basis for the flood risk assessment of this plan.

3.2 Sources of Flooding

3.2.1 This SFRA has primarily reviewed flood risk from fluvial and coastal sources. Other flood risks from pluvial and groundwater sources or from drainage systems, reservoirs 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 Midleton shows rivers and coastal flooding to be the most common source of damage. Other sources of flooding are considered to present a lesser risk in this area but should be considered at the planning application stage. Secondly, Flood Zones in the 'Planning System and Flood Risk Management' are defined on the basis of fluvial, and where appropriate, tidal flood risk. In addition, the SFRA should be based on readily derivable information, and records and indicators for fluvial flood risk are generally more abundant than for other sources of flooding.

3.3 Fluvial Flooding

3.3.1 Flooding of watercourses is associated with the exceeding 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.

3.3.2 In a large, relatively flat catchment, flood levels will rise slowly and natural floodplains may remain flooded for several days, acting as the natural regulator of the flow. In small, steep catchments, local intense rainfall can result in the rapid onset of deep and fast-flowing flooding with little warning. Such “flash” flooding, which may only last a few hours, can cause considerable damage and possible threat to life.

3.3.3 The form of the floodplain, either natural or urbanised, can influence flooding along watercourses. The location of buildings and roads can significantly influence flood depths and velocities by altering flow directions and reducing the volume of storage within the floodplain. Critical structures such as bridge and culverts can also significantly reduce capacity creating pinch points within the floodplain. These structures are also vulnerable to blockage by natural debris within the channel or by fly tipping and waste.

3.3.4 Rivers are the primary cause of flooding in the Midleton; with flood events attributed to fluvial sources ranging from the major rivers, including the Owenacurra, Dungorney and Ballinacurra Rivers, to the smaller tributaries, drains and natural lakes.

3.4 Coastal Flooding

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

- a) High tide level
- b) Storm surges caused by high winds
- c) Wave action, which is dependent upon wind speed and direction, local topography and exposure

3.4.2 Midleton is also susceptible to tidal flooding. The areas at risk were identified as part of the Draft River Lee Catchment Flood Risk Assessment and Management.

3.5 Other Sources of Flooding

3.5.1 Other sources of flooding including pluvial, ground water, drainage systems and reservoirs are detailed below. Risks from these sources have not specifically been addressed in the Flood Risk Assessment undertaken for the Midleton Town Plan and need to be assessed at the planning application stage.

- a) 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.
- b) 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.
- c) 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.

- d) Flooding from Reservoirs.

4 Addressing Flood Risk in the Midleton Town Development Plan

4.1 Introduction

4.1.1 This section details the approach to Flood Risk Management adopted in the Midleton Town Development Plan.

4.2 Flood Risk Management Strategy

4.2.1 In preparing its Development Plan strategy for the management of flood risks, the Town 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 assessment of flood risks and in formulating the strategy which has informed the preparation the Plan.

4.2.2 The approach adopted has *generally* been to

- a) Include 'Indicative Flood Extent Maps' to Identify the areas which are at risk of flooding;
- b) Avoid development in areas at risk of flooding; and
- c) Where development in floodplains cannot be avoided, to take a sequential approach to flood risk management based on avoidance, reduction and mitigation of risk.

4.2.3 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 Strategic Flood Risk Assessment has provided information in relation to the areas at risk of flooding within the Development Boundary and this has been included within the Development Plan in the form of 'Indicative Flood Extent Maps' which provide information on three main areas of flood risk:

- a) **Zone A** – High probability of flooding. Most areas of the town 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.
- b) **Zone B** - Moderate probability of flooding. In most parts of the town, this designation applies only to limited areas of land. 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.

- c) **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 an indicative Flood Extent map for the town is the first step in managing flood risk in the future. The map is indicative in nature and is 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.

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

4.4.1 Having regard to the approach to flood risk set out in the Guidelines and the extent of the areas shown to be at risk on flooding on the Indicative Flood Risk Map for Midleton, a number of areas which were zoned for development in the 2003 Town Plan are no longer zoned in this Plan. In most cases the zoning has been removed because the lands have been identified as being at risk of flooding. In one area zoned lands were located within the Cork Harbour SPA and these lands have been rezoned as open space. Lands which have been dezoned include

- Lands to the north of the Owenacurra and adjacent to the Millbrook housing estate
- Lands to the south of Chadwicks.
- Lands between Owenacurra River and Market Green Development.

4.4.2 In some parts of the town, it has been considered appropriate to retain the zoning objective on some lands, notwithstanding the fact that they have also been identified as being at risk of flooding. Such zonings have been retained where;

- a) The proposal has largely satisfied the ‘Development Plan Justification Test’ set out in the Ministerial Guidelines (the site specific flood risk assessment as required by the Guidelines was not undertaken as part of the preparation of this report), or
- b) The proposal was recommended for inclusion by the Members of Midleton Town Council.

4.4.3 Where lands at risk of flooding have been zoned for development in the plan, the zoning is subject to a requirement that a more detailed assessment of flood risk, and the suitability of the land for development, is undertaken at the project stage. This assessment will be based on the fundamental principles of the guidelines, which include the need to **Avoid** development in areas of flood risk and, where development in flood risk areas is proposed, to take a sequential approach to flood risk management based on avoidance, reduction and mitigation of risk. In these cases planning permission will only be considered where the findings of the site specific flood risk assessment demonstrates that the proposal complies with the requirements of the Development Plan/ Development Management Justification Test as outlined in the Guidelines. It is likely that development in these areas will also be subject to assessment of potential for impact on downstream Natura 2000 sites.

4.4.4 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 capable of being carried out relatively quickly and at modest expense involving a desk-top review of relevant flood risk information, where applicable, the preparation of site levels or cross sections, the preparation of a commentary on site specific issues including the nature of any localised uncertainty in existing sources of information and, finally, a recommendation on the appropriate course of future action

4.4.5 The first stage in the assessment process will include:

- a) 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).
- b) 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.
- c) Site cross sections or spot levels, including the river and surrounding lands.
- d) Description of the site and surrounding area, including ground conditions, levels and land use.
- e) Commentary on any localised uncertainty in the existing flood mapping and other sources of flood risk information and the site area.
- f) Proposal as to the appropriate course of action which could be either:
 - g) further study;
 - h) revision of proposals to avoid area shown at risk of flooding; or
 - i) 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).

4.4.6 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.

5 Flood Risk in the Future

5.1 What has the Development Plan Achieved

5.1.1 The inclusion of Draft indicative Flood Extent maps for Midleton is the first step in managing flood risk in the future. The map is primarily intended to function as a screening tool. It is 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.

Table 5.1: 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	2013
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 / Midleton Town Council	Unknown
SFRAs for Town Plans	Cork County Council / Town Councils	Upon Plan review
Detailed FRAs	Various	Unknown
Flood Defence Feasibility / Design Reports	OPW primarily	Unknown



MIDELTON TOWN COUNCIL