

YOUGHAL

EOCHAILL

Development Plan 2009-2015



VOLUME III Strategic Environmental Assessment

Youghal Town Council



February 2009

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1 NON-TECHNICAL SUMMARY

1.1 Background

The EU Directive on SEA requires the carrying out of an environmental assessment of plans and programmes which are likely to have significant environmental effects and which set the framework for future development consent of projects which are subject to EIA or where an assessment is necessary due to the likely effect on sites governed by the Habitats Directive (Directive 92/43/EEC).

Therefore this document reports on the environmental assessment, which was carried out on the Youghal Town Development Plan 2009 - 2015. The report describes the existing baseline environment in the Youghal Town Council area and the scoping exercise carried out. It also looks at the relationship between the proposed plan with other plans and policies and assesses the impact of its objectives and policies and proposes mitigation and monitoring measures.

1.2 Youghal Town Development Plan 2009 – 2015

The creation of this new Development Plan is expected to result in a change of land use in the future and subsequent developments have the potential to impact on the Youghal Town Council area through a number of different criteria such as biodiversity, Population, Human Health, Soils, Surface Water & Wastewater, Traffic & Transport, Waste Management, Cultural Heritage and Landscape & Visual. Therefore this SEA was undertaken in order to outline any potential significant impacts and mitigate against these in order to ensure sustainable development in the Youghal Town Council area.

1.3 Local Environmental Baselines

Biodiversity, Flora And Fauna

The closest designated site to the study area of Youghal Town is the Blackwater River and estuary SAC/SPA/NHA which adjoins Youghal Town to the east. The nearest pNHA to the study area is the Blackwater River and Estuary pNHA (Site Code 000072). The closest cSAC to the proposed development site is the Blackwater River cSAC (Site Code 002170). The closest SPA to the proposed development site is the Blackwater Estuary SPA (Site Code 004028).

Sites designated as SAC's and SPA's are recognised as being of international importance. The study area lies within a designated SAC / SPA. The site is of international importance due to the abundance of important bird species and also the presence of internationally important coastal habitats.

A number of habitats within and around the town of Youghal were identified with the aid of aerial photography. All habitats located within the SAC/SPA area are considered to be of international importance. The Blackwater Estuary is listed as an Annex I habitat under the E.U habitats directive and therefore they are of international ecological importance.

Population

The proposed plan will facilitate the growing population of Youghal in a sustainable manner and in accordance with various plans and strategies at a national, regional and local level.

The Youghal town council population grew from 5,445 in 1971 to 6,393 in 2006, a growth of 17.4% during the 35 year period. The environs grew from 181 in 1971 to 392 in 2006, a growth of over 100%. The environs grew by a much higher percentage than the town council. The combined population of the Town and environs increased from 5,625 to 6,785, an increase of 16.5%.

In 2006, 20% of the population of Youghal was in the young age dependent population. This compares to 21.8% for Cork County. There were 67% of people in the independent age cohort in 2006, the same percentage as that in Cork County. In 2006, there was 13% of the population in the old age dependent population.

Human Health (Air And Noise)

Currently the Youghal Town Council area experiences certain levels of air pollution and noise pollution, however this is not thought to be significant.

Soil and Geology (Including Minerals)

The underlying geology of the study area is dominated by bands of Dinantian, limestone, shales red sandstones and sandstone running in an east-west direction. The bedrock geology in the Youghal area consists of Carboniferous and Devonian limestones, sandstones and mudstones. In terms of hydrology there are two main catchments areas within the Youghal Town Council area; these consist of the northern and southern catchments.

The topography of Youghal is quite varied, the town itself is steeply sloping from the high point to the west to the River. To the north of the town the lands flatten out before rising sharply again at the Blackwater / Tourig confluence with Rincrew and to the East of the Blackwater in County Waterford. Lands to the West of the Town in the area of the Cork Road also rise gently to the north at Knocknacally and flatten out to the south towards the sea at the Ballyvergan Marshes which are a significant feature before reaching the long beaches stretching for several kilometres from Redbarn to Moll Goggins Corner.

The vast majority of the groundwater vulnerability below the site has been classified by the GSI as Extreme to High according to the GSI.

Water

The estuary of the Munster Blackwater extends from the limits of the tidal influence at Lismore to the mouth at Youghal Harbour (at East Point), a distance of approximately 38km. There are a number of significant tributaries including the Rivers Bride, Finisk and Likky, which discharge into the estuary, the river Tourig also runs just north of the Town into the Estuary. Just outside Youghal Harbour along the Western shoreline there is a large beach known as Youghal Main Beach and Claycastle Beach, which are designated bathing areas under the Bathing Water Regulations.

The Blackwater Estuary is an internationally important site for birds and a special protection area (SPA code: 004028). The Blackwater Estuary is of high ornithological importance for wintering waterfowl, providing good quality feeding areas for an excellent diversity of waterfowl species.

Water quality in the river Blackwater and its tributaries is generally quite good; according to the EPA the water quality status in Youghal is of good quality (Q4). Groundwater is the only documented source of drinking water in the area, however a large proportion of the Youghal area is classed as having high groundwater vulnerability, with some areas being of extreme vulnerability (EPA Scoping Reponse 1/08/07).

Transportation

A one-way transportation system applies to Youghal Town Centre. Traffic travels westbound along Catherine Street and North Street as far as Dolphin Square. Traffic travels eastbound on Breton Road from Dominic Collins Square. Youghal has an adequate public transport service with the provision of bus services.

The town continues to suffer adverse effects arising from the conflict between through and local traffic. Over the years, this has had a seriously adverse effect on the environmental quality of the town centre. The bypass, now completed, has had a beneficial effect on the environment of the town. However further road improvements are needed to decongest the town centre.

It is an objective of the Youghal Town Development Plan to determine an optimum route for a new Inner Relief Road between Chickley's Road and the R634. In addition it is also an objective to work

with Iranrod Eireann to restore the Cork to Youghal railway line. In addition Youghal Town It is proposed to provide additional cycle lanes and cycle parking facilities within the town.

Water Supply and Wastewater

The present drinking water supply is from River Glendine at Boola, County Waterford. It is treated and pumped to three reservoirs at the top of Cork Hill. This supply is just adequate to meet the needs of the town and expansion programmes are in place for its upgrading. The principal proposal to remedy the situation is to provide a new trunk main to Youghal and provide full treatment of capacity of the Boola output. This is due for completion in 2010.

The present sewerage system is combined with the surface water drainage and receives primary treatment before being discharged into the estuary. Although the system is adequate for present capacity there is a need for separation of the effluent and construction of a treatment plant. The estuary is designated as a sensitive area. Under the Department's Water Services Investment Programme 2005 – 2007 the Youghal Main Drainage Scheme including a new treatment plant is due for completion in 2012.

Flooding

Parts of the town centre are liable to tidal flooding. The Office of Public Works (OPW) provides flood hazard mapping in Youghal (see section 4.8.5). There are a number of areas identified that are susceptible to flooding.

Solid Waste Collection and Disposal

The Youghal landfill site is located in Youghal Mudlands and has a maximum capacity of 37,000 tonnes per annum (TPA), of which 18,000 is household and 12,000 is commercial. There are a number of public bring sites to recycle glass, aluminium cans, newspapers, waste paper, cardboard, plastics and textiles. Refuse collection in the town is operated by Cork County Council, once a week.

Electricity Supply

There are two 38 K.V. stations supplying the town and environs. One is located on the Seafield Road on the West of the town and the other at Kilnatoora, 2½ miles outside the town on the West. Electrical Supply is adequate to serve all foreseeable needs in the town.

Cultural Heritage

The jurisdiction of the Youghal Town Draft Development Plan 2009-2015 encompasses the historic medieval core of Youghal town, and its suburban development. The Youghal Town Development Plan of 2002 lists a total of 89 *Protected Structures*, constituting a Record of Protected Structures (RPS), within its jurisdiction. Several buildings are entered in both in the RMP and the RPS.

An *Architectural Conservation Area* was also established in the previous plan and covers the North and South Main Streets, west side of Ashe Street and the western side of Lighthouse Road to South Abbey. In addition the Youghal Town Draft Development Plan 2009-2015 legislates for a total of 50 *Recorded Monuments* of archaeological and architectural significance dispersed throughout its area; these are given statutory protection under the National Monuments (Amendment) Act 1994 by their inclusion in the Record of Monuments and Places (RMP) for County Cork 1997. The majority are within the Historic Core of the town.

There are no Structures as yet listed in the National Inventory of Architectural Heritage for Youghal.

Landscape

Youghal is located on the west bank of the mouth of the River Blackwater Estuary, with the town itself steeply sloping from the high point to the west at the River. There is a scenic route A47 runs into the south of the study area.

The areas at the harbour mouth at Monatray and East Point in County Waterford are steeply sloping and very visible from the Town of Youghal rising to a level of 80.0m OD. The steep slopes to the east of the town centre and to the north contribute significantly to the town's setting. Much of the recent development has taken place on top of the hills.

1.4 Alternatives

Article 5 of the SEA Directive requires the environmental report to consider "*reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme*" and the significant effects of the alternatives selected. Three alternative options were considered for assessment as part of the SEA process:-

- **Option 1-The "do-nothing" option;**
- **Option 2- Intensification of existing Town Centre**
- **Option 3- Extend new development zonings on Greenfield lands**

Under the '*do nothing*' option for the plan, the area would maintain its current physical and socio-economic characteristics. Development would be market dependant and would occur at a slower pace and in a less co-ordinated manner. Therefore this option was quite negative and was not the chosen option for the plan.

Under the second '*option 2*' for the 'Intensification of existing Town Centre' allows for increased intensification within the centre of the town, through increased housing densities including higher-level apartment blocks, commercial developments and consolidation and expansion of existing services. This scenario would meet a large number of the objectives of the Youghal Town Development Plan, as it would allow the regeneration of the town centre by way of improving the town's architectural character and townscape and consequently its tourist. It would also be likely to have a positive impact on existing residents and traders in the town centre area. This was therefore the chosen option for the proposed growth of the Youghal Town Development Plan

Option 3 to '*Extend new development zonings on Greenfield lands*' would involve zoning sites for commercial, retail, industrial and residential etc. outside of the town centre to the north, west or south of the town. This type of dispersed development would be unsustainable and therefore was not chosen as the preferred option for this Plan.

1.5 Sustainability Criteria

A matrix was used to assess the sustainability criteria against the key strategic policies and objectives of the Youghal Town Development Plan in chapter 6 of this report. This process enables an overview of where potential environmental problems may arise from implementation of the Plan and allows for additional or amendments to objectives to be generated.

Overall it is not considered that the proposed Plan would have a negative impact on the environment. In the case that potential constraints or impacts are found as an outcome of the baseline or assessment of the plans objectives mitigation and monitoring measures will be put in place as outlined in chapter 8 and 9 of this report. Mitigation and monitoring measures can be put in place in order to ensure that there will not be any significant impacts within the plan area.

In general environmental, recreation and amenity, Architectural Heritage, Conservation and Archaeology and Water Supply, Wastewater and Waste Management are compatible with the sustainability criteria outlined in chapter 6. The majority of criteria received a positive score, this is largely due to improvements of water resources and wastewater treatment facilities as proposed by the plan. The Plan also promotes walking, cycling and public transport provision and road improvements which will reduce congestion and current traffic issues which currently cause environmental impacts. In addition the provision of services and infrastructure shall ensure the needs of the expanding population are met.

It is considered that there could potentially be slight negative impacts as a result of Tourism in the plan area. Therefore care should be taken to ensure that tourism is promoted and carried out in a sustainable manner.

Community objectives have generally scored neutrally in relation to the sustainability criteria as community is generally more focused on the quality of life rather than the environment.

Overall, it is considered that the potential social and economic impacts will not have a negative environmental impact on the Town, provided development adhere to environmental and other safeguarding objectives outlined within the plan.

It is not considered that the housing objectives of the plan are likely to have any significant impacts on the plan area, most objectives scored neutral in relation to the sustainability criteria as much of the lands zoned for housing is promoted in the town centre which is a sustainable approach to development. Overall the housing objectives of the plan should not have a significant environmental impact provided that development adheres to safeguarding objectives outlined within the plan.

1.6 Likely significant effects

The environmental characteristics, both assets and constraints, which are likely to have significant effects as a result of the implementation of the Plan relate mainly to noise, air, and archaeological and architectural heritage.

In identifying these environmental characteristics attention has been paid to the fact that SEA should focus on significant issues relating to the prediction of impacts and disregard the less significant impacts.

In relation to Human Health (Noise and Air) and Transport, actively planning for development of an area is likely to have the effect of attracting more people to the area, increased traffic volumes, pressure on wastewater and water resources. All of these pressures have an environmental consequence, and some have human health consequences, namely changes in air quality and the noise environment.

It is considered that overall, the objectives of the Youghal Town Development Plan have potential to have a slight impact on the archaeological and architectural heritage within the Historic Core of the town, therefore new protective policies have been included within the plan. In addition it is considered that the 'do nothing' approach to development in the town is likely to have a more significant impact on the Town. Overall there should not be any significant negative environmental impacts on the Town provided all development within the town adheres to safeguarding principles of the plan.

1.7 Mitigation

As part of the SEA process, mitigation measures have been identified to negate any potential negative impacts associated with the objectives and policies contained in the Youghal Town Development Plan.

1.8 Monitoring

Article 10 of the SEA Directive requires Member States to monitor the significant environmental effects of the implementation of plans 'in order, inter alia, to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action'. The SEA outlines the monitoring proposals that will be undertaken following implementation of the policies and objectives of the Youghal Town development Plan.

2 INTRODUCTION

Youghal Town Council propose to make a new Development Plan for Youghal Town. In doing so, Youghal Town Council propose to carry out a Strategic Environmental Assessment (SEA) of this Plan.

The main function of the Plan is to provide a planning framework for the town so that Youghal and its people can develop their potential within a sustainable context. It identifies the natural and man-made assets of the town and its amenities, while addressing the physical requirements of future growth. The aim is to secure a balance between employment, housing, services and amenities; thus enabling a basis for a stable well-integrated community. The Plan must be, as far as practicable, consistent with national, regional and local plans.

The proposed Youghal Town Development Plan has been considered in the context of the overall development of Youghal Town and also in relation to whether or not implementation of the proposed plan would result in significant effects on the environment, taking into account the relevant criteria set out in Schedule 2A of the SEA Regulations 2004. In making an overall assessment on the whether SEA was required in this case, each of the criteria in Schedule 2A was considered. Following a Screening exercise, Youghal Town Council has determined that a strategic environmental assessment is warranted in this case.

The key requirements of the SEA directive may be summarised as follows:

- The screening of plans, at draft stage, to determine if SEA is required,
- The scoping and preparation of an Environmental Report,
- Public consultation on the Draft Plan and the Environmental Report,
- The modification of the Plan, where appropriate, on the basis of the inputs from the consultation stage,
- The incorporation of conditions for monitoring of the significant environmental effects.



Figure 1: Youghal Town Council Area

2.1 SEA BACKGROUND AND METHODOLOGY

The SEA methodology used to carry out the SEA of the Youghal Town Plan reflects the requirements of the SEA Directive (2001/42/EC) as transposed into Irish law (S.I. No. 436 2004) and also experience drawn from other SEA's carried out in Ireland and the UK. The following documents, in particular, have also been used as guidance:-

- Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland, Synthesis Report, EPA (2003); and
- Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment. Guidelines for Regional Authorities and Planning Authorities (DoEHLG, 2004).

Under consideration is the proposed Youghal Town Plan which, if implemented has the potential to impact on the receiving environment. The main steps taken in this SEA process involved screening, scoping, baseline study, consideration of alternatives, environmental assessment of the objectives and policies of the proposed Development Plan and the formulation of mitigation and monitoring measures.

2.2 SCREENING

Before the Development Plan process commenced in February 2007 Youghal Town Council undertook a screening exercise in order to determine if SEA was required on the proposed Plan as per the requirements of Article 13A of the 2004 Regulations which states that:

"This article applies to a Development Plan for an area the population of which is less than 10,000 persons."

The population of Youghal town in the 2006 Preliminary Census was 6,393 persons. Therefore, following a screening exercise, Youghal Town Council determined that a strategic environmental assessment would be warranted in this case.

2.3 SCOPING

Once determined that an SEA is required for a given plan or programme, in this case the proposed Youghal Town Development Plan, an environmental report must be prepared. The content and scope of this environmental report is determined with input from statutory Consultees. In Ireland, three statutory Consultees have been nominated:-

- The Environmental Protection Agency (EPA);
- The Department of the Environment, Heritage and Local Government (DoEHLG); and
- The Department of Communications, Marine and Natural Resources (DCMNR).

Youghal Town Council undertook formal scoping of the SEA Environmental Report with the three statutory Consultees and Waterford County Council, which neighbours Youghal Town Council to the east between July 2007 and August 2007. Responses from all parties consulted were received in Youghal Town Council in August 2007.

As outlined above the screening exercise identified the need for an SEA by looking at likely significant environmental effects. The scoping exercise for this SEA determined the potential key environmental impacts and outlined how they should be addressed as part of the Environmental Report (Table 3.1)

2.4 ENVIRONMENTAL REPORT

The Environmental Report contains an assessment of the likely significant effects (on biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors) of implementing the proposed plan.

The content of the Environmental Report is broadly defined in Article 12 (1) of the regulations.

Chapter Title
Non-Tech summary
Introduction
SEA Background and Methodology
Key Objectives of the Plan
Planning and Policy Context
Summary of Baseline Environment
Key Environmental Issues
Do Nothing Scenario
Strategy Options Alternatives
Environmental Assessment
SEA Objectives, Targets and Indicators
Mitigation
Monitoring

3 RELATED PLANS

The SEA should take into account as appropriate the environmental policies and objectives set out in the Youghal Town Development Plan, the Cork County Development Plan other relevant Plans within the Planning Hierarchy as well as other related plans such as Waste Management Plans, River Basin District Plans, Heritage Plans etc. Significant proposed developments within the area, which have received approval but have not proceeded to date, should also be taken into account.

3.1 Towards Sustainable Local Communities: Guidelines on Local Agenda 21, 2001



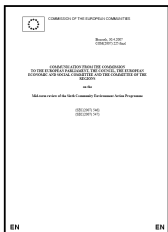
Local Agenda 21 was the result of the first UN Conference on the Environment and Development (Earth Summit) in Rio de Janeiro in 1992, where Ireland was amongst 150 nations which endorsed Agenda 21, a major blueprint for how the world's nations can work individually and collectively towards sustainable development by the 21st century. Local Agenda 21 and the EU's Fifth Environment Action Programme underlined the fact that traditional policies must be replaced by an integrated approach to environment and development issues, if growth is to be achieved in parallel with, rather than at the expense of, environmental quality.

Local Agenda 21 is intended to translate sustainable development principles and objectives into practical action at the local level. Some of the major aims of Agenda 21 include:

- Reducing the amount of energy and raw materials society consumes, as well as the pollution and waste it produces;
- Protecting fragile ecosystems and environments; and
- Bringing about a fairer distribution of wealth, both between countries and between different social groups within countries.

Local Agenda 21 also encourages consultative processes which involve the whole community, its elected members and other community and representative groups through means of information awareness, public consultation and feedback, partnerships between authorities, businesses and communities, and a continuing monitoring of progress towards sustainability. The principles of Agenda 21 are being met through the process of SEA.

3.2 EU Sixth Environment Action Programme, 2002-2012



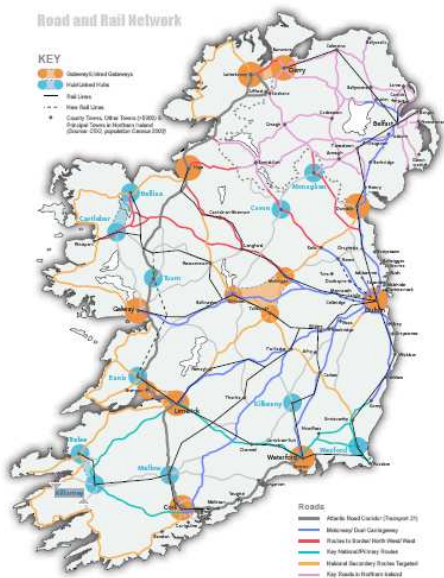
The EU Sixth Environment Action Programme sets out objectives in the shape of Europe's future environment at the start of the 21st century. It provides a framework for adopting and implementing sustainable development policies in Europe. This vision "Environment 2010: Our Future, Our Choice" seeks the following aims:

- To decouple the generation of waste from economic growth by establishing more sustainable consumption patterns;
- For waste generated, these should represent very low risks to the environment and our health;
- We should maximise recycling and bring "final disposal to an absolute minimum"; and
- Waste should be treated as close as possible to where it is generated ("proximity principle").

Seven ‘Thematic Strategies’ were introduced as a way to tackle seven key environmental issues, which require a holistic approach because of: their complexity, the diversity of actors concerned and the need to find multiple and innovative solutions. The Seven Thematic Strategies are:

- Clean Air For Europe (CAFE);
- Soil protection;
- Sustainable use of pesticides;
- Protect and conserve the marine environment;
- Waste prevention and recycling;
- Sustainable use of natural resources; and
- Urban environment.

3.3 National Development Plan 2007-2013



The 2000 National Development Plan was prepared to underpin the development of a dynamic competitive economy to 2006. The subsequent NDP published this year will guide the development of the country in the period 2007-2013. The Plan sets out a strong framework for the promotion of regional development with a particular focus on investment in the National Spatial Strategy (NSS) Gateway centres. Strong urban centres are directly related to regional growth and development, affecting employment, incomes and quality of life throughout the regions.

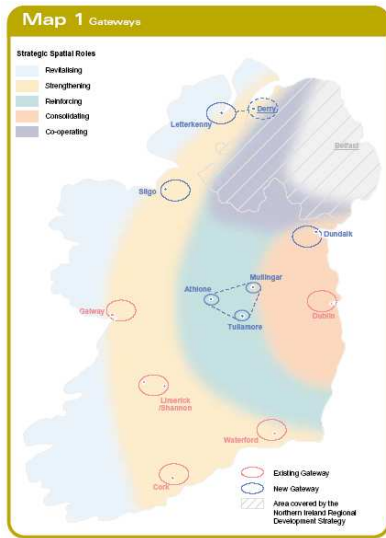
The NDP is the largest and most ambitious investment plan ever drawn up for Ireland, where over €52 billion was invested between 2002-2006 and a predicted € 184 billion of Public, Private and EU funds will be invested between 2007 and 2013 in economic and social infrastructure, enterprise, science, agriculture sectors, education, training and environmental services.

The key challenge for Cork over the period to 2013 will be to significantly accelerate its rate of development and population growth, focusing particularly on the potential of its central area.

Key development and investment priorities for Cork and its wider environs will over the period of the Plan include:

- Completion by 2010 of the M/N8 Dublin - Cork road to full motorway standard and other road and public transport aspects of Transport 21;
- The development, as part of the CASP Strategy of an integrated public transport system built around the Green Route programme of improved bus priority, the re-opening of the Cork City-Midleton rail service by 2008 and the development of commuter rail services on the Mallow-Midleton corridor;
- Introduction of hourly rail services on the Cork-Dublin route;
- Roads, water services, port relocation and associated infrastructure to facilitate docklands regeneration;
- Improved road and bus-based public transport links to Cork airport;
- Enhancement of road links to other Gateways along the Atlantic Road Corridor;
- The upgrading of N28 road access to Ringaskiddy Port and its associated industrial zone;
- Pedestrianisation and similar urban renewal activity, building on recent progress in this area;
- Enhancement of tourism, cultural and recreational facilities;
- Lands at Ringaskiddy and Carrigtohill to be developed by IDA Ireland as part of its Strategic Sites Initiative; and
- Continued development of the City's R&D capacity such as the recently opened Tyndall Institute

3.4 The National Spatial Strategy, 2002-2020



The National Spatial Strategy (NSS) sets out a national context for spatial planning which informs regional planning guidelines, as well as county and city development plans and strategies. It aims to achieve more balanced regional development.

It is a planning framework designed to deliver a more balanced social, economic and physical development between the regions. The successful aspects of the growth of the Greater Dublin Area over recent years need to be emulated in other areas to deliver a more even distribution of successful economic development. The growing strengths of Cork, Limerick/Shannon, Galway, and Waterford suggest that a coordinated development of these cities has the potential to offer a counterweight to the pull of the Dublin Region.

According to the NSS, the best prospects for establishing critical mass of the type and scale capable of competing with that of the Greater Dublin Area are dependent on point to developing Cork, Galway, Limerick/Shannon and Waterford as an increasingly inter-connected and developed network of co-operating and complementary cities. Models for activating such polycentric development approaches are evolving in other European countries.

The strategic roles which cities, towns, villages, communities and rural areas will have in delivering a more spatially balanced Ireland can be summarised as follows:

- Consolidation of the Greater Dublin Area;
- Strengthening the South, South East, West and North West to complement Dublin;
- Revitalisation the West and South West;
- Reinforcing central parts of Ireland and the South East; and
- Co-operating in an all-island context.

Youghal is designated as a town with a population of over 5,000 persons. The strategy states that:

'Towns close to Cork City, such as Middleton, Youghal, Cobh and Carrigaline, need to be promoted and developed as self-sustaining towns. They will benefit from proximity to Cork and at the same time build up their employment and services functions through the implementation of the Cork Area Strategic Plan, in particular through enhancing their road, rail and bus links to Cork City'.

3.5 Sustainable Development: A Strategy for Ireland, 1997



Sustainable Development – A Strategy for Ireland, published in 1997, stresses the Government's commitment to sustainable forms of transport and the need to strengthen and improve such forms in the interests of the promotion of sustainable development. An emphasis is given to the need to produce an efficient, cost effective and customer focused development of the rail network. The Strategy reflects Ireland's commitment to the principles and agenda for sustainable development agreed at the Earth Summit in Rio de Janeiro in 1992 and also responds to the EU Fifth Action

Programme for the Environment.

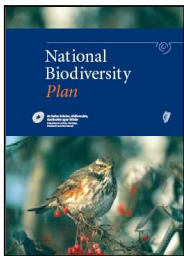
The general aim of the Strategy is to “ensure that economy and society in Ireland can develop to their full potential within a well protected environment, without compromising the quality of that environment and with responsibility towards present and future generations and the wider international community”. To achieve the aims of the Strategy, the Government has adopted the following principles, the implementation of these being specific objectives of this Plan:

- The Precautionary Principle which aims to deal with causes rather than results of environmental pollution; and
- Integration: illustrates the importance of integration at all levels of society – government, sectoral and policy levels, to enable environmental concerns to be addressed in an effective and comprehensive manner.
- The Polluter Pays Principle, which allocates the costs of pollution to producers and consumers rather than to society at large.

The Strategy recognises that the primary responsibility for the proper management of hazardous waste lies with the holder or generator of the waste. Other international policies/legislation that should be adhered to include:

- European Union (EU) Habitats Directive (92/43/EEC) 1992;
- EU Water Framework Directive (2000/60/EC);
- European Landscape;
- Birds Directive;
- Air Framework Directive;
- Waste Framework Directive; and
- Phosphorous Regulations.

3.6 National Biodiversity Plan, 2002-2006



In response to the requirements set out in Article 6 of the UN Convention of Biological Diversity 1992, a Bio-diversity Plan was prepared by the Department of Arts, Heritage, Gaeltacht and the Islands. The Plan seeks to ensure the full and effective integration of bio-diversity concerns in the development and implementation of other policies, legislation and programmes which is of critical importance if the conservation and sustainable use of bio-diversity is to be achieved. It outlines a series of measures that will enhance biodiversity.

The plan covers three levels of biodiversity, which are ecosystem diversity, species diversity and genetic diversity. The overall goal of the Plan is to secure the conservation, including where possible the enhancement, and sustainable use of biological diversity in Ireland and to contribute to conservation and sustainable use of bio-diversity globally.

3.7 National Climate Change Strategy 2007-2012



The National Climate Change Strategy 2007-2012 takes account of the public consultation process which followed the further review in Ireland Pathway to Kyoto Compliance (2006). The main greenhouse gas in Ireland is Carbon dioxide arising from the burning of fossil fuels in transport, heating and electricity generation. Irish emissions of other greenhouse gases, such as methane and nitrous oxide, are relatively high, mainly due to agriculture.

The European Union has committed itself to reducing its greenhouse gas emissions to 20% below the 1990 levels by 2020. The Strategy outlines how this will be achieved through the various sectors including Energy Supply, Transport, Residential, Industry, Commercial and Services, Agriculture, Land-use and Forestry, Waste, Public Sector, Cross-sectoral, Adaptation and Implementation, Reporting and Review.

3.8 National Heritage Plan, 2002-2006

The Plan aims to set out a clear and coherent strategy and framework for the protection and enhancement of our heritage over the next 5 years. The Plan reflects recognition at a national level that heritage is important as an integral part of our development and that co-operation across all sectors will contribute to maximising the benefits to heritage.

Each action of the plan is founded on the principles of sustainable development, which states that the needs of the present generation must be met without compromising the ability of future generations to meet their own needs. The objective of the Government is to “ensure the protection of our heritage and to promote its enjoyment by all”.

3.9 Water Framework Directive (2000/60/EC)

The WFD sets a framework for comprehensive management of water resources in the European Community, within a common approach and with common objectives, principles and basic measures. It addresses inland surface waters, estuarine and coastal waters and groundwater.

The fundamental objective of the Water Framework Directive aims at maintaining “high status” of waters where it exists, preventing any deterioration in the existing status of waters and achieving at least “good status” in relation to all waters by 2015.

Member States will have to ensure that a co-ordinated approach is adopted for the achievement of the objectives of the WFD and for the implementation of programmes of measures for this purpose. The objectives of the WFD are:

- protect and enhance the status of aquatic ecosystems (and terrestrial ecosystems and wetlands directly dependent on aquatic ecosystems)
- promote sustainable water use based on long-term protection of available water resources
- provide for sufficient supply of good quality surface water and groundwater as need for sustainable, balanced and equitable water use
- provide for enhanced protection and improvement of the aquatic environment by reducing / phasing out of discharges, emissions and losses of priority substances
- contribute to mitigating the effects of floods and droughts
- protect territorial and marine waters
- establish a register of 'protected areas' e.g. areas designated for protection of habitats or species.

The directive rationalises and updates existing water legislation by setting common EU wide objectives for water. It is very broad in its scope and relates to water quality in rivers, lakes, canals, groundwater, transitional (estuarine) waters and coastal waters out a distance of at least one nautical mile.

3.10 Retail Planning Guidelines for Planning Authorities, 2005



Published in January 2005 the *Retail Planning Guidelines for Planning Authorities* provide a comprehensive framework to guide local authorities in preparing development plans and assessing applications for planning permission as well as retailers and developers in formulating development proposals.

These guidelines are a revision of the 2001 guidelines insofar as with relation to retail warehousing. It was recognised that there is evidence of consumer demand in Ireland for large-scale retail warehousing units which are capable of displaying a very wide range of goods within one store. Accordingly, the Minister has determined that the 6,000sqm floorspace cap on individual retail warehouses will not apply in those areas which are subject of Integrated Area Plans under the Urban Renewal Act, 1998 in National Spatial Strategy, Gateways of

Athlone/Tullamore/Mullingar, Cork, Dublin, Dundalk, Galway, Letterkenny, Limerick/Shannon, Sligo and Waterford and within the functional areas of the four Dublin local authorities.

3.11 Residential Density Guidelines for Planning Authorities, 1999



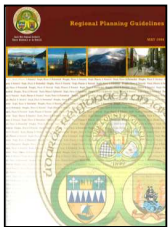
These Guidelines promote increased residential densities in order to ensure the most efficient use of zoned and serviced housing land, provide a more varied range of dwelling types and sizes, optimise the use of existing services, facilities and infrastructure, encourage more sustainable commuting patterns and facilitate improved public transport. It is considered that the settlement strategy proposed in the new Plan reflects those in the Guidelines.

3.12 Guidelines for Planning Authorities: Architectural Heritage Protection, 2004

The Planning and Development Act 2000, required additional development objectives relating to the protection of structures which are deemed to be of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest and to preserve the character of architectural conservation areas.

In this context, these Guidelines aim to assist local authorities/town councils in the adaptation of suitable policies for protecting architectural heritage in their development plans and to ensure they have practical effect through development control measures. The guidelines aim to assist planning authorities in their role to protect the architectural heritage of their area. The Cork County Development Plan is considered to be consistent with these Guidelines.

3.13 Regional Planning Guidelines for the Southwest Region, 2004



The Regional Planning Guidelines for the Southwest provide a broad canvas, which aims to steer the growth and prosperity of the Region and its people, up to 2020. The Guidelines contain statements and analysis of key economic objectives, together with a set of planning guidelines to be incorporated in the statutory development plans of the local authorities in the region and are seen as an important link between NSS and the raft of local county and city development plans.

The RPGs note that Towns such as Youghal play a dual role, in that they have a relationship with Cork, but also play an important role as an employment and service centre. The guidelines note that Towns such as Youghal have the potential to attract FDI, as well as developing a stronger indigenous sector. It is envisaged that growth in these towns will be employment-led and that they will not merely become dormitory towns for the Metropolitan Area. Commuting to the Gateway will obviously continue, but should not become the prime basis of growth.

The RPGs state that within the development triangle of Waterford-Cork-Limerick, the Cork Gateway performs a service function outside the South West Region; in terms of retail, transport (air and sea), employment, personal and business services, and recreation. As the City sub-region grows, its role as the Munster capital will be strengthened. The Guidelines note that Towns such as Youghal, Mitchelstown and Charleville importantly contribute to and benefit from interregional dynamics.

In particular the guidelines recognise the prerequisite for the sustainable development of the Gateway is the development of new commuter rail in the Cork area, linking Mallow with Midleton and Cobh, in accordance with the transportation recommendations of CASP, and with the potential for further expansion to Youghal, in the future.

3.14 Cork County Waste Management Plan 2004-2009

The Waste Management Plan was formulated by Cork County Council to address the on-going challenge of waste management in County Cork. The Plan addresses all areas of waste management – from waste prevention and minimisation, to its collection, treatment, recovery and final disposal. The Plan is guided by international, EU and Irish legislation and policy on waste management.

The Waste Management Plan for County Cork envisages a single, central regional landfill to accept residual waste. National recycling targets for household wastes will be met by provision of a high number of civic amenity and bring sites, combined with a central integrated materials recovery and composting facility to segregate and recover recyclable and biodegradable household wastes. Thermal treatment will be retained as an option, should waste growth necessitate its introduction at a later date.

The previous Waste Management Plan (1999 to 2004) confirmed the decision to proceed on the basis of Scenario 2 of the Waste Management Strategy which resulted in a number of actions being taken by the Council including:

- Bottlehill identified as the most suitable site for a landfill.
- Application to the Environmental Protection Agency for a waste management licence and to An Bord Pleanála for approval. The EPA issued a proposed decision to grant a licence and a decision is currently awaited. An Bord Pleanála granted approval in February 2004.
- Progress on the acquisition of sites for the provision of materials recovery and residual landfill facilities.
- Entering into tender negotiations for the provision of a materials recovery facility by public private partnership.
- Progress in the provision of civic amenity sites and transfer stations.

Having regard to the above, the Council proposes to continue to implement scenario 2 for the management of municipal waste in the county until 2009.

To date, Bottlehill has been chosen as the location for the central regional landfill. Cork County Council is now at an advanced stage of the planning and licencing process for this facility. Agreement has been reached between Cork County Council and Cork City Council on the funding of the integrated recovery facility through Public Private Partnership.

There are currently 133 Bring Sites within the Cork County functional area, which accept materials including glass bottles/jars, aluminium and steel cans, paper/cardboard and plastic. The total quantity of waste collected at the bring sites in 2002 was 6,672.7 tonnes. This quantity increased to 8,232 tonnes in 2003.

In 2003, there were five fully operational civic amenity sites within the administrative area of Cork County Council. Materials such as paper, glass, aluminium, textiles, wood, plastic packaging, batteries, motor oil, vegetable/cooking oil, electrical and electronic waste, green waste and scrap metal are collected at these sites for recycling. The quantities accepted for recycling in 2002 and in 2003 were 2,185 tonnes and 2,179 tonnes respectively. Domestic waste is also accepted at these sites.

Appendix 4 of the Plan outlines the waste management facilities in County Cork. The plan states that there are civic amenity facilities available at three of the operational landfill sites, namely East Cork (Rossmore), Youghal and Kinsale Road Landfill Sites. The landfill site in Youghal is located in the Mudlands and has a maximum capacity of 37,000 tonnes per annum (TPA), of which 18,000 is household and 12,000 is commercial.

There are a number of public bring sites in Youghal town. These are to recycle glass, aluminium cans, newspapers, waste paper, cardboard, plastics and textiles. They are located at Nealon's Quay, Council carpark; Dolphin's square; Holy family church carpark; near Dempsey's pub; Tides restaurant carpark; Tesco shopping centre and Supervalu carpark.

3.15 Cork Strategy Retail Study 2002

The Cork Strategic Retail Study superseded the Cork County Retail Strategy (1997). A joint retail strategy was derived from the CSRS and incorporated into the City and County Development Plans. The CSRS 2002 regards Youghal as a Ring Town, is a centre where the retail function has been steadily eroded over many years, due to the very poor quality of the shopping environment. It also notes that Youghal has a large percentage of vacant floorspace.

The Study outlined that the completion of the bypass would lead to reductions in traffic and allow for significant and necessary improvements to the public realm, which may yield town centre opportunity sites for significant comparison goods development.

3.16 Draft Cork Strategic Retail Study 2008

The draft Cork Strategic Retail Study (CSRS) outlines that there are a number of commitments in terms of retail development within Kinsale town. The Strategy outlines a number of opportunity sites within the town. Currently the town supports approximately 5,185m² of comparison goods floorspace and 3,865m² of convenience goods floorspace. Youghal has seen a significant growth in convenience floorspace with two new supermarkets. The strategy envisages that the strong demand for housing in the town, due to the increased accessibility of the City, will increase the population and therefore benefit the retailers of the town in the future. The strategy concludes that Youghal serves a well-defined catchment and should improve its town centre retail function by increasing the range and quantum of retail floorspace. It also recognises that there are opportunities in the town to provide new comparison and retail warehouse development

3.17 Cork County Heritage Plan 2005 – 2010

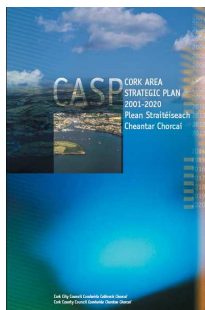
The Cork County Heritage Plan aims to secure benefits for local heritage and to increase awareness, appreciation and enjoyment of this heritage for all of the people in County Cork. It aims to develop and encourage best practice in relation to the management and care of heritage in County Cork and to deliver practical actions to achieve this, as well as to gather and disseminate information about heritage in the County.

3.18 Joint Housing Strategy

Cork County Council, in conjunction with Cork Corporation and the nine Urban District Councils in the county produced a Joint Housing Strategy to address the housing needs of the existing and future population of Cork to 2011. The policies and objectives of the strategy are enshrined in the Cork County Development Plan 2003 (as amended). The Strategy sets out four key principles:

- To provide for a diverse range of housing needs
- To promote balanced communities
- To promote sustainable development of the urban and rural environment
- To promote a high quality living environment.

3.19 Cork Area Strategic Plan 2001 - 2020



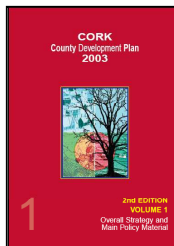
The *Cork Area Strategic Plan* (CASP) provides a vision and strategy for the development of the Cork region up to 2020. The strategy is currently under review to take account of population and economic growth since the 2001 strategy. The plan covers an area determined by a journey time of approximately 45 minutes from Cork City, and area that has been defined as the Cork City Region. It includes Cork City, the satellite towns of Midleton, Carrigtwohill, Carrigaline, Ballincollig and Blarney and the ring towns and rural hinterlands of Bandon, Macroom, Mallow, Fermoy, Youghal and Kinsale.

The Proposed Strategy for the Ring Towns and the Rural Areas focuses on the reinforcement of the Ring Towns including Youghal, it proposes the implementation of a complementary rural strategy, which reflects the need to concentrate new development in compact, sustainable forms, easily serviced by public transport, utilities and social, cultural and commercial facilities.

The strategy states that Youghal should be able to attract further industry and increased tourism to the town once the bypass removes through traffic from the centre. Urban expansion should be contained within the line of the bypass, and new housing areas will need to be linked to the existing centre. Care will be needed in the location of new retail facilities to ensure that they do not undermine the role of the town centre. The strategy acknowledges that Youghal's potential for growth could be further strengthened in the longer term by the reinstatement of the Cork/Midleton/Youghal line.

CASP states that Youghal has yet to be realised fully in terms of its Coastal and Harbour areas and that encouragement should be given to the establishment of major sea-angling and watersports centres and the creation of a location for a major country market.

3.20 Cork County Development Plan 2003



The Cork County Development Plan 2003 (as varied) took its guidance from the 20-year strategy provided in CASP and the N&WCSP (for the remainder of the County outside the CASP area). The subject site is located entirely within the administrative boundary of Youghal Town Council and is governed by the policies and objectives of the Youghal Town Development Plan. However the lands surrounding Youghal Town Council are governed by the Cork County Development Plan 2003 (as varied), this plan was adopted in January 2003 and provides the framework for development and planning in the County for the next six years. The Plan has a vision for the County that is based on four strategic goals, as follows:

- Enhanced quality of life for all- based on high-quality residential, working and recreational environments, and sustainable transportation patterns;
- Sustainable patterns of growth in urban and rural areas that are well balanced throughout the County, together with efficient provision of social and physical infrastructure;
- Sustainable and balanced economic investment, together with wise management of the County's environmental and cultural assets;
- Responsible guardianship of the County, so that it can be handed on to future generations in a healthy state.

3.21 Draft Cork County Development Plan 2007

The draft Cork County Development (CDP) was published in December 2007 by the Planning Policy Unit of Cork County Council and was on consultation until February 2008. Amendments to the Draft plan are due to be published in August 2008 and the draft plan is due to be adopted in January 2009.

The draft Plan identifies the Youghal Town as having an attractive townscape and seaside setting. It also recognises the potential for the town to promote its heritage and tourist function specifically through the development of a marina.

The draft CDP 2007 outlines in its settlement chapter 3 under Objective SET 1-21 that *'It is an objective of this plan to capitalise further from the by-pass in terms of its employment and tourism functions by encouraging the development of its strategically located employment sites and to secure the reopening of the disused rail route from Midleton and Cork.'* (p.53)

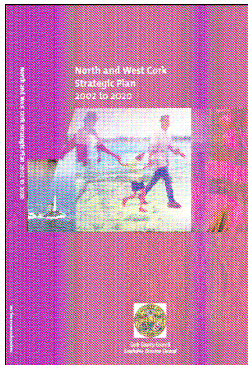
The plan identifies the area as a major centre of population and employment growth as it outlines in Objective ECON 2-4 (b) that *'It is an objective to promote the development of the ring towns of Fermoy, Youghal, Macroom and Bandon as District Employment Centres, which are major centres of population and employment growth of countywide significance.'* (p.107)

Furthermore section 2.3.21. of the plan outlines the following Cork County Development Plan sustainable goals for the CASP Ring Strategic Planning Area which promote growth, investment, employment and infrastructure to the area, outlined as follows;

- b. *To establish an appropriate balance in the spatial distribution of future population growth, broadly in line with the Cork Area Strategic Plan, so that Bandon, Fermoy, Macroom and Youghal can accelerate their rate of growth and achieve a critical mass of population to enable them to maximise their potential to attract new investment in employment, services and public transport;*

- f. *To secure the reopening of the rail route linking Cork and Midleton to Youghal;*

3.22 North and West Cork Strategic Plan 2002 - 2020



The North and West Cork Strategic Plan 2002 – 2020, focuses on areas of County Cork outside the CASP study area. The document recognises that the greatest threats to such areas, lie in continuous decline of population, with the population profile combining to mitigate against achieving a more sustainable population pattern. The Plan envisages that in reversing population loss and rural decline, the in-migration of young adults is critical to the 'areas' future well-being. Highlighting the challenge in combating the spatial shift towards towns and cities, the plan calls for actions which:

- Raise the productive potential of the economy;
- Optimise spatial development patterns as an essential requirement for infrastructure development;
- Improve access and communications and increases infrastructure provision and resources;
- Incorporate environmental sustainability;
- Promote access to social, recreational and cultural facilities; and
- Contain effective implementation procedures.

A key spatial development measure recommended by the N&WCSP is to support and enable a significant increase in settlement populations across the area. In order to achieve the plan's target of doubling the number of households in towns and villages between 2002 and 2020, it will be necessary to prioritise development within towns and villages. The strategy recommends that 50% and 30% of all new houses would be in towns and villages respectively.

3.23 Midleton Electoral Local Area Plan

The Midleton Electoral Local Area Plan 2005 governs the Youghal environs area. In this Local Area Plan, Youghal is identified as a main settlement within the Midleton Electoral Area, while retaining its status as a county town in the overall strategy of the Cork County Development Plan 2003 (as varied), as detailed in Chapter 2, Volume 1 of that Plan. It outlines that the strategic aims for Youghal are to promote the continued development of the town and its hinterland as an employment and service location, to promote its coastal setting and its special recreational, heritage and marine tourism functions.

The plan encourages the town to be more self contained rather than reliant on relatively long distance commuting towards Cork. It also notes that it is a long-term objective of the Council to re-open the rail line from Midleton to Youghal. The plan also outlined the need to exploit the opportunities to enhance the town centre that arise following the completion of the bypass.

4 THE PROPOSED YOUGHAL TOWN COUNCIL DEVELOPMENT PLAN 2009 - 2015

This section provides a description of the plans for the proposed Development Plan. Cork County Council and Youghal Town Council propose to create a new Development Plan 2009 -2015 for Youghal Town. The overall priority objective of the Plan is the promotion of a balanced and sustainable development that takes account of the values and concerns of all stakeholders in the town.

The main function of the Plan is to provide a planning framework for the town so that Youghal and its people can develop their potential within a sustainable context. It identifies the natural and man-made assets of the town and its amenities, while addressing the physical requirements of future growth. The aim is to secure a balance between employment, housing, services and amenities; thus enabling a basis for a stable well-integrated community.

Other functions of the Plan include:

- 1.2.1 Identification of development demands likely to arise over the next six years and more generally over a period of approximately 20 years.
- 1.2.2 Facilitation of sustainable and balanced economic investment, taking into account these demands.
- 1.2.3 A dialogue with and informing of all stakeholders in the town of the likely extent, pattern and form of future development.
- 1.2.4 Protection, conservation and enhancement of the environmental quality of the town within a sustainable pattern of growth.

The creation of this new Development Plan is expected to result in a change of land use in the future and subsequent developments have the potential to impact on the Youghal Town Council area through a number of different criteria such as biodiversity, Population, Human Health, Soils, Surface Water & Wastewater, Traffic & Transport, Waste Management, Cultural Heritage and Landscape & Visual. Therefore this SEA was undertaken in order to outline any potential significant impacts and mitigate against these in order to ensure sustainable development in the Youghal Town Council area.

The vision for the Youghal Development Plan 2009 – 2015 is as follows;

Youghal will strive to be a national and international tourist destination predicted on three development opportunities;

- The realisation of the importance of the historic core
- The improvement and expansion of the seaside amenity and related accommodation and leisure activity
- The development of a world class marina and related facilities

Improvement of the public realm, facilities and services will be vital to achieve this goal for both the citizens and visitors of Youghal

5 LOCAL ENVIRONMENTAL BASELINES

4.1 INTRODUCTION

This section of the report describes the current state of the environment within the Youghal Town Council Area. Section 4 below describes the baseline conditions for each topic. As set out in the SEA guidelines (e.g. Population, Material Assets etc) are fully addressed in accordance with the SEA Guidelines.

In accordance with the SEA guidelines no primary research was carried out in the collection of data. Existing and available information sources were used. These include the following:-

- Central Statistics Office;
- National Parks and Wildlife Service data base;
- Planning and Policy documents;
- Geological Survey of Ireland;
- The Environmental Protection Agency; and
- Ordnance Survey of Ireland.

Baseline data was collected relating to the indicators described in the SEA directive: biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage, landscape and the interrelationship between these factors.

4.2 BIODIVERSITY, FLORA AND FAUNA

4.2.1 Baseline Environment

A study on the existing environment of the Youghal Town Council area was undertaken by Ecofact Environmental Consultants Ltd. on behalf of RPS Planning and Environment. Preparation of this section included consultation, either directly or through publicly available information, with:

- National Parks and Wildlife Service (NPWS);
- Cork County Council;
- Botanical Society of the British Isles (BSBI);
- Birdwatch Ireland (BWI);
- British Trust for Ornithology (BTO);
- Environmental Protection Agency (EPA);
- Central Fisheries Board (CFB);
- Southern Regional Fisheries Board (SRFB);
- Butterfly Ireland;
- Bat Conservation Ireland;
- Irish Wildlife Trust (IWT).

4.2.2 Methodology

Desktop Review

A desktop review was carried out to identify features of ecological and biodiversity importance within the study area and surrounding region. A review of areas designated (or being considered) for designation for nature conservation was carried out by consulting the National Parks & Wildlife Service (NPWS). These included Special Areas of Conservation, Special Protection Areas for birds (both internationally important) and proposed Natural Heritage Areas (of national importance). Furthermore, a review of the published literature, including the Cork County Development Plan 2003-2009, was undertaken in order to collate data on species and habitats of conservation concern on and in the immediate environs of the proposed development site.

The digital database of the New Atlas of the British and Irish Flora (Preston *et al*, 2002) was consulted to assess the presence of rare plant species recorded from the 10 km square in which Youghal Town is located. Likewise, “Exploring Irish Mammals” (Hayden and Harrington, 2000) was used to assess the importance of the study area for mammals. The results of the Irish Wetland Bird Survey (I-WeBS) (Crowe, 2005) and the BioMar biotope viewer (Picton and Costello, 1998) were also reviewed.

The collation of this information, as well as examination of Ordnance Survey Map 81 and OS aerial photographs allowed areas of potential ecological importance to be highlighted.

4.2.3 Evaluation and Assessment

Importance Criteria

The results of the desk study were evaluated to determine the significance of identified features located in the study area on an importance scale ranging from international-national-county-local. The local scale is approximately equivalent to one 10 km square but can be operationally defined to reflect the character of the area of interest. Because most sites will fall within the local scale, this is sub-divided into high local importance to local importance-local value. The criteria used are shown in Table 1.

Table 1 Criteria used in assessing the ecological importance of ecological features.

Importance	Criteria
International	An internationally designated site or candidate site (SPA, pSPA, SAC, pSAC, Ramsar Site, Biogenetic Reserve). Also Sites which qualify for designation as SACs or SPAs – this includes sites on the NGO shadow list of SAC's.
National	A nationally designated site or candidate site (NHA, pNHA) (unfortunately there is no published criteria used in selecting these areas). Sites which hold Red Data Book (Curtis and McGough, 1988) plant species.
County	Sites which hold nationally scarce plant species (recorded from less than 65 10 km squares), unless they are locally abundant. Sites which hold semi-natural habitats likely to be of rare occurrence within the county. Sites which hold the best examples of a semi-natural habitat type within the county.
High Local Importance	Sites which hold semi-natural habitats and/or species likely to be of rare occurrence within the local area. Sites which hold the best examples of a high quality semi-natural habitat type within the local area.
Local Importance	Sites which hold high quality semi-natural habitats
Local Value	Any semi-natural habitat

The closest designated site to the study area of Youghal Town is the Blackwater River and estuary SAC/SPA/NHA which adjoins Youghal Town to the east. Table 1 lists the designated sites that exist within 5 km of the proposed scheme. The NPWS site synopses for local designated areas are presented in Appendix 1.

Sites of national importance in the Republic of Ireland are termed proposed Natural Heritage Areas (pNHA's). While the Wildlife (Amendment) Act 2000 has been passed into law, pNHA's will not have legal backing until consultative process with landowners has been completed; this process is currently underway for many proposed sites. The nearest pNHA to the study area is the Blackwater River and Estuary pNHA (Site Code 000072).

Special Areas of Conservation (SAC's) are sites of international importance because of the presence of listed habitats or species that are of European importance. The closest cSAC to the proposed development site is the Blackwater River cSAC (Site Code 002170). Legal backing for the protection of candidate cSAC's in Ireland is provided by the EU Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna (92/43/EEC; commonly known as the 'Habitats Directive').

Special Protection Areas (SPA's) for Birds are designated based on the presence of internationally significant populations of listed bird species. The closest SPA to the proposed development site is the Blackwater Estuary SPA (Site Code 004028).

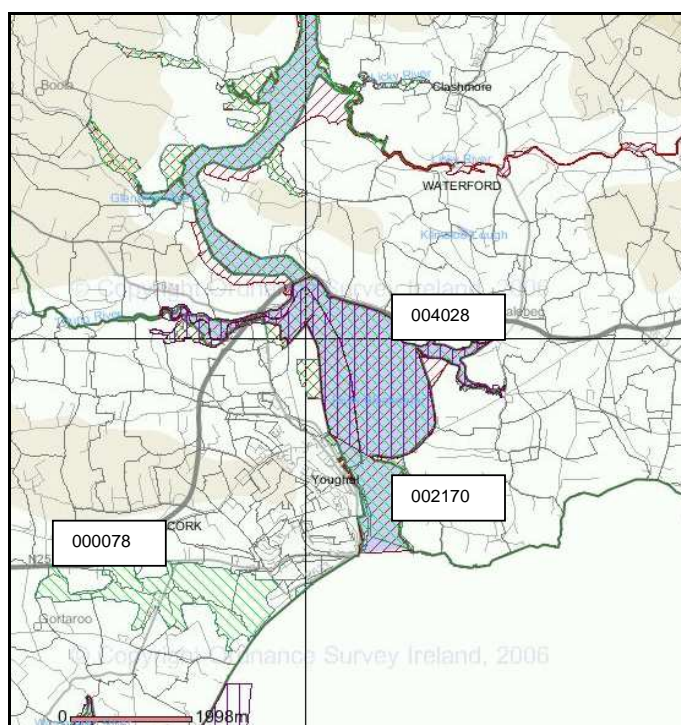
Figure 2: Youghal Town and local designated areas

Table 2 Summary details of the Black river cSAC / SPA.

Name	Site Code	Designation	Notes	Distance from the proposed development
Blackwater River	002170	cSAC	The site is a candidate SAC selected for alluvial wet woodlands and Yew wood, both priority habitats listed on Annex I of the E.U. Habitats Directive. The site is also selected as a candidate SAC for floating river vegetation, estuaries, tidal mudflats, <i>Salicornia</i> mudflats, Atlantic salt meadows, Mediterranean salt meadows, perennial vegetation of stony banks and old Oak woodlands, all habitats listed on Annex I of the E.U. Habitats Directive.	Adjoining
Blackwater Estuary	004028	SPA	The Blackwater Estuary is of high ornithological importance for wintering waterfowl, providing good quality feeding areas for an excellent diversity of waterfowl species.	Adjoining
Blackwater River and Estuary	000072	NHA	See above	Adjoining
Ballyvergan Marsh	000078	NHA	Important site for wetland birds.	Adjoining

Table 3 Qualifying Interests of the Blackwater River cSAC.

Site Code	Site Name	EU Habitat Code	Habitat Description
002170	Blackwater River	91E0	Alluvial wet woodlands
		3260	Floating river vegetation
		1130	Estuaries
		1140	Mudflats and sandflats
		1310	<i>Salicornia</i> mudflats
		1330	Atlantic salt meadows

		1410	Mediterranean salt meadows
		1220	Perennial vegetation of stony banks
		91AO	Old oak woodlands

Sites designated as SAC's and SPA's are recognised as being of international importance. The study area lies within a designated SAC / SPA. The site is of international importance due to the abundance of important bird species and also the presence of internationally important coastal habitats (see Table 2).

Receiving Environment Flora

A number of habitats within and around the town of Youghal were identified with the aid of aerial photography. The area to the south and east of Youghal contains many ecologically important habitats, located within designated areas. Situated within these areas are saltmarshes, an estuary, intertidal habitats and a river corridor in addition to many other terrestrial habitats that commonly occur throughout the Irish countryside. Furthermore, the Blackwater River SAC/ NHA, Blackwater estuary SPA and the Ballyvergan Marsh NHA are all adjoining the study area. All of these designated areas as well as the habitats identified contain a variety of botanical diversity common in both terrestrial and marine environments. The main habitats present in the study area, as identified from aerial photography, are assessed and evaluated below. It is likely that additional terrestrial and marine habitats occur within the study area. However detailed fieldwork will need to be completed in order to distinguish the types of habitats that remain unidentified. All habitats located within the SAC/SPA area are considered to be of international importance.

Habitats

Improved Agricultural Grassland (AG1)

From the aerial photograph the majority of the land located to the west of Youghal is composed of improved agricultural grassland. This habitat exists in intensively managed or highly modified agricultural grassland that has been reseeded and subsequently heavily fertilised. These habitats are often heavily grazed in addition to being utilised for silage production. Improved agricultural grassland habitats are highly modified. As a result they are deemed to be of local ecological value.

Amenity grassland (GA2)

The areas located to the north and the immediately west of the town of Youghal are categorised as amenity grassland. This includes a golf course located at Knockavern. Amenity grassland is generally improved and is managed by frequent cutting, fertilisation and herbicide application. This habitat also includes residential lawns and garden areas. Due to the habitual and intense management practices associated with this habitat it is deemed to be of local ecological value.

Hedgerows (WL1)

From the aerial photograph many of the green field areas, are bordered by hedgerows. Hedgerows are linear strips of shrub plants and occasional large trees that form field boundaries. These habitats can support important protected fauna whilst also acting as corridors between habitats for many birds and mammal species. Intact hedgerow habitats are of local ecological importance. Hedgerows are of local ecological importance

Buildings and Artificial surfaces (BL3)

The town of Youghal and along the national (N25) secondary (R634) and third class roads can be categorised under this habitat. This category incorporates all buildings (domestic, agricultural, industrial and community) in addition to areas of land covered with tarmac, cement, bricks, blocks and synthetic grass. These habitats generally contain no plant species and thus are deemed to be of very poor or insignificant ecological value.

Arable Crops (BC1)

Looking at the aerial photographs the areas situated to the north west of Youghal comprise of fields of arable crops. The townlands such as Knockattigan, Propoge and Banshy all contain sections of arable cropland. This habitat contains agricultural land that is cultivated and managed for the production of arable crops, including cereals (wheat, barley, oats, and maize) root, leaf, energy or fibre crops such as sugar beet, turnips, rape and flax. These habitats are of moderate value being important to local wildlife.

Flower beds and borders (BC4)

This habitat occurs on gardens, parks, roadsides and on the grounds of various buildings. They feature a high proportion of non-native shrub species. These areas are of poor ecological value.

Treelines (WL2)

As evidenced from the aerial photographs, treelines exist on the border of agricultural lands near private dwellings and along the margins of roads. A treeline is a narrow row of single trees that is greater than 5 metres in height, typically occurring along field or property boundaries. They commonly comprise a high proportion of non native species such as beech *Fagus sylvatica*, sycamore *Acer pseudoplatanus*, and horse chestnut *Aesculus hippocastanum*. Other tree species may include limes *Tilia* spp. and poplars *Populus* spp. This habitat is of local ecological importance.

Mixed broadleaf woodland (WD1)

An area of woodland, evident from aerial photography, most possibly mixed broadleaf woodland, is located to the northeast of Youghal town at Muckridge Demesne. Demense woodland habitat is generally composed of predominantly broadleaf trees with a smaller percentage (10 – 15 %) of conifer trees. This habitat is would be of at least local ecological importance.

Depositing lowland rivers (FW2)

There is a small stream, approximately 4 km long, which rises in the townland of Kilnatoora. This flows in a west-east direction entering the Blackwater estuary at the Youghal woodlands.

Habitats adjacent to proposed zoned areas

Depositing lowland rivers (FW2)

The mouth of the River Tourig is situated to the north of Youghal town. The EPA currently rates this river as 'Q4 – unpolluted (Toner et al, 2005). The lower reaches of this river are included in the Blackwater River SAC. According to NPWS, the river at this location contains marine habitats that are

listed as Annex I species on the E.U. habitats directive. These include saltmarshes and intertidal mudflats. Both of these habitats are dealt with in greater detail in the sections below. This habitat is deemed to be of international ecological importance. This habitat is not located within any zoned area.

Lower/ upper salt marsh (CM1/ CM2)

Saltmarshes are located to the north of Youghal in the townland of Foxhole. Salt marshes are stands of vegetation that occur in marine and brackish water conditions on a range of substrata that are wet, waterlogged and periodically submerged by the sea. Lower salt marshes are subjected to frequent and prolonged submersion by sea water. As a result it is characterised by a predominance of halophytes, or salt tolerant plants. According to NPWS, the area of saltmarsh found within the townland of Foxhole is generally characteristic of Atlantic salt meadows. The species list at Foxhole consists of common saltmarsh-grass (*Puccinellia maritima*), small amounts of greater seaspurrey (*Spergularia media*), glasswort (*Salicornia* sp.), sea arrowgrass (*Triglochin maritima*), annual sea-blite (*Suaeda maritima*) and sea purslane (*Halimione portulacoides*) - the latter a very recent coloniser - at the edges. Some sea aster (*Aster tripolium*) occurs, generally with creeping bent (*Agrostis stolonifera*). Sea couchgrass (*Elymus pycnanthus*) and small isolated clumps of sea club-rush (*Scirpus maritimus*) are also seen. On the Tourig River, which flows immediately north of Foxhole additional saltmarsh species are found including lavender (*Limonium* spp.), sea thrift (*Armeria maritima*), red fescue (*Festuca rubra*), common scurvy-grass (*Cochlearia officinalis*) and sea plantain (*Plantago maritima*). Oraches (*Atriplex* spp.) are found on channel edges (from NPWS site synopsis). Salt marshes are listed as an Annex 1 habitat under the E.U habitats directive; therefore they are recognised as being of international ecological importance. This habitat is not located within any zoned area.

Estuaries (MW4)

The Blackwater estuary is located to the east of the town of Youghal. Estuaries are semi-enclosed bodies of water which have a free connection with the open sea. They differ from other coastal inlets in that sea water is measurably diluted by inputs of freshwater. The mixing of two very different water masses gives rise to complex sedimentological and biological processes and patterns. Estuaries are listed as an Annex I habitat under the E.U habitats directive and therefore they are of international ecological importance. This habitat is not located within any zoned area.

Sand shores (LS2)/ Muddy sand shores (LS3)/ Mud shores (LS4)/ Mixed sediment shores (LS5)

These habitats are located along southern boundaries of Youghal, in particular located to the south of Claycastle (NPWS data). Very extensive areas of intertidal flats, comprised of substrates ranging from fine, silty mud to coarse sand with pebbles/stones are present. The main expanses occur at the southern end of the site with the best examples between Youghal and the main bridge north of it across the river in Co. Cork. In addition intertidal flats, comprised of substrates ranging from fine, silty mud to coarse sand with pebbles/stones are present at the mouth of the Tourig River. All of the above habitats, except for mixed sediment shores contain links with Annex I habitats listed on the E.U habitats directive. Therefore they are deemed to be of international ecological importance. This habitat is not located within any zoned area.

Shingle and gravel shores (LS1)

This habitat is comprised of accumulations of loose, coarse, rounded and mobile rocky material. Sediments include mainly shingle and gravel and shell fragments. According to NPWS, the shingle spit at Ferrypoint, located east of Youghal across the Blackwater estuary supports a good example of perennial vegetation of stony banks. The spit is composed of small stones and cobbles and has a well developed and diverse flora. At the lowest part, sea beet (*Beta vulgaris*), curled dock (*Rumex crispus*) and yellow-horned poppy (*Glaucium flavum*) occur with at a slightly higher level sea mayweed (*Tripleurospermum maritimum*), cleavers (*Galium aparine*), rock samphire (*Crithmum maritimum*), sandwort (*Honkenya peploides*), spear-leaved orache (*Atriplex prostrata*) and babington's Orache (*A. glabriuscula*). Other species present include sea rocket (*Cakile maritima*), herb Robert (*Geranium*

robertianum), red fescue (*Festuca rubra*) and kidney vetch (*Anthyllis vulneraria*). The top of the spit is more vegetated and includes lichens and bryophytes (including *tortula ruraliformis* and *rhytidiadelphus squarrosus*). This habitat corresponds to the Annex I habitat perennial vegetation of stony banks. Therefore it is regarded as being of international ecological importance.

Rare plant species

The proposed development areas lay within four 10km square Ordnance Survey Grids X07, X08, X17 and X18. A plant species list for these four 10km square was generated from the CD-Rom version of the *New Atlas of British and Irish Flora* (Preston *et al.*, 2002). This list was then compared to the lists of species protected under the Flora (Protection) Order of 1999; and those included in the Irish Red Data Book (Curtis and McGough, 1988).

Lesser centaury (*Centaureum pulchellum*) is an erect annual of mildly acidic to calcareous soils. Inland it is found in dry, open grasslands and heaths, in woodland rides, marl pits and other open, disturbed ground. On the coast it is a plant of open sandy and muddy grassy places, often by estuaries, sand dunes and in upper saltmarsh. This plant is recorded by Preston *et al.* (2002) as being present in the 10km square X17. Webb *et al.* (1996) described this species as occurring on sand hills and sand dunes by the sea and is now confined to Waterford and North Dublin. As a result it is thought that this plant does not occur within the study area.

The Killarney fern *Trichomanes speciosum* is a rhizomatous fern, restricted to humid, winter-warm sites. It is recorded by Preston *et al.* (2002) as being present in the 10km square X07. This plant occurs only in constantly damp, shaded localities, usually on acidic, but often base-flushed rocks, rarely on damp humic banks, and exceptionally as an epiphyte. This species has declined due to collecting and habitat disturbance. This plant is most commonly found beside waterfalls, in crevices between boulders, under overhanging rocks, and in similar damp, dark, sheltered situations. Formerly it occurred throughout with it occurring frequently in the south west. There is a possibility that this species occurs within the study area.

4.2.4 Existing Policies/Objective

Cork County Development Plan 2003

- **ENV 2 – 1:** The Natural Environment: It is a general objective to seek the conservation and wise management of areas of natural environmental value.
- **ENV 2 – 2:** Features of Natural Interest: It is an objective generally to seek the conservation and protection of features of natural interest such as woodlands, hedgerows, wetlands, unspoiled uplands and known habitats.
- **ENV 2 – 3:** Public Awareness of Nature Conservation: It is an objective to raise awareness and improve practices in relation to nature conservation by promoting the development and implementation of codes of best practice. Such promotional work would be carried out by Cork County Council in partnership with other relevant agencies.
- **ENV 2 – 4:** Nature Conservation Species: It is a particular objective to protect plant, animal species and habitats which have been identified by the Habitats Directive, Birds Directive, Wildlife Act (1976) and the Flora Protection Order (S.I. No. 94 of 1999).
- **ENV 2 – 5:** Proposed Natural Heritage Areas: It is an objective to maintain the conservation value of all Natural Heritage Areas proposed for designation by Dúchas the Heritage Service, either before or during the lifetime of this plan.
- **ENV 2 – 6:** Candidate Special Areas of Conservation: It is an objective to maintain the conservation value of those sites identified by Dúchas the Heritage Service as candidate Special Areas of Conservation as well as any other sites that may be so identified during the lifetime of this plan.
- **ENV 2 – 7:** Special Protection Areas: It is an objective to maintain the conservation value of those sites selected by Dúchas the Heritage Service as Special Protection Areas as well as any other sites that may be so identified during the lifetime of this plan.

- **ENV 2 – 8: Tree Preservation:** It is an objective to preserve and enhance the general level of tree cover in both town and country, to ensure that development proposals do not compromise important trees and include an appropriate level of new tree planting and where appropriate to make use of tree preservation orders to protect important trees or groups of trees which may be at risk.
- **ENV 2 – 10: Development Control in Environmentally Sensitive Areas:** It is an objective to apply the precautionary principle in relation to proposed development in environmentally sensitive areas. This means that a scientific / ecological risk assessment is required in order to ensure that development does not undermine the conservation objectives for these sites.
- **ENV2 – 11: Consultation in Management of Sites:** It is an objective to work with landowners, Dúchas and other stakeholders to contribute to the effective management of sites of natural conservation value.

Youghal Town Development Plan 2009

- **Development Control Objectives:** Protected Features of Landscape and Natural Heritage importance: It shall be an objective to preserve the scenic and amenity features of the shoreline around the town and other scenic landscapes and vistas in the town.
- **Water quality management objectives:** Proposals for development are required to have regard to the quality and quantity of water resources. Development will only be permitted where it can be demonstrated that there will be no direct or indirect damaging effects on water resources.
- **Protection of aquatic habitat:** The Council has identified the harbour area within the jurisdiction of the Town Council as a riverine habitat and amenity resource. Applicants will be required to consult with environmental bodies including the South Western Regional Fisheries Board, in accordance with the Planning and Development Regulations, 2001.
- **Strategic Objective: Trees in Youghal:** It shall be an objective, subject to safety considerations to preserve specimen trees in the town council area and environs and examining the possibility of conserving the visually and/or ecologically important ones by means of Tree Preservation Order.

4.2.5 CONSTRAINTS TO DEVELOPMENT

- The Blackwater River and estuary SAC/SPA/NHA which adjoins Youghal Town to the east
- The River Tourig contains marine habitats including saltmarshes and intertidal mudflats that are listed as Annex I species on the E.U. habitats directive.
- The Blackwater Estuary is listed as an Annex I habitat under the E.U habitats directive and therefore they are of international ecological importance.

4.3 POPULATION

4.3.1 Baseline Environment

This section describes the evaluation as set out in the SEA regulations of the environmental topic of population. For the purposes of evaluation, the impacts on population are divided into two, population impacts in terms of job creation and impacts on population in terms of residential population.

Youghal has an important tourist function with natural resources such as its location on the coast. The NSS states that:

'Towns close to Cork City, such as Midleton, Youghal, Cobh and Carrigaline, need to be promoted and developed as self-sustaining towns. They will benefit from proximity to Cork and at the same time build up their employment and services functions through the implementation of the Cork Area Strategic Plan, in particular through enhancing their road, rail and bus links to Cork City'.

The following Table shows the population of Youghal Town Council, Environs and Rural District:

Table 4: Population Change Youghal Town Council, Environs and Rural District

Year	Youghal TC	%Change	Youghal Environs	%Change	Youghal Rural District	%Change
1971	5,445		181		5,625	
1979	5,796	6.5%	248	37%	6,044	7.5%
1981	5,870	1.3%	225	2.8%	6,096	0.9%
1986	5,706	-2.8%	246	9.3%	5,951	-2.4%
1991	5,532	-3.1%	296	20%	5,828	-2.1%
1996	5,630	1.8%	313	5.8%	5,943	2%
2002	6,203	10.2%	394	25.9%	6,597	11%
2006	6,393	3.1%	392	0.5%	6,785	2.8%

Source: CSO Census of Population

In the twenty-year period between 1971 and 1991, the population of Youghal town grew by 87 persons or 1.5% and the environs increased by 115 persons or 63.5%. Therefore, the environs grew much more than the town council area. The Youghal rural district grew by 203 persons or 3.6%. This high population in the Youghal rural area demonstrates the preference for people to live in the countryside.

In the intercensal period of 1996-2006, the population of Youghal town council increased by 13.5% or 763 persons. This is over seven times the population increase in the twenty years 1971 to 1991. The population in the environs increased by 25% or 79 persons between 1996 and 2006. The momentum

of growth in the environs decreased in this time period. The rural district experienced a population increase of 842 persons or 14.2% between 1996 and 2006.

The Youghal town council population grew from 5,445 in 1971 to 6,393 in 2006, a growth of 17.4% during the 35 year period. The environs grew from 181 in 1971 to 392 in 2006, a growth of over 100%. The environs grew by a much higher percentage than the town council. The combined population of the Town and environs increased from 5,625 to 6,785, an increase of 16.5%.

The age structure of the population in Youghal is important to examine, as this will have implications for housing demand, schools and health care services. Three categories of the population structure are examined:

- The young age dependant population (i.e. those persons within the 0-14 age cohorts);
- The old age dependent population (i.e. those persons in the 65+ age cohorts);
- The working/independent age population (i.e. those persons residing within the 15-64 year age cohorts).

Table 5: Age Cohort of the Population

	0-14	15-64	65+	Total
Youghal 2002	1,310	4458	829	6,597
Youghal 2006	1,376	4548	861	6,785

Source: CSO Census 1996 & 2002.

In 2006, 20% of the population of Youghal was in the young age dependent population. This compares to 21.8% for Cork County.

There were 67% of people in the independent age cohort in 2006, the same percentage as that in Cork County. This should have positive implications on future housing and employment demand in the wider area, where more young adults with good labour market expectations, setting up independent households at an earlier age.

In 2006, there was 13% of the population in the old age dependent population. There was a higher percentage of people in the 65+ old dependent category in the area than in County Cork, indicative of an ageing population in Youghal. The increase in the percentage of elderly population has long-term implications relating to health and social service needs in the region.

4.3.2 Existing Policies/Objectives

Cork County Development Plan 2003

RCI 1- 1: Population and Economic Initiatives:

- a) It is an objective to promote land use planning measures which encourage the retention of the population in the rural parts of County Cork

- b) It is an objective to foster the potential for innovation and dynamism in the rural economy and to support the retention of rural services. The Clár programme for revitalising rural areas, launched in 2001, covers parts of the county and complements this objective.

Youghal Town Development Plan 2009

Population Objectives: It shall be an objective of the Plan to work with Cork County Council:

1. In meeting the CASP designated objectives for Youghal.
2. In ensuring adequate infrastructural provision.
3. To ensure the provision of adequate employment, retail, leisure, educational and other community facilities within the immediate Youghal area commensurate with its rapidly growing population.
4. To enable the people of Youghal to inhabit the town as a vibrant, sustainable community.
5. To settle the pattern of future growth through the designation of the use of particular areas for particular purposes and the appropriate servicing of selected areas.

4.3.3 Constraints to Development

None identified provided development is carried out under the normal planning regulations and in line with the objectives of the development plan. The proposed plan will facilitate the growing population of Youghal in a sustainable manner and in accordance with various policies and objectives.

4.4 HUMAN HEALTH (AIR AND NOISE)

4.4.1 Baseline Environment

This section describes the evaluation as set out in the SEA regulations of the environmental topic of Human Health (Air and Noise).

Air quality and Noise are the two principal pathways for factors with a potential to create nuisance or affect on human health. The Youghal Town Council area is primarily urban in nature and is subject to a number of existing environmental pressures, such as changes in the air quality and noise environments of the area, however the fact that the area is primarily urban in nature means that it is already subject to some elements of pollution through noise and air.

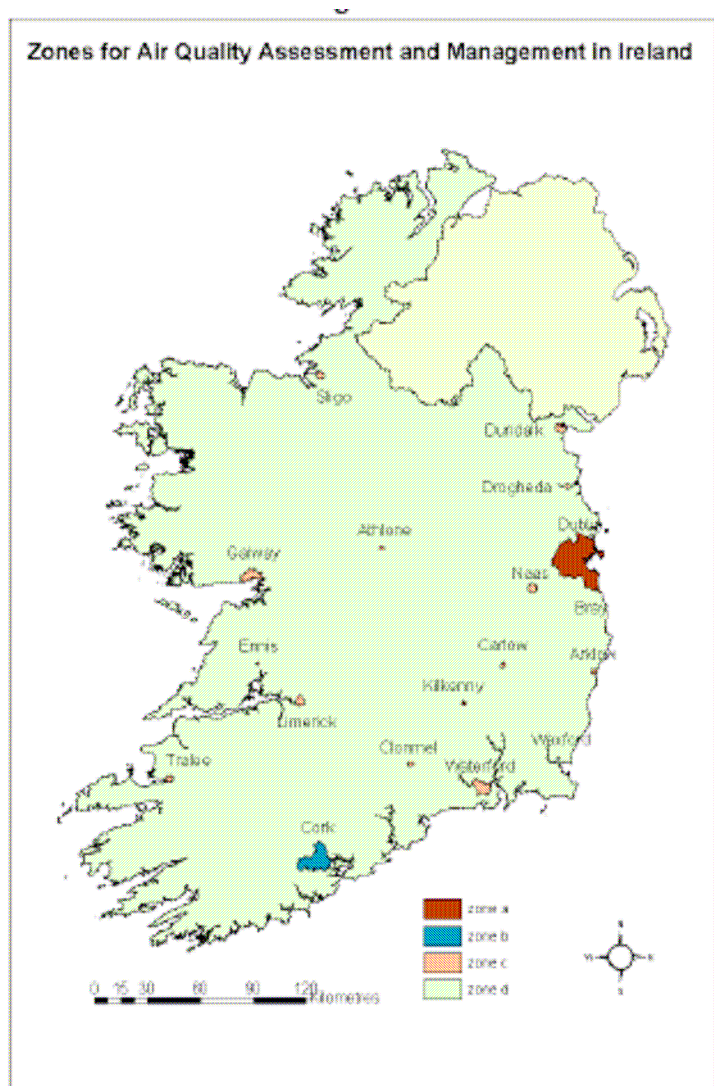
The following sections outline the expected baseline conditions of the Study Area. It should be noted that this is based upon available information and thus field surveys/measurements have not been completed for this purpose.

4.4.1.1 Air Quality

EPA Air Quality Monitoring

Air quality monitoring in Ireland is undertaken largely to implement EC Directives on smoke and sulphur dioxide (SO₂), lead, ozone and nitrogen dioxide (NO₂) and to assess compliance with national air quality standards (DoE, 1987).

The Air Framework Directive deals with each EU member state in terms of "Zones" and "Agglomerations". For Ireland, four zones are defined in the Air Quality Regulations (2002). There is no EPA air monitoring station in Youghal Town Council therefore it is located within Zone D: (Rural Ireland, i.e. the remainder of the State excluding Zones A, B and C). Therefore the results available for this area (EPA, 2005) note that the air quality at these locations is significantly better than all other zones in the Country, this can be seen in Figure 5.3.1 below.

Figure 3: Zones for Air Quality Assessment and Management in Ireland*Air Quality In Ireland 2005*

Overall, air pollution associated with SO₂ and smoke emissions from stationary combustion sources, has been almost eliminated in Ireland, and road traffic now has become potentially the greatest source of pollution generally. In urban areas, concern has clearly shifted to a range of pollutants associated with this source which may be considered relatively new in the context of air quality control. The most important of these pollutants are NO₂, particulate matter less than 10 microns in diameter (PM₁₀), carbon monoxide (CO) and a wide variety of volatile organic compounds (VOC), including carcinogens such as benzene. It is also likely that IPPC or Waste Licensed facilities such as waste sites including Youghal Landfill and AVR Environmental transfer station within the Study Area, would also contribute emissions to air.

Table 6: Waste and IIPC Licensed sites and WFD Pressures in Youghal

Waste Sites			
Reg No.	Organisation	Facility	Facility Type
W0068 -02	Cork County Council	Youghal Landfill	Landfill
W0211-01	AVR-Environmental Solutions Limited	AVR-Environmental Solutions Limited	Waste Transfer Station
IPC Sites			
Reg No.	Company Name	Licence Status	Sub-Status
P0151-02	Technicolour Home Entertainment Services Ltd.	Licenced	Facility Closed
P0159-01	Tytex Ireland Ltd.	Licenced	-----
P0219-01	Seafield Technical Textiles Ltd.	Licenced	Facility Closed

Source: EPA 2007

Advances in engine technology and fuel development should offset any rise in tail pipe emissions from increased car usage due to an increased population. Youghal Town Council is keen to develop less car dependent strategies such as the promotion of public transport, cycle-ways and footpaths in order to achieve this. Future Directives from Europe are likely to tighten existing legislation in terms of air emissions which should result in progressively improved air quality.

The Youghal Town Council area relates to an area of land to the north east of Cork City and to the south west of County Waterford. The area is located immediately west of the Blackwater Estuary. Given that Youghal's population was at 6,393 persons in 2006 and had increased by 13.5% persons since 1996 indicates that the population is consistently growing and creates more pressure in terms of traffic and emissions.

4.4.1.2 Noise

Sensitive receptors, which must be assessed to consider potential impacts associated with noise (and vibration) associated with proposals for this SEA, include schools, places of worship, special habitats, hospitals, clinics, and residential homes in addition to outdoor amenity areas.

Within the Study Area, there are outdoor amenity areas, including Youghal Rugby Football club's soccer, gaelic, beaches and open space areas. There are also a number of residential areas, schools, a hospital, community facilities and all of the general facilities that are usually associated with an urban town centre area. There is a hospital located in the northern section of the Study Area. There are sensitive residential receptors also located within the Study Area. These are primarily concentrated within the town centre and the western section of the town area closest to the N25 Youghal by pass. These receptors are likely to currently experience noise from local roads and general urban activity, and it is expected that the ambient noise levels in these areas would also be impacted upon by the new Youghal Town Development Plan, however new proposals for new cycle routes and a new inner relief road would reduce traffic within the Town and would also propose to reduce the number of people using cars as a means of travel. It is likely that air quality may deteriorate slightly in the vicinity of the proposed inner relief road, however it is likely that the improvements in air quality due to the reduction in traffic in the Town centre and other areas of the Town would outweigh negative impacts in the vicinity of the proposed new relief road.

Some of this increase would be attributed to the implementation of the Plan, however increases would also be likely if the plan was not implemented given the growth in population within Youghal Town, increased car ownership and economic development.

4.4.2 Existing Policies/Objectives

Cork County Development Plan

- **ENV 1 – 9: Noise and Light Emissions:** It is an objective generally to seek the minimisation of noise and/or light pollution associated with activities or development.
- **ECO 2 – 7: Prevention of Major Hazardous Accidents:** It is an objective to reduce the risk and limit the consequences of major industrial accidents by, where appropriate, taking into account the advice of the Health and Safety Authority when proposals for new development are considered.
- **ECO 2 – 8: Proposals for New Establishments:** It is an objective, in assessing applications for new development or expansion of existing development involving hazardous substances, to have regard to:
 - The Major Accidents Directive (Seveso II) (96/082/EEC)
 - Potential adverse impacts on public health and safety
 - The need to maintain appropriate safe distance between residential areas, areas of public use and areas of particular natural sensitivity.
- **ECO 2 - 9: Proposed Development Adjacent to Existing Establishments:** The Health and Safety Authority have established Consultation distances surrounding establishments designated as containing hazardous substances. In addition to normal planning criteria it will be an objective to ensure that development within these distances complies with the requirements of the Major Accidents Directive (Seveso II). The Council will consult with the Health and Safety Authority regarding any such proposals.

Youghal Town Development Plan 2009

Development Control Objectives

It is an objective to reduce the risk and limit the consequences of major industrial accidents by, where appropriate, taking the advice of the Health and Safety Authority when proposals for new development are considered.

It is an objective, in assessing applications for new development or expansion of existing development involving hazardous substances to have regard to:

- Major Accidents Directive (Seveso II)
- Potential adverse impacts on public health and safety
- The need to maintain appropriate safe distance between residential areas, areas of public use and areas of particular natural sensitivity.

The Health and Safety Authority have established Consultation areas surrounding establishments designated as containing hazardous substances. In addition to normal planning criteria it will be an objective to ensure that development within these areas complies with the requirements of the Major Accidents Directive (Seveso II). The Town council will consult with the Health and Safety Authority regarding any such proposals.

4.4.3 Constraints to Development

It is likely that Ambient Noise Levels At Proposed Inner Relief Road would cause noise and air Impacts

4.5 SOIL AND GEOLOGY (INCLUDING MINERALS)

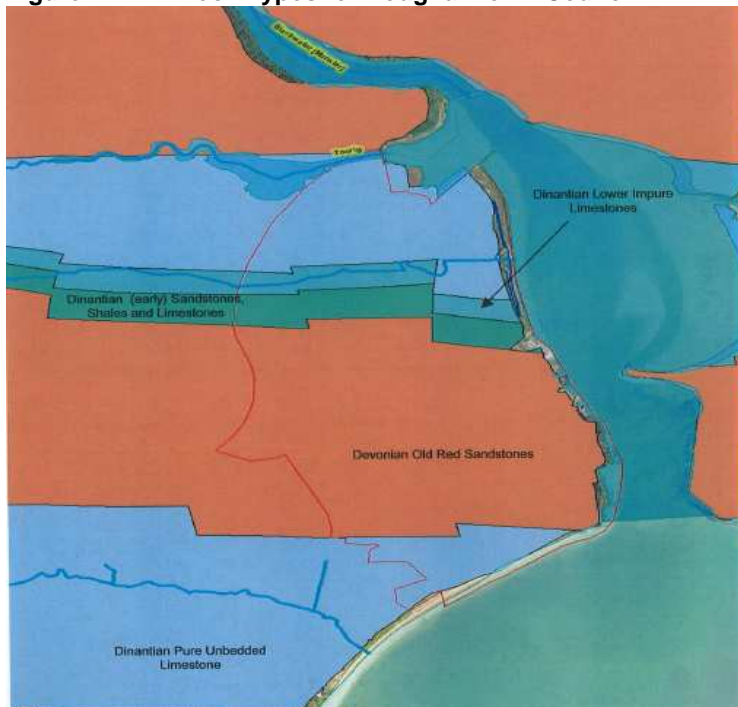
4.5.1 Baseline Conditions

This section examines the soils, geology and hydrogeology of the Youghal Town Council Area. The underlying geology of the study area is dominated by bands of limestone and sandstone running in an east-west direction. A band of Dinantian pure unbedded limestone and Dinantian lower impure limestones occurs from the Tourig River to north of Copperalley and to the south of the Town. A narrow band of Dinantian sandstones, shales and limestones a wide band of Devonian old red sandstones occurs from Copperalley to the northern boundary of Site Seafeld. None of the rock to the north of this east-west point is far from the surface and some exists as karst. South of Seafeld, the geology is typified by Dinantian pure unbedded limestone. The groundwater vulnerability is extreme/high and the soils are mostly acid brown earths and brown podzolics.

This report is based on a desk study. Information on the geology and hydrogeology of the area has been obtained from the Geological Survey of Ireland (GSI). Information supplied by the GSI in electronic format included: -

- Bedrock Geology Data;
- Aquifer Classification;
- Subsoils/Quaternary Geology;
- Well Database; and
- Karst Database.

Figure 4: EPA Rock Types for Youghal Town Council



Source: Geological Survey of Ireland

Topography

Youghal is located on the west bank of the mouth of the River Blackwater Estuary, with the town itself steeply sloping from the high point to the west at 80.0m OD to 0.0mOD at the River. To the north of

the town the lands flatten out in the vicinity of the site Youghal Mudlands and the River Tourig River before rising sharply again at the Blackwater / Tourig confluence with Rincrew at 80.0+ Mod and to the East of the Blackwater in County Waterford at 100.0m OD. Lands to the West of the Town in the area of the Cork Road also rise gently to the north at Knocknacally from 10.0m to 60.0Mod and flatten out to the south towards the sea at the Ballyvergan Marshes which are a significant feature before reaching the long beaches stretching for several kilometres from Redbarn to Moll Goggins Corner.

Lands to the east of the estuary in Co. Waterford are also steeply sloping to the River with only one or two areas (e.g. Newtown / Blackbog, Kinsalebeg) being relatively flat and at a low level (20.0-10.0Mod). The areas at the harbour mouth at Monatray and East Point are also steeply sloping and very visible from the Town of Youghal rising to a level of 80.0mOD.

The estuary itself is a tidal with a significant portion of the estuary drying out at low tide resulting in large areas of mudflats. The estuary has a distinctive narrowing due to a shingle spit extending from the east side of the estuary known as Ferry Point.

Hydrology

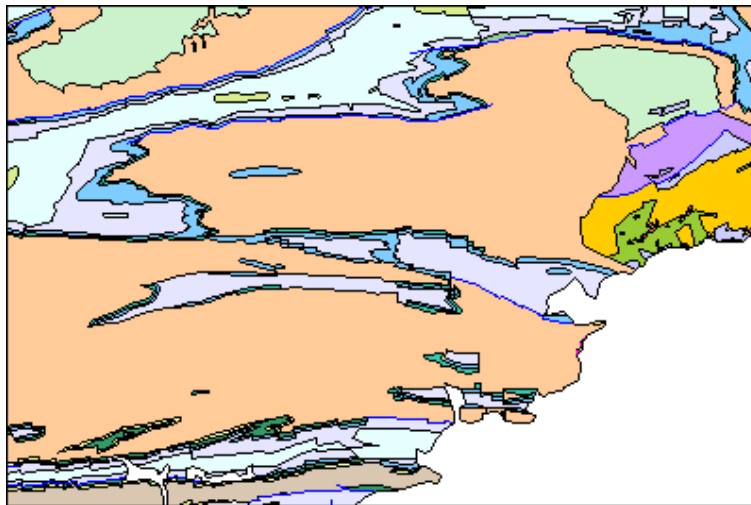
There are two main catchments areas within the Youghal Town Council area; these consist of the northern and southern catchments. Three main streams drain into the southern catchment of the Youghal District, two of the three streams are discharged across the wetlands adjacent to the front of the strand. The remaining stream is discharged into the sea at Summerfield.

In the northern catchment one main stream, which drains the area to the west of the mudlands and is fed along its length by a number of smaller streams. This stream flows into the contour drain, which borders the mudlands area and is discharged into the Harbour via a self-acting sluice gate.

Bedrock Geology

The bedrock geology in the Youghal area consists of Carboniferous and Devonian limestones, sandstones and mudstones. The superficial soil deposits consist primarily of estuarine deposits associated with the rivers Blackwater and Tourig. These deposits consist of normally consolidated estuarine and marine sediments.

Figure 5: Bedrock Geology East Cork and Waterford



Source: Geological Survey of Ireland

Soils and Subsoils

The soil composition of the area varies; See Figure 5.5.3 Much of Youghal Town Council area comprises of glacio-fluvial sands and gravels (green), alluvium deposits (yellow) which can be seen in the mudlands and in lowland areas to the south of the town, the mudlands also consist of superficial soil deposits of estuarine deposits associated with the rivers Blackwater and Tourig. While much of the eastern higher section of the town consist of Made Ground (Blue).

The issues of soil and water are closely linked. Currently, it is not thought that soils will be a significant issue, given the general urban context of the Youghal Town area.

Figure 6: EPA Subsoils in Youghal Area



Source: Geological Survey of Ireland

Aquifer Vulnerability

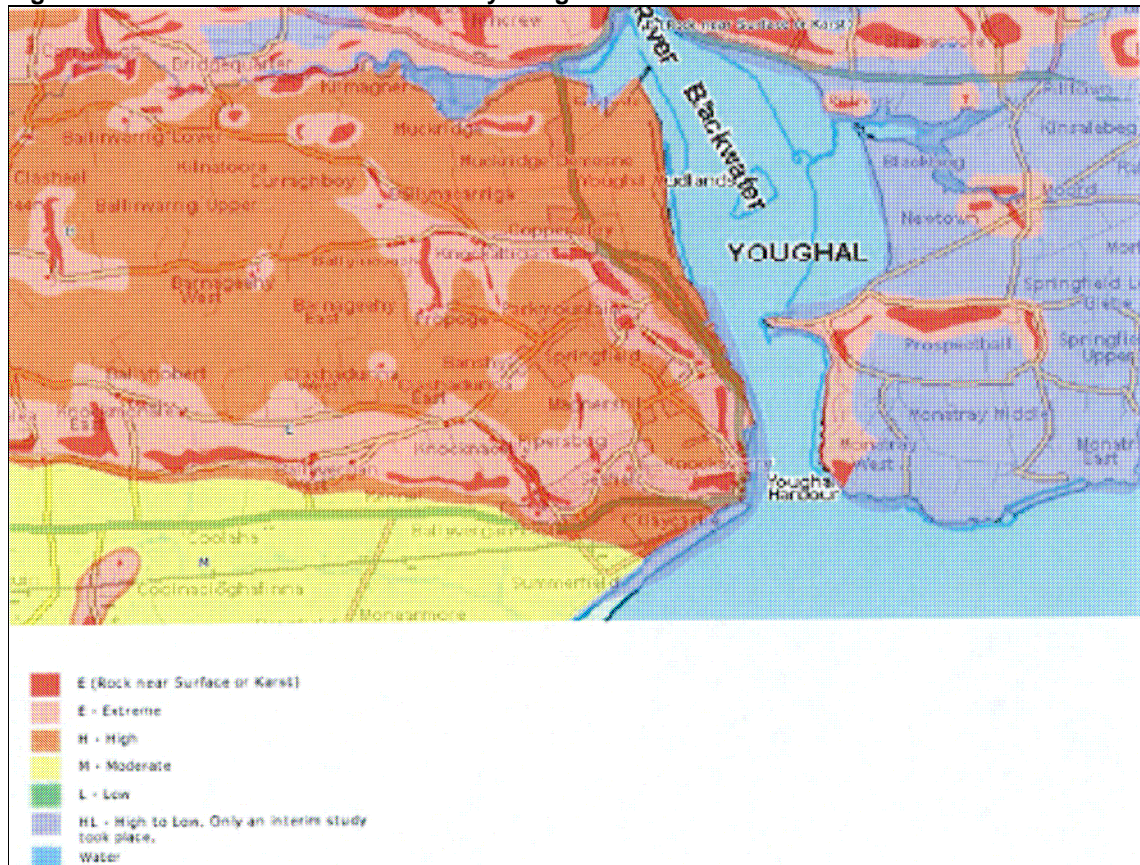
Aquifer vulnerability data is available from the Geological survey of Ireland. There is no specific data available on groundwater flow beneath the site. The chemistry of the groundwater underlying the site is not known. Vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease with which groundwater may be contaminated by human activity. The vulnerability of the groundwater depends on: -

- The time of travel of infiltrating water (and contaminants);

- The relative quantity of contaminants that can reach the groundwater; and
- The contamination attenuation capacity of the geological materials through which the water and contaminants infiltrate.

The GSI have classified Ireland into four vulnerability categories Extreme-High- Moderate and Low. The vast majority of the groundwater vulnerability below the site has been classified by the GSI as Extreme to High according to the GSI, this is denoted in orange and red. This means that the Aquifer Resource rating of the area is generally very high and this is likely due to the fact that there is currently no wastewater treatment plant in Youghal Town. See Figure 5.5.4 Groundwater Vulnerability.

Figure 7: EPA Groundwater Vulnerability Youghal Town Council Area



Source: Geological Survey of Ireland

4.5.2 Existing Policies/Objectives

Cork County Development Plan 2003

- **ENV 1 – 2: Groundwater Protection:** It is an objective to protect known and potential groundwater reserves in the county. It is an objective to develop comprehensive Groundwater Protection Schemes for all groundwater reserves in the County.
- **ENV 1 – 3: Guidelines for Groundwater Protection:** In assessing applications for development the Council will consider the impact on the quality of water reserves and will have regard to the recommended approach 'Groundwater Protection Schemes' (and the Response Matrices) published by the Department of Environment and Local Government, the Environment Protection Agency and the Geological Survey of Ireland.

- **ENV 1 – 4: Septic Tanks / Proprietary Treatment Systems:** *It is an objective to ensure that Proposals for development incorporating septic tank or proprietary treatment systems comply with relevant guidelines, (including maintenance) and to ensure that the cumulative impact of such systems are considered in the assessment process.*
- **Env 1 – 5: Protection from Nitrate Pollution:** *It is an objective to protect waters from nitrate pollution in accordance with the Nitrates Directive (91/676/EEC).*
- **ENV 1 – 6: Nitrate Vulnerable Zones** It is an objective to establish and implement action programmes in relation to designated Nitrate Vulnerable Zones in accordance with Nitrates Directive (91/676/EEC).
- **ENV 1 - 7: Developments Relating to Agricultural Industry:** It is an objective in assessing proposals for agricultural development that regard will be had to the relevant guidelines including the requirements of:
 - The Guidelines and Recommendations on the control of Pollution from Farmyard Wastes
 - The Code of Good Agricultural Practice to Protect Waters from Pollution by Nitrates
 - The Cork County Pig Industry report
 - Phosphorous Regulations. The Measures and Implementation Reports.
- **ENV 1 – 8: Information on Water Quality:** It is an objective to provide information in an easily accessible and usable form in order to provide information as to the importance of good water quality, the risks to good water quality and the standards that are required.

Youghal Town Development Plan 2009

- **Strategic Objective:** It is a policy of the town council to prohibit development over natural drainage channels.
- **Groundwater Protection Objectives:** It is an objective that potential and known groundwater reserves in the area shall be protected.
- **Protection of Aquatic Habitat:** The council has identified the harbour area within the jurisdiction of the Town Council as a riverine habitat and amenity resource. Applicants will be required to consult with environmental bodies including the South Western Regional Fisheries Board, in accordance with the Planning and Development Regulations, 2001
- **Water Quality Management Objectives:** Proposals for development are required to have regard to the quality and quantity of water resources. Development will only be permitted where it can be demonstrated that there will be no direct or indirect damaging effects on water resources.
- **Septic Tank Objectives:** It is an objective that further provision and use of septic tanks shall not be permitted, in general, within the development boundary of the town.

4.5.3 Constraints to Development

Presence of the Blackwater Estuary and River Tourig within the study area; and Groundwater vulnerability below part of the town has been classified by the GSI as Extreme to High according to the GSI, this is denoted in orange and red.

4.6 WATER

4.6.1 Baseline Conditions

The most recent water quality results from the EPA (Toner *et al*, 2005) were examined to ascertain the water quality in the Blackwater Estuary and the Tourig River which both border the study area. Relevant published reports (i.e. NPWS Irish Wildlife Manuals Series) and scientific literature (i.e. the journals *Biology and the Environment*, *Irish naturalists Journal*) were also reviewed. To establish the importance of fisheries in the region, the angling guides Dunlop and Green (1992) and O'Reilly (2004) were consulted.

The estuary of the Munster Blackwater extends from the limits of the tidal influence at Lismore to the mouth at Youghal Harbour (at East Point), a distance of approximately 38km. There are a number of significant tributaries including the Rivers Bride, Finisk and Likky, which discharge into the estuary, the river Tourig also runs just north of the Town into the Estuary. The Estuary has a very distinctive narrowing due to a shingle spit extending from the east side of the estuary known as Ferry Point. The predicted tidal range is approximately 3.5m and currents in the estuary can be strong with tidal currents at Ferry Point varying from 0.02 – 0.89m s⁻¹.

Water quality in the river Blackwater and its tributaries is generally quite good, according to the EPA the water quality status in Youghal is of good quality (Q4). According to the EPA the Lower Blackwater Estuary at Youghal is at risk of not achieving good status from the Water Framework Directive in terms of Transitional water. The rest of Youghal is expected to achieve good status from the Water Framework Directive in terms of ground water. In terms of the Blackwaters tributaries, most are classified as unpolluted, however the Likky River has shown some evidence in the past as being slightly polluted.

The Tourig River (EPA code18/T/03, hydrometric area 18) flows into the Blackwater Estuary and borders part of the northern boundary of the study area. Four sampling stations on this river are assessed by the EPA and the most recent records indicate that the river is unpolluted at all locations (Q4) (Toner *et al*, 2005).

Just outside Youghal Harbour along the Western shoreline there is a large beach known as Youghal Main Beach and Claycastle Beach, which are designated bathing areas under the Bathing Water Regulations (76/160/EEC). The beach was awarded Blue Flag Status by An Taisce, the relevant awarding authority.

The Assessment of the Trophic Status of Estuaries and Bays in Ireland (ATSEBI) is a eutrophication classification scheme designed to provide a means of identifying the occurrence of eutrophication in estuarine and near shore waters based on relevant measures of water quality. In the 1995/99 period, the Blackwater Estuary Lower was 'potentially eutrophic' but its status was downgraded to 'eutrophic' following the 1999-2003 assessment (Toner *et al*, 2003).

Groundwater is the only documented source of drinking water in the area, however a large proportion of the Youghal area is classed as having high groundwater vulnerability, with some areas being of extreme vulnerability (EPA Scoping Reponse1/08/07).

Figure 8: EPA 2007 Rivers and Surface Water Quality in Youghal

Source: *ENVision Mapper*

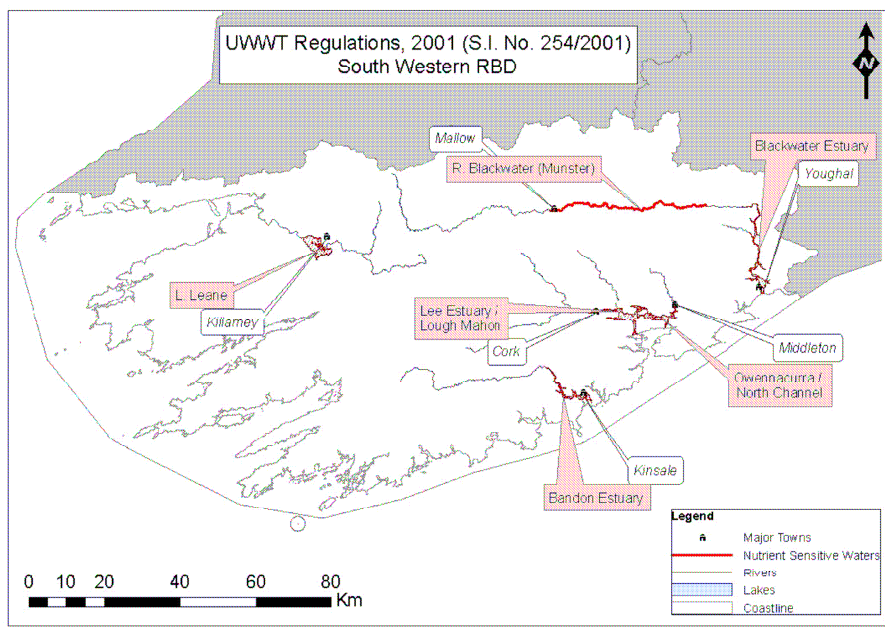
EPA Water Quality

Urban Waste Water Discharges in Ireland Report for 2004 and 2005 denotes that the Blackwater Estuary Lower, downstream of Dromana Ferry, to near East Point, Youghal is a sensitive area. The designation of “sensitive areas” is a requirement of Article 5 of the Directive by reference to the identification criteria given in Annex II of the Directive. The following criteria refer to three groups of sensitive areas (as seen in Figure 5.5.2 below):

- freshwater bodies, estuaries and coastal waters which are eutrophic or which may become eutrophic if protective action is not taken;
- surface waters intended for the abstraction of drinking water which contain more than 50 mg/l of nitrates; and,

- areas where further treatment is required, to comply with other Council Directives.

Figure 9: Nutrient Sensitive Waters – Western RBD



Source: *Urban Waste Water Discharges in Ireland Report for 2004 and 2005*

The concentration of nitrate in rivers is a key quality indicator because of its enriching effect as a nutrient and importantly because of the potential health implication of high nitrate concentration in river waters abstracted for potable supplies. The EU Nitrates Directive (91/676/EEC) requires member states to take specific measures to protect surface and underground waters from nitrate contamination from agricultural activities.

Aquatic Ecology

Birds

The Blackwater Estuary is an internationally important site for birds and a special protection area (SPA code: 004028). The Blackwater Estuary is of high ornithological importance for wintering waterfowl, providing good quality feeding areas for an excellent diversity of waterfowl species. No new zonings are proposed at this area of SPA however. The proposed zoning areas are expected to be of local importance to birds, contain bird communities typically associated with urban, suburban, and farmland sites.

The Blackwater Estuary SPA extends from Youghal New Bridge to the Ferry Point peninsula. It comprises a section of the main channel of the River Blackwater. Table 4 below shows the waterbirds occurring in significant concentrations at the Blackwater Estuary between 1994/95 and 2000/01 (source BWI). The site includes the estuaries of both the Blackwater and Tourig Rivers. It includes a good complex of intertidal mudflats, salt marsh, patches of reedbeds and coastal lagoons (Crowe, 2005). The Blackwater Estuary is internationally important for black-tailed godwit and supports nationally important numbers of a further seven species. The occurrence of Little Egret, Golden Plover and Bar-tailed Godwit is of particular note as these species are listed on Annex I of the E.U. Birds Directive.

Kinsalebeg on the Waterford side of the river usually supports the majority of waterbirds, and is more important than the Youghal / Tourig side. The margins of the river supports grey herons, cormorants and mallard and waders roost along the shoreline at high tide. The mudflats support most of the duck and wader species other than light-bellied brent geese and wigeon, which tend to favour the intertidal marshes. Waders are also regularly recorded feeding on adjacent farmland during all tidal states, and along with gulls, using adjacent lagoons.

Crowe (2005) noted that the Blackwater estuary SPA is adjacent to harbour facilities and waterbirds are therefore exposed to existing disturbance from recreational activities including moorings, aquatic activities (sailing and sail-boarding, jet-skiing, power boating), tourist boat trips, angling, walking (including with dogs) and birdwatching. Wildfowling and bait collecting (digging and pumping for lugworm and ragworm) also occur along with fish netting, trawling and hand gathering of mollusks. Crowe (2005) also reported that intertidal habitat has recently been restored in association with the building of the bypass road across the Tourig Estuary.

Table 7: Waterbirds occurring in significant concentrations at the Blackwater Estuary between 1994/95 and 2000/01 (Source BWI).

Species		94-98	95-99	96-00	Month	% National
International importance	Black-tailed godwit	480	607	634	Sep	3.5
National importance	Wigeon	978	887	834	Dec/Jan	0.9
	Golden plover	2,494	2,628	3,098	Dec/Jan	2.1
	Lapwing	2,729	2,761	2,663	Jan	1.3
	Dunlin	1,882	1,749	1,430	Jan	1.0
	Curlew	1,117	988	1,041	Sep	1.6
	Redshank	483	479	489	Oct	1.5
	Greenshank	20	24	25	Sep	1.2

The Blackwater Estuary SPA is an internationally important wetland site on account of the population of Black-tailed Godwit it supports. It is also of high importance in a national context, with eight species having populations, which exceed the thresholds for national importance. The occurrence of Little Egret, Golden Plover and Bar-tailed Godwit is of particular note as these species are listed on Annex I of the E.U. Birds Directive. BWI have noted that the eastern side of the estuary is of higher ecological importance for birds than the western/study area side. The bird populations within the Town Council area are expected to contain bird communities typically associated with urban, suburban, and farmland sites.

Mammals

Hayden and Harrington (2000) give the distribution of mammal species in Ireland by 20km squares, each of which is composed of four National Grid 10km squares. The proposed zoning areas lie within the 20km square comprising National Grid 10km squares, X07, X08, X17 and X18. Appendix 3 lists the protected mammal species recorded in this 20km square by Hayden and Harrington (2000).

The subject areas could potentially provide habitat of sub-optimal / marginal quality for badger, Irish hare, Irish stoat and pygmy shrew. However, the urban context of the sites means that these species are likely to occur only at the periphery of the study area. The common seal may use the Blackwater Estuary on occasion and it is likely that this same habitat is used by the otter. Indeed, according to NPWS otter is frequent throughout the Blackwater River.

At the north of the study area there is a small area of woodland surrounding a pond/lake. This woodland could potentially be utilised by brown long-eared bats and other bat species for foraging or roosting.

There is no indication that the subject lands are of particular importance to protected mammals. However, any subsequent development within the Development Plan area should consider the presence of protected mammals such as bats and badgers.

Fish

Youghal lies in the Munster Blackwater Catchment (SWRBD, Hydrometric Area 18, OS catchment 190). The Blackwater Estuary borders the east site of the study area. The River Blackwater rises in east Co. Kerry and flows east for approximately 170 kilometers through the counties of Cork and Waterford, where it enters the sea. Its entire catchment is in the region of 3,100 km². It drains five ranges of mountains and in times of heavy rainfall can fluctuate by more than four meters. The peaty nature of the terrain in the upper reaches and some of the tributaries gives the water a dark colour, hence the river's name. The geology of the catchment is divided roughly into old red sandstone and limestone and lower limestone shales. The Blackwater River is noted for its run of Atlantic salmon (*Salmo salar*), although this Annex II listed species would not spawn in the tidal areas of the river adjacent to Youghal. The only other watercourse of significance in the study area is the Tourig River. This river borders part of the northern boundary of the study area and flows into the Blackwater Estuary at Rincrew Bridge.

The River Blackwater is known to contain populations of the Annex II listed sea lamprey (*Petromyzon marinus*), brook lamprey (*Lampetra planeri*), river lamprey (*L. fluviatilis*) and twaite shad (*Alosa fallax*) (NPWS, 2004). A few Allis Shad (*Alosa alosa*) have also been recorded. The Munster Blackwater is one of the few rivers where twaite shad have been known to breed.

In 2003, the status and distribution of lamprey and shad in the Munster Blackwater River was undertaken by King and Linnane (2004). Eighteen sites on the main Blackwater channel were examined – five sites in the more upland areas upstream of Mallow and thirteen in the lower reaches between Mallow and Cappoquin. No sites were examined on the main channel downstream of the tidal head at Cappoquin.

River, brook and sea lampreys are not expected to spawn in the estuarine waters of the Blackwater and Tourig River adjacent to the study area.

The important shore angling marks and fishing bait collection areas in Youghal Bay and their distance from the Town Council area are provided in Appendix 4. Flounder, plaice and cod can be caught at the Old dyke wall, within Youghal Town.

Reptiles and Amphibians

Common Frog, a Red Data Book species that is also legally protected (Wildlife Act, 1976), occurs throughout the Blackwater River SAC site (NPWS, 2004).

Invertebrates

According to NPWS, the sediments in the Blackwater Estuary have a macrofauna typical of muddy sands, with polychaete worms such as lugworm *Arenicola marina*, ragworm *Hediste diversicolor* and the marine bristle worm *Nephtys hombergii* being common. Bivalves are also well represented, especially peppery furrow-shell *Scrobicularia plana*, but also sand gaper *Mya arenaria*, baltic tellin *Macoma balthica* and common cockle *Cerastoderma edule*. Among the brown seaweed on the shoreline, the shore crab *Carcinus maenus* and the rough periwinkle *Littorina saxatilis* are found (NPWS, 2004).

As part of a national marine survey, Picton and Costello (1998) carried out an intertidal mudflat survey at Kinsalebeg in Youghal harbour in 1996. This site is at the eastern side of the Blackwater Estuary approximately 2km from the study area. The species *Nereis diversicolor*, *Scrobicularia plana*, *Arenicola marina*, and *Nephtys sp.* were the dominant organisms recorded.

The rare bush cricket, *Metrioptera roselii* (Orthoptera: Tettigoniidae), has been recorded in the reed/willow vegetation of the river embankment on the Lower Blackwater River. The swan mussel (*Anodonta cygnea*), a scarce species nationally, occurs at a few sites along the freshwater stretches of the Blackwater (NPWS, 2004). Neither of these species are likely to occur in the study area however.

4.6.2 Existing Policies/Objectives

Cork County Development Plan 2003

- **INF 2 – 1: Serviced Land Initiative:** It is an objective to assist in the fast tracking of servicing in areas where there is immediate need for action through the Serviced Land Initiative programme.
- **INF 2 – 2: Water Supplies:**
 - (a) It is an objective generally to provide support for the funding of the water supply Infrastructural requirements as identified by the County Council in order to accommodate the planned levels of growth expected for the county.
 - (b) It is an objective generally to improve and extend the water supply infrastructure to serve the planned levels of growth, during the lifetime of this plan, in order to facilitate development.
- **INF 2 –3 Drinking Water Quality:** It is an objective to ensure that all drinking water in the county complies with the European Union Drinking Water Directive 98/83/EC and that all surface water and ground water supplies comply with the requirements of Surface Water Directive 75/440/EC and Ground Water Directive 80/68/EEC.
- **INF 2 – 4 Protection of Quantity and Sources of Drinking Water:** It is a general objective to conserve sources of drinking water and to minimise threats to either the quality or quantity of drinking water reserves that might result from different forms of development or development activity.

- **INF 2 – 7 Surface Water Infrastructure Needs:**

- a) It is an objective generally to provide support for the funding of the surface water infrastructural requirements as identified by the County Council in order to accommodate the planned levels of growth expected for the county.
- b) It is an objective generally to improve and extend the surface water disposal infrastructure to serve the planned levels of growth, during the lifetime of this plan, in order to facilitate development.

- **INF 2 – 8 River Channel Protection:** It is an objective to ensure that development on newly zoned land is kept at an appropriate distance from stream banks and adequate protection measures put in place.
- **INF 2 – 9 Prevention of Flooding:** It is a general objective to manage surface water catchments and the use and development of lands adjoining streams, watercourses and rivers in such a way as to minimise damage to property by instances of flooding.
- **INF 2 – 10 Drainage and Flooding:** It is a general objective to implement the recommendations of the Office of Public Works policies, as current in June 2004, in relation to flood plains and areas sensitive to flooding.

Youghal Town Development Plan 2009

- **Water quality management objectives:** Proposals for development are required to have regard to the quality and quantity of water resources. Development will only be permitted where it can be demonstrated that there will be no direct or indirect damaging effects on water resources.
- **Groundwater protection objectives:** Potential and known groundwater reserves in the area shall be protected.
- **Protection of aquatic habitat:** The Council has identified the harbour area within the jurisdiction of the Town Council as a riverine habitat and amenity resource. Applicants will be required to consult with environmental bodies including the South Western Regional Fisheries Board, in accordance with the Planning and Development Regulations, 2001.
- **Septic tank objectives:** Further provision and use of septic tanks shall not be permitted, in general, within the development boundary of the town.
- **Surface water management objectives:** Where it is considered that the existing surface water drainage is unable to accommodate an additional discharge generated by proposed development(s), the Local Authority will require the submission of surface water design calculations establishing the suitability of drainage between the site and a suitable outfall.
- **Flood risk management objectives:** Development proposals, including the filling of land in areas, which are at risk from flooding or perform a flood control function will only be permitted where it can be demonstrated that such development;
 - (a) Has been designed to minimise risk of inundation and will not contribute to or increase the risk of flooding elsewhere; and

(b) Has adopted all reasonable measures to improve the management of flood waters on and adjacent to the site and to assist the protection of properties within the vicinity of the site; and

(c) Incorporates building design measures and materials to assist evacuation and minimise damage from inundation; and

(d) Can provide for the maintenance of any approved privately funded flood defence measures to the satisfaction of the Council.

Applicants may be required to submit a hydrological survey and assessment information in support of their proposals where they are within a known flood risk area and may be required to make a contribution to flood defences.

4.6.3 Constraints to Development

- Declining water quality of the Blackwater Estuary due to the need for a new WWTP;
- According to the EPA the Lower Blackwater Estuary at Youghal is at risk of not achieving good status from the Water Framework Directive in terms of Transitional water.
- Blackwater Estuary Lower, downstream of Dromana Ferry, to near East Point, Youghal is a sensitive area in terms of Waste Water discharges.
- The Blackwater Estuary is an internationally important site for birds and a special protection area (SPA code: 004028).

4.7 TRANSPORTATION

4.7.1 Baseline Environment

Youghal is a popular tourist destination. The amount of people employed in the services industry has increased dramatically in the last number of years. The population of Youghal in 2006 was 6,393 in Youghal town and 392 in Youghal Environs. (Census of Population 2006)

Cork Airport is located approximately three quarters of an hour south of Youghal at 55 kilometers away, Cork Airport can be reached by a large number of scheduled Air Service directly from a large number of countries across the world as well as Irelands Capital City Dublin. Charter flights also frequent into Cork Airport. Youghal is well served by Road from the International Airports of Dublin (under 3 hours), Shannon (just over 2 hours) and Cork (0.75 hours). It is also an objective of the Youghal Town Development Plan, CASP and SWRG to re-open the Cork-Youghal rail service in line with these plans.

The town continues to suffer adverse effects arising from the conflict between through and local traffic. Over the years, this has had a seriously adverse effect on the environmental quality of the town centre. The bypass, now completed, has had a beneficial effect on the environment of the town. However further road improvements are needed to decongest the town centre.

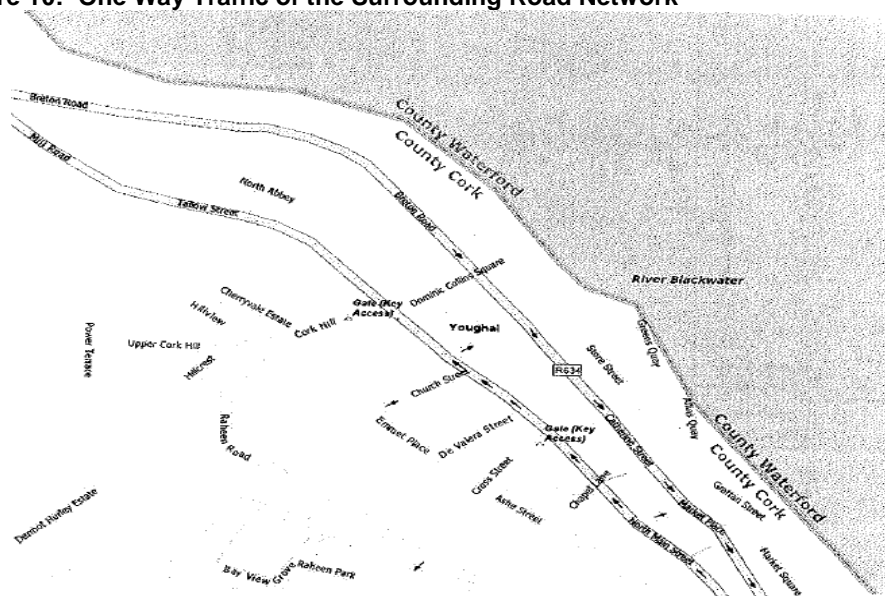
Existing Road Network

The N25 is a National Primary route linking Youghal with Cork and Waterford. The N22 links Youghal with Kerry and the N22 along with the N20 link Youghal to Limerick respectively.

Within Youghal Town Council the road network can be classed as urban and all roads are within a 50kph speed zone. Much of the current housing development and housing zoned land within the Youghal Town Development Plan is located in the centre and east of the town and is accessed via from both the town centre and the Youghal bypass via Upper Cork Hill and Cork Hill.

Quarry Road forms part of a longer meandering county road which connects the rural Townlands northeast of Youghal (including Mount Uniacke Village) to Youghal Town.

A one-way system applies to Youghal Town Centre. Traffic travels westbound along Catherine Street and North Street as far as Dolphin Square. Traffic travels eastbound on Breton Road from Dominic Collins Square. This one-way system can be seen in Figure 10. below.

Figure 10: One Way Traffic of the Surrounding Road Network**Existing Traffic Pattern in Youghal**

The existing mode of transport in Youghal was extracted from the Census 2006 – Travel to Work, School and College. This is set out in the table below:

Table 8: Means of Travel: 2002 Traffic Pattern to Work in Youghal

Persons Means of Travel to Work aged 15 years and over – Census 2002											
Town	Total	Foot	Bicycle	Bus/ mini bus or coach	Train or dart	Motor cycle or bike	Car	Lorry or van	Other means	Work from home	Not stated
Youghal	2,543	573	29	68	2	19	1,498	207	6	94	53
	%	22.5%	1%	3%	.07%	0.7%	59%	8%	0.2%	4%	2%

Source: CSO

Table 9: Distance traveled to work in Youghal

Distance travelled to work – Census 2002										
Dist Travelled	Total	0 miles	1 mile	2 miles	3 to 4 miles	5 to 9 miles	10 to 14 miles	15 to 29 miles	30 miles and over	Not state d
Youghal	2,549	78	818	342	76	57	38	313	395	432
	%	3%	32%	13%	3%	2%	1%	12%	15%	17%

Source: CSO

It seems that over half the population of Youghal travel by car to work and nearly a quarter of people walk to work. Very few people cycle or travel to work by scooter.

We can assume that persons travelling more than 4 miles to work travel to destinations outside the town. Some 30% report travelling more than 4 miles to work which seems to be lower than the national average. For other towns of 5-10K in population we see that 45% travel 4 miles or more to work.

Public Transportation

Youghal has an adequate public transport service with the provision of bus services. Youghal is served by Bus Eireann's Cork suburban bus service. The most relevant bus stops are located on both sides of the North Main Street located between Dolphin Square and Dominic Collins Square. The bus route takes in Youghal Town Centre and follows the one-way system.

Bus Eireann have two routes, which serve Youghal. Route No. 260 connects Cork City to Ardmore, Waterford via Youghal and Route No. 040 is an expressway service which connects Cork City directly to Youghal. During weekdays, the first bus leaves Youghal for Cork City at 7.30am and from then approximately every 30 mins up to 16.25 and for every hour until the last bus at 22.25. At weekends buses depart Youghal at least once every hour

Youghal has a number of major Independent Coach Operators for Incoming Groups and the town has an excellent Taxi Service.

Traffic Proposal for Youghal Town Council

As part of the Youghal Town Development Plan it is proposed to include a new inner relief road connecting Chickley's Road, Cork Hill and the adjoining lands to Quarry Road with the potential to link across the Cock and the Bull and Muckridge Demesne to the northern side of the town. Such a route has the potential to reduce traffic levels in Cork Hill, Quarry Road and in the town centre dramatically. This inner relief road also has the potential to continue on the southern side of Cork Hill to the south of the town to further reduce traffic flow through the town centre.

It is also an objective of the plan to support the CASP and the SWRG in their aspirations for the extension of the Cork-Midleton rail line to Youghal. In addition Youghal Town Development Plan propose a new east-west cycleway linking the town to the surrounding lands to the west.

4.7.2 Existing Policies/Objectives

Cork County Council Development Plan 2003

It is an objective of the Council to:-

- **INF 1 – 1: Integrated Transport System:** *It is a general objective to promote a high quality, sustainable and integrated transport system for people and goods within County Cork and to recognise the complementary roles played by the road, rail, air and sea transport sectors.*
- **INF 1 – 2: Transport and Land Use:**
 - (a) It is an objective to promote land use planning measures which aim for transportation efficiency, economic returns on transport investment, minimization on environmental impacts and a general shift towards the use of public transportation throughout the county.
 - (b) Through the implementation of the settlement policy in this plan, particularly in strengthening the network of settlements, it is an objective to put in place conditions which stimulate greater provision of public transport services, particularly in rural areas.

- **INF 1 – 3: Access to Transport Choice:** It is an objective to increase the level of access, among the population of County Cork, to a choice of transport modes and, in particular, to promote forms of development that reduce levels of dependence on private car transport.
- **INF 1 – 4: Co-ordination of Transport Policy:** It is an objective to encourage co-ordination between all agencies involved, directly or indirectly, in the provision of transport services (Bus Eireann, Aer Rianta, Iarnrod Eireann, The National Roads Authority, local authorities and private transport companies).
- **INF 1 – 5: Supporting the Provision of Public Transport:** It is an objective to support the improvement of public transport services generally by reserving land in suitable locations for infrastructural and other requirements of the public transport sector (where such needs have been identified).
- **INF 1 – 6: Public Transportation Task Force:**
 - (a) It is an objective to support the establishment of a public transportation task force to promote more widespread provision of public transportation within the county and to ensure high levels of efficiency and integration of service.
 - (b) The public transportation task force would be made up of representatives of public and private transport providers as well as key stakeholders such as local authorities and the educational, employers, local development and community sectors.
- **INF 1 – 7: Promotion of Rail Infrastructure:**
 - a) It is an objective to recognise the particular economic development potential of locations which are currently served by rail infrastructure and to support the improvement of rail services and facilities.
 - b) It is an objective to promote jobs led investment that could be facilitated by the availability of rail services for commuter and goods traffic.
 - c) Where there is potential for an existing or disused railway station (or railway infrastructure) to be reopened for service, it is an objective to safeguard the station (or infrastructure), its access and the surrounding lands, against encroachment by inappropriate uses which could compromise its future development as a rail facility.
- **INF 1 – 8: Suburban and Commuter Rail**
 - (a) It is an objective to support greater use of suburban and commuter rail as a key element of transportation and settlement location policy in the Cork area.
- **INF 1-10: Park and Ride Facilities:**
 - (c) It is an objective to support the provision of park and ride facilities close to the City in order to support more sustainable commuting patterns and to reduce traffic congestion.
 - (d) It is a further objective to develop park and ride facilities to support the new suburban rail network and the proposed green routes. These will offer fast, frequent services linking the City Centre with Metropolitan Cork and the Ring Towns.
- **INF 1 – 11: Rural Public Transport:**
 - (a) It is an objective to support the provision of a more regular and efficient express bus service throughout the county and encourage private–public partnership in the provision of more widespread non-urban bus services.
 - (b) It is an objective to support initiatives which provide greater accessibility by bus between rural towns /villages with their more remote hinterlands.

Youghal Development Plan 2009

Strategic Objective:

It shall be an objective of the Plan;

- to work with the various agencies to enhance the infrastructure of the town in all its aspects

- to take into account the needs of pedestrians and cyclists when considering proposals for development, particularly for residential, educational, employment recreational and other uses. It shall be an objective to promote designs and layouts for development schemes that encourage efficient and safe use by pedestrian and cyclists and to discourage development schemes that focus solely or primarily on access by private car.
- to work with Iranrod Eireann to restore the Cork-Youghal rail service in line with the objectives contained in CASP and SWRA Planning Guidelines.
- It shall be an objective to improve accessibility to Youghal from the airport by improving road links and signage.
- The Council will more actively promote the rights of pedestrians by maintaining footpaths to high standards and upgrading and increasing the number of pedestrian crossings on the road and the main thoroughfare through the town centre.
- It shall be an objective to upgrade facilities for tour buses and scheduled public transport services including appropriate access and parking within the town.
- It shall be an objective of the Plan to facilitate the provision of one or more marinas in Youghal subject to compliance with other objectives of the Plan and subject to proper and balanced consideration of the values of all stakeholders in the town.
- It shall be an objective of the Plan, subject to the availability of resources, to improve congestion control and access management of the Town Centre area with the objective of enhancing the efficiency, amenities and tourist potential of the area taking account of the benefits for the commercial, social and cultural life of the town core.
- It will be an objective of the plan to determine the optimum route of the proposed inner relief road between Chickley's Road and R634. A comprehensive Traffic and Transportation Study shall be carried out to identify all suitable route options.

Energy: Strategic Objectives: In the light of the growing energy usage by cars it shall be an objective of this Plan to encourage proper and sustainable planning that encourages other modes of transport. This is particularly relevant given Youghal's picturesque, narrow streets, amenity and suitability for pedestrianisation and pedestrian priority. It shall also be an objective to encourage the use of cycles.

4.7.3 Constraints to Development

Provided that the above public transport and road proposals are implemented as detailed in the Youghal Town Development Plan there are no constraints predicted from Traffic.

4.8 WATER SUPPLY AND WASTEWATER

4.8.1 Water Supply

The present drinking water supply is from River Glendine at Boola, County Waterford. It is treated and pumped to three reservoirs at the top of Cork Hill. This supply is just adequate to meet the needs of the town and expansion programmes are in place for its upgrading.

The water is gravity fed / boosted to two ground level reservoirs (910,000 gallon total capacity) and water tower (100,000 gallon capacity) at the top of Cork Hill. Supply to the town is by gravity. Much of the old distribution system was renewed in the early 1980's.

The Town Council was its own Sanitary Authority until recently and Cork County Council is the current Sanitary Authority. There have been water shortages for the past three years and two measures have been initiated to assist:

1. Provision of an additional booster station on the incoming trunk main from Boola.
2. Pro-active leakage detection and repair program under the countywide Water Conservation Program.

The principal proposal to remedy the situation is to provide a new trunk main to Youghal and provide full treatment of capacity of the Boola output. This is expected to be completed by 2010. The present capacity of Boola is 3,500 cubic metres per day. There is sufficient reserve capacity to support additional development. The Cork Strategic Water Study (2006) has determined a need for an additional source of water for Youghal in the medium term.

4.8.2 Waste Water

The baseline population is in the region of 7,600 at present. This represents approximately 72% of the total population equivalent of Youghal, with commercial, industrial, institutional and tourist sources comprising the remaining 28% giving a current population equivalent loading of 10,600 p.e. The summer to winter population fluctuates due to the seasonality of the tourist season by approximately 15-20%. Future growth was estimated based on population growth predicted in the Draft Cork Strategic Plan which forms a good basis for the projections. These growth rates were used for all different sectors to reach the predicted population equivalent of approximately 20,000 p.e. for the year 2025.

There is currently no wastewater treatment other than a holding tank and comminutors on the Green's Quay and Paxe's Lane outfalls.

The existing sewerage system is, in the main, a combined system with storm and foul sewage being carried in the same piped system. The system is split into two main catchments to the north and south of the town. The southern catchment constitutes approximately 40% of the total and covers the areas along the sea frontage from Paxe's Lane to Mol Goggin's and all areas along the Cork Road as far as Summerhill.

The municipal untreated raw sewage currently discharges via 2 outfalls; the Green's Quay and Paxe's Lane outfalls, while a third smaller outfall discharges effluent from the Foxhole industrial estate further upstream near the site of the old bridge. The amount of effluent discharged at the old bridge site is relatively small when compared with the town effluent.

The Green's Quay outfall discharges the northern catchment effluent, which accounts for approximately 60% of the town population while Paxe's Lane outfall discharges the southern catchment effluent, accounting for the remaining 40%. The Green's Quay outfall discharges

approximately 50m offshore into water of average depth 2.2m while the Paxe's Lane outfall discharges approximately 150m offshore into the deep trench with an average depth of 10.4m.

Need for new system

The present sewerage system is combined with the surface water drainage and receives primary treatment before being discharged into the estuary. Although the system is adequate for present capacity there is a need for separation of the effluent and construction of a treatment plant. The estuary is designated as a sensitive area. The Urban Waste Water Treatment Regulations identifies the need for the provision of a secondary wastewater treatment plant and nutrient reduction (in this case nitrogen reduction as this is presumed to be the limiting nutrient, even though Youghal is at present only a minor contributor of nitrogen to the river). Parts of the town centre are liable to tidal flooding. Separation of the foul and storm-water drainage is essential.

Proposed Scheme

Minister Roche approved €14m for the Youghal Main Drainage Scheme under the Department's Water Services Investment Programme 2005 – 2007. It is hoped to have the new system including treatment plant completed by 2012. The Youghal Scheme will provide for the repair and upsizing of existing sewers, together with the construction of new pumping stations and rising mains to serve the town and environs. Cork County Council also proposes to build a new wastewater treatment plant for the town, which will significantly enhance the local environment by eliminating untreated discharges to the Blackwater River.

An upgrade and extension of the existing collection system is proposed along with the transfer of all foul/combined wastewater to the new wastewater treatment plant (WWTP) site in the Mudlands immediately north of the town. Secondary treatment is proposed with nutrient reduction for nitrogen only as nitrogen is assumed to be the limiting nutrient with a discharge to the estuary at Ferry Point.

The estuarine discharge would be located in the vicinity of Ferry point. Discharging to this location would provide significant volumes of water to dilute the effluent, even at low tide, and due to increased currents at this location would provide good mixing and dispersion in receiving waters. The recommended launching point and discharge locations are selected to minimise disruption to activities along the quays and sufficiently remote from public areas.

4.8.3 Existing Policies/Objective

Cork County Development Plan 2003

Water Supply

INF 2-2: It is an objective generally to provide support for the funding of the water supply infrastructural requirements as identified by the County Council in order to accommodate the planned levels of growth expected for the county.

It is an objective generally to improve and extend the water supply infrastructure to serve the planned levels of growth, during the lifetime of this plan, in order to facilitate development.

Sewerage Infrastructure Needs

INF 2-5 It is an objective generally to provide support for the funding of the sewerage infrastructural requirements as identified by the County Council in order to accommodate the planned levels of growth expected for the county.

It is an objective generally to improve and extend the sewerage infrastructure to serve the planned levels of growth, during the lifetime of this plan, in order to facilitate development.

Youghal Town Development Plan 2009

Strategic Objective: Water Supply

It shall be an objective of the Plan to ensure the provision of an adequate supply of water for all existing and future developments.

4.8.4 Constraints

- At present only primary treatment is provided prior to discharge into the estuary. The estuary is designated as a sensitive area. The Urban Waste Water Treatment Regulations identifies the need for the provision of a secondary wastewater treatment plant and nutrient reduction. Without upgrading the existing wastewater system there may be deterioration of the water quality in the Blackwater Estuary.
- Currently during the peak tourist season of July and August water supply is constrained.

4.8.5 Flooding

4.8.5.1 Baseline Information

Parts of the town centre are liable to tidal flooding. The Office of Public Works (OPW) provides flood hazard mapping in Youghal (see below). There are a number of areas identified that are susceptible to flooding.

Figure 11: Flood hazards in Youghal



Source: OPW

Recent flood events include:

- Coastal flooding Youghal town 27th October 2004, caused by extreme high tides combined with an extreme wind surge. Road and property flooding and damage. Photos of numerous areas and maps indicating extent of flooding. Flood ID 1419.

- House and land flooding in vicinity of Youghal Mudlands adjacent to the River blackwater estuary. Heavy rainfall on 6/7th February 1985 caused land flooding. Drainage from the land is effected through a sluice that discharges to the River Blackwater estuary. Recurring Flood ID 3741
- Coastal Flooding at Claycastle beach area 27/10/2004 due to high tides, extreme winds/wave action. Photo of aftermath showing some flood debris marks. Flood ID 3852
- Coastal Flooding at Front Strand area 27/10/2004 due to high tides, extreme winds/wave action. Photo of aftermath showing some flood debris marks on roadway, promenade and green area. Flood ID 3853
- Coastal Flooding at Redbarn 27/10/2004 due to high tides, extreme winds/wave action. Photo of aftermath showing some flood debris marks. Flood ID 3743
- Land flooding in vicinity of Crompaun Bridge. Flooding upstream and downstream on both sides of bridge. Womanagh River. Flood ID 2208

4.8.5.2 Existing Policies/Objective

Youghal Town Development Plan 2009

Flood risk management objectives

Development proposals, including the filling of land in areas, which are at risk from flooding or perform a flood control function will only be permitted where it can be demonstrated that such development:

- a) Has been designed to minimise risk of inundation and will not contribute to or increase the risk of flooding elsewhere; and
- b) Has adopted all reasonable measures to improve the management of flood waters on and adjacent to the site and to assist the protection of properties within the vicinity of the site; and
- c) Incorporates building design measures and materials to assist evacuation and minimise damage from inundation; and
- d) Can provide for the maintenance of any approved privately funded flood defence measures to the satisfaction of the Council.

Applicants may be required to submit a hydrological survey and assessment information in support of their proposals where they are within a known flood risk area and may be required to make a contribution to flood defences.

4.8.5.3 Constraints

Development will be constrained in areas that are subject to coastal flooding.

4.8.6 Solid Waste Collection and Disposal

The Youghal landfill site is located in Youghal Mudlands and has a maximum capacity of 37,000 tonnes per annum (TPA), of which 18,000 is household and 12,000 is commercial. . It has a lifespan lasting until approximately 2012. There are a number of public bring sites in Youghal town. These are

to recycle glass, aluminium cans, newspapers, waste paper, cardboard, plastics and textiles. They are located at Nealon's Quay, Council carpark; Dolphin's square; Holy family church carpark; near Dempsey's pub; Tides restaurant carpark; Tesco shopping centre and Supervalu carpark.

Cork County Council operates refuse collection in the town, once a week. In the period of the last Plan a "Pay by Weight" method of refuse collection has been introduced. A kerbside collection of recyclables has also been introduced.

In the period of the last Plan many extra litterbins have been provided in the town. This has been done directly by the Town Council and also by the Tidy Towns' Committee. Bins are collected once a day throughout the year. The main streets are swept every week-day. In Summer '*paper picking*' is carried out 7 days a week (including the beach)

Cork County Council Development Plan 2003

Waste Management Plan

It is an objective to implement the provisions of the Cork County Council's approved Waste Management Plan and in particular, to promote the development of facilities for the prevention, minimisation, re-use/recycling or disposal with energy recovery of waste material.

Youghal Town Council Development Plan 2009

Waste Management Objectives

Strategic Objective:

- It shall be an objective to develop strategies for the various categories of waste, which include categories of consumer waste, which include categories of consumer waste and categories of enterprise waste and to integrate these strategies into the forward plan making process. Such strategies would address: Bring sites for consumers, collection procedures, Aggregation and large scale reprocessing sites for various types of waste.
- It shall be an objective of the Plan to work with the County Council so that landuse areas for these activities are identified and zoned. It is particularly important that land is zoned in a manner that treats public and commercial waste collection, sorting, transshipment and recycling as legitimate regulated industries, no different from other regulated industries such as the pharmaceutical industry and which need to have land appropriately zoned for the purpose. It shall be an objective to support the County Council in identifying and zoning sufficient lands for these purposes.
- It shall be an objective of the Plan to use the Waste Management Plan for Cork County Council to achieve rates of waste reduction, re-use and recycling. Bring sites shall be provided at suitable locations throughout developments.
- It shall be an objective of the Plan to work with Cork County Council to integrate the provision of space for the recycling process. (e.g. bottle banks, civic amenity sites, private waste transit sites, etc.).
- It shall be an objective of the Plan to work with the County Council in allocating land use for the above sustainable uses. It shall be an objective to examine the feasibility of locating the collection, sorting and transshipment uses, properly regulated, can be located in existing, proposed or specially designated industrial estates. It shall be an objective of the Plan to work with the County Council in zoning and regulating land use for these functions.

4.8.7 Electricity Supply

There are two 38 K.V. stations supplying the town and environs. One is located on the Seafield Road on the West of the town and the other at Kilnatoora, 2½ miles outside the town on the West.

Total capacity is 10 M.W. and there is approx. 3 M.W. spare capacity at present. Electrical Supply is adequate to serve all foreseeable needs in the town.

Youghal Town Development Plan

Alternative renewable energy resources will be promoted in an effort to achieve the Government target of 7% renewable energy production by 2005. It shall be an objective to facilitate this provision by segregated cycle and pedestrian facilities on all roads and streets in the town and to enhance the priority and safety and convenience of pedestrians and cyclists. The Town Council will endeavour to promote renewable energy use in all its developments where this is feasible.

It shall be an objective to encourage An Bord Gais in the provision of a gas supply for the town.

4.9 CULTURAL HERITAGE

4.9.1 Baseline Environment

This section of the report was prepared by Daniel Noonan Archaeological Consultancy and outlines the baseline conditions pertaining to the Cultural Heritage resource legislated for in the Youghal Draft Development Plan 2009-2015. For the purposes of preparing this section, DNAC has reviewed:

- (a) The archaeological and historical context of the plan area;
- (b) The framework for the protection of cultural heritage pertaining to the Youghal Town Draft Development Plan 2009-2015;
- (c) The baseline conditions for Cultural Heritage of the Youghal Town Draft Development Plan 2009-2015;
- (d) A brief outline of the likely significant impacts on the cultural heritage resource with respect to the baseline conditions; and the constraints inherent with the conditions.
- (e) A general outline of recommended mitigation measures for any likely significant impacts.

Archaeological & Historical Context

The jurisdiction of the Youghal Town Draft Development Plan 2009-2015 encompasses the historic medieval core of Youghal town, and its suburban development. Beyond the town to the northwest and southeast several different historical and archaeological landscapes are also represented by numerous monuments dating from the Prehistoric Period onwards.

Prehistoric Period

The earliest substantial signs of human activity in the Youghal area appear to date from the Bronze Age period (c. 2000BC – 500BC). Archaeological excavations as part of the construction the N25 Youghal Bypass in 2001 uncovered significant evidence for Bronze Age occupation. Three *fulachta fiadh*, ancient cooking places, were uncovered along the route. These monuments can survive as low mounds, often horseshoe-shaped, of charcoal-enriched soil packed with fragments of heat-shattered stones (termed 'burnt material'); when leveled they are often noticeable as black spreads in ploughed fields. They are usually situated close to a water source, such as a stream or spring, or in wet marshy areas. An area of intensive settlement was found at the west of the scheme in the townland of Ballyvergan West and consisted of a succession of clustered structures. All of these sites were fully excavated.

There are currently no known monuments of potential Bronze Age sites within the SEA area. It should be noted that this paucity of Bronze Age, or earlier, artifacts does not preclude the possibility of such material from being encountered during the course of development works for the plan area. *Fulachta fiadh* are the most numerous monument types in Ireland and are often only discovered during the course of groundworks.

Early medieval period (AD 500 – 1169)

The N25 works also uncovered a significant early medieval presence around the outskirts of the town. A substantial double enclosure farmstead containing houses, corn drying kilns and other domestic features was uncovered in the townland of Ballynacarriga, on the Quarry Road. Historically, the town

may have been the site of a Viking/Hiberno-Norse longphort in the mid-9th century. While, once again, there are no other known early medieval sites or find sites within the jurisdiction of the Youghal Town Draft Development Plan 2009-2015, it does not rule out such material being discovered in the future.

Late medieval period (AD 1169 – 1600)

The arrival and conquest of large parts of Ireland by the Anglo-Normans (or more correctly Cambro-Normans) in the late-twelfth century marks a watershed in the political history of Ireland. Archaeologically, Youghal is an Anglo-Norman foundation; the earliest upstanding remains are from the late 12th into the early 13th Centuries. For any prospective settler the site offered good defensive, commercial and logistical characteristics. Youghal developed initially under the patronage and lordship of the Earls of Desmond. The town acquired the many vestiges of a medieval town, both secular and ecclesiastical, including a market place, developed streetscape and property layouts and a large parish church; all were located within the defensively walled area. Outside the town wall two houses of mendicant friars were established to the north (Dominican) and south (Franciscan) of the town.

Post-medieval period (AD 1600 - Present)

The post-medieval period saw more growth and development of the town of Youghal. The medieval development of the town was largely confined to the large walled area, with a small suburb that formed along the road south from the walled Base Town to the Franciscan Friary. This constriction to within the walls largely remained until the start of the 18th Century when development began in earnest outside the walls, with eastward expansion of the quays into the river. By the start of the 19th century further linear development from the north and south of the town, along the estuary and the coastline, had started. The establishment of a railway network during the 1860s was to play an important role in the growth in the importance of tourism in the area, particularly along the present road west out of the town to Cork, which was opened in 1810.

Framework for the Protection of Cultural Heritage

The Youghal Town Development Plan of 2002 lists a total of 89 *Protected Structures*, constituting a Record of Protected Structures (RPS), within its jurisdiction. This list contains a variety of buildings or sites of architectural or historical significance located throughout both the Historic Core and the general environs of the plan area. Several buildings are entered in both in the RMP and the RPS.

An *Architectural Conservation Area* was also established in the previous plan and covers the North and South Main Streets, west side of Ashe Street and the western side of Lighthouse Road to South Abbey. The instruments of the Conservation Area relate to the external appearance of all the buildings in this area and do not extend to the interiors.

The Youghal Town Draft Development Plan 2009-2015 legislates for a total of 50 *Recorded Monuments* of archaeological and architectural significance dispersed throughout its area; these are given statutory protection under the National Monuments (Amendment) Act 1994 by their inclusion in the Record of Monuments and Places (RMP) for County Cork 1997. The majority are within the Historic Core of the town.

There are no active Preservation Orders for any Monuments within the plan area.

(a) National Monuments - Archaeological Sites and Monuments in State Ownership

There are **twelve** archaeological sites and monuments in State or Local Authority Ownership located within the plan area.

Table 10: Archaeological Sites and Monuments

Monument Number	Sh/PI/Tr	National Grid	Townland	Classification
CO67-02902-	067-/08/4	21013/07807	Youghal-Lands	Town wall
CO67-02906-	067-/08/4	21013/07823	Youghal-Lands	College
CO67-02907-	067-/08/5	21023/07834	Youghal-Lands	Alms house
CO67-02911-	067-/12/2	21051/07798	Youghal-Lands	Town gate
CO67-02912-	067-/12/2	21055/07798	Youghal-Lands	Water gate
CO67-02914-	067-/12/2	21055/07801	Youghal-Lands	Court house
CO67-03001-	067-/08/4	20996/07850	Youghal-Lands	Graveyard
CO67-03002-	067-/08/4	20996/07850	Youghal-Lands	Friary
CO67-031---	067-/08/4	20991/07870	Youghal-Lands	Gasworks
CO67-040---	067-/12/4	20970/07659	Summerfield	Milestone
CO67-045---	067-/12/2	21078/07769	Youghal-Lands	Court house
CO67-068---	067-/08/5	21030/07814	Youghal-Lands	School

(b) Archaeological Sites and Monuments subject to Temporary Preservations Orders

There are **no** archaeological sites and monuments subject to Temporary Preservation Orders located within the plan area.

(c) Archaeological Sites and Monuments in State Guardianship

There are **two** archaeological sites and monuments in State Guardianship located within the plan area.

Table 10: Archaeological Sites

Monument Number	Sh/PI/Tr	National Grid	Townland	Classification
CO67-02903-	067-/08/4	21003/07823	Youghal-Lands	Church
CO67-02904-	067-/08/4	21005/07818	Youghal-Lands	Graveyard

(d) Archaeological Sites and monuments subject to Registration

There are **no** archaeological sites and monuments subject to Registration located within the plan area.

(e) Recorded Monuments - Archaeological Sites (RMPs)

There are **fifty** recorded RMP sites located within the plan area:

Table 11: Recorded monuments

Monument Number	Sh/PI/Tr	National Grid	Townland	Classification
CO67-008---	067-/03/6	20862/07978	Muckridge Demesne	Country house
CO67-01101-	067-/07/2	20835/07949	Muckridge	Pottery works
CO67-01102-	067-/07/2	20840/07947	Muckridge	Country house
CO67-012---	067-/03/6	20871/08008	Muckridge	Brick works
CO67-023---	067-/11/6	20900/07687	Knocknacally	Holy well
CO67-02401-	067-/16/1	20962/07631	Dysart	Icehouse
CO67-02402-	067-/16/1	20963/07639	Dysart	Country house
CO67-025---	067-/12/4	20967/07714	Seafield	Potential site-cartographic
CO67-026---	067-/12/1	20987/07745	Youghal-Lands	Friend's burial ground
CO67-027---	067-/12/5	21080/07699	Knockaverry	Nunnery
CO67-02801-	067-/12/2	21074/07759	Youghal-Lands	Friary
CO67-02802-	067-/12/2	21081/07760	Youghal-Lands	Architectural Fragment
CO67-02901-	067-/08/5	21032/07825	Youghal-Lands	Historic town
CO67-02902-	067-/08/4	21013/07807	Youghal-Lands	Town wall
CO67-02903-	067-/08/4	21003/07823	Youghal-Lands	Church
CO67-02904-	067-/08/4	21005/07818	Youghal-Lands	Graveyard
CO67-02905-	067-/08/4	21007/07829	Youghal-Lands	Town house
CO67-02906-	067-/08/4	21013/07823	Youghal-Lands	College

CO67-02907-	067-/08/5	21023/07834	Youghal-Lands	Alms house
CO67-02908-	067-/08/5	21025/07835	Youghal-Lands	Urban tower house
CO67-02909-	067-/08/5	21027/07830	Youghal-Lands	Town house
CO67-02910-	067-/08/5	21036/07817	Youghal-Lands	Abbey
CO67-02911-	067-/12/2	21051/07798	Youghal-Lands	Town gate
CO67-02912-	067-/12/2	21055/07798	Youghal-Lands	Water gate
CO67-02913-	067-/12/2	21059/07802	Youghal-Lands	Mansion house
CO67-02914-	067-/12/2	21055/07801	Youghal-Lands	Court house
CO67-02915-	067-/08/4	21004/07824	Youghal-Lands	Urban tower house
CO67-03001-	067-/08/4	20996/07850	Youghal-Lands	Graveyard
CO67-03002-	067-/08/4	20996/07850	Youghal-Lands	Friary
CO67-031---	067-/08/4	20991/07870	Youghal-Lands	Gasworks
CO67-037---	067-/07/3	20927/07916	Greencloyne	One-storey vernacular house
CO67-038---	067-/08/4	20958/07878	Youghal-Lands	Country house
CO67-039---	067-/12/4	20953/04103	Ballyclamasy	One-storey vernacular house
CO67-040---	067-/12/4	20970/07659	Summerfield	Milestone
CO67-045---	067-/12/2	21078/07769	Youghal-Lands	Court house
CO67-046---	067-/08/5	21036/07791	Youghal-Lands	Meeting house
CO67-047---	067-/12/2	21041/07785	Youghal-Lands	Town house
CO67-048---	067-/12/2	21041/07785	Youghal-Lands	Town house
CO67-049---	067-/12/4	20978/07682	Seafield	Holy well
CO67-058---	067-/12/2	21064/07786	Youghal-Lands	Miscellaneous

CO67-060---	067-/11/3	20908/07737	Glanaradotia	Country house
CO67-061---	067-/08/4	21002/07838	Youghal-Lands	Church
CO67-062---	067-/08/5	21036/07811	Youghal-Lands	Market house
CO67-063---	067-/08/5	21042/07803	Youghal-Lands	Market cross
CO67-064---	067-/08/5	21043/07795	Youghal-Lands	Urban tower house
CO67-065---	067-/12/2	21070/07741	Youghal-Lands	Mill
CO67-066---	067-/12/5	21091/07670	Knockaverry	Lighthouse
CO67-067---	067-/12/2	31063/07782	Youghal-Lands	Market house
CO67-068---	067-/08/5	21030/07814	Youghal-Lands	School
CO67-069---	067-/08/5	21036/07790	Youghal-Lands	Burial ground

(f) Archaeological Potential of the Plan Area

Given the presence of substantial archaeological remains from many periods of the past within the development area; particularly the historic town of Youghal and the results of the various findings during previous excavations, such as the N25 Youghal Bypass works (which demonstrated the potential for previously unknown sites to be uncovered close to or within the plan area), it is deemed that the plan area is of **high** archaeological potential.

Recorded Architectural Heritage

(a) Architectural Conservation Areas (Youghal Town Council)

There are **two** Architectural Conservation Areas as listed in the Youghal Development Plan 2003 within the plan area. These are the North and South Main Streets and the west side of Ashe Street.

(b) Record of Protected Structures (Youghal Town Council)

There are **89** Structures as listed in the Youghal Town Development Plan 2003 Record of Protected Structures located within the plan area.

(c) National Inventory of Architectural Heritage - Recorded Structures

There are **no** Structures as yet listed in the National Inventory of Architectural Heritage for Youghal.

4.9.2 Existing Policies/Objectives

Cork County Development Plan 2003

- **ENV 4 – 1: Sites, Features and Objects of Archaeological Interest:**
 - a) It is an objective to safeguard sites, features and objects of archaeological interest generally.
 - b) It is an objective to safeguard the archaeological value of the sites (and their setting) listed in the Record of Monuments and Places. In assessing proposals for development the Council will have regard to the recommendations of Dúchas the National Heritage Service.
- **ENV 4 – 2: Newly Discovered Archaeological Sites:** It is an objective to protect and preserve archaeological sites discovered since the publication of the Record of Monuments and Places.
- **ENV 4 – 3: Zones of Archaeological Protection:** It is an objective to protect the Zones of Archaeological Potential located within urban areas identified in the Record of Monuments and Places.
- **ENV 4 – 4: Archaeology and Infrastructure Schemes:** The Council will have regard to archaeological concerns when considering proposed service schemes (including electricity, sewerage, telecommunications, water supply) and proposed roadworks (both realignments and new roads) located in close proximity to Recorded Monuments and Places and the Zones of Archaeological Potential.
- **ENV 4 – 5: Underwater Archaeology:** It is an objective to protect and preserve the archaeological value of underwater archaeological sites. In assessing proposals for development the Council will take account of the rivers, lakes, intertidal and sub tidal environments.
- **ENV 4 – 6: Raising Archaeological Awareness:** It is an objective to raise awareness and improve practice in relation to archaeology in County Cork. Guidance material will be produced setting out the requirements for archaeological protection in County Cork.
- **ENV 5 – 1: General Protection of Structures:**
 - a) It is an objective to seek the protection of all structures within the county which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.
 - b) In accordance with this objective, a Record of Protected Structures has been established and is set out in Volume 2 of this Plan.
- **ENV 5 – 2: Record of Protected Structures:** It is a particular objective to ensure the Protection of all structures (or parts of structures) contained in the Record of Protected Structures.
- **ENV 5 – 3: Developing a Comprehensive Record:**
 - a) It is an objective, during the lifetime of this plan, to extend the Record of Protected Structures in order to provide a comprehensive schedule for the protection of structures of special importance in the county.
 - b) The identification of structures for inclusion in the Record will be based on criteria set out in the Draft Guidelines for Planning Authorities on Architectural Heritage Protection published by the Government (2001).
- **ENV 5 – 4: Protection of Non-Structural Elements of Built Heritage:** It is an objective to protect important non-structural elements of the built heritage. These elements include historic gardens, stone walls, landscapes and demesnes, curtilage features and street furniture. The Council will promote awareness and best practice in relation to these elements.
- **ENV 5 – 5: Architectural Conservation Areas:** It is an objective to conserve and enhance the special character of the Architectural Conservation Areas included in this plan. These

Architectural conservation Areas are shown on the Architectural Conservation Area Maps in Volume 4 and are also listed in Volume 2 of this Plan. The special character of an area includes its traditional building stock and material finishes, spaces, streetscape, landscape and setting.

Youghal Town Development Plan

Strategic Objectives:

It shall be an objective of the Plan:

- To encourage private enterprise to engage in the rehabilitation of property.
- To redefine street lines where these have been destroyed.
- To protect street frontages by ensuring that building materials, texture, tones, scale and proportion of new buildings or renovations are sympathetic to those of the existing.
- To outline proposals for buildings of architectural merit and to put forward proposals for the revitalisation of these units for the future.

Strategic Objective: Evolution, Recycling and Renewal of Buildings, Functions and Uses: it shall be an objective to treat structures contained in the record of protected structures as living, evolving structures with a modern day function and to assist property owners to adapt and recycle such buildings using appropriate conservation techniques to enable the buildings to perform a useful modern function while conserving the essential elements of their heritage value.

Development Control Objectives:

It shall be an objective of the Plan:

- To acquire derelict sites for infilling and disposing of same with development conditions attached.
- To ensure that new buildings will respect the street lines and existing building heights.
- To ensure that new materials will be in harmony with existing materials.
- To ensure proper design standards to shop fronts by appointment of high quality design consultants.
- To ensure appropriate colour schemes and signage coordination of shop fronts.

It shall be an objective of the Plan:

- To acquire derelict sites for infilling and disposing of same with development conditions attached.
- To ensure that new buildings will respect the street lines and existing building heights.
- To ensure that new materials will be in harmony with existing materials.

- To ensure proper design standards to shop fronts by appointment of high quality design consultants.

To ensure appropriate colour schemes and signage coordination of shop fronts.

Strategic Objectives: Archeological Heritage: It shall be an objective to protect in an appropriate manner all sites of archaeological interest within the town boundary. There may be sites of archaeological potential that are as yet unidentified and it is an objective of the plan to protect such sites if or when they are so identified.

It shall be an objective to treat the full extent of the Town Council area as an area of High Archaeological Potential and to require that applications for all medium to major developments be accompanied by an archaeological assessment.

It will be an objective of the Planning Authority to secure the protection, either in situ or as a minimum by record, of all or any archaeological remains within the town boundary including the fifty monuments recorded in the Record of Monuments and places

It shall be an objective of the Planning Authority to apply the following principles to the archaeological heritage within the town boundary area:

1. To protect and enhance archaeological remains and their settings.
2. To facilitate appropriate guidance in relation to the protection of the archaeological heritage of the area.
3. To provide guidance to developers and property owners regarding the archaeological implications of a proposed development.
4. To promote pre-planning consultations in relation to the archaeological heritage of the area.
5. To endeavour to promote the dissemination of the results of archaeological investigation in a timely and appropriate manner.
6. To promote public awareness of the rich archaeological heritage in the area.

The Planning Authority will have regard to the advice and recommendations of the Department of Environment, Heritage and Local Government in assessing applications for development that may affect archaeological sites.

Record of Protected Structures:

Development proposals for sites identified as a Protected Structure will be required to incorporate measures to protect, conserve and enhance the character and appearance of the structure(s).

Proposals for development involving alterations or additions to a protected structure or its setting will only be permitted where it can be clearly demonstrated that;

- a) Development will be compatible with and will not detract from the special character of the structure and its setting, and;

- b) Development will complement and reflect the design and character of contiguous buildings and the surrounding area and
- c) Features of architectural or historic interest and the historic form and structural integrity of the structure will be retained.

Proposals for development will not be permitted that compromise the setting of protected structure(s) or result in the material alteration or demolition of the structure(s) except where:

- a) The structure is not capable of repair and
- b) There is no compatible or viable alternative use for the structure.

Development Contribution Scheme: It shall be an objective that, where appropriate the Development Contribution Scheme shall encourage the maintenance and reuse of protected structures by making allowance for appropriate conservation works to protected structures.

Architectural Conservation Areas

It shall be an objective to preserve the character of Areas of special interest in the town including the Architectural Conservation Areas designated on the relevant maps hereunder. Proposals involving re-use, change of use, new build and extension of buildings and structures in Architectural Conservation Areas will normally only be permitted where it can be clearly demonstrated that development will:

- a) Reflect and respect the scale, massing, proportions, design and materials of existing structures and reflect the character of the area and its streetscape; and
- b) Retain important exterior architectural features that contribute to the character and appearance of the architectural conservation area; or
- c) Where it is not possible to retain the existing features, make use of traditional materials.

- It is an objective to maintain the special character of the historic core of the town.
- To seek to provide aims for future development and creative enhancement.
- To provide an integrated approach in regulating development, position of services, housing and infrastructure in an area.
- To provide control, guidance and public consultation via the Architectural Advisory Service.
- It shall be an objective of the Plan to strive to implement the main provisions of the document "Investing in Heritage 2005-2012" by John Cronin & Associates and in particular to implement the "Flagship Projects" indicated in Section 7.

4.9.3 Constraints

- There are fifty recorded RMP sites located within the plan area.

- There are Architectural Conservation Areas located within the plan area.
- There are a number of Protected Structures as in the Youghal Town Development Plan 2003.
- There are no Structures described in the National Inventory of Architectural Heritage for the plan area.
- It is deemed that the plan area is of **high** archaeological potential. This determination is based on the presence of substantial archaeological remains from many periods of the past within the development area; particularly the historic town of Youghal. It is also deemed as a result of the various findings during previous excavations, such as the N25 Youghal Bypass works, which demonstrated the potential for previously unknown sites to be uncovered close to or within the plan area.

4.10 LANDSCAPE

4.10.1 Baseline Environment

County Cork contains areas of exceptional natural beauty, which are recognised nationally. There is a need to protect views and prospects adjoining public roads throughout the County. Development should only be permitted where it will not seriously hinder or obstruct these views and should be designed and located to minimise their impact.

Landscape character is a distinct area of landscape that is relatively homogeneous in character. Each character represents its own landscape values and sensitivities. The character specified for a study area is generally a descriptive term made up of the prominent landform and land cover.

Youghal benefits from its position on the coastline of East County Cork and at the mouth of the River Blackwater.

Youghal is located on the west bank of the mouth of the River Blackwater Estuary, with the town itself steeply sloping from the high point to the west at 80.0m OD to 0.0m OD at the River. To the north of the town the lands flatten out in the vicinity of the site Youghal Mudlands and the River Tourig River before rising sharply again at the Blackwater / Tourig confluence with Rincrew at 80.0m OD and to the East of the Blackwater in County Waterford at 100.0m OD. Lands to the West of the Town in the area of the Cork Road also rise gently to the north at Knocknacally from 10.0m to 60.0m OD and flatten out to the south towards the sea at the Ballyvergan Marshes which are a significant feature before reaching the long beaches stretching for several kilometres from Redbarn to Moll Goggins Corner.

The areas at the harbour mouth at Monatray and East Point in County Waterford are steeply sloping and very visible from the Town of Youghal rising to a level of 80.0m OD.

The land cover within Youghal comprises:

- River Blackwater to the north east of the town.
- Youghal Harbour to the south east of the town.
- Youghal Strand in the south east of the study area.
- Residential developments throughout the study area.
- Retail and commercial uses in the town centre.
- Industry/Enterprise areas to the north and west of the town centre.
- Playing pitches.
- Tourism related development.
- Educational/Institutional/Civic uses.
- Ballyvergan Marsh close to the southern site boundary.
- The N25 runs to the west of the town.
- Eight nine protected structures.

- Fifty Recorded Monuments.
- Architectural Conservation Area.

The steep slopes to the east of the town centre and to the north contribute significantly to the town's setting. Much of the recent development has taken place on top of the hills.

There are three distinct areas in the town council area: the town centre or main street, Dock area and Strand Area. The town centre is a long winding main street and most of the buildings on the street are three stories. Between the Main Street and the sea is the Dock area. Since the reduction of port traffic many buildings are under utilised in this area. The Strand Area is separated from the town centre and this area contains three storey Victorian villas, Pitch n Putt course, swimming pool and caravan park.

There are a number of conservation areas near Youghal. The Blackwater Estuary is a Special Protection Area (ref: 0004028). The Blackwater River is a Special Area of Conservation (ref: 002170). The Blackwater River and Estuary is also a National Heritage Area (ref: 000072). Ballyvergan Marsh to the south of the development boundary is a National Heritage Area (ref: 000078).

There is a scenic route A47 runs into the south of the study area.

4.10.2 Existing Policies Objectives

Cork County Development Plan 2003

- **ENV 3 – 1: Landscape Character Assessment:**
 - (a) It is an objective to promote a better understanding of the landscape character of different parts of the county and the degree of sensitivity that such areas have to various kinds of development.
 - (b) It is an objective to continue the procedure for landscape character assessment, in line with the Draft Guidelines issued by the Department of the Environment and Local Government, for inclusion in Local Area Plans.
- **ENV 3 – 2: General Visual and Scenic Amenity:** It is a general objective to protect the visual and scenic amenities of County Cork's built and natural environment.
- **ENV 3 – 3: Scenic Landscape:** It is a particular objective to preserve the visual and scenic amenities of those areas of natural beauty identified as 'scenic landscape' and shown in the scenic amenity maps in Volume 4 of this plan.
- **ENV 3 – 4: General Views and Prospects:** It is a general objective to preserve the character of all important views and prospects, particularly sea views, river or lake views, views of unspoilt mountain, upland or coastal landscapes, views of historical or cultural significance (including buildings and townscapes) and views of natural beauty.
- **ENV 3 – 5: Scenic Routes:** It is a particular objective to preserve the character of those views and prospects obtainable from scenic routes identified in this plan. These routes are shown on the scenic amenity maps in Volume 4 and listed in Volume 2 of this plan.

- **ENV 3 – 6: Details of Scenic Routes:** It is an objective to examine in some detail those scenic routes identified in this plan with a view to setting out, in Local Area Plans, the specific requirements of different stretches of the route in terms of *sensitivity to development and the preservation of the character of views and prospects*.

Youghal Town Development Plan:

- **Strategic Objectives:** It shall be an objective, subject to safety considerations to preserve specimen trees in the town council area and environs and examining the possibility of conserving the visually and/or ecologically important ones by means of Tree Preservation Order.
- **Development Control Objectives:** Protected Features of Landscape and Natural Heritage importance: It shall be an objective to preserve the scenic and amenity features of the shoreline around the town and other scenic landscapes and vistas in the town.

The scenic views from Golf Links Road shall be preserved

- **Strategic Objective: Trees in Youghal:** It shall be an objective, subject to safety considerations to preserve specimen trees in the town council area and environs and examining the possibility of conserving the visually and/or ecologically important ones by means of Tree Preservation Order.

Sport, Recreation And Amenity:

- It shall be an objective of the plan to implement where possible standards and guidelines of the CSR (1998) Recreational Needs report.
- It shall be an objective to enhance the provision of land area and floor space for appropriate and leisure facilities for a growing population.
- It shall be an objective to provide and enhance the hard and soft landscaping of the public areas of the town including those in the suburbs.

4.10.3 Constraints

- Development should not impact negatively on the scenic route A47 in the south of the study area.
- Further development should not occur on the steep, exposed slopes surrounding the town centre and to the north as these contribute significantly to the town's setting.

5 ASSESSMENT OF ALTERNATIVES

Article 5 of the SEA Directive requires the environmental report to consider "*reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme*" and the significant effects of the alternatives selected. Alternatives must be realistic and capable of implementation and should present a range of different approaches within the statutory and operational requirements of the Town Plan.

Section 3.14 of the DoEHLG Guidelines notes that the higher the level of the plan, the more strategic are the options which are likely to be available. As a result, the strategic options available to the preparation of the Draft Youghal Town Development Plan are limited.

It is a mandatory objective of a Development Plan that sufficient lands area zoned for particular purposes. The main aim of the Plan is to provide a planning framework for the town so that Youghal and its people can develop their potential within a sustainable context. It identifies the natural and man-made assets of the town and its amenities, while addressing the physical requirements of future growth. The aim is to secure a balance between employment, housing, services and amenities; thus enabling a basis for a stable well-integrated community.

Three alternative options were considered for assessment as part of the SEA process:-

- **Option 1-The “do-nothing” option;**
- **Option 2- Intensification of existing Town Centre**
- **Option 3- Extend new development zonings on Greenfield lands**

Impact	Negative	Neutral	Positive	Uncertain
Symbol	X	0	√	?

Option 1- The “do-nothing” Option

Under the “do nothing” option, the Area would maintain its current physical and socio-economic characteristics. Development would be market dependent and would most likely occur at a slower pace and in an uncoordinated manner.

Adopting the “do nothing” scenario would mean that parts of the area would remain derelict and under utilised with little physical, social or economic enhancement.

Implementation of Option 1 would not achieve the principle aim of the Youghal Town Development Plan, which is the promotion of a balanced and sustainable development that takes account of the values and concerns of all stakeholders in the town.

Option 1		
Environmental Issue	Score	Commentary
Biodiversity	X	May result in pressures to the River Blackwater and Estuary which is a designated Special Protection Area.
Population and Human Health	X	Under this scenario there would be a continuing reliance on private transport as development would be of an unplanned nature which would result in greater exposure to noise and air pollution.
Flora, Fauna	X	Unformulated development within the area will result in loss of hedgerows, potential siting of development in more sensitive areas rather than avoiding them, impacts to the river corridor.
Water		Continued negative impacts to the River Blackwater caused by the existing waste water treatment system. In addition development near river valleys and the possibility of pollution could affect recreational fishing opportunities with a slight negative impact on water quality.
Soil	0	Uncontrolled development within the area could potentially result in the loss of fertile soils or Greenfield sites.
Air & Climate	X	Under this scenario there would be a greater reliance on the private car rather than cycleways and pedestrian links resulting in increased CO ₂ emissions and negative impacts to air quality and climate
Material Assets	X	There would be continued poor access to Youghal Town Centre and public facilities under this scenario. It would result in the continued unsustainable development of one-off and ribbon housing along minor roads
Cultural Heritage (including architecture and archaeological heritage)	0	Without the designated architectural conservation area (ACA) and record of protected structures, there may be a loss of architectural and archaeological heritage.
Landscape	X	Unformulated development in this area may result in impacts on the views and landscape features of this area.

Option 2- Intensification of Existing Town Centre

This scenario allows for increased intensification within the centre of the town, through increased housing densities including higher-level apartment blocks, commercial developments and consolidation and expansion of existing services. This scenario would meet a large number of the objectives of the Youghal Town Development Plan, as it would allow the regeneration of the town centre by way of improving the town's architectural character and townscape and consequently its tourist industry by way of the removal of old industrial uses. It would also be likely to have a positive impact on existing residents and traders in the town centre area. This was therefore the chosen option for the proposed growth of the Youghal Town Development Plan.

Furthermore, Youghal and its environs is a fast growing town in Cork. Given the subsequent need for housing and other services to accommodate this growth this option proposes to provide a sustainable and feasible solution. This option is likely to result in reduced congestion due to better planning of space, the use of public transport and the creation of new open spaces, reduction in the number of heavy goods vehicles impacting on traffic and subsequently improving the quality of life within the Town. It would also have a very positive impact on the town's tourist industry.

This would support all of the overall objectives of the Youghal Town Development Plan. Where it is an objective to promote balanced and sustainable development that takes account of the values and concerns of all stakeholders in the town and secures a balance between employment, housing, services and amenities; thus enabling a basis for a stable well-integrated community.

Option 2		
Environmental Issue	Score	Commentary
Biodiversity	√	Further intensification of the Town centre would have a neutral effect on biodiversity as it would reduce impacts to greenfield areas and wildlife corridors outside the town, as well as any protected areas. It would also result in improved water quality due to the introduction of a waste water treatment plant in the town.
Population and Human Health	√	Current trends within the town include problems associated with traffic congestion, and lack of public transport facilities and walking and cycling provision, all of which would be improved with the implementation of this option. The intensification of the town centre could result in an improvement on the town's economic viability and tourist potential.
Flora, Fauna	0	Further expansion of Youghal Town centre would have a neutral effect on flora and fauna as it would reduce impacts to greenfield areas and wildlife corridors outside the town, as well as any protected areas.
Water	X	This option would place greater pressures on water supply through the existing network especially in summer months.
Soil	√	This scenario would involve uptake of land the majority of which is made ground and therefore impacts will be minimal.
Air and Climate	√	Intensification could have a positive impact in the air quality in terms of reducing the need for travel by locating new development in existing build up areas. Proposals such as a new inner relief, pedestrian and cycle paths offer the potential for improved quality of the air for pedestrians be they residents or visitors.
Material Assets	√	This option would result in improved public transport, cycleways and footpaths thus reducing the number of private vehicles and thus improving quality of air and environment. Further development in the town centre would help to improve through reinstatement and regeneration of dilapidated areas.
Cultural Heritage (including architecture and archaeological heritage)	√	This scenario would continue to concentrate development within the existing town centre allowing improvements to architectural heritage and the streetscape quality. This would improve the quality of the architectural resource in urban areas. There would be a knock on positive impact on the town's tourism resource.
Landscape	0	This option would lead to the development of a more compact urban structure and reduce the need for the development of greenfield areas on the edge of town. Further intensification of the town centre would allow for the reuse of brownfield sites and improvement of overall landscape quality of the area. However it could also impact the provision of high quality open spaces and civic areas within the town centre.

Option 3- Extend new development zonings on Greenfield Lands

This option would involve zoning sites for commercial, retail, industrial and residential etc. outside of the town centre to the north, west or south of the town. This type of dispersed development would result in the loss of the Greenbelt designated by Cork County Council and also the loss of agricultural lands. This rezoning of lands outside the town centre would result in sprawl and there would be a lack of distinction between the built up area and the open countryside.

Developments within the zoned lands outside the town centre would then need to be serviced by individual septic tanks and there would be a reliance on private transport into Youghal town.

Option 3		
Environmental issue	Score	Commentary
Biodiversity	0	Development of greenfield land could potentially have a negative impact on biodiversity. There are a variety of habitats within the Greenfield lands including mature trees, wet grassland/boggy ground, hedgerows and woodlands. However, provided sensitive areas are protected impacts would be limited.
Population and Human Health	X	This option would result in a reliance on private transport, therefore, increasing CO2 emissions and decreasing air quality generally.
Flora, Fauna	0	Development of greenfield lands could potentially have a negative impact on flora and fauna. The hedgerows, mature trees and wet grassland provides suitable habitats for wildlife.
Water	X	Development of the area along the River Blackwater is likely to have negative impacts to the river. The possibility of pollution could affect recreational fishing opportunities with a slight negative impact on water quality.
Soil	X	This option would result in a loss of agricultural soils.
Air & Climate	X	The reliance on public transport would have a negative impact on air and climate.
Material Assets	0	This proposal would improve services within the Youghal area. However, the public transport options would not be possible and the plans that are proposed for intensification of the existing town centre are more sustainable.
Cultural Heritage (including architecture and archaeological heritage)	0	It is likely that given the overall high archaeological potential of the area due to excavations and documentary evidence that sub-surface remains may be encountered and impacted on. However, if mitigation measures are adhered to effect of the proposals outlined in the plan will have limited impact.
Landscape	X	This scenario would result in the development of undisturbed lands with a negative effect on open landscapes.

6 SUSTAINABILITY CRITERIA

The sustainability criteria are broadly categorised in terms of the indicators outlined in the SEA Directive. In the course of carrying out the appraisal, the sustainability criteria were refined, combined and classified in order to avoid duplication and ensure a clear, focused set of criteria against which to measure the proposed Plan.

Human health is not dealt with under a separate category but arises under a variety of categories below, e.g., population, air and water.

Biodiversity

- B1 Conserve the diversity of habitats and species
- B2 Safeguard designated areas/ areas of nature conservation (i.e. Blackwater Estuary SAC) while increasing potential for wildlife/flora and fauna, where appropriate.

Population

- P1 Improve people's quality of life based on high quality residential, working and recreational environments and on sustainable travel patterns
- P2 Minimise noise, vibration and emissions from traffic
- P3 Promote the strengthening and diversification of the economy

Soil

- S1 Minimise the amount of waste to landfill
- S2 Maintain the quality of the soils

Water

- W1 Maintain and where possible, improve the quality of water resources and reduce all forms of contamination to meet ecological, biological and chemical standards
- W2- Protect designated waters i.e. Blackwater Estuary
- W3- Promote sustainable use of water resources

Air/climatic factors

- C1 Maintain/promote improvement to air quality
- C2 Minimise emissions of greenhouse gases and avoid other human induced effects
- C3 Promote sustainable energy use/generation
- C4 Promote public transport and attraction of walking/cycling

Material Assets

- M1 Maintain and improve the accessibility of key services to local communities

Cultural Heritage

- H1 Safeguard Protected Structures and sites of archaeological value
- H2 Enhance townscape and general landscape/environmental quality
- H3 Promote and protect cultural diversity (art, architecture, sport etc)

Landscape

- L1 Conserve and enhance valued natural landscape feature
- L2 Ensure adequate provision of open space/maintain and improve access to open space

As part of the methodology a matrix was used to assess the sustainability criteria against the key strategic policies and objectives of the Youghal Town Development Plan as they will govern any future planning applications in the area, this does not include development control objectives as it is considered that these are not strategic in nature. Not all policies and objectives of the Plan were assessed as many of the policies and objectives overlap, however all 'key' policies and objectives that would be likely to impact on the environment have been assessed.

This process enables an overview of where potential environmental problems may arise from implementation of the Plan and allows for additional or amendments to objectives to be generated. Overall the proposed Plan will not have a negative impact on the environment. Where potential impacts occur/constraints occur mitigation measures will be put in place and monitoring during and post construction will ensure there is no deterioration in environmental quality.

	B1	B2	P1	P2	P3	1	S2	W1	W2	W3	C1	C2	C3	C4	M1	H1	H2	H3	L1	L2	Summary of Monitoring/Mitigation	Comments
Environment																						
Protected Features of Landscape and Natural Heritage importance: It shall be an objective to preserve the scenic and amenity features of the shoreline around the town and other scenic landscapes and vistas in the town.	√	√	√	√	O	√	√	√	√	√	√	√	√	√	O	√	√	O	√	√	Ensure provision of adequate water resources and adequate waste water treatment	The environmental objectives are compatible with sustainability in general with the exception of the economic development in the area, which is hard to achieve.
Landscape																						
Protection of aquatic habitat: The Council has identified the harbour area within the jurisdiction of the Town Council as a riverine habitat and amenity resource. Applicants will be required to consult with environmental bodies including the South Western Regional Fisheries Board, in accordance with the Planning and Development Regulations, 2001.	√	√	√	O	O	√	√	√	√	√	√	√	√	√	O	O	√	O	√	O	Liaison with fisheries board, EPA and NPWS	
Sport, Recreation and Amenity																						
It shall be an objective of the plan to implement where possible standards and guidelines of the CSR (1998) Recreational Needs report.	√	√	√	√	O	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Management of public space	The Recreation and Amenity objectives are compatible with sustainability in general.
It shall be an objective to enhance the provision of land area and floor space for appropriate and leisure facilities for a growing population.	√	√	√	√	O	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Funding for Sports Development Liaison with sports Council	
It shall be an objective to provide and enhance the hard and soft landscaping of the public areas of the town including those in the suburbs.	√	√	√	√	O	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Management of public space	

	B1	B2	P1	P2	P3	1	S2	W1	W2	W3	C1	C2	C3	C4	M1	H1	H2	H3	L1	L2	Summary of Monitoring/Mitigation	Comments
Architectural Heritage, Conservation and Archaeology																						
It shall be an objective to treat structures contained in the Record of Protected Structures as living, evolving structures with a modern day function and to assist property owners to adapt and recycle such buildings using appropriate conservation techniques to enable the buildings to perform a useful modern function while conserving the essential elements of their heritage value.	O	O	√	√	O	O	O	O	O	√	√	√	√	√	√	√	√	√	√	O	On going liaison with the Department of the Environment	Generally compatible with sustainability criteria. The majority of criteria are neutral and any impacts are positive
The archaeological heritage of an area may include structures, constructions, groups of buildings, developed sites, all recorded monuments as well as their contexts, and moveable objects, situated both on land and under water. It shall be an objective to protect in an appropriate manner all sites of archaeological interest within the town boundary. There may be sites of archaeological potential that are as yet unidentified and it is an objective of the Plan to protect such sites if or when they are so identified.	O	O	O	√	O	O	√	√	√	√	√	√	O	√	O	√	√	√	√	O	Ensure archaeological issues are dealt with in planning process i.e. site investigation stage. On going liaison with the Department of the Environment and Duchas	
It shall be an objective to treat the full extent of the Town Council area as an area of High Archaeological Potential and to require that applications for all major developments be accompanied by an archaeological assessment.	O	O	√	O	O	√	√	√	O	O	√	√	√	√	O	√	√	√	O	O		

	B1	B2	P1	P2	P3	1	S2	W1	W2	W3	C1	C2	C3	C4	M1	H1	H2	H3	L1	L2	Summary of Monitoring/Mitigation	Comments
<p>It shall be an objective to preserve the character of Areas of special interest in the town including the Architectural Conservation Areas designated on the relevant maps. Proposals involving re-use, change of use, new build and extension of buildings and structures in Architectural Conservation Areas will normally only be permitted where it can be clearly demonstrated that development will:</p> <p>a) Reflect and respect the scale, massing, proportions, design and materials of existing structures and reflect the character of the area and its streetscape; and</p> <p>b) Retain important exterior architectural features that contribute to the character and appearance of the architectural conservation area; or</p> <p>c) Where it is not possible to retain the existing features, make use of traditional materials.</p>	0	0	√	0	0	√	√	√	0	0	√	√	√	√	0	√	√	√	0	0		
Development proposals for sites identified as a Protected Structure will be required to incorporate measures to protect, conserve and enhance the character and appearance of the structure(s).	0	0	√	√	√	0	0	√	0	0	√	√	√	√	0	√	√	√	√	√		

	B1	B2	P1	P2	P3	1	S2	W1	W2	W3	C1	C2	C3	C4	M1	H1	H2	H3	L1	L2	Summary of Monitoring/Mitigation	Comments
It is an objective to seek the identification and protection of all structures within the town that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. Such structures include but are not exclusive to the Record of Protected Structures	O	O	√	√	√	O	O	√	O	O	√	√	√	√	O	√	√	√	√	√		
Tourism																						
It shall be an objective of the Plan to take adequate account of and foster the Towns growing tourism industry.	?	?	√	O	√	O	O	O	O	O	O	O	O	√	√	√	√	√	√	√		Tourism can have negative impacts on the environment therefore care is needed to ensure that promotion of tourism is carried out in a sustainable manner, as the potential for negative environmental impacts are greater in this instance.
It shall be an objective to complete the implementation of the main elements of the Youghal Tourism Development Plan 1989	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√		
Community Facilities																						
It will be an objective that the Town Council will encourage the promotion of Cultural events and festivals in the town and to promote a sense of multiculturalism and pluralism. It shall also be an objective to support the provision of cultural centres in the town.	O	O	√	O	√	O	O	O	O	O	O	O	O	O	√	O	O	√	O	O		The Community objectives generally are neutral in relation to sustainability as they are more focused on quality of life rather than environment.
To provide for the expansion and development of civic, educational, health and recreational uses subject to the proper planning and sustainable development of the area.	O	O	√	O	√	O	O	O	O	O	O	O	O	√	√	O	O	O	O	O		
Social and Economic																						

	B1	B2	P1	P2	P3	1	S2	W1	W2	W3	C1	C2	C3	C4	M1	H1	H2	H3	L1	L2	Summary of Monitoring/Mitigation	Comments
It shall be an objective of the Plan to enable Youghal to compete on an equal footing with other towns of its size on the basis of its comparative quality of life. In particular it shall be an objective to showcase the towns enviable built heritage, admirable local civic and commercial institutions, attractive physical layout and efficient operation. It shall be an objective to use these qualities to attract investors, entrepreneurs, high quality employment generators thus perpetuating an upward spiral of success.	0	0	√	0	√	0	0	0	0	0	0	0	0	0	√	√	√	√	√	√		Overall social and economic development should not have a negative environmental impact provided those development objectives requiring development occur with sustainability and other environmental considerations in mind and are adhered to.
Infrastructure																						
It shall be an objective of the Plan to work with Cork County Council and the NRA to enable that the circular route marked DPO – 11 ON Map 4 be widened to incorporate footpaths and cycle paths.	0	0	√	√	0	0	√	√	√	√	√	√	√	√	√	√	0	0	0	√		The majority of criteria are received a positive score, this is largely due to improvements of water resources and waste water treatment facilities as proposed by the plan. The Plan also promotes walking, cycling and public transport provision and road improvements which will reduce congestion and current traffic issues which currently cause environmental impacts. The provision of services and infrastructure shall ensure the needs of the expanding population are met.
It will be an objective of the Plan to determine the optimum route of the proposed inner relief road between Chickley's Road and R634. A comprehensive Traffic and Transportation Study shall be carried out to identify all suitable route options	0	0	√	√	0	0	0	0	0	0	√	√	√	√	√	0	0	0	√	√		
It shall be an objective to provide footpaths and lighting on all public roads	0	0	√	0	√	0	0	0	0	0	0	0	√	√	√	0	0	0	0	0		
The role, functions and objectives of the town centre need to be more clearly defined and an accessibility strategy to facilitate these objectives needs to be put in place balancing the needs of all modes of mobility and stakeholders in the process. It shall be an objective of this plan, subject to the availability of resources, to explore these matters to produce an optimal solution.	0	0	√	0	√	0	0	0	0	0	0	0	√	√	√	0	0	0	0	0		

	B1	B2	P1	P2	P3	1	S2	W1	W2	W3	C1	C2	C3	C4	M1	H1	H2	H3	L1	L2	Summary of Monitoring/Mitigation	Comments
It shall be an objective of the Plan to work with the County Council and private telecoms providers to ensure excellent telecommunications and broadband access to all areas of the town and its environs including the provision of hyperoptic fibre to the town.	0	0	√	0	√	0	0	0	0	0	0	0	0	0	√	0	0	0	0	0		
In the light of the growing energy usage by cars it shall be an objective of this Plan to encourage proper and sustainable planning that encourages other modes of transport. This is particularly relevant given Youghal's picturesque, narrow streets, amenity and suitability for pedestrianisation and pedestrian priority. It shall also be an objective to encourage the use of cycles.	0	0	√	√	√	0	0	√	0	0	√	√	√	√	√	0	0	√	0	0		
Water Supply, Wastewater and Waste Management																						
It shall be an objective of the Plan to ensure the provision of an adequate supply of water for all existing and future developments.	0	0	√	0	√	0	√	√	0	√	0	0	0	0	√	0	0	0	0	0	Implementation of a new trunk main to Youghal to provide full water supply capacity	Protecting and improving the waste water and water supply has a positive impact. The provision of services and infrastructure shall ensure the needs of the expanding population are met.
It is a policy objective of the Town council to prohibit development over natural drainage channels.	√	0	0	0	0	0	√	√	√	√	0	0	0	0	0	0	0	0	0	0		
Potential and known groundwater reserves in the area shall be protected.	0	0	0	0	0	0	√	√	√	√	0	0	0	0	0	0	0	0	0	0	Implementation of Sustainable Drainage Measures Implementation of A new waste water treatment plant	

	B1	B2	P1	P2	P3	1	S2	W1	W2	W3	C1	C2	C3	C4	M1	H1	H2	H3	L1	L2	Summary of Monitoring/Mitigation	Comments
Flood risk management objectives. Development proposals, including the filling of land in areas, which are at risk from flooding or perform a flood control function will only be permitted where it can be demonstrated that such development: a) Has been designed to minimise risk of inundation and will not contribute to or increase the risk of flooding elsewhere; and b) Has adopted all reasonable measures to improve the management of flood waters on and adjacent to the site and to assist the protection of properties within the vicinity of the site; and c) Incorporates building design measures and materials to assist evacuation and minimise damage from inundation; and d) Can provide for the maintenance of any approved privately funded flood defence measures to the satisfaction of the Council. Applicants may be required to submit a hydrological survey and assessment information in support of their proposals where they are within a known flood risk area and may be required to make a contribution to flood defences.	√	√	0	0	0	0	0	√	√	√	0	0	0	0	0	0	√	0	√	√		
Proposals for development are required to have regard to the quality and quantity of water resources. Development will only be permitted where it can be demonstrated that there will be no direct or indirect damaging effects on water resources.	0	0	0	0	0	0	0	√	√	√	0	0	0	0	0	0	0	0	0	0	Implementation of Sustainable Drainage Measures Implementation of A new waste water treatment plant Implementation of a new trunk main to Youghal to provide full water supply capacity	

	B1	B2	P1	P2	P3	1	S2	W1	W2	W3	C1	C2	C3	C4	M1	H1	H2	H3	L1	L2	Summary of Monitoring/Mitigation	Comments
Further provision and use of septic tanks shall not be permitted, in general, within the development boundary of the town.	√	0	0	0	0	0	√	√	0	√	0	0	0	0	0	0	√	0	0	0		
Where it is considered that the existing surface water drainage is unable to accommodate an additional discharge generated by proposed development(s), the Local Authority will require the submission of surface water design calculations establishing the suitability of drainage between the site and a suitable outfall.	√	0	√	0	0	0	√	√	√	√	0	0	0	0	0	0	0	0	0	0		
Housing																						
It shall be an objective to seek to provide a broad range of residential accommodation types to satisfy the requirements of all stakeholders in the town.	√	0	√	0	0	0	√	√	√	√	0	0	0	0	0	0	0	0	0	0		<p>The housing objectives are generally neutral in relation to sustainability, as much of the lands zoned for housing is promoted in the town centre which is a sustainable approach to development.</p> <p>Overall housing objectives should not have a negative environmental impact provided those development objectives requiring development occur with sustainability and other environmental considerations in mind and are adhered to.</p>
In order to ensure the provision of a satisfactory volume of low density residential development it shall be an objective to designate certain residential zonings as low density residential areas and to resist the overdevelopment of the existing low density residential areas.	0	0	√	0	√	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
To proceed with present policy of providing suitable areas for housing. Housing areas form part of the regeneration of the town, and will be subject to modern requirements such as access, privacy and open space.	0	0	√	√	√	0	√	0	0	0	√	√	√	√	√	√	√	√	0	0		
In general all proposed housing schemes shall be integrated within an accessibility and interconnectability framework plan.	0	0	√	0	√	0	0	0	0	0	0	0	0	√	√	0	√	0	0	√		

	B1	B2	P1	P2	P3	1	S2	W1	W2	W3	C1	C2	C3	C4	M1	H1	H2	H3	L1	L2	Summary of Monitoring/Mitigation	Comments
Town Centre																						
It shall be an objective of the Plan to maintain the old town centre as the primary commercial, retail, civic, social and symbolic centre of the town and to maintain the dynamic of its mix of uses while recognising the unique historical and heritage character of the area and also recognising that certain modern uses, due to either their scale or infrastructural requirements may no longer be appropriate to the town centre.	O	O	√	√	√	O	O	O	O	O	√	√	√	√	O	√	√	√	√	O		
It shall be an objective to preserve the old town centre's heritage character and to enable the existing commercial facilities compete with the future provision of retail and other services.	O	O	√	√	√	O	O	O	O	O	√	√	√	√	O	√	√	√	√	O		
It shall be an objective to implement as far as is feasible the provisions of the "Investing in Heritage, 2005-2012", a heritage led regeneration strategy for Youghal.	O	O	√	√	√	O	O	O	O	O	√	√	√	√	O	√	√	√	√	√		
It shall be an objective of the Plan to improve congestion control and access management of the Main Street area with the objective of enhancing the amenities and tourist potential of the area with due regard for the benefits for the commercial, social and cultural life of the town core.	√	√	√	√	√	O	O	O	O	O	√	√	√	√	√	√	√	√	√	√		
It shall be an objective of the Plan to enhance facilities for pedestrians and cyclists in the town centre.	√	√	√	√	√	O	O	O	O	O	√	√	√	√	√	√	√	√	√	√		
It shall be an objective of the Plan to seek out a suitable location for a helicopter pad in the vicinity of the town centre.	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	Any proposal for a helicopter-landing pad should adhere to environmental and development management policies of the plan.	This is a site-specific proposal rather than a strategic objective of the plan therefore this objective can not be assessed. However any proposal for a helicopter-landing pad should adhere to environmental and development management policies of the plan.

	B1	B2	P1	P2	P3	1	S2	W1	W2	W3	C1	C2	C3	C4	M1	H1	H2	H3	L1	L2	Summary of Monitoring/Mitigation	Comments
It shall be an objective to promote Youghal as a Fairtrade Town and to endeavour, where appropriate, to facilitate the efforts of traders in this regard.	√	√	√	√	√	0	0	0	0	0	√	√	√	√	√	√	√	√	√	√		
Employment																						
It shall be an objective of the Plan to work with Cork County Council, local and state enterprise agencies and business organisations to enable Youghal to have a satisfactory range of enterprises in its immediate vicinity in the interests of sustainability, to reduce commute times, to encourage the generation of a cohesive community, to reduce the existing dormitory character of new residential developments to enable the townspeople of Youghal to live and work within the Youghal environs. To this end it shall be an objective of the Plan to work with Cork County Council and the various development agencies to explore the possibility of encouraging sunrise enterprises such as internationally traded services, tourism, knowledge based industries and other enterprises to be located in the area.	0	0	√	√	√	0	0	0	0	0	√	√	√	√	0	√	√	√	0	0		
It shall be an objective of the Plan to encourage decentralisation of government departments to the town.	0	0	√	√	√	0	0	0	0	0	0	0	0	0	0	√	√	√	0	0		Could increase employment in the town which would have positive effects for the people and character of the town due to increased employment and funding
Civic Facilities																						
It shall be an objective of the Plan to promote the old town centre as the preferred location for all developments that provide civic services and to reserve sufficient land area for such uses.																						

	B1	B2	P1	P2	P3	1	S2	W1	W2	W3	C1	C2	C3	C4	M1	H1	H2	H3	L1	L2	Summary of Monitoring/Mitigation	Comments
It shall be an objective, subject to the availability of resources, to explore the possibility of providing a new arts/multimedia workshop/accommodation in the town centre similar to, for example, the Poets House/Teach Fíli in Cork. The objective being to add a cosmopolitan sense to and enhance the cultural character of the town.																						
Education																						
It shall be an objective of the Plan to review the adequacy of primary level education facilities in the light of the towns growing population and if additional facilities are necessary to explore their satisfactory location.																						
It shall be an objective to ensure that the relocation of any primary school is sited within the town boundary so as to reduce travel time, ensure that the school is conveniently located in proximity to the population and to encourage walking and cycling to school.																						
Given that it is a key aim of the Plan to transform the town from a declining industrial town to a post-industrial information age economy it will be an objective of the Plan to explore the possibility of siting of a third and fourth level educational element in the vicinity of the town.																						

7 LIKELY SIGNIFICANT ENVIRONMENTAL EFFECTS

8.1 Key Environmental Issues

The environmental characteristics, both assets and constraints, which are likely to be significantly affected as a result of the implementation of the Plan are identified and described below. In identifying these environmental characteristics attention has been paid to the fact that SEA should focus on significant issues relating to the prediction of impacts and disregard the less significant ones. The focus of these characteristics has come about as a result of the scoping process together with the results of the initial baseline data collection.

8.2 Biodiversity, Flora and Fauna

It is not thought that the proposed plan would have a significant impact on biodiversity as it is proposed to intensify development in an already urban area. Therefore development within Youghal Town Development Council area will not have any significant impacts on biodiversity, flora and fauna at a local level.

The Blackwater River and estuary SAC/SPA/NHA adjoins Youghal Town to the east. This area is listed in Annex I habitat under the E.U habitats directive and therefore they are of international ecological importance. In addition the River Tourig contains marine habitats including saltmarshes and intertidal mudflats that are listed as Annex I species on the E.U. habitats directive.

It is not considered that the Plan is likely to pose a significant impact on biodiversity as the consolidation of development within the town will reduce the need for disturbance of habitats, general biodiversity in Greenfield areas and will control urban sprawl. In addition the plan proposes a new wastewater treatment plant which will reduce the risks of pollution into areas rich in biodiversity. Overall impact to biodiversity is considered to be positive.

8.3 Population

The provision of residential, employment, improved infrastructure and community uses within Youghal town will result in a better quality of life than would arise from an unstructured/unplanned approach.

Implementation of the plan would allow for consolidated growth rather than development occurring in an ad-hoc fashion. Implementation of the plan would also allow for sustainable growth that will realistically accommodate continued urban growth of Youghal town.

It is the policy of Youghal town council to continue to provide for the expansion and development of civic, educational, health and recreational uses subject to the proper planning and sustainable development of the area. Overall likely impact to population is considered to be positive.

8.4 Human Health (Noise and Air)

Actively planning for development of an area is likely to have the effect of attracting more people to the area, through the introduction of residential areas, tourist attractions and improvements and via commercial activity in this case. Consequently, an increase in the population of the area is likely to lend itself to increased traffic volumes, pressure on wastewater and water resources. All of these pressures have an environmental consequence, and some have human health consequences, namely changes in air quality and the noise environment.

While the construction of new developments will cause localised increases in noise levels and localised increases in emissions to air principally due to traffic neither are likely to significantly or adversely affect human health. On the other hand if the Plan is not implemented current trends of

increased traffic within Youghal Town Centre are likely to continue, resulting in a reduction in the quality of life for those living with the urban centre of Youghal Town.

Implementation of the Plan based on the integration of landuse and transportation should reduce travel times, length of journeys and hence emissions to the atmosphere. Overall likely impact to human health is considered to be neutral, with the exception of some minor localised increases to noise levels due to increased traffic.

8.5 Soil and Geology

The underlying geology of the study area is dominated by bands of limestone and sandstone running in an east-west direction. The vast majority of the groundwater vulnerability below the site has been classified by the GSI as Extreme to High according to the GSI, this is denoted in orange and red. However the Plan proposes a new waste water treatment plant that would reduce the groundwater vulnerability of this area. This scenario would also involve the uptake of land the majority of which is made ground and therefore impacts will be minimal. Overall likely impact to soils is considered to be neutral to positive.

8.6 Water

Currently there is declining water quality of the Blackwater Estuary due to the need for a WWTP. According to the EPA the Lower Blackwater Estuary at Youghal is at risk of not achieving good status from the Water Framework Directive in terms of Transitional water and the Blackwater Estuary Lower, downstream of Dromana Ferry, to near East Point, Youghal is a sensitive area in terms of Waste Water discharges. The fact that the Blackwater Estuary is an internationally important site for birds and a special protection area (SPA code: 004028) creates the need for the mitigation measures such as the introduction of a new treatment plant in Youghal Town Council.

If the Plan is not implemented it is likely that unplanned growth would continue in the area and developments may occur close to the river. Increased siltation of rivers as a result of runoff from construction works, infill areas, infrastructural service works, wastewater treatment system overflows. In addition any development within the area will result in storm water runoff this could potentially result in deterioration of surface water quality, however if mitigation measures and monitoring measures as outlined in sections 9 and 10 of this report are implemented as part of the Plan impacts to the Blackwater Estuary would be minimal, and would likely to be worse if the Plan was not implemented.

8.7 Transportation

Provided that the above proposals are implemented as detailed in the Youghal Town Development Plan there are no significant impacts predicted from traffic. However, there may be potential for some localised increases in noise levels from increased road traffic in the area. Overall likely impact from traffic is considered to be slightly negative.

8.8 Water Supply and Wastewater

Currently there are water shortages in the Youghal Town Council area. The proposed wastewater treatment system will have very positive environmental benefits to the water quality in the Blackwater River and estuary, and will also facilitate future residential and commercial development in Youghal for years to come.

8.9 Cultural Heritage

Overall objectives of development have potential to have an impact on the archaeological and architectural heritage within the Historic Core of the town. Also the inner relief road has potential to

uncovered previously unknown archaeological monuments along a linear path that traverses greenfields throughout the plan area.

Any archaeological material from land reclaimed from the inter-tidal estuary of the river is likely to relate to activities on the river prior to the 18th/19th Century reclamation. The inter-tidal reaches of rivers are rich archaeological environments, and although the preservation dynamic has changed with the reclamation, material can still survive. Any material present may take the form of late medieval waterfront works associated with the historic town such as quays, revetments, piers and jetties that projected into the river; shipwrecks; pre-town estuarine features such as fish weirs, fishtraps, incidental riverside settlement, etc of prehistoric date.

The buildings on the quayside are late 18th to early 19th Century in date and are part of the industrial and commercial heritage of the town, having been adapted from earlier quayside warehouses and stores. There are upstanding buildings that may be architectural significance. Redevelopment, through re-zoning, is likely to have a direct effect on the archaeological and architectural heritage, through demolition of standing structures and site investigation, clearance, drainage, dredging and groundworks of any development.

Youghal Mudland is an area of extensive land reclamation that was created during the mid 19th Century as part of Famine Relief Works in the town. There are no known or recorded monuments on this site. The potential for archaeological material being present in the Mudlands, however unlikely, cannot be absolutely ruled out, as the site is land reclaimed from the inter-tidal estuary of the river. The inter-tidal reaches of rivers are rich archaeological environments, and although the preservation dynamic has changed with the reclamation, material may still survive. Any archaeological material here is likely to relate to activities on the river prior to reclamation.

The area to the south of the town is a freshwater marsh and the potential for archaeological material being present on this site, however unlikely, cannot be absolutely ruled out, as a freshwater marsh is an environment which is similar in archaeological diversity and potential to the inter-tidal estuary of the river. This is an area that was mainly farmland and freshwater marsh until the arrival of the Railway in 1860 and subsequent development. It contains two Protected Structures as listed in the Youghal Development Plan 2003-2008: No. 36, the icehouse mentioned above and No. 88, the Turntable in the Railway Station. The Railway Station and its complex, including the Turntable, are an important part of the industrial heritage of Youghal. This area also contains two Protected Landscape Features: the pond and reed beds at the Hilltop Caravan Park and the Pitch and Putt Course. Development of this area through more intensive tourism related activities has potential to impact on any unknown archaeological or architectural features present. The full impact of these can be assessed on a case by case basis.

The constraint area surrounding the North Abbey cemetery, contains upstanding and subsurface remains of the medieval Dominican Friary, indicated on the RMP CO067:30.

The proposed cycleway will not have a direct impact on the archaeological and architectural heritage; it may have limited visual impact on it, dependant on the style of signage to be used and any paving/surface treatments required.

The general route of the proposed inner relief road does not directly impact on any known or recorded archaeological monuments. The route does come within approximately 200 m of three known Recorded Monuments: CO067:26, burial ground, CO067:25 possible church site and CO067:37 vernacular cottage. The route does cross a substantial distance of greenfield sites, up to at least 3-4 Km of linear routeway. On average one previously unknown archaeological site is uncovered for every 1.5-2 km of new routeway. Therefore, the construction of the inner relief road has significant potential to directly impact on previously unknown archaeological site. In architectural terms the route does have potential to directly impact on modern housing at two locations. It does not appear to impact on any Protected Structures or enter the Youghal Architectural Conservation Area.

The proposed site for the waste water treatment plant is in archaeological terms outside all known areas of archaeological constraint (ACA). The nearest Recorded Monument is CO067:37, a heavily modified single storey vernacular house in Greencloyne townland. The proposed wastewater treatment plant is located in the townland of Youghal Mudlands, an area of extensive land reclamation that was created during the mid 19th Century as part of Famine Relief Works in the town. There are no known or recorded monuments on this site.

The potential for archaeological material being present on this site, however unlikely, cannot be absolutely ruled out, as the site is land reclaimed from the inter-tidal estuary of the river. The inter-tidal reaches of rivers are rich archaeological environments, and although the preservation dynamic has changed with the reclamation, material may still survive. Any archaeological material here is likely to relate to activities on the river prior to reclamation. There are no architectural implications to this site.

8.10 Landscape

In the long term the area is likely to undergo change from pressure from development/housing. However, the Youghal plan will allow for greater control over building heights, sizes, location and design. The plan will also maintain open spaces around the town to allow for visual enhancement. In addition further development must be sensitively located and designed to protect the visual character of the location and to protect scenic route A47.

8 MITIGATION

Annex 1 (g) of the Directive requires that the Environmental Report describe the measures envisaged to prevent, reduce and/or offset as fully as possible any significant adverse effects on the environment from implementing the plan.

It should be noted that proposals to implement this Plan may also require Environmental Impact Assessment (EIA) at planning application stage. Other impacts and necessary mitigation measures or actions may be identified during this process.

This section of the report summarises the main measures that are considered important to the implementation of the Plan with regard to its impact on the environment. The key recommendations arising from the SEA exercise are as follows:

8.1 BIODIVERSITY, FLORA AND FAUNA

From a biodiversity perspective the challenge is to ensure that biodiversity is conserved and enhanced by ensuring that land take is minimised and that impacts on habitats and species are mitigated to ensure that there is no net loss of biodiversity. It is also essential to ensure the provision of a new wastewater treatment plant in the area to reduce the vulnerability of the environment to waste water.

Intensification of development within the Town Centre must also ensure that there is no resulting deterioration of downstream watercourses or associated floodplains, including indirect impacts to designated sites from increased and/or polluted runoff.

New Policies Required in draft Plan:

- Designated Sites: To maintain the conservation value of Blackwater River and estuary SAC/SPA/NHA and the Ballyvergan Marsh NHA adjoining the town during the lifetime of this plan and to ensure Appropriate Assessment is carried out where development projects are likely to have significant effects on this European site whether within or outside the boundary of the European Site in accordance with Articles 6(3) and 6(4) of the EU Habitats Directive (92/43/EEC) and Department of the Environment, Heritage and Local Government Circular Letter (SEA 1/08 & NPWS 1/08).
- There is a need for a policy to undertake environmental appraisals or Environmental Impact Assessments and Appropriate Assessments in areas within or likely to affect pNHA's, cSAC's and SPAs; i.e. new roads and other infrastructure, other major developments, etc in accordance with Articles 6(3) and 6(4) of the EU Habitats Directive (92/43/EEC) and Department of the Environment, Heritage and Local Government Circular Letter (SEA 1/08 & NPWS 1/08).
- There is a requirement to include a policy to use Brownfield sites in preference to Greenfield sites in accordance with the draft Sustainable Residential Development in Urban Areas 2008.

8.2 POPULATION

The impacts of implementing the plan associated with population are generally positive as generally objectives propose to improve the quality of life for individuals living in the area. However it is

considered that the draft Youghal Development Plan 2009 - 2015 should review and update the plan in terms of the draft Cork County Development Plan due out for consultation in August 2008, the Cork Area Strategic Plan Review 2008 and the Draft Cork Strategic Retail Study 2008 before adoption of the plan.

8.3 HUMAN HEALTH (NOISE AND AIR)

All developments should comply with national noise and vibration standards and the objectives of the Climate Change Strategy 2007-2013.

New Policies Required in draft Plan:

In accordance with submission 43 of the s.12 Managers Report from the National Roads Authority the development plan should include a development control objective for the requirements of SI. No. 140 of 2006, environmental noise regulations. The submission states that the NRA will require planning applications where developments are proposed in areas within the area of influence of existing national or planned new roads to

“identify and implement noise mitigation measures, where the additional traffic generated by the development results in a breach of the noise design goals on national roads for sensitive receptors exposed to road noise traffic. The costs of implementing mitigation measures shall be borne by the developer, as the authority will not be responsible for the provision of additional noise mitigation. This issue is of particular concern to lands zoned Enterprise/Industrial in the west Youghal environs”

8.4 SOIL AND GEOLOGY

Construction works should be planned to be carried out with the least feasible disturbance of soils. Where possible all topsoil and subsoils excavated on site should be reused during the construction works. Excess fill and unsuitable excavated material should be deposited in appropriate and approved infill sites, in compliance with the Waste Management Acts 1996 to 2003 and Section 5 of the Waste Management (Collection Permit) Regulations of 2001. Conversely, if the importation of topsoil is required for landscaping purposes, the material should be brought from as near a site as possible, in order to reduce transport distances.

New Policies Required in draft Plan:

Promote compliance with the Soils Directive and the implementation of the policies and objectives of the Soils Directive.

8.5 WATER

The Blackwater Estuary Lower, downstream of Dromana Ferry, to near East Point, Youghal is a sensitive area in terms of Waste Water discharges. Youghal area in general is classed as having high groundwater vulnerability. The most important mitigation measure for this area is the provision of a new wastewater treatment plant. In addition a new trunk main to Youghal to provide full water supply capacity should also be implemented. Sustainable Urban Drainage Measures should also be promoted in new developments.

8.6 TRANSPORTATION

The Plan promotes walking, cycling and public transport provision and road improvements which will reduce congestions and current traffic issues which currently cause environmental impacts within the town.

To ensure air quality and climate impacts from road traffic do not lead to significant negative impacts, consideration should be given to ensure that all new development address the following:

- Ensure the appropriate road infrastructure is in place prior to development commencement, particularly in relation to new road linkages within the plan area;
- Well managed junctions;
- In Response to submission from the Quarry Road Residents Association to the Draft Youghal Town Development Plan 2009 – 2015: Add an additional mitigation measure to Transport section 8.6 of the SEA *'to ensure that proposals for the Inner Relief Road adhere to the legislation and guidelines in terms of EIA, TIA and Road Safety Audits.'*

8.7 WATER SUPPLY AND WASTEWATER

Currently there is no wastewater treatment plant in the Town and water supply runs low in the summer months. One of the prime mitigation measures that relates to a number of environmental issues within the plan area is the provision of a new wastewater treatment plant. In addition a new trunk main to Youghal to provide full water supply capacity should also be implemented.

8.8 FLOODING

Development located in flood risk areas should provide comprehensive flood defence measures.

8.9 CULTURAL HERITAGE

The Department of Environment, Heritage and Local Government will seek an architectural assessment or archaeological testing prior to any decision in a known area of archaeological or architectural interest. Planning permission will only be granted only after archaeological testing and compliance with the conditions generated from it.

8.10 LANDSCAPING

In terms of mitigation measures to be put in place to counteract or soften the visual impact of development within the plan area, the following are specifically proposed.

- Applications for development on the A47 scenic route will have to demonstrate through a detailed landscape and visual assessment that they do not have a negative impact on the amenity and views in this area.
- Development should be restricted on exposed slopes of the town. Any development proposals on these steep slopes should require a visual impact assessment.

- Ensure that landform, planting and sympathetic detail design is undertaken to reduce negative visual impacts and assist in compensating for the loss of the landscape resource; and
- Attention to phasing and development of the landscape design should be integral to the design process.

9 MONITORING

Article 10 of the SEA Directive (2001/42/EEC) requires Member States to monitor the significant environmental effects of the implementation of plans *“in order, inter alia, to identify at an early stage unforeseen adverse effects to be able to undertake appropriate remedial action”*.

The Directive leaves considerable flexibility to Member States in deciding how monitoring shall be arranged, however it is generally agreed that a mixture of “quantitative and qualitative indicators are required.

The Directive recognises that the monitoring does not necessarily require new research activity and that existing sources of information can be used. Monitoring programmes for different Plans can also be combined e.g. monitoring of a County Development Plan and Local Area Plan/Action Area Plan.

In addition monitoring can be used to identify any information gaps and/deficiencies that were identified as part of the SEA process. Furthermore, Government Guidelines state that monitoring should concentrate on the likely significant effects identified in the Environmental Report (DOEHLG, 2004).

Not all effects that have been described as significant need to be monitored. For example, loss of agricultural land is predicted; this is an inevitable consequence of implementing the plan. However while it is not the responsibility of Youghal Town Council to restrict change it is the Council's responsibility to measure the related considerations of local air quality and traffic congestion which contribute to climate change. Similarly, water use, discharge/disposal and management are all matters that require to be monitored in order to safeguard against the risk of standards been breached.

Indicators

Indicators are used to measure the changes in environmental quality. Indicators aim at simplifying complex inter-relationships and providing information about environmental issues which is relatively easy to understand (DOEHLG, 2004).

Government SEA Guidelines set out a range of indicative “planning related” indicators (DOEHLG, 2004). The Guidelines also recommend that indicators should relate as far as reasonably possible to the environmental baseline information in the environmental report.

Within this context, suggested indicators relating to baseline environmental information outlined in this report are presented in Table 9.1 below.

Table 12: Environmental Monitoring of the Youghal Town Development Plan 2009 - 2015

Environmental	Potential Impact	Suggested Indicator	Responsibility
Biodiversity, Flora and Fauna	Loss of biodiversity, flora and fauna Deterioration in habitat quality	Biological (Q Value) and chemical water quality.	EPA Cork County Council Blackwater Estuary Catchment Monitoring and Management System
Population	Population change	Census SAPS Results	Cork County Council Planning Department
Human Health	Localised increase in noise levels (due to Traffic)	Noise levels	Cork County Council Planning Department
Soil	Deterioration of soil quality	Assessment of planning applications	Cork County Council Environment Department
Water	Pollution of surface waters Pollution of groundwater	Biological (Q Value) and chemical water quality	EPA Cork County Council Blackwater Estuary Catchment Monitoring and Management System
Material Assets	Inadequate water supply Inadequate wastewater treatment capacity	Water levels	Cork County Council Planning Department
Cultural Heritage	Impact on protected structures / archaeological sites	Assessment of planning applications	Cork County Council Planning / Heritage Department
Landscape	Visual impact on landscape	Assessment of planning applications Future landscape assessment	Cork County Council Planning Department

APPENDIX 1 APPROPRIATE ASSESSMENT PROCESS

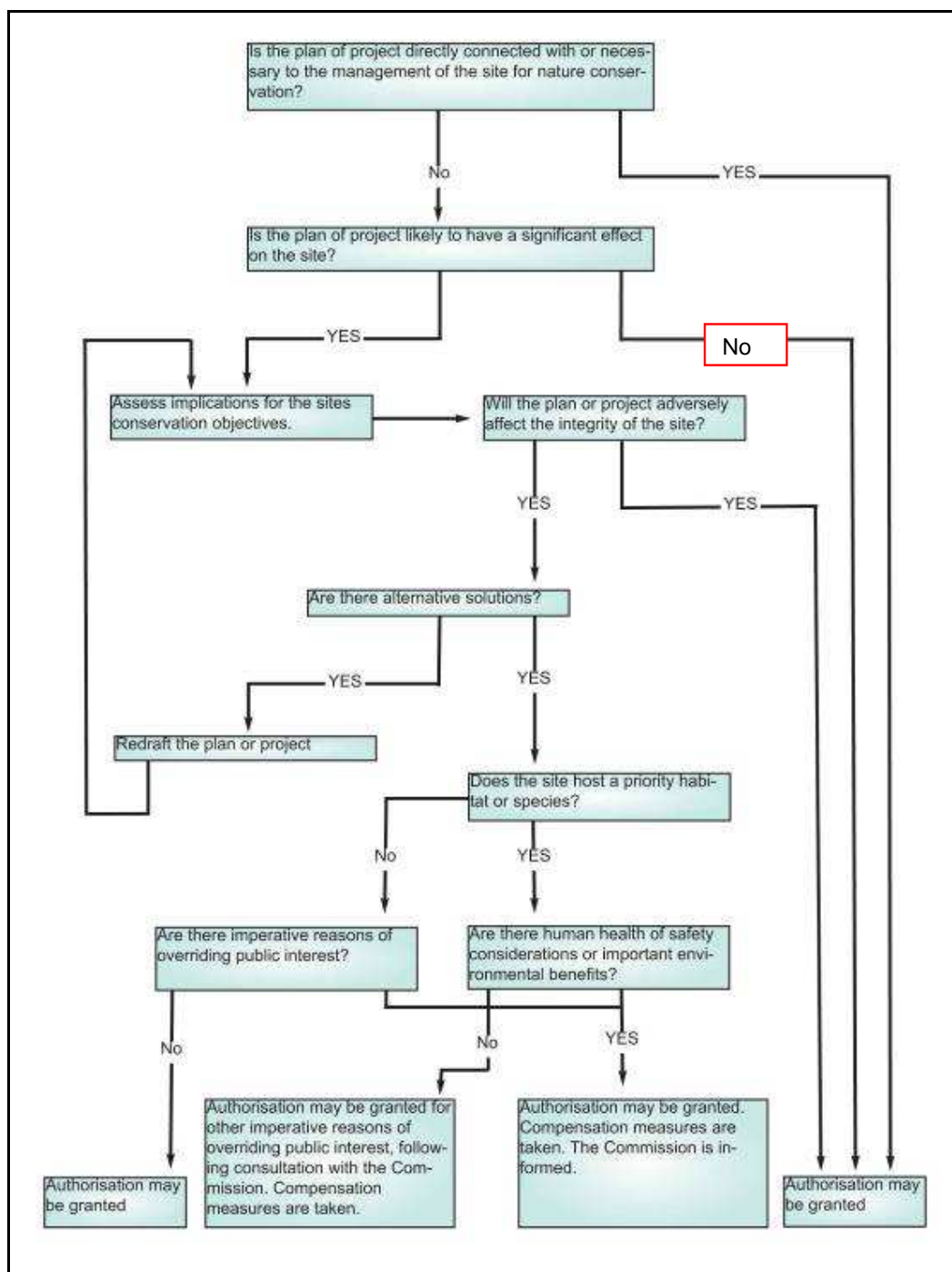


Figure A1.1 Flowchart outlining the appropriate assessment process (Adapted from EC, 2001).

APPENDIX 2 NPWS SITE SYNOPSES

Table A2.1 Designated sites in the Youghal region (adapted from NPWS).

	Site Name	Site Code	Distance from study area (km)
National Heritage Areas	Blackwater River and Estuary	000072	0
	Ballymacoda (Clonpriest and Pillmore)	000077	>5km
	Ballyvergan marsh	000078	0
	Capel Island and Knockdoon Head	000083	>5km
Special Areas of Conservation	Ballymacoda (Clonpriest and Pillmore)	000077	>5km
	Blackwater River (Cork/Waterford)	002170	0
Special Protected Areas	Ballymacoda Bay SPA	004023	>5km
	Blackwater Estuary SPA	004028	0

SITE NAME: BLACKWATER RIVER (CORK/WATERFORD)

SITE CODE: 002170

The River Blackwater is one of the largest rivers in Ireland, draining a major part of Co. Cork and five ranges of mountains. In times of heavy rainfall the levels can fluctuate widely by more than 12 feet on the gauge at Careysville. The peaty nature of the terrain in the upper reaches and of some of the tributaries gives the water a pronounced dark colour. The site consists of the freshwater stretches of the River Blackwater as far upstream as Ballydesmond, the tidal stretches as far as Youghal Harbour and many tributaries, the larger of which includes the Licky, Bride, Flesk, Chimneyfield, Finisk, Araglin, Awbeg (Buttevant), Clyda, Glen, Allow, Dalua, Brogeen, Rathcool, Finnow, Owentaraglin and Awnaskirtaun. The extent of the Blackwater and its tributaries in this site, flows through the counties of Kerry, Cork, Limerick, Tipperary and Waterford. Towns along, but not in the site, include Rathmore, Millstreet, Kanturk, Banteer, Mallow, Buttevant, Doneraile, Castletownroche, Fermoy, Ballyduff, Rathcormac, Tallow, Lismore, Cappoquin and Youghal.

The Blackwater rises in boggy land of east Kerry, where Namurian grits and shales build the low heather-covered plateaux. Near Kanturk the plateaux enclose a basin of productive Coal Measures. On leaving the Namurian rocks the Blackwater turns eastwards along the northern slopes of the Boggeraghs before entering the narrow limestone strike vale at Mallow. The valley deepens as first the Nagles Mountains and then the Knockmealdowns impinge upon it. Interesting geological features along this stretch of the Blackwater Valley include limestone cliffs and caves near the villages and

small towns of Killavullen and Ballyhooly; the Killavullen caves contain fossil material from the end of the glacial period. The associated basic soils in this area support the growth of plant communities which are rare in Cork because in general the county's rocks are acidic. At Cappoquin the river suddenly turns south and cuts through high ridges of Old Red Sandstone. The Araglin valley is predominantly underlain by sandstone, with limestone occurring in the lower reaches near Fermoy.

The site is a candidate SAC selected for alluvial wet woodlands and Yew wood, both priority habitats listed on Annex I of the E.U. Habitats Directive. The site is also selected as a candidate SAC for floating river vegetation, estuaries, tidal mudflats, *Salicornia* mudflats, Atlantic salt meadows, Mediterranean salt meadows, perennial vegetation of stony banks and old Oak woodlands, all habitats listed on Annex I of the E.U. Habitats Directive. The site is also selected for the following species listed on Annex II of the same directive - Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Crayfish, Twaite Shad, Atlantic Salmon, Otter and the plant, Killarney Fern.

Wet woodlands are found where river embankments, particularly on the River Bride, have broken down and where the channel edges in the steep-sided valley between Cappoquin and Youghal are subject to daily inundation. The river side of the embankments was often used for willow growing in the past (most recently at Cappoquin) so that the channel is lined by narrow woods of White and Almond-leaved Willow (*Salix alba* and *S. triandra*) with isolated Crack Willow (*S. fragilis*) and Osier (*S. viminalis*). Grey Willow (*S. cinerea*) spreads naturally into the sites and occasionally, as at Villierstown on the Blackwater and Sapperton on the Bride, forms woods with a distinctive mix of woodland and marsh plants, including Gypsywort (*Lycopus europaeus*), Guelder Rose (*Viburnum opulus*), Bittersweet (*Solanum dulcamara*) and various mosses and algae. These wet woodlands form one of the most extensive tracts of the wet woodland habitat in the country.

A small stand of Yew (*Taxus baccata*) woodland, a rare habitat in Ireland and the EU, occurs within the site. This is on a limestone ridge at Dromana, near Villierstown. While there are some patches of the wood with a canopy of Yew and some very old trees, the quality is generally poor due to the dominance of non-native and invasive species such as Sycamore, Beech and Douglas Fir (*Pseudotsuga menziesii*). However, the future prospect for this Yew wood is good as the site is proposed for restoration under a Coillte EU Life Programme. Owing to its rarity, Yew woodland is listed with priority status on Annex I of the EU Habitats Directive.

Marshes and reedbeds cover most of the flat areas beside the rivers and often occur in mosaic with the wet woodland. Common Reed (*Phragmites australis*) is ubiquitous and is harvested for thatching. There is also much Marsh Marigold (*Caltha palustris*) and, at the edges of the reeds, the Greater and Lesser Pond-sedge (*Carex riparia* and *C. acutiformis*). Hemlock Water-dropwort (*Oenanthe crocata*), Wild Angelica (*Angelica sylvestris*), Reed Canary-grass (*Phalaris arundinacea*), Meadowsweet (*Filipendula ulmaria*), Nettle (*Urtica dioica*), Purple Loosestrife (*Lythrum salicaria*), Marsh Valerian (*Valeriana officinalis*), Water Mint (*Mentha aquatica*) and Water Forget-me-not (*Myosotis scorpioides*).

At Banteer there are a number of hollows in the sediments of the floodplain where subsidence and subterranean drainage have created isolated wetlands, sunk below the level of the surrounding fields. The water rises and falls in these holes depending on the watertable and several different communities have developed on the acidic or neutral sediments. Many of the ponds are ringed about with Grey Willows, rooted in the mineral soils but sometimes collapsed into the water. Beneath the densest stands are woodland herbs like Yellow Pimpernel (*Lysimachia nemorum*) with locally abundant Starwort (*Callitriche stagnalis*) and Marsh Ragwort (*Senecio palustris*). One of the depressions has Silver Birch (*Betula pendula*), Ash (*Fraxinus excelsior*), Crab Apple (*Malus sylvestris*) and a little Oak (*Quercus robur*) in addition to the willows.

Floating river vegetation is found along much of the freshwater stretches within the site. The species list is quite extensive and includes Pond Water-crowfoot (*Ranunculus peltatus*), Water-crowfoot (*Ranunculus* spp.), Canadian Pondweed (*Elodea canadensis*), Broad-leaved Pondweed (*Potamogeton natans*), Pondweed (*Potamogeton* spp.), Water Milfoil (*Myriophyllum* spp.), Common Club-rush (*Scirpus lacustris*), Water-starwort (*Callitriche* spp.), Lesser Water-parsnip (*Berula erecta*) particularly on the Awbeg, Water-cress (*Nasturtium officinale*), Hemlock Waterdropwort, Fine-leaved

Water-dropwort (*O. aquatica*), Common Duckweed (*Lemna minor*), Yellow Water-lily (*Nuphar lutea*), Unbranched Bur-reed (*Sparganium emersum*) and the moss *Fontinalis antipyretica*.

The grassland adjacent to the rivers of the site is generally heavily improved, although liable to flooding in many places. However, fields of more species-rich wet grassland with species such as Yellow-flag (*Iris pseudacorus*), Meadow-sweet, Meadow Buttercup (*Ranunculus acris*) and rushes (*Juncus* spp.) occur occasionally. Extensive fields of wet grassland also occur at Annagh Bog on the Awbeg. These fields are dominated by Tufted Hair-grass (*Deschampsia cespitosa*) and rushes.

The Blackwater Valley has a number of dry woodlands; these have mostly been managed by the estates in which they occur, frequently with the introduction of Beech (*Fagus sylvatica*) and a few conifers, and sometimes of Rhododendron (*Rhododendron ponticum*) and Laurel. Oak woodland is well developed on sandstone about Ballinatrav, with the acid Oak woodland community of Holly (*Ilex aquifolium*), Bilberry (*Vaccinium myrtillus*), Greater Woodrush (*Luzula sylvatica*) and Buckler Ferns (*Dryopteris affinis*, *D. aemula*) occurring in one place. Irish Spurge (*Euphorbia hyberna*) continues eastwards on acid rocks from its headquarters to the west but there are many plants of richer soils, for example Wood Violet (*Viola reichenbachiana*), Goldilocks (*Ranunculus auricomus*), Broad-leaved Helleborine (*Epipactis helleborine*) and Red Campion (*Silene dioica*). Oak woodland is also found in Rincrew, Carrigane, Glendine, Newport and Dromana. The spread of Rhododendron is locally a problem, as is over-grazing. A few limestone rocks stand over the river in places showing traces of a less acidic woodland type with Ash, False Brome (*Brachypodium sylvaticum*) and Early-purple Orchid (*Orchis mascula*).

In the vicinity of Lismore, two deep valleys cut in Old Red Sandstone join to form the Owenashad River before flowing into the Blackwater at Lismore. These valleys retain something close to their original cover of Oak with Downy Birch (*Betula pubescens*), Holly and Hazel (*Corylus avellana*) also occurring. There has been much planting of Beech (as well as some of coniferous species) among the Oak on the shallower slopes and here both Rhododendron and Cherry Laurel (*Prunus laurocerasus*) have invaded the woodland.

The Oak wood community in the Lismore and Glenmore valleys is of the classical upland type, in which some Rowan (*Sorbus aucuparia*) and Downy Birch occur. Honeysuckle (*Lonicera periclymenum*) and Ivy (*Hedera helix*) cover many of the trees while Greater Woodrush, Bluebell (*Hyacinthoides non-scripta*), Wood Sorrel (*Oxalis acetosella*) and, locally, Bilberry dominate the ground flora. Ferns present on the site include Hard Fern (*Blechnum spicant*), Male Fern (*Dryopteris filix-mas*), Buckler Ferns (*D. dilatata*, *D. aemula*) and Lady Fern (*Athyrium filix-femina*). There are many mosses present and large species such as *Rhytidiadelphus* spp., *Polytrichum formosum*, *Mnium hornum* and *Dicranum* spp. are noticeable. The lichen flora is important and includes 'old forest' species which imply a continuity of woodland here since ancient times. Tree Lungwort (*Lobaria* spp.) is the most conspicuous and is widespread.

The Araglin valley consists predominantly of broadleaved woodland. Oak and Beech are joined by Hazel, Wild Cherry (*Prunus avium*) and Goat Willow (*Salix caprea*). The ground flora is relatively rich with Pignut (*Conopodium majus*), Wild Garlic (*Allium ursinum*), Garlic Mustard (*Alliaria petiolata*) and Wild Strawberry (*Fragaria vesca*). The presence of Ivy Broomrape (*Orobancha hederae*), a local species within Ireland, suggests that the woodland, along with its attendant Ivy is long established.

Along the lower reaches of the Awbeg River, the valley sides are generally cloaked with mixed deciduous woodland of estate origin. The dominant species is Beech, although a range of other species are also present, e.g. Sycamore (*Acer pseudoplatanus*), Ash and Horse-chestnut (*Aesculus hippocastanum*). In places the alien invasive species, Cherry Laurel, dominates the understorey. Parts of the woodlands are more semi-natural in composition, being dominated by Ash with Hawthorn (*Crataegus monogyna*) and Spindle (*Euonymus europaea*) also present. However, the most natural areas of woodland appear to be the wet areas dominated by Alder and willows (*Salix* spp.). The ground flora of the dry woodland areas features species such as Pignut, Wood Avens (*Geum urbanum*), Ivy and Soft Shield-fern (*Polystichum setiferum*), while the ground flora of the wet woodland

areas contains characteristic species such as Remote Sedge (*Carex remota*) and Opposite-leaved Golden-saxifrage (*Chrysosplenium oppositifolium*).

In places along the upper Bride, scrubby, semi-natural deciduous woodland of Willow, Oak and Rowan occurs with abundant Great Woodrush in the ground flora. The Bunaglanna River passes down a very steep valley, flowing in a north-south direction to meet the Bride River. It flows through blanket bog to heath and then scattered woodland. The higher levels of moisture here enable a vigorous moss and fern community to flourish, along with a well-developed epiphyte community on the tree trunks and branches.

At Banteer a type of wetland occurs near the railway line which offers a complete contrast to the others. Old turf banks are colonised by Royal Fern (*Osmunda regalis*) and Eared Willow (*Salix aurita*) and between them there is a sheet of Bottle Sedge (*Carex rostrata*), Marsh Cinquefoil (*Potentilla palustris*), Bogbean (*Menyanthes trifoliata*), Marsh St. John's-wort (*Hypericum elodes*) and the mosses *Sphagnum auriculatum* and *Aulacomnium palustre*. The cover is a scraw with characteristic species like Marsh Willowherb (*Epilobium palustre*) and Marsh Orchid (*Dactylorhiza incarnata*).

The soil high up the Lismore valleys and in rocky places is poor in nutrients but it becomes richer where streams enter and also along the valley bottoms. In such sites Wood Speedwell (*Veronica montana*), Wood Anemone (*Anemone nemorosa*), Enchanter's Nightshade (*Circaea lutetiana*), Barren Strawberry (*Potentilla sterilis*) and Shield Fern occur. There is some Wild Garlic, Three-nerved Sandwort (*Moehringia trinervia*) and Early-purple Orchid (*Orchis mascula*) locally, with Opposite-leaved Golden-saxifrage, Meadowsweet and Bugle in wet places. A Hazel stand at the base of the Glenakeeffe valley shows this community well.

The area has been subject to much tree felling in the recent past and re-sprouting stumps have given rise to areas of bushy Hazel, Holly, Rusty Willow (*Salix cinerea* subsp. *oleifolia*) and Downy Birch. The ground in the clearings is heathy with Heather (*Calluna vulgaris*), Slender St John's-wort (*Hypericum pulchrum*) and the occasional Broom (*Cytisus scoparius*) occurring.

The estuary and the other Habitats Directive Annex I habitats within it form a large component of the site. Very extensive areas of intertidal flats, comprised of substrates ranging from fine, silty mud to coarse sand with pebbles/stones are present. The main expanses occur at the southern end of the site with the best examples at Kinsalebeg in Co. Waterford and between Youghal and the main bridge north of it across the river in Co. Cork. Other areas occur along the tributaries of the Licky in east Co. Waterford and Glendine, Newport, Bride and Killahaly Rivers in Waterford west of the Blackwater and large tracts along the Tourig River in Co. Cork. There are narrow bands of intertidal flats along the main river as far north as Camphire Island. Patches of green algae (filamentous, *Ulva* species and *Enteromorpha* sp.) occur in places, while fucoid algae are common on the more stony flats even as high upstream as Glenassy or Coneen.

The area of saltmarsh within the site is small. The best examples occur at the mouths of the tributaries and in the townlands of Foxhole and Blackbog. Those found are generally characteristic of Atlantic salt meadows. The species list at Foxhole consists of Common Saltmarsh-grass (*Puccinellia maritima*), small amounts of Greater Seaspurrey (*Spergularia media*), Glasswort (*Salicornia* sp.), Sea Arrowgrass (*Triglochin maritima*), Annual Sea-blite (*Suaeda maritima*) and Sea Purslane (*Halimione portulacoides*) - the latter a very recent coloniser - at the edges. Some Sea Aster (*Aster tripolium*) occurs, generally with Creeping Bent (*Agrostis stolonifera*). Sea Couchgrass (*Elymus pycnanthus*) and small isolated clumps of Sea Club-rush (*Scirpus maritimus*) are also seen. On the Tourig River additional saltmarsh species found include Lavender (*Limonium* spp.), Sea Thrift (*Armeria maritima*), Red Fescue (*Festuca rubra*), Common Scurvy-grass (*Cochlearia officinalis*) and Sea Plantain (*Plantago maritima*). Oraches (*Atriplex* spp.) are found on channel edges.

The shingle spit at Ferrypoint supports a good example of perennial vegetation of stony banks. The spit is composed of small stones and cobbles and has a well developed and diverse flora. At the lowest part, Sea Beet (*Beta vulgaris*), Curled Dock (*Rumex crispus*) and Yellow-horned Poppy (*Glaucium flavum*) occur with at a slightly higher level Sea Mayweed (*Tripleurospermum maritimum*), Cleavers (*Galium aparine*), Rock Samphire (*Crithmum maritimum*), Sandwort (*Honkenya peploides*), Spear-leaved Orache (*Atriplex prostrata*) and Babington's Orache (*A. glabriuscula*). Other species present include Sea Rocket (*Cakile maritima*), Herb Robert (*Geranium robertianum*), Red Fescue (*Festuca rubra*) and Kidney Vetch (*Anthyllis vulneraria*). The top of the spit is more vegetated and includes lichens and bryophytes (including *Tortula ruraliformis* and *Rhytidiadelphus squarrosus*).

The site supports several Red Data Book plant species, i.e. Starved Wood Sedge (*Carex depauperata*), Killarney Fern (*Trichomanes speciosum*), Pennyroyal (*Mentha pulegium*), Bird's-nest Orchid (*Neottia nidus-avis*), Golden Dock (*Rumex maritimus*) and Bird Cherry (*Prunus padus*). The first three of these are also protected under the Flora (Protection) Order 1999. The following plants, relatively rare nationally, are also found within the site: Toothwort (*Lathraea squamaria*) associated with woodlands on the Awbeg and Blackwater; Summer Snowflake (*Leucojum aestivum*) and Flowering Rush (*Butomus umbellatus*) on the Blackwater; Common Calamint (*Calamintha ascendens*), Red Campion (*Silene dioica*), Sand Leek (*Allium scorodoprasum*) and Wood Club-rush (*Scirpus sylvaticus*) on the Awbeg.

The site is also important for the presence of several Habitats Directive Annex II animal species, including Sea Lamprey (*Petromyzon marinus*), Brook Lamprey (*Lampetra planeri*), River Lamprey (*L. fluviatilis*), Twaite Shad (*Alosa fallax fallax*), Freshwater Pearl-mussel (*Margaritifera margaritifera*), Otter (*Lutra lutra*) and Salmon (*Salmo salar*). The Awbeg supports a population of White-clawed Crayfish (*Austropotamobius pallipes*). This threatened species has been recorded from a number of locations and its remains are also frequently found in Otter spraints, particularly in the lower reaches of the river. The freshwater stretches of the Blackwater and Bride Rivers are designated salmonid rivers.

The Blackwater is noted for its enormous run of salmon over the years. The river is characterised by mighty pools, lovely streams, glides and generally, a good push of water coming through except in very low water. Spring salmon fishing can be carried out as far upstream as Fermoy and is very highly regarded especially at Careysville. The Bride, main Blackwater upstream of Fermoy and some of the tributaries are more associated with grilse fishing.

The site supports many of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include Pine Marten, Badger and Irish Hare. The bat species Natterer's Bat, Daubenton's Bat, Whiskered Bat, Brown Long-eared Bat and Pipistrelle, are to be seen feeding along the river, roosting under the old bridges and in old buildings.

Common Frog, a Red Data Book species that is also legally protected (Wildlife Act, 1976), occurs throughout the site. The rare bush cricket, *Metrioptera rosellii* (Orthoptera: Tettigoniidae), has been recorded in the reed/willow vegetation of the river embankment on the Lower Blackwater River. The Swan Mussel (*Anodonta cygnea*), a scarce species nationally, occurs at a few sites along the freshwater stretches of the Blackwater.

Several bird species listed on Annex I of the E.U. Birds Directive are found on the site. Some use it as a staging area, others are vagrants, while others use it more regularly. Internationally important numbers of Whooper Swan (average peak 174, 1994/95- 95/96) and nationally important numbers Bewick's Swan (average peak 35, 1994/95- 95/96) use the Blackwater Callows. Golden Plover occur in regionally important numbers on the Blackwater Estuary (average peak 885, 1984/85-86/87) and on the River Bride (absolute max. 2141, 1994/95). Staging Terns visit the site annually (Sandwich Tern (>300) and Arctic/Common Tern (>200), average peak 1974-1994). The site also supports populations of the following: Red Throated Diver, Great Northern Diver, Barnacle Goose, Ruff, Wood Sandpiper and Greenland White-fronted Goose. Three breeding territories for Peregrine Falcon are known along the Blackwater Valley. This, the Awbeg and the Bride River are also thought to support at least 30

pairs of Kingfisher. Little Egret now breed at the site (12 pairs in 1997, 19 pairs in 1998) and this represents about 90% of the breeding population in Ireland.

The site holds important numbers of wintering waterfowl. Both the Blackwater Callows and the Blackwater Estuary Special Protection Areas (SPAs) hold internationally important numbers of Black-tailed Godwit (average peak 847, 1994/95- 95/96 on the callows, average peak 845, 1974/75-93/94 in the estuary). The Blackwater Callows also hold Wigeon (average peak 2752), Teal (average peak 1316), Mallard (average peak 427), Shoveler (average peak 28), Lapwing (average peak 880), Curlew (average peak 416) and Black-headed Gull (average peak 396) (counts from 1994/95-95/96). Numbers of birds using the Blackwater Estuary, given as the mean of the highest monthly maxima over 20 years (1974-94), are Shelduck (137 +10 breeding pairs), Wigeon (780), Teal (280), Mallard (320 + 10 breeding pairs), Goldeneye (11- 97), Oystercatcher (340), Ringed Plover (50 + 4 breeding pairs), Grey Plover (36), Lapwing (1680), Knot (150), Dunlin (2293), Snipe (272), Black-tailed Godwit (845), Bar-tailed Godwit (130), Curlew (920), Redshank (340), Turnstone (130), Blackheaded Gull (4000) and Lesser Black-backed Gull (172). The greatest numbers (75%) of the wintering waterfowl of the estuary are located in the Kinsalebeg area on the east of the estuary in Co. Waterford. The remainder are concentrated along the Tourig Estuary on the Co. Cork side.

The river and river margins also support many Heron, non-breeding Cormorant and Mute Swan (average peak 53, 1994/95-95/96 in the Blackwater Callows). Heron occurs all along the Bride and Blackwater Rivers - 2 or 3 pairs at Dromana Rock; c. 25 pairs in the woodland opposite; 8 pairs at Ardsallagh Wood and c. 20 pairs at Rincrew Wood have been recorded. Some of these are quite large and significant heronries. Significant numbers of Cormorant are found north of the bridge at Youghal and there are some important roosts present at Ardsallagh Wood, downstream of Strancally Castle and at the mouth of the Newport River. Of note are the high numbers of wintering Pochard (e.g. 275 individuals in 1997) found at Ballyhay quarry on the Awbeg, the best site for Pochard in County Cork.

Other important species found within the site include Long-eared Owl, which occurs all along the Blackwater River, and Barn Owl, a Red Data Book species, which is found in some old buildings and in Castlehyde west of Fermoy. Reed Warbler, a scarce breeding species in Ireland, was found for the first time in the site in 1998 at two locations. It is not known whether or not this species breeds on the site, although it is known to nearby to the south of Youghal. Dipper occurs on the rivers.

Landuse at the site is mainly centred on agricultural activities. The banks of much of the site and the callows, which extend almost from Fermoy to Cappoquin, are dominated by improved grasslands which are drained and heavily fertilised. These areas are grazed and used for silage production. Slurry is spread over much of this area. Arable crops are grown. The spreading of slurry and fertiliser poses a threat to the water quality of this salmonid river and to the populations of Habitats Directive Annex II animal species within it. Many of the woodlands along the rivers belong to old estates and support many non-native species. Little active woodland management occurs. Fishing is a main tourist attraction along stretches of the Blackwater and its tributaries and there are a number of Angler Associations, some with a number of beats. Fishing stands and styles have been erected in places. Both commercial and leisure fishing takes place on the rivers. Other recreational activities such as boating, golfing and walking are also popular. Water skiing is carried out at Villierstown. Parts of Doneraile Park and Anne's Grove are included in the site: both areas are primarily managed for amenity purposes. There is some hunting of game birds and Mink within the site. Ballyhay quarry is still actively quarried for sand and gravel. Several industrial developments, which discharge into the river, border the site.

The main threats to the site and current damaging activities include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, dredging of the upper reaches of the Awbeg, overgrazing within the woodland areas, and invasion by nonnative species, for example Cherry Laurel.

Overall, the River Blackwater is of considerable conservation significance for the occurrence of good examples of habitats and of populations of plant and animal species that are listed on Annexes I and II of the E.U. Habitats Directive respectively; furthermore it is of high conservation value for the populations of bird species that use it. Two Special Protection Areas, designated under the E.U. Birds Directive, are also located within the site - Blackwater Callows and Blackwater Estuary. Additionally, the importance of the site is enhanced by the presence of a suite of uncommon plant species.

SITE NAME: BLACKWATER ESTUARY SPA

SITE CODE: 004028

The Blackwater Estuary SPA is a moderately-sized, sheltered south-facing estuary, which extends from Youghal New Bridge to the Ferry Point peninsula, close to where the river enters the sea. It comprises a section of the main channel of the River Blackwater. At low tide, intertidal flats are exposed on both sides of the channel. On the eastern side the intertidal channel is included as far as Kinsalebeg and Moord Cross Roads is included, while on the west side the site includes part of the estuary of the Tourig River as far as Rincrew Bridge.

The intertidal sediments are mostly muds or sandy muds reflecting the sheltered conditions of the estuary. Green algae (*Enteromorpha* spp. and *Ulva lactuca*) are frequent on the mudflats during summer, and Bladder Wrack (*Fucus vesiculosus*) occurs on the upper more stony shorelines. The sediments have a macrofauna typical of muddy sands, with polychaete worms such as Lugworm (*Arenicola marina*), Ragworm (*Hediste diversicolor*) and the marine bristle worm *Nephtys hombergii* being common. Bivalves are also well represented, especially Peppery Furrow-shell (*Scrobicularia plana*), but also Sand Gaper (*Mya arenaria*), Baltic Tellin (*Macoma balthica*) and Common Cockle (*Cerastoderma edule*). Among the brown seaweed on the shoreline, the Shore Crab (*Carcinus maenas*) and the Rough Periwinkle (*Littorina saxatilis*) are found. Salt marshes fringe the estuarine channels, especially in the sheltered creeks.

The Blackwater Estuary is of high ornithological importance for wintering waterfowl, providing good quality feeding areas for an excellent diversity of waterfowl species. At high tide, the birds roost along the shoreline and salt marsh fringe, especially in the Kinsalebeg area. Some birds may leave the site to roost in fields above the shoreline. The site supports an internationally important population of Black-tailed Godwit (934), and has a further eight species with nationally important populations (all figures are average peaks for the five winters 1995/96 to 1999/2000): Shelduck (151), Wigeon (1,232), Golden Plover (2,947), Lapwing (3,988), Dunlin (2,016), Curlew (1,194), Redshank (634) and Greenshank (30). A population of Bar-tailed Godwit (172) is very close to the threshold for national importance. Other species which occur in significant numbers include Grey Heron (27), Teal (527), Mallard (148), Oystercatcher (508), Grey Plover (53), Knot (50) and Turnstone (56). The site also supports Brent Goose (19), Red-breasted Merganser (8), Shoveler (23), Ringed Plover (29) and Cormorant (60). The site is also notable for supporting large concentrations of gulls in autumn and winter, including Black-headed Gull (549), Common Gull (253), Lesser Black-backed Gull (602), Great Black-backed Gull (227) and Herring Gull (86). Little Egret uses the site regularly during the year as there is a breeding colony upstream. The estuary provides an important feeding area for these birds (15, with a maximum of 26). The Blackwater Estuary SPA is an internationally important wetland site on account of the population of Black-tailed Godwit it supports. It is also of high importance in a national context, with eight species having populations which exceed the thresholds for national importance. The occurrence of Little Egret, Golden Plover and Bar-tailed Godwit is of particular note as these species are listed on Annex I of the E.U. Birds Directive. The site has been well-studied, with detailed monthly counts extending back to 1974.

APPENDIX 3 PROTECTED MAMMAL SPECIES

Table A2.1 Protected mammal species recorded from the 20km square within which the affected area is located, comprising OS 10km grid square X07, X 08, X 17 and X18. Information from Hayden and Harrington (2000).

Species	Indication of population	Level of Protection
Badger	Found throughout Ireland	Wildlife Act, though exceptions are written into the Act for road building
Leisler's bat	Found throughout Ireland	Protected through Wildlife (Amendment) Act 2000. Appendix II of the Bern Convention. Bonn Convention. Annex IV of the EU Habitats Directive. Red Data Book 'Internationally Important'.
Brown long-eared bat	Distributed widely through Ireland	Protected through Wildlife (Amendment) Act 2000. Appendix II of the Bern Convention. Annex IV of the EU Habitats Directive. Red Data Book 'Internationally Important'.
Hedgehog	Found throughout Ireland	Appendix III of the Bern Convention
Irish stoat	Found throughout Ireland.	Appendix III of the Bern Convention
Pygmy shrew	Found throughout Ireland	Appendix III of the Bern Convention
Otter	Found throughout Ireland	Annexe II and IV of Habitats Directive Appendix III of the Bern Convention.
Irish (mountain) hare	Found throughout Ireland	Irish Red Data Book 'Internationally important'. Annex V of the Habitats Directive. Appendix III Bern Convention.
Red squirrel	Distributed widely through Ireland	Protected under the Wildlife Act; classified as near threatened in a global context in the 2000 IUCN Red List of Threatened Species
Common seal	Breeding colonies at various locations around the coast	Protected through Wildlife (Amendment) Act 2000.

Table List of species in the 10km squares where the study area is located (source www.npws.ie).

Species		NPWS 10km square			
Common Name	Scientific Name	X07	X08	X17	X18
Hedgehog	<i>Erinaceus europaeus</i>	•	•	•	•
Otter	<i>Lutra lutra</i>	•	•	•	•

Irish stoat	<i>Mustela erminea</i>	•	•	•	•
Red squirrel	<i>Sciurus vulgaris</i>	•	•		•
Pygmy shrew	<i>Sorex minutus</i>	•	•	•	•
Fallow deer	<i>Dama dama</i>		•		•
Grey seal	<i>Halichoerus grypus</i>			•	

APPENDIX 4 SHORE ANGLING AND BAIT COLLECTION AREAS

Table A3.1 Important shore angling marks in Youghal Bay and their distance from the proposed development (adapted from Dunlop and Green, 1992).

Shore angling mark	Species present	Distance from Youghal Town
Old dyke wall	Flounder, plaice, cod	0
Ferry point	Dogfish, flatfish, bass, conger, codling	<1km
Youghal strand	Bass, flatfish, codling, coalfish	<5km
Whiting Bay	Bass, flatfish, dogfish, cod, Pollack, wrasse, sea trout, mackerel	<5km
Pilmore	Flounder, bass	<10km
Knockadoon head	Flatfish, Ray, Bass	<10km

Table A3.2 The main fishing bait collection areas in Youghal Bay and the main bait species present (adapted from Dunlop and Green, 1992). Distance from proposed development is also indicated.

Location	Main bait species	Distance from Youghal Town
Oldbridge	Peeler and soft crab	<1km
Inside ferry point	Lugworm	<1 km
Monatrae	Crab	<1 km
Pilmore	Lugworm	<10km
Whiting Bay	Lugworm	<10km

YOUGHAL

EOCHAILL

Development Plan 2009-2015



VOLUME IV Appropriate Assessment

Youghal Town Council



February 2009

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1 INTRODUCTION

The purpose of Appropriate Assessment of local authority plans is to ensure that protection of the integrity of European 'Natura 2000' sites is included as an integral part of the planning process at a local level. By carrying out an Appropriate Assessment, Youghal Town Council also ensure that in accepting and implementing the Development Plan 2009 – 2015 they are not likely to be in breach of the provisions of Articles 6(3) and 6(4) of the Habitats Directive.

The requirement for Appropriate Assessment of plans or projects originates from Article 6 (3) and (4) of *European Union (EU) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora*, commonly known as the 'Habitats Directive', which is implemented in Ireland through the European Communities (Natural Habitats) Regulations of 1997. The wording of Article 6 (3) of the Directive is as follows:

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

The wording of Article 6 (4) of the Directive is as follows:

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

In February 2008, the statutory requirement for an Appropriate Assessment of all land use plans was further emphasised by a Department of the Environment, Heritage and Local Government Circular Letter (SEA 1/08 & NPWS 1/08), which was issued to all County and City Managers, Directors of Services for Planning and Town Clerks. The Circular Letter entitled 'Appropriate Assessment of Land Use Plans' emphasises the fact that an appropriate assessment of the ecological implications of any plan or project is required, whether it is within or outside a designated site, if it may impact upon the conservation objectives of that site. In May 2008, the Environmental Protection Agency circulated this letter as part of their guidance on the process to be employed in Strategic Environmental Assessment as part of "SEA Pack Vol. II 16 05 08".

The process is in its infancy in Ireland and to date very few Appropriate Assessments of local authority plans have been completed and there are currently no formal guidelines on the procedure to be employed. Staff from National Parks and Wildlife Service, the competent statutory authority, are however becoming increasingly familiar with the requirements of Appropriate Assessment, and this document has been produced in consultation with NPWS staff. It is our understanding that guidelines are currently being prepared by the EPA, however until these become available, this on-going liaison and consultation process ensures that our Appropriate Assessment has been carried out in a manner that is acceptable to the relevant competent authorities.

In addition to the advice available from NPWS, the EU has published a number of documents which provide guidance on the requirements of Appropriate Assessment, including, *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*, which sets out the principles of how to approach decision making during the process and this have been followed as closely as possible. There are however a number of restrictions when attempting to apply this document in an Irish context, including first and foremost, the lack of formal statutory guidelines; and also, importantly, the relative lack of published data on many of the faunal and floral elements of the environment which comprise the conservation objectives of European sites.

2 METHODOLOGY

The Appropriate Assessment process progresses through four stages as follows:

- Stage 1 – Screening of Youghal Development Plan;
- Stage 2 – Appropriate Assessment of Youghal Development Plan;
- Stage 3 – Assessment of alternative solutions; and
- Stage 4 – Assessment of compensatory measures.

Stages 1 and 2 relate to Article 6(3) of the Habitats Directive; and Stages 3 and 4 to Article 6(4).

A key consideration of Appropriate Assessment is that other plans and projects must be considered and that the assessment must take account of the impacts on Natura 2000 sites of these developments 'in combination' with other plans or projects. No major projects are known of in the vicinity of Youghal that are likely to have 'in combination' impacts on any of the Natura 2000 Sites discussed in this assessment.

Stage 1 – Screening

The aim of Stage 1, 'Screening' is to determine whether or not Stage 2, the Appropriate Assessment is required, i.e. to determine whether or not the objectives and policies of the Youghal Development Plan are likely to negatively affect the conservation objectives on any Natura 2000 site. This is done by examining the objectives and the policies of the plan; and the conservation objectives of any Natura 2000 sites that might potentially be affected.

Stage 2 – Appropriate Assessment

The aim of Stage 2, the 'Appropriate Assessment' proper, is to propose changes to Youghal Development Plan that will Avoid and Mitigate any negative impacts on Natura 2000 sites and thereby avoid the need to progress to Stage 3, which would effectively constitute a rejection of the plan in its current form and require the Town Council to implement Compensatory measures for impacts on Natura 2000 sites.

Stages 3 and 4 - Assessment of Alternative Solutions and Compensatory Measures

Provided the recommendations of Stage 2 are incorporated into future drafts of Youghal Development Plan, Stages, 3 and 4, which relate to alternative solutions and Compensatory measures under Article 6(4) of the EU Habitats Directive, will not be required.

3 STAGE 1 – SCREENING

3.1 INTRODUCTION TO THE SCREENING PROCESS

This stage involves establishing whether or not the plan is likely to have a significant effect on the conservation objectives of any Natura 2000 site. The screening process requires an initial review of the draft plan to identify any policies or objectives that might potentially have impacts upon Natura 2000 sites. These might include for example policies and objectives that include a requirement for new development land; policies or objectives that may result in increases in disturbance to sensitive fauna and flora; policies and objectives that could result in deterioration in water quality, etc.

For definition purposes the Natura 2000 site(s) include Special Areas of Conservation (habitats) and/ or Special Protection Areas (birds). With regard to SACs, Annex I refers to habitats and Annex II refers to species listed in the Habitats Directive. With regard to SPAs, Annex I refers to the EU Birds Directive. Also land that could have a potential to contain important bird areas that have not already been designated, as an SPA should be taken into consideration.

Table 1: Details of the Natura 2000 Sites located within 15km of Youghal

Site Name	Site Designation	Site Code	Location Relative to Youghal
Blackwater River (Cork / Waterford)	cSAC	002170	Partially within Youghal town boundary
Blackwater Estuary	SPA	004028	Partially within Youghal town boundary
Ballymacoda Bay	SPA	004023	1.7km to the southwest
Ballymacoda (Clonpriest and Pillmore)	cSAC	000077	2.9km to the southwest
Ardmore Head	cSAC	002123	8km to the east
Helvick Head to Ballyquin	SPA	004192	11km to the east
Ballycotton Bay	SPA	004022	12km to the southwest

Screening requires a review of all Natura 2000 sites that could potentially be subject to the impacts that have been identified. Clearly a key variable that will determine whether or not a particular Natura 2000 site is likely to be negatively effected by the draft plan's policies and objectives is its physical distance from Youghal, and it will generally, but not necessarily, be the case that the greater the distance the lower the possibility of impacts. It is not considered that any of the policies or objectives of Youghal Development Plan 2009 – 2015 have the potential to impact upon any Natura 2000 sites more than 15km from the town. A total of seven Natura 2000 sites are located within 15km of the town. These are shown in Table 1, which also gives the distance and direction of each site from Youghal. Each site is then discussed with respect to its requirement or not for an Appropriate Assessment.

Data and information for this screening assessment was collected from the following sources, consultation with NPWS, Natura 2000 Forms, 'Notice of Intention to Designate' Forms, NPWS Site Synopses, other published data on rare and protected species, and personal knowledge of the sites.

3.2 BALLYCOTTON BAY SPA

Ballcotton Bay is comprised of two sheltered coastal inlets into which several small watercourses flow. Sand flats, sandy beaches, salt marsh, wet grassland and reed beds also occur, and all of these habitats are of importance to the site's bird populations. The southern inlet was formerly a lagoon but breaching of the shingle barrier in recent years means that this habitat has been replaced by an estuarine one. The site is designated on the basis of the presence of non-breeding populations of three Annex I bird species; Golden Plover and Bar-tailed Godwit during the winter and Ruff as a passage migrant. In addition to these Annex I species, the site supports nationally important numbers of a further 9 species.

The Natura 2000 form includes the potential for increased human visitor pressure as a potential threat. Whilst some of the policies and objectives of Youghal Development Town Plan aim to increase tourism in the town, the relatively large distance between Youghal and Ballymacoda makes it highly unlikely that any such increases could have any significant impact within the SPA. It is also considered very unlikely that any other policies or objectives of Youghal Development Plan 2009 - 2015 could have impacts within this SPA, and hence could not have 'in combination' impacts either. **Appropriate Assessment of Youghal Development Plan 2009 - 2015 in relation to the potential for negative impacts on Ballymacoda Bay SPA is not required.**

3.3 ARDMORE HEAD cSAC

Ardmore Head cSAC is a small site covering a headland to the east of Ardmore, Co. Waterford. It consists of sea cliffs and associated coastal habitats. The cSAC is designated on the basis of two Annex I habitats, 'dry heath' and 'vegetated sea cliffs', and also supports a seabird colony of Kittiwake, Fulmar, Cormorant (a Birds Directive Annex I species), Shag, Herring Gull and Great Black-backed Gull. The Natura Form lists trampling and burning as threats to the habitats. **Appropriate Assessment of Youghal Development Plan 2009 – 2015 in relation to the potential for negative impacts on Ardmore Head cSAC is not required.**

3.4 HELVICK HEAD TO BALLYQUIN SPA

This site covers the coastal cliffs and adjacent land between the townland of Ballyquin, which lies 3.5km to the northeast of Ardmore, and approximately 11km east of Youghal, to Helvick Head, which lies some 24km northeast of Youghal. No Natura 2000 Form is currently (August 2008) available for this site however the 'Notice of Intention to Designate' form has been examined. This SPA is designated on the basis of the presence of an important breeding populations of the Birds Directive Annex I species Chough, and Peregrine; a nationally important breeding population of the Annex I species Cormorant; and nationally important breeding populations of Herring Gull and Kittiwake. Smaller populations of other seabirds are also present including Razorbill, Fulmar, Shag, Guillemot and Great black-backed Gull.

Due to the relatively great distance between Youghal and the site, and the inaccessible nature of the habitats that support the bird populations, it is not considered that any of the policies or objectives of Youghal Development Plan 2009 – 2015 could have impacts on these

bird species, and hence could not have 'in combination' impacts either. **Appropriate Assessment of Youghal Development Plan 2009 – 2015 in relation to the potential for negative impacts on *Helvick Head to Ballyquin* SPA is not required.**

3.5 BALLYMACODA (CLONPRIEST AND PILLMORE) cSAC

The site comprises the estuary of the Womanagh River and its associated semi-natural coastal and estuarine habitats. The cSAC is designated on the basis of the presence of four Annex I habitats, 'mudflats and sandflats', 'estuaries', 'Atlantic salt meadows' and '*Salicornia* mudflats and sandflats'. Threats to the site listed in the Natura 2000 Form include deteriorating water quality mainly derived from agricultural pollution and the potential for poorly controlled aquaculture development. Neither of these threats is considered likely to be exacerbated by any policy presented in the Youghal Development Plan and no other potential impacts resulting from Policies, Objectives of zoning proposals in the plan are anticipated. **Appropriate Assessment of Youghal Development Plan 2009 - 2015 in relation to the potential for negative impacts on *Ballymacoda (Clonpriest and Pillmore)* cSAC is not required.**

3.6 BALLYMACODA BAY SPA

Ballymacoda Bay is the second most important site in Ireland's south coast for wintering waterfowl after Cork Harbour. The site is comprised of the estuary of the Womanagh River and includes extensive areas of mud, sand, dunes and salt marsh, all of which are habitats of importance to the site's bird populations. The site is designated on the basis of the presence of non-breeding winter populations of three Annex I bird species; Golden Plover and Bar-tailed Godwit during the winter and Ruff as a passage migrant. The site holds up to 9.6% of the all-Ireland population of Golden Plover. In addition to these Annex I species, the site supports internationally important numbers of Black-tailed Godwit and nationally important numbers of a further 16 species.

The Natura 2000 form includes the potential for increased human pressure from recreational use as a potential threat. Some of the policies and objectives of Youghal Development Town Plan aim to increase tourism in the town and these include Objectives for development of tourism infrastructure in the Redbarn area, at the northern edge of the SPA. There is some potential for such development to negatively impact upon the conservation objectives of the SPA. **Appropriate Assessment of Youghal Development Plan 2009 - 2015 in relation to the potential for negative impacts on *Ballymacoda Bay* SPA is required.**

3.7 BLACKWATER RIVER (CORK / WATERFORD) cSAC

This large cSAC covers the Blackwater River from its headwaters in Cos. Cork, Kerry, Tipperary, Waterford and Limerick, to its mouth at Youghal. The river is one of the largest in Ireland.

The site is designated on the basis of the presence of ten Annex I habitats including the two Priority Habitats 'remnant alluvial forest', which is found between Youghal and Cappoquin some 25km upstream, and 'Yew woods'. Six of the other eight Annex I habitats, 'estuaries', 'mudflats and sandflats', 'perennial vegetation of stony banks', 'Mediterranean salt meadows', 'Atlantic salt meadows' and '*Salicornia* mudflats and sandflats' occur in the estuarine sections of the cSAC, immediately adjacent to Youghal town. The best examples of 'old oak woodland' within the cSAC occur at Ballynatray and Glendine, less than 4km from Youghal. 'Floating

river vegetation' occurs only on the freshwater sections of the river upstream, and is therefore not present in the immediate vicinity of the town.

The site is also designated on the basis of a number of Annex II species. The mammal species otter occurs throughout the site, including the sections within Youghal town boundary; the five fish species, sea lamprey, river lamprey, Atlantic salmon, Twaite shad and Allis shad all occur in the estuary; Twaite shad and Allis shad occur in the cSAC as 'staging' migratory species whilst the other species breed within the cSAC, but probably occur only as migrants in the vicinity of Youghal. The fish species brook lamprey and the invertebrate species freshwater pearl-mussel and white-clawed crayfish are non-migratory freshwater species and are therefore not likely to occur in sections of the cSAC adjacent to Youghal.

No suitable habitat for the Annex II plant species Killarney Fern, which is also known from the cSAC, is present close to Youghal.

The only threat to the site listed in the Natura 2000 Form that may be of relevance to this assessment of Youghal Development Plan is the potential for water quality deterioration as a result of pollution from the town. Other negative impacts are however possible and as the cSAC lies partly within Youghal Town Boundary there are potential impacts on the site as a result of Policies, Objectives, Zonings or other issues described in the Town Plan. **Appropriate Assessment of Youghal Development Plan 2009 - 2015 in relation to the potential for negative impacts on *Blackwater River (Cork / Waterford)* cSAC is required.**

3.8 BLACKWATER ESTUARY SPA

This is a relatively small south facing estuary with tidally exposed mudflats along the main channel of the Blackwater and along the Tourig River. A low lying field where birds roost is also included. The SPA is designated on the basis of a resident (breeding) population of the Birds Directive Annex I species Little Egret; and the presence of non-breeding (winter) populations of the Annex I species Bar-tailed Godwit, which exceeds the threshold for national importance on occasion, and Golden Plover. The site also supports an internationally important non-breeding population of Black-tailed Godwit and nationally important numbers of eight other waterfowl species and large numbers of gulls.

The Natura 2000 Form states that due to the site's proximity to Youghal, threats to the bird populations include potential road improvement schemes or developments such as marinas. Hence, **Appropriate Assessment of Youghal Development Plan 2009 - 2015 in relation to the potential for negative impacts on *Blackwater Estuary* SPA is required.**

4 STAGE 2 – APPROPRIATE ASSESSMENT

4.1 INTRODUCTION TO THE APPROPRIATE ASSESSMENT

The Screening Stage (Stage 1) has concluded that Appropriate Assessment (Stage 2) of Youghal Development Plan 2009 - 2015 is required to identify policies, objectives and proposals (i.e. critical infrastructure) of the plan that might potentially impact negatively, including potential 'in combination' impacts, on the conservation objectives of the following Natura 2000 Sites:

- ***Blackwater River (Cork / Waterford) cSAC;***
- ***Blackwater Estuary SPA; and***
- ***Ballymacoda Bay SPA.***

The negative impacts that have been identified, which are discussed in this section, require the implementation of 'Avoidance' or 'Mitigation' measures, which will require amendments to Youghal Development Plan 2009 - 2015 in order to avoid the need to progress to Stages 3 and 4 of the Appropriate Assessment process; the assessment of alternative solutions and compensatory measures.

Documentation that has been referred to in the preparation of this assessment includes the Natura 2000 Forms and Site Synopses for the sites. Consultation with NPWS was also undertaken in this regard, in the form of discussions between Rick Mundy and Jervis Good, NPWS Regional Ecologist and Cyril Saich, NPWS District Conservation Officer.

4.2 BLACKWATER RIVER (CORK / WATERFORD) cSAC

4.2.1 Summary of the Key Features of the Site and of the Environmental Conditions Which Support Them

This section provides details of the Annex I habitats and the Annex II species for which this cSAC has been designated; and of the environmental factors which support these features (the conservation objectives of the site).

4.2.1.1 Annex I Habitats

This is a very large site and many of the Annex I habitats and Annex II species for which the site is designated do not occur in the estuarine sections of the site that lie adjacent to Youghal town.

The site is designated on the basis of the presence of ten Annex I habitats including the two Priority Habitats 'remnant alluvial forest' and 'Yew woods', neither of which occur in the immediate vicinity of Youghal. Six of the other eight Annex I habitats, 'estuaries', 'mudflats and sandflats', 'perennial vegetation of stony banks', 'Mediterranean salt meadows', 'Atlantic salt meadows' and '*Salicornia* mudflats and sandflats' occur in the estuarine sections of the cSAC, immediately adjacent to Youghal town.

4.2.1.2 Annex II Species

The site is also designated on the basis of a number of Annex II species. The mammal species otter occurs throughout the site, almost certainly including the sections within Youghal town boundary. Five fish species, sea lamprey, river lamprey, Atlantic salmon, Twaite shad and Allis shad all occur in the estuary; Twaite shad and Allis shad are stated to occur as 'staging' migratory species in the Natura 2000 Form whilst the other species breed within the cSAC, but probably occur only as migrants in the vicinity of Youghal. Whilde (1993) however states that Twaite shad is known to spawn in the Blackwater estuary.

Allis shad is a member of the herring family, occurring in shallow coastal waters and estuaries, migrating to the lower reaches of large rivers to spawn during the late spring period. Pollution, including thermal pollution is considered to be the main threat to the species in Ireland (Whilde, 1993).

Twaite shad is a member of the herring family, which lives mostly at sea but enters the lower reaches of slow flowing rivers to spawn. The Blackwater is one of only two known spawning sites of the anadromous form of since the 1960's in Ireland, the other being the 'three sisters', the rivers Nore, Suir and Barrow. Another form of the species, the lacustrine form occurs in Killarney Lakes. This species is highly sensitive to marine pollution (Whilde, 1993).

Sea Lamprey and River Lamprey spend most of their adult lives at sea but return to the lower reaches of large rivers to spawn, where depositions of sand and silt occur (Whilde, 1993). Immature larval stages of the fish (ammocoetes) remain in rivers until they transform into adults several years later and return to the sea. Both species are known to spawn in the Blackwater system ((Kurz and Costello, 1999), and suitable spawning habitat for these species is present in the vicinity of Youghal town.

The Blackwater catchment is an important Atlantic salmon fishery. Both the main channel of the River Blackwater itself and the main channel of one of its main tributaries, the River Bride are designated 'Salmonid Waters' under the EU 'Freshwater Fish Directive' (78/659/EEC). Large numbers of salmon must pass through the Youghal Harbour when passing between the river system and the sea.

4.2.1.3 Environmental Factors that might be affected by the plan

The only threat to the site listed in the Natura 2000 Form that may be of relevance to this assessment of Youghal Development Plan is the potential for water quality deterioration as a result of pollution from the town. Other negative impacts are however possible. The following broad environmental categories constitute conservation objectives of the site that could potentially be negatively impacted upon by the town plan.

Available land / water area and habitat quality

All habitats and species require a sufficient area of land or water supporting suitable habitat, of sufficiently high quality, for populations to persist.

Disturbance

All ecosystems and their habitats and species are to some extent sensitive to human disturbance, and an absence of excessive disturbance constitutes a key environmental factor for all of the species and habitats discussed above.

Water quality

The Blackwater Estuary is an aquatic system, and many of habitats and species that the estuary supports are liable to negative impacts if water quality in the system deteriorates. Whilst all of the estuarine Annex I habitats and Annex II species are potentially susceptible to negative impacts resulting from water pollution, it is the five Annex II fish species, sea lamprey, river lamprey, Atlantic salmon, and in particular, Twaite shad and Allis shad, both of which are highly sensitive to pollution, that are probably most at risk from any deterioration in water quality.

4.2.2 Summary of Policies and Objectives of the Youghal Development Plan 2009 - 2015 that may impact upon the Conservation Objectives of the site.

A number of the policies and objectives of Youghal Development Plan have some potential to result in negative impacts on the conservation objectives of *River Blackwater (Cork / Waterford)* cSAC. These are discussed in this Section.

4.2.2.1 Development of Youghal Harbour as an Amenity Resource

Section 5.1 of Volume 2 of Youghal Development Plan 2009 - 2015, *Environmental Objectives, Development Control Objectives, Natural Environment Objectives, Protection of the aquatic habitat*, states the following;

“The Council has identified the harbour area within the jurisdiction of the Town Council as a riverine habitat and amenity resource. Applicants will be required to consult with environmental bodies including the South Western Regional Fisheries Board, in accordance with the Planning and Development Regulations, 2001.”

Whilst this statement acknowledges the importance of the aquatic habitat of Youghal Harbour, and requires that proposed development must be conducted in consultation with environmental bodies, it makes no specific reference to the cSAC designation that covers Youghal Harbour, nor to the restrictions on development that are imposed by Article 6 of the EU Habitats Directive in relation to this designation. It is recommended that this statement is expanded to include specific reference to the cSAC.

A number of the Objectives of the Development Plan relate directly to the development of the sailing and leisure boating industry in the town and in Youghal Harbour and the Blackwater Estuary, as follows,

Section 6.1 of Volume 2 of the Development Plan includes the Objective;

“The Leisure Sailing industry is a growing business of enormous potential benefit for Youghal and it shall be an objective to facilitate this industry in all strategies and proposals for the development of the Youghal tourist industry.”

Section 6.1 of Volume 2 of the Development Plan includes the Objective;

“It shall be an objective of the plan to enhance existing launching facilities and investigate possible new sites for the launching of small craft.”

Section 6.1 of Volume 2 of the Development Plan includes the Objective;

“It shall be an objective of the Plan to facilitate the provision of one or more marinas in Youghal subject to compliance with other objectives of the Plan and subject to proper and balanced consideration of the values of all stakeholders in the town.”

As discussed in Section 4.2.1.2 of this assessment, Youghal Harbour is an important element within the *River Blackwater (Cork / Waterford)* cSAC, particularly for Annex II fish species. Whilst it is feasible to progress the development of marinas, new craft launching sites and a leisure boating industry without negative impacts on the conservation objectives of the cSAC, negative impacts could potentially occur unless such developments are progressed specifically with the conservation objectives of the cSAC in mind. The above Objectives make no acknowledgement of the potential for negative impacts on the cSAC nor do they include proposals for avoiding such impacts. It is proposed that these Objectives should be modified to take specific account of the potential for negative impacts on the cSAC. The Objectives should include provision for steps that will be taken to ensure that no negative impacts on the conservation objectives of the cSAC will occur as a result of their implementation.

Development of Lands Immediately Adjacent to the cSAC

Section 4.1 of Volume 2 of the Development Plan includes the Objective;

“To develop the waterfront amenity of the town by provision inter alia of carparking and amenity areas.”

This Objective has the potential to result in the progression of developments within and adjacent to the cSAC that may potentially result in negative impacts on the conservation objectives of the cSAC. The Objective should include provision for steps that will be taken to ensure that no negative impacts on the conservation objectives of the cSAC will occur as a result of the implementation of this Objective.

Section 6.1 of Volume 2 of the Development Plan includes the Objective;

“It shall be an objective to seek to provide a segregated cycle lane, footpath, linear park and sea defences from the northern end of the “Slob Bank” to the “Quality Hotel” in Redbarn, marked DPO-11 on Map 4.”

The described location of these features as marked on Map 4, lies partially within the boundary of the cSAC and this Objective should therefore include specific reference to the potential for negative impacts on the conservation objectives on the cSAC that implementation of this Objective presents. The Objective should include provision for steps that will be taken to ensure that no negative impacts on the conservation objectives of the cSAC will occur as a result of the implementation of this Objective.

4.2.3 Appropriate Assessment of Youghal Development Plan 2009 - 2015 in relation to the potential for negative impacts on *Blackwater River (Cork / Waterford)* cSAC

Table 4.1 brings together in tabular form the details described in Section 4.2.1 and 4.2.2. The matrix identifies the key features for which the cSAC is designated that might experience negative impacts; the environmental factors on which those features depend; the elements of the plan that may result in negative impacts on those environmental factors; and the avoidance and mitigation measures required and the actions required to implement these measures, namely additional Policies and Objectives and amendments to existing Policies and Objectives of the plan.

Table 4.1: Potential Impacts on the Conservation Features of *River Backwater (Cork / Waterford)* cSAC Resulting From the Policies and Objectives of Youghal Development Plan 2009 - 2015

Qualifying Features (Conservation Objectives)	Conditions that support the qualifying feature (conservation objectives) which might be potentially affected by the town plan	Possible Impacts of Youghal Development Plan	Possible 'in combination' Impacts From Other Plans and Projects	Avoidance and Mitigation Measures Required	Actions Required
Priority Annex I habitat: 'estuaries'	<ul style="list-style-type: none"> Low levels of human disturbance from, for example boat traffic and bottom fishing. Good water quality. 	<ul style="list-style-type: none"> Increased disturbance and damage due to increased local population and increased access. Pollution of the estuary. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.
Annex I habitat: 'mudflats and sandflats'	<ul style="list-style-type: none"> Low levels of human disturbance from, for example boat traffic and bottom fishing. Good water quality. 	<ul style="list-style-type: none"> Increased disturbance and damage due to increased local population and increased access. Pollution of the estuary. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.
Annex I habitat: 'perennial vegetation of stony banks'	<ul style="list-style-type: none"> Suitable, undisturbed areas of shoreline. 	<ul style="list-style-type: none"> Increased disturbance and damage due to increased local population and increased access. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to shoreline habitat. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.

Table 4.1: Potential Impacts on the Conservation Features of *River Backwater (Cork / Waterford)* cSAC Resulting From the Policies and Objectives of Youghal Development Plan 2009 - 2015 (continued)

Qualifying Features (Conservation Objectives)	Conditions that support the qualifying feature (conservation objectives) which might be potentially affected by the town plan	Possible Impacts of Youghal Development Plan	Possible 'in combination' Impacts From Other Plans and Projects	Avoidance and Mitigation Measures Required	Actions Required
Annex I habitat: 'Mediterranean salt meadows'	<ul style="list-style-type: none"> Suitable, undisturbed areas of shoreline. 	<ul style="list-style-type: none"> Increased disturbance and damage due to increased local population and increased access. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to shoreline habitat. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.
Annex I habitat: 'Atlantic salt meadows'	<ul style="list-style-type: none"> Suitable, undisturbed areas of shoreline. 	<ul style="list-style-type: none"> Increased disturbance and damage due to increased local population and increased access. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to shoreline habitat. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.
Annex I habitat: ' <i>Salicornia</i> mudflats and sandflats'	<ul style="list-style-type: none"> Suitable, undisturbed areas of shoreline. Good water quality. 	<ul style="list-style-type: none"> Increased disturbance and damage due to increased local population and increased access. Pollution of the estuary from the town. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to shoreline habitat. Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.

Table 4.1: Potential Impacts on the Conservation Features of *River Backwater (Cork / Waterford)* cSAC Resulting From the Policies and Objectives of Youghal Development Plan 2009 - 2015 (continued)

Qualifying Features (Conservation Objectives)	Conditions that support the qualifying feature (conservation objectives) which might be potentially affected by the town plan	Possible Impacts of Youghal Development Plan	Possible 'in combination' Impacts From Other Plans and Projects	Avoidance and Mitigation Measures Required	Actions Required
Annex II mammal species: otter, which is likely to occur on all watercourses and water bodies in the area.	<ul style="list-style-type: none"> • Healthy fish populations (for food). • Suitable, undisturbed shoreline, riverbanks and other areas. 	<ul style="list-style-type: none"> • Increased disturbance and damage due to increased local population and increased access. • Pollution of the estuary from the town. 	None known	<ul style="list-style-type: none"> • Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. • Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> • Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.
Annex II fish species: sea lamprey	<ul style="list-style-type: none"> • Low levels of human disturbance from, for example boat traffic and fishing pressure. • Good water quality. 	<ul style="list-style-type: none"> • Increased disturbance and damage due to increased local population and increased access. • Pollution of the estuary from the town. 	None known	<ul style="list-style-type: none"> • Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. • Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> • Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.

Table 4.1: Potential Impacts on the Conservation Features of *River Backwater (Cork / Waterford)* cSAC Resulting From the Policies and Objectives of Youghal Development Plan 2009 - 2015 (continued)

Qualifying Features (Conservation Objectives)	Conditions that support the qualifying feature (conservation objectives) which might be potentially affected by the town plan	Possible Impacts of Youghal Development Plan	Possible 'in combination' Impacts From Other Plans and Projects	Avoidance and Mitigation Measures Required	Actions Required
Annex II fish species: river lamprey,	<ul style="list-style-type: none"> Low levels of human disturbance from, for example boat traffic and fishing pressure. Good water quality. 	<ul style="list-style-type: none"> Increased disturbance and damage due to increased local population and increased access. Pollution of the estuary from the town. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.
Annex II fish species: Atlantic salmon	<ul style="list-style-type: none"> Low levels of human disturbance from, for example boat traffic and fishing pressure. Good water quality. 	<ul style="list-style-type: none"> Increased disturbance and damage due to increased local population and increased access. Pollution of the estuary from the town. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.

Table 4.1: Potential Impacts on the Conservation Features of *River Backwater (Cork / Waterford)* cSAC Resulting From the Policies and Objectives of Youghal Development Plan 2009 - 2015 (continued)

Qualifying Features (Conservation Objectives)	Conditions that support the qualifying feature (conservation objectives) which might be potentially affected by the town plan	Possible Impacts of Youghal Development Plan	Possible 'in combination' Impacts From Other Plans and Projects	Avoidance and Mitigation Measures Required	Actions Required
Annex II fish species: Twaite shad	<ul style="list-style-type: none"> Low levels of human disturbance from, for example boat traffic and fishing pressure. Good water quality 	<ul style="list-style-type: none"> Increased disturbance and damage due to increased local population and increased access. Pollution of the estuary from the town. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.
Annex II fish species: Allis shad	<ul style="list-style-type: none"> Low levels of human disturbance from, for example boat traffic and fishing pressure. Good water quality 	<ul style="list-style-type: none"> Increased disturbance and damage due to increased local population and increased access. Pollution of the estuary from the town. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Sections 4 and 6.

4.3 BLACKWATER ESTUARY SPA

4.3.1 Summary of the Key Features of the Site and of the Environmental Conditions Which Support Them

This section provides details of the Birds Directive Annex I species, and other features of ornithological importance, for which this SPA has been designated; and of the environmental factors which support these features (the conservation objectives of the site).

4.3.1.1 Birds Directive Annex I Species

The SPA is designated on the basis of a resident (breeding) population of the Birds Directive Annex I species Little Egret; and the presence of non-breeding (winter) populations of the two Annex I species Bar-tailed Godwit, the population of which exceeds the threshold for national importance on occasion, and Golden Plover.

4.3.1.2 Other Important Bird Populations

The Natura 2000 form indicates that the site also supports an internationally important non-breeding population of Black-tailed Godwit and nationally important numbers of seven other waterfowl species: Shelduck, Wigeon, Lapwing, Dunlin, Curlew, Redshank and Greenshank. Also present during the winter are significant populations of gulls.

4.3.1.3 Environmental Factors that might be affected by the plan

The Natura 2000 Form states that due to the site's proximity to Youghal, threats to the bird populations include potential road improvement schemes or developments such as marinas. Objectives and Policies that could result in increased levels of disturbance to birds as a result of increased access to sensitive areas also presents a threat. Changes to habitats, or reductions in food supply as a result of eutrophication or other contamination might also present a potential threat. The following broad environmental categories constitute conservation objectives of the site that could potentially be negatively impacted upon by the town plan.

Available land / water area and habitat quality

All habitats and species require a sufficient area of land or water supporting suitable habitat, of sufficiently high quality, for populations to persist.

Disturbance

All ecosystems and their habitats and species are to some extent sensitive to human disturbance, and an absence of excessive disturbance constitutes a key environmental factor for all of the species and habitats discussed above.

Water quality

The Blackwater Estuary is an aquatic system, and the bird populations that the estuary supports are liable to negative impacts if deterioration in water quality results in a reduction in the quality of their habitat.

4.3.2 Summary of Policies and Objectives of Youghal Development Plan 2009 - 2015 that may impact upon the Conservation Objectives of the site

A number of the Policies and Objectives of Youghal Development Plan have some potential to result in negative impacts on the conservation objectives of *Blackwater Estuary* SPA. These are discussed in this Section.

Development of Youghal Harbour as an Amenity Resource

Section 5.1 of Volume 2 of the Development Plan, *Environmental Objectives, Development Control Objectives, Natural Environment Objectives*, of Youghal Development Plan 2009 – 2015 states that,

“Protection of the aquatic habitat; The Council has identified the harbour area within the jurisdiction of the Town Council as a riverine habitat and amenity resource. Applicants will be required to consult with environmental bodies including the South Western Regional Fisheries Board, in accordance with the Planning and Development Regulations, 2001.”

Whilst this statement acknowledges the importance of the aquatic habitat of Youghal Harbour, and requires that proposed development must be conducted in consultation with environmental bodies, it makes no specific reference to the SPA designation that covers Youghal Harbour, nor to the restrictions on development that are imposed by Article 6 of the EU Habitats Directive in relation to this designation. It is recommended that this statement is expanded to include specific reference to the SPA.

A number of the Objectives of the Development Plan relate directly to the development of the sailing and leisure boating industry in the town and in Youghal Harbour and the Blackwater Estuary, as follows,

Section 6.1 of Volume 2 of the Development Plan includes the Objective,

“The Leisure Sailing industry is a growing business of enormous potential benefit for Youghal and it shall be an objective to facilitate this industry in all strategies and proposals for the development of the Youghal tourist industry.”

Section 6.1 of Volume 2 of the Development Plan includes the Objective,

“It shall be an objective of the plan to enhance existing launching facilities and investigate possible new sites for the launching of small craft.”

Section 6.1 of Volume 2 of the Development Plan includes the Objective,

“It shall be an objective of the Plan to facilitate the provision of one or more marinas in Youghal subject to compliance with other objectives of the Plan and subject to proper and balanced consideration of the values of all stakeholders in the town.”

Whilst it is feasible to progress the development of a marinas, new craft launching sites and a leisure boating industry without negative impacts on the conservation objectives of the SPA, all of the bird species discussed in Section 4.3.1.1 and 4.3.1.2 are prone to negative impacts as a result of disturbance and deterioration in habitat quality and negative impacts could potentially occur unless such developments are progressed specifically with the conservation objectives of the SPA in mind. The above Objectives do not acknowledge the potential for negative impacts on the SPA nor proposals for avoiding such impacts. It is proposed that these Objectives should be modified to take specific account of the potential for negative impacts on the SPA. The Objectives should include provision for steps that will be taken to

ensure that no negative impacts on the conservation objectives of the SPA will occur as a result of the implementation of these Objectives.

Development of Lands Immediately Adjacent to the SPA

Section 6.1 of Volume 2 of the Development Plan includes the Objective,

“It shall be an objective to seek to provide a segregated cycle lane, footpath, linear park and sea defences from the northern end of the “Slob Bank” to the “Quality Hotel” in Redbarn, marked DPO-11 on Map 4.”

The described location of these features as marked on Map 4, lies partially within the boundary of the SPA and this Objective should therefore include specific reference to the potential for negative impacts on the conservation objectives on the SPA that implementation of this Objective presents. The Objective should include provision for steps that will be taken to ensure that no negative impacts on the conservation objectives of the SPA will occur as a result of the implementation of this Objective.

4.3.3 Appropriate Assessment of Youghal Development Plan 2009 - 2015 in relation to the potential for negative impacts on *Blackwater Estuary* SPA

Table 4.2 brings together in tabular form the details described in Section 4.3.1 and 4.3.2. The matrix identifies the key features for which the cSAC is designated that might experience negative impacts; the environmental factors on which those features depend; the elements of the plan that may result in negative impacts on those environmental factors; and the avoidance and mitigation measures required and the actions required to implement these measures, namely additional Policies and Objectives and amendments to existing Policies and Objectives of the plan.

Table 4.2: Potential Impacts on the Conservation Features of *Blackwater Estuary* SPA Resulting From the Policies and Objectives of Youghal Development Town Plan

Qualifying Features (Conservation Objectives)	Conditions that support the qualifying feature (conservation objectives) which might be potentially affected by the town plan	Possible Impacts of Youghal Development Plan	Possible 'in combination' Impacts From Other Plans and Projects	Avoidance and Mitigation Measures Required	Actions Required
Birds Directive Annex I species: Little Egret	<ul style="list-style-type: none"> Sufficient area of undisturbed habitat, primarily estuarine channels. 	<ul style="list-style-type: none"> Increased disturbance due to increased local population and increased access. Reduction in water quality as a result if increased inputs from manmade sources. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Section 6.
Birds Directive Annex I species: Bar-tailed Godwit	<ul style="list-style-type: none"> Sufficient area of undisturbed habitat, primarily tidally exposed mud. 	<ul style="list-style-type: none"> Increased disturbance due to increased local population and increased access. Reduction in water quality as a result if increased inputs from manmade sources. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Section 6.
Birds Directive Annex I species: Golden Plover	<ul style="list-style-type: none"> Sufficient area of undisturbed habitat, primarily tidally exposed mud. 	<ul style="list-style-type: none"> Increased disturbance due to increased local population and increased access. Reduction in water quality as a result if increased inputs from manmade sources. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. Appropriate Assessment of Policies and Objectives that may result in deterioration in estuarine water quality. 	<ul style="list-style-type: none"> Amendments to a Statement in Section 5 and to Objectives in Section 6.

4.4 BALLYMACODA BAY SPA

4.4.1 Summary of the Key Features of the Site and of the Environmental Conditions Which Support Them

This section provides details of the Birds Directive Annex I species, and other features of ornithological importance, for which this SPA has been designated; and of the environmental factors which support these features (the conservation objectives of the site).

4.4.1.1 Birds Directive Annex I Species

Ballymacoda Bay is the second most important site in Ireland's south coast for wintering waterfowl after Cork Harbour. The SPA is designated on the basis of the presence of the non-breeding populations of the three Annex I species Bar-tailed Godwit and Golden Plover during the winter and Ruff as a passage migrant. Great Cormorant, also listed under Annex I also occurs in substantial numbers.

4.4.1.2 Other Important Bird Populations

The Natura 2000 form indicates that the site also supports an internationally important non-breeding population of Black-tailed Godwit and nationally important numbers of a further 16 species, Shelduck, Wigeon, Teal, Ringed Plover, Grey Plover, Lapwing, Knot, Sanderling, Dunlin, Curlew, Redshank, Greenshank, Ruddy Turnstone, Black-headed Gull, Common Gull and Lesser Black-backed Gull.

4.4.1.3 Environmental Factors that might be affected by the plan

Whilst the site is located some distance from Youghal town boundary, Objectives and Policies that seek to improve access to the lands between Youghal and Ballynamona may result in increased visitor access to the area and an increase in disturbance to birds within the SPA.

The following broad environmental categories constitute conservation objectives of the site that could potentially be negatively impacted upon by the town plan.

Disturbance

All ecosystems and their habitats and species are to some extent sensitive to human disturbance, and an absence of excessive disturbance constitutes a key environmental factor for all of the bird species discussed in Sections 4.4.1.1 and 4.4.1.2.

4.4.2 Summary of Policies and Objectives of Youghal Development Plan 2009 - 2015 that may impact upon the Conservation Objectives of the site

Section 6.1 of Volume 2 of the Development Plan includes the Objective,

"It shall be an objective to seek to provide a segregated cycle lane, footpath, linear park and sea defences from the northern end of the "Slob Bank" to the "Quality Hotel" in Redbarn, marked DPO-11 on Map 4."

The Quality Hotel at Redbarn is located at the northern boundary of *Ballymacoda Bay* SPA and this Objective is therefore likely to result in an increase in the number of pedestrians, (some with dogs) and cyclists travelling from Youghal town to northern margins of the SPA. Such an increase in access could result in increased disturbance levels to the birds in this area. In order to prevent any negative impact on the conservation objectives of the SPA it is considered that this Objective requires an amendment such that this potential for negative impacts on the SPA is recognised. The Objective should include an assurance that measures will be incorporated into the design of the cycle lane, footpath and linear park, that will endeavour to prevent any such negative impacts. Such measures are likely to include signage to inform visitors that the area is of importance to birds that are sensitive to disturbance, and in particular that dogs should be kept under control in this area.

4.4.3 Appropriate Assessment of Youghal Development Plan 2009 - 2015 in relation to the potential for negative impacts on Blackwater Estuary SPA

Table 4.2 brings together in tabular form the details described in Section 4.3.1 and 4.3.2. The matrix identifies the key features for which the cSAC is designated that might experience negative impacts; the environmental factors on which those features depend; the elements of the plan that may result in negative impacts on those environmental factors; and the avoidance and mitigation measures required and the actions required to implement these measures, namely additional Policies and Objectives and amendments to existing Policies and Objectives of the plan.

Table 4.2: Potential Impacts on the Conservation Features of *Blackwater Estuary* SPA Resulting From the Policies and Objectives of Youghal Development Town Plan

Qualifying Features (Conservation Objectives)	Conditions that support the qualifying feature (conservation objectives) which might be potentially affected by the town plan	Possible Impacts of Youghal Development Plan	Possible 'in combination' Impacts From Other Plans and Projects	Avoidance and Mitigation Measures Required	Actions Required
Birds Directive Annex I species: Golden Plover	<ul style="list-style-type: none"> Sufficient area of undisturbed habitat, primarily tidally exposed mud and wet grassland. 	<ul style="list-style-type: none"> Increased disturbance due to increased local population and increased access. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. 	<ul style="list-style-type: none"> One Amendment to an Objective in Section 6.
Birds Directive Annex I species: Bar-tailed Godwit	<ul style="list-style-type: none"> Sufficient area of undisturbed habitat, primarily tidally exposed mud, including beaches. 	<ul style="list-style-type: none"> Increased disturbance due to increased local population and increased access. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. 	<ul style="list-style-type: none"> One Amendment to an Objective in Section 6.
Birds Directive Annex I species: Ruff	<ul style="list-style-type: none"> Sufficient area of undisturbed habitat, primarily tidally exposed mud. 	<ul style="list-style-type: none"> Increased disturbance due to increased local population and increased access. 	None known	<ul style="list-style-type: none"> Appropriate Assessment of Policies and Objectives that may result in increased disturbance to estuarine habitat. 	<ul style="list-style-type: none"> One Amendment to an Objective in Section 6.

5 REQUIRED ACTIONS

As a result of this Appropriate Assessment, the following changes amendments should be made to the Policies and Objectives of Volume 2 of Youghal Development Plan 2009 – 2015, in order to mitigate and avoid potential negative impacts on the conservation objectives of, *River Blackwater (Cork / Waterford) cSAC, Blackwater Estuary SPA or Ballymacoda Bay SPA.*

5.1 SECTION 4: HERITAGE AND CONSERVATION

In Section 4.1, '*Strategic Objectives*', the Objective,

"To develop the waterfront amenity of the town by provision inter alia of carparking and amenity areas."

should be amended to,

"To develop the waterfront amenity of the town by provision inter alia of carparking and amenity areas provided these do not negatively impact upon the conservation objectives of either the River Blackwater (Cork / Waterford) cSAC or Blackwater Estuary SPA."

5.2 SECTION 5: ENVIRONMENTAL OBJECTIVES

In Section 5.1: '*Development Control Objectives; Natural Environmental Objectives*', the statement:

*"Protection of the aquatic habitat;
The Council has identified the harbour area within the jurisdiction of the Town Council as a riverine habitat and amenity resource. Applicants will be required to consult with environmental bodies including the South Western Regional Fisheries Board, in accordance with the Planning and Development Regulations, 2001."*

should be expanded as follows:

*"Protection of the aquatic habitat;
The Council has identified the harbour area within the jurisdiction of the Town Council as a riverine habitat and amenity resource. The international importance of the natural resource of Youghal Harbour is reflected in its designation as both a candidate Special Area of Conservation under the EU Habitats Directive and as a Special Protection Area under the EU Birds Directive. Applicants will be required to consult with environmental bodies including the South Western Regional Fisheries Board, in accordance with the Planning and Development Regulations, 2001; and any proposal that may have negative impacts on the conservation objectives of the EU designations will be subject to Environmental Impact Assessment and to Appropriate Assessment under the EU 'EIA Directive' and under Article 6 of the EU Habitats Directive."*

5.3 SECTION 6: INFRASTRUCTURE OBJECTIVES

In Section 6.1 '*Strategic Objectives*', the Objective,

“It shall be an objective to seek to provide a segregated cycle lane, footpath, linear park and sea defences from the northern end of the “Slob Bank” to the “Quality Hotel” in Redbarn, marked DPO-11 on Map 4.”

should be amended to;

“It shall be an objective to seek to provide a segregated cycle lane, footpath, linear park and sea defences from the northern end of the “Slob Bank” to the “Quality Hotel” in Redbarn, marked DPO-11 on Map 4. The proposed route passes through sections of both River Blackwater (Cork / Waterford) cSAC and Blackwater Estuary SPA and terminates at the northern boundary of Ballymacoda SPA at the Quality Hotel in Redbarn. Prior to design and construction, an Environmental Impact Assessment and an Appropriate Assessment will be undertaken, under the provisions of the EU ‘EIA Directive’ and Article 6 of the EU ‘Habitats Directive’. As part of these assessments, the potential for damaging increases in visitor pressure on Ballymacoda Bay SPA will be fully considered and appropriate mitigation including signage will be recommended if deemed appropriate.”

In Section 6.1 ‘Strategic Objectives’, the Objective;

“The Leisure Sailing industry is a growing business of enormous potential benefit for Youghal and it shall be an objective to facilitate this industry in all strategies and proposals for the development of the Youghal tourist industry.”

should be amended to;

“The Leisure Sailing industry is a growing business of enormous potential benefit for Youghal and it shall be an objective to facilitate this industry in all strategies and proposals for the development of the Youghal tourist industry, within the constraints imposed by the EU cSAC and SPA designations that apply in Youghal Harbour and the Blackwater Estuary.”

In Section 6.1 ‘Strategic Objectives’, the Objective;

“It shall be an objective of the plan to enhance existing launching facilities and investigate possible new sites for the launching of small craft.”

should be amended to;

“It shall be an objective of the plan to enhance existing launching facilities and investigate possible new sites for the launching of small craft. Such sites will be subject to Environmental Impact Assessment and Appropriate Assessment under the provisions of the EU ‘EIA Directive’ and Article 6 of the EU ‘Habitats Directive’.”

In Section 6.1 ‘Strategic Objectives’, the Objective;

“It shall be an objective of the Plan to facilitate the provision of one or more marinas in Youghal subject to compliance with other objectives of the Plan and subject to proper and balanced consideration of the values of all stakeholders in the town.”

should be amended to;

“It shall be an objective of the Plan to facilitate the provision of one or more marinas in Youghal subject to compliance with other objectives of the Plan, subject to proper and balanced consideration of the values of all stakeholders in the town and subject to Environmental Impact Assessment and Appropriate Assessment under the provisions of the EU ‘EIA Directive’ and Article 6 of the EU ‘Habitats Directive’.”

REFERENCES

Kurz, I. and Costello, M.J. (1999). *An Outline of the Biology, Distribution and Conservation of Lampreys in Ireland. Irish Wildlife Manuals No. 5.* Dúchas, The Heritage Service.

Whilde, A (1993). *Threatened Mammals, Birds, Amphibians and fish in Ireland. Irish Red Data Book 2: Vertebrates.* HMSO, Belfast.

