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## Cobh Town Development Plan 2013 Volume 2: SEA Statement



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## **Section 1 Introduction**

### **1.1 SEA Definition**

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

### **1.2 Legislative Context**

**1.2.1.** Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001, on the assessment of the effects of certain plans and programmes on the environment, referred to hereafter as the SEA Directive, introduced the requirement that SEA be carried out on plans and programmes which are prepared for a number of sectors, including land-use planning.

**1.2.2.** The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI No. 435 of 2004) and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Both sets of regulations came into force on 21<sup>st</sup> July 2004.

**1.2.3.** The legislation was updated by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I. No. 200 of 2011) and the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 (S.I. 201 of 2011).

**1.2.4.** The SEA Directive and the instruments transposing it into Irish Law require that after the adoption of a plan or programme, the plan or programme-making authority is required to make a statement available to the public, the competent environmental authorities and where relevant, neighbouring countries. The Statement is referred to as an SEA Statement.

### **1.3 Content of the SEA Statement**

**1.3.1.** The SEA Statement is required to include information summarising:

a) How environmental considerations have been integrated into the Plan;

b) How:

- the environmental report
- Submissions and observations made to the planning authority on the proposed Plan and Environmental Report; and
- Any trans-boundary consultations

have been taken into account during the preparation of the Plan;

c) the reasons for choosing the Plan, as adopted, in the light of the other reasonable alternatives dealt with, and

a) the measures decided upon to monitor the significant environmental effects of implementing the Plan.

### **1.4 Implications of SEA for the Plan**

**1.4.1.** As a result of the aforementioned legislation, the Cobh Town Development Plan 2013 was required to undergo SEA. The findings of the SEA were expressed in a Draft Environmental Report which was submitted to the Elected Members alongside the proposed Draft Plan. The purpose of the report was to provide a clear understanding of the likely

environmental consequences of decisions regarding the future accommodation of growth in Cobh Town.

**1.4.2.** Changes proposed to the Draft Plan were evaluated for their environmental consequences and the Draft Environmental Report was updated to become the Environmental Report. The Environmental Report and the Draft Plan were placed on public display in March 2012.

**1.4.3.** Appendix A of the Manager's Report detailed all the responses to the submissions on the Plan, Environmental Report and the Natura Impact Assessment which were received on foot of the public consultation process. Where appropriate, updates to the Environmental Report were recommended on foot of submissions.

**1.4.4.** Proposed Amendments to the Draft Plan were evaluated for their environmental consequences and these were placed on public display alongside the proposed Amendments in October 2012. The only conflict which arose on foot of the amendments was the proposed removal of the 2 no. cranes from the RPS.

**1.4.5.** At each stage of the process the Elected Members took into account the findings of the Environmental Report and subsequent SEA assessments on the Amendments. On adoption of the Draft Plan, an Environmental Statement was prepared that now accompanies the final Plan.

## **Section 2 How Environmental Considerations were integrated into the Development Plan**

### **2.1 Consultation**

**2.1.1.** In terms of SEA, there have been a number of consultations over the course of the preparation of the Cobh Town Development Plan 2013.

**2.1.2.** A Scoping Report was prepared by the Planning Policy Unit in 2011 which identified the key environmental issues that would need to be addressed in the Environmental Report. The Environmental Protection Agency (EPA) was sent an SEA scoping notice indicating that submissions or observations in relation to the information to be included in the Environmental Report could be made to the Town Council. A written SEA scoping submission was received from the EPA which was taken into account during the formulation of the scope of the SEA.

**2.1.3.** The EPA and South West Regional Authority made a submission on the Development Plan and the Environmental Report while they were on public display and the EPA made a submission on the Amendments including the accompanying SEA Report on the Amendments during the public consultation periods. Further information on these submissions is detailed in Section 3.2 and 3.3 of the document.

### **2.2 The SEA Process**

**2.2.1** The SEA had a direct input into the preparation of the Cobh Town Plan at a number of distinct stages. These are as follows:

- a) Stage 1 – Preparation of the Draft Plan (Scoping and Environmental Report)
- b) Stage 2 – Screening Matrix and evaluation of the Draft Town Plan Objectives
- c) Stage 3 – The Amendment Stage (SEA of the proposed Material Amendments to the Draft Plan).

### **2.3 Stage 1 – Preparation of the Draft Town Plan**

#### ***Scoping***

**2.2.1** Chapter 4 of the Environmental Report outlines the methodology of the preparation of the Draft Cobh Town Plan and the associated Environmental Report.

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

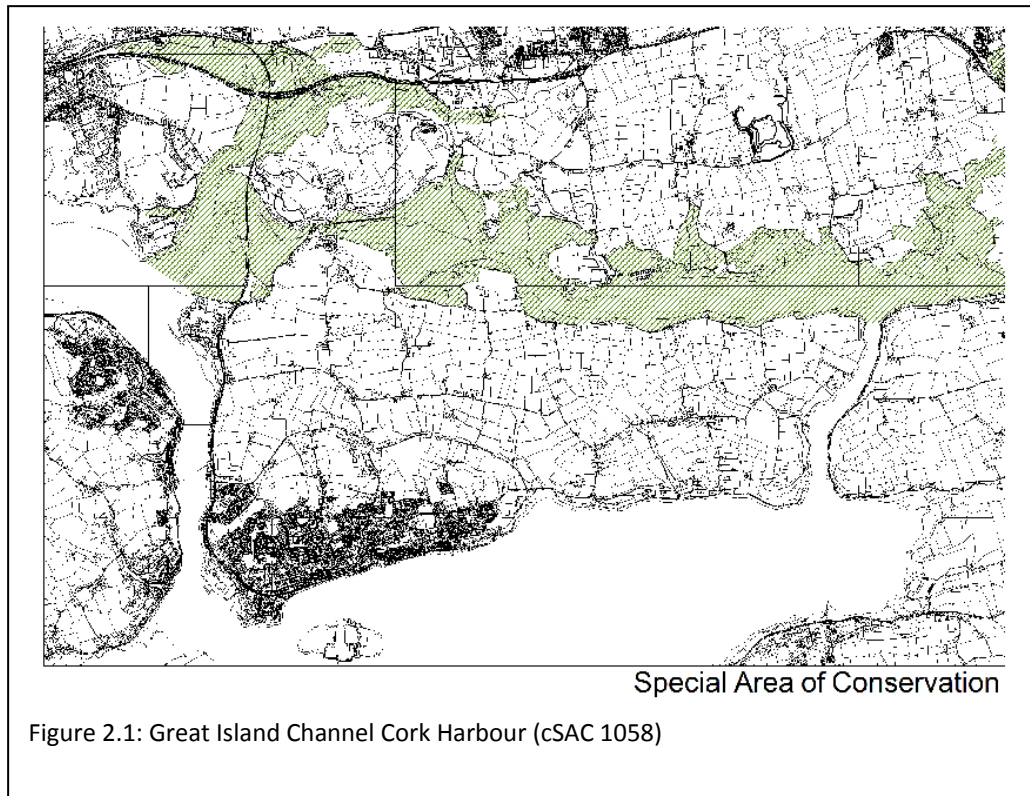
#### ***Environmental Sensitivities***

**2.3.1** A key element of the scoping stage was the mapping of various environmental sensitivities, which served to identify those areas that would be most sensitive to

2.3.2 The sensitivities considered by the SEA are set out in the figures below:

*Overlay mapping*

***Special Areas of Conservation/Special Protection Areas***



2.3.3 Special Areas of conservation have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) - referred to as the Habitats Directive, by the DECLG due to their conservation value for habitats and species of importance in the European Union. While there are no designated within the town council boundary, part of Cork Harbour is designated as a Special Area of Conservation and therefore special consideration is required to ensure developments proposals in Cobh do not compromise the environmental integrity of this important habitat. The Great Island Channel (cSAC 1058) adjoins the northern fringes of Great Island and is relatively undisturbed. The greatest threats to its conservation significance come from road works, infilling, sewage outflows and possible marina developments.

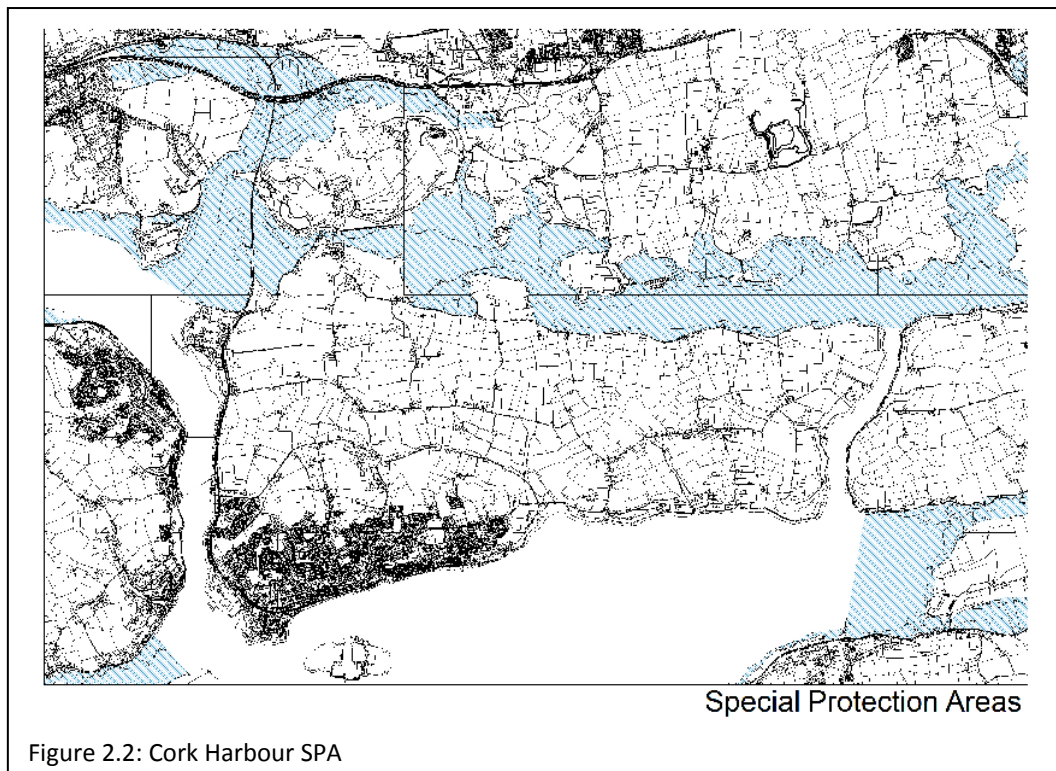


Figure 2.2: Cork Harbour SPA

2.3.4 Special Protection Areas (SPAs) have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) referred to as the Birds Directive due to their conservation value for birds of importance in the European Union. There is one candidate special protection area within the sphere of influence of the town. Increased levels of development within Cobh along with recreation within the harbour may have an impact on water quality and accordingly, negatively impact upon the designated site.

### ***Protected Areas***

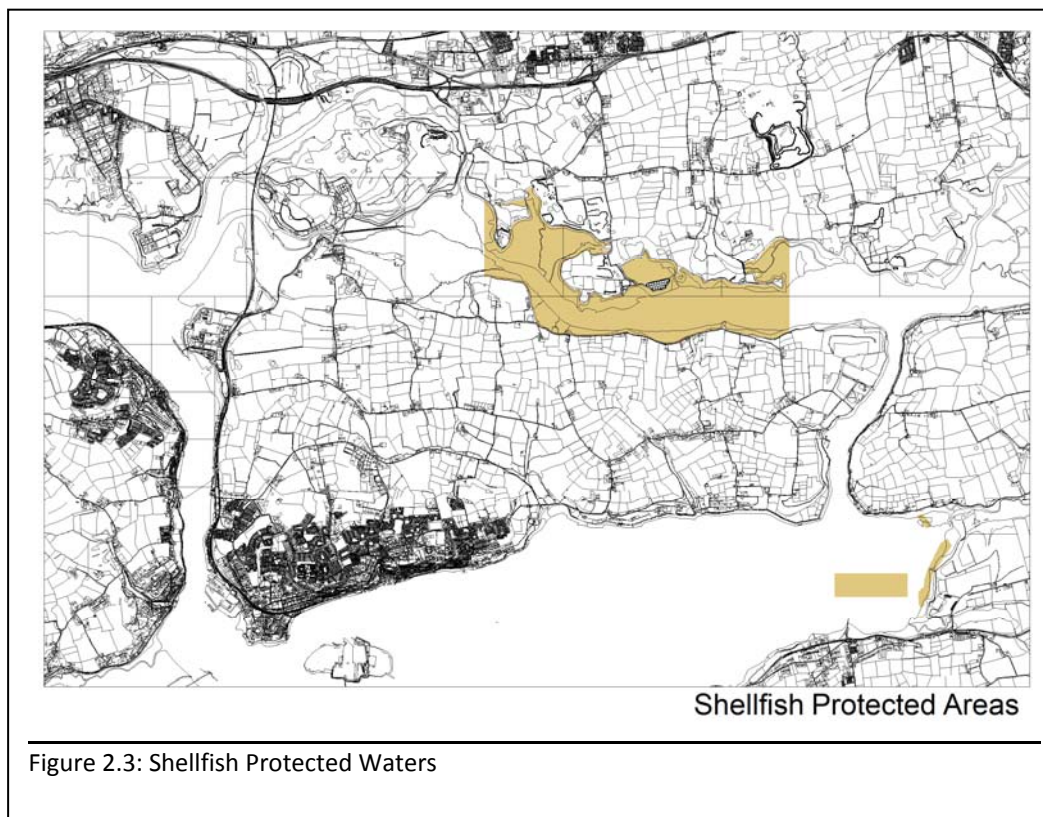


Figure 2.3: Shellfish Protected Waters

**2.3.5** The aim of the Shellfish Waters Directive is to protect or improve shellfish waters in order to support shellfish life and growth. It is designed to protect the aquatic habitat of bivalve and gastropod molluscs, which include oysters, mussels, cockles, scallops and clams. The Directive requires Member States to designate waters that need protection in order to support shellfish life and growth. There are designated Shellfish Waters at Rostellan North, Rostellan South and Cork Great Island North Channel which are highlighted in Figure 2.3 above. The Directive sets physical, chemical and microbiological requirements that designated shellfish waters must either comply with or endeavour to improve. The Directive also provides for the establishment of pollution reduction programmes for the designated waters.

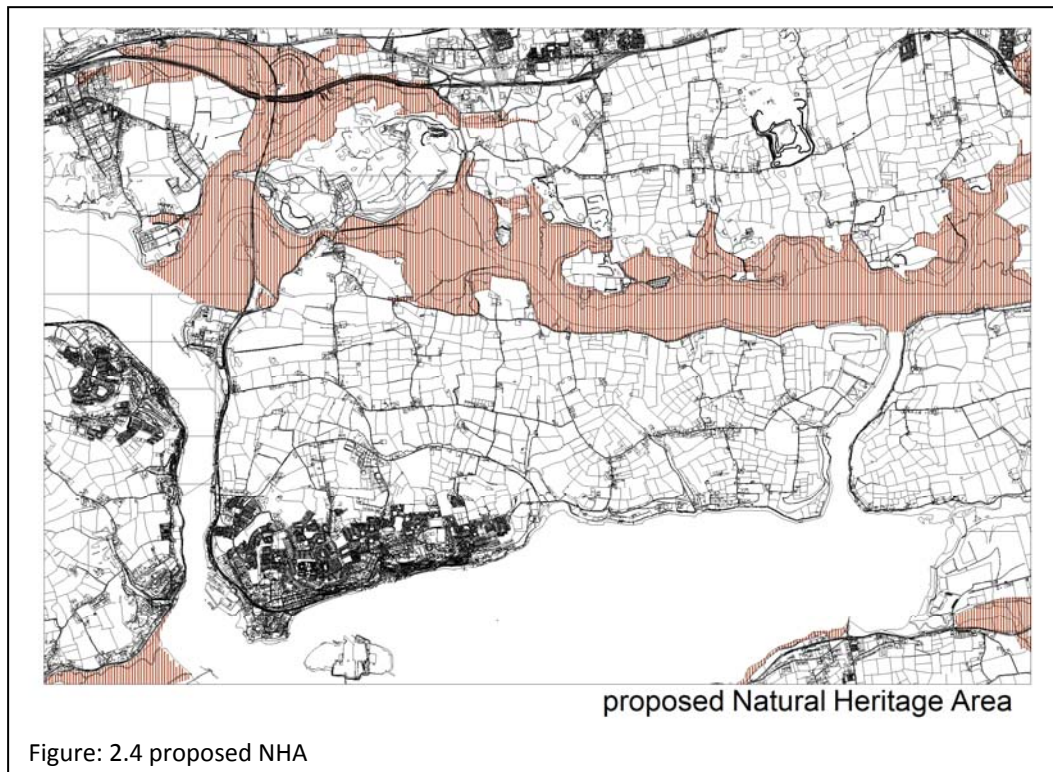


Figure: 2.4 proposed NHA

**2.3.6** Natural Heritage Areas (NHAs) are designated due to their national conservation value for ecological and/or geological/geomorphological heritage. They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife, plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000. Proposed NHAs were published on a non-statutory basis in 1995 but have not since been statutorily proposed or designated. There are 16 NHA sites within the sphere of influence of the town. The closest sites include Monkstown Creek to the south-west, Cuskinny Marsh and Great Island Channel both to the north of the island. Increased levels of development within the town may have an impact on water quality in the harbour and those sites designated within the Lower Harbour.

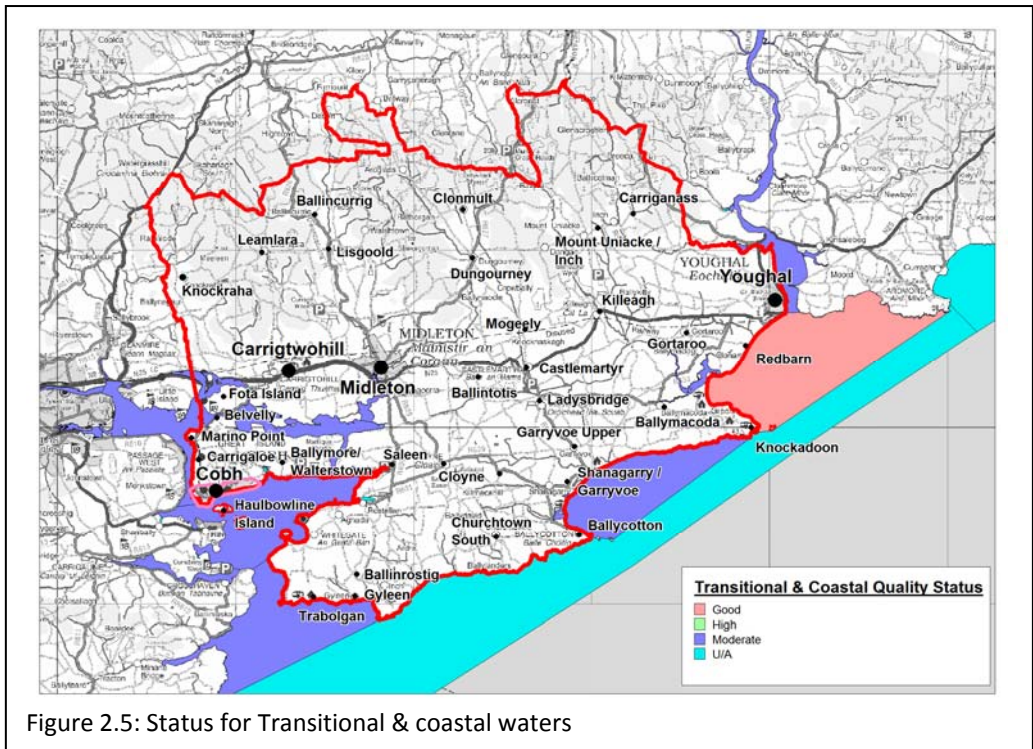


Figure 2.5: Status for Transitional & coastal waters

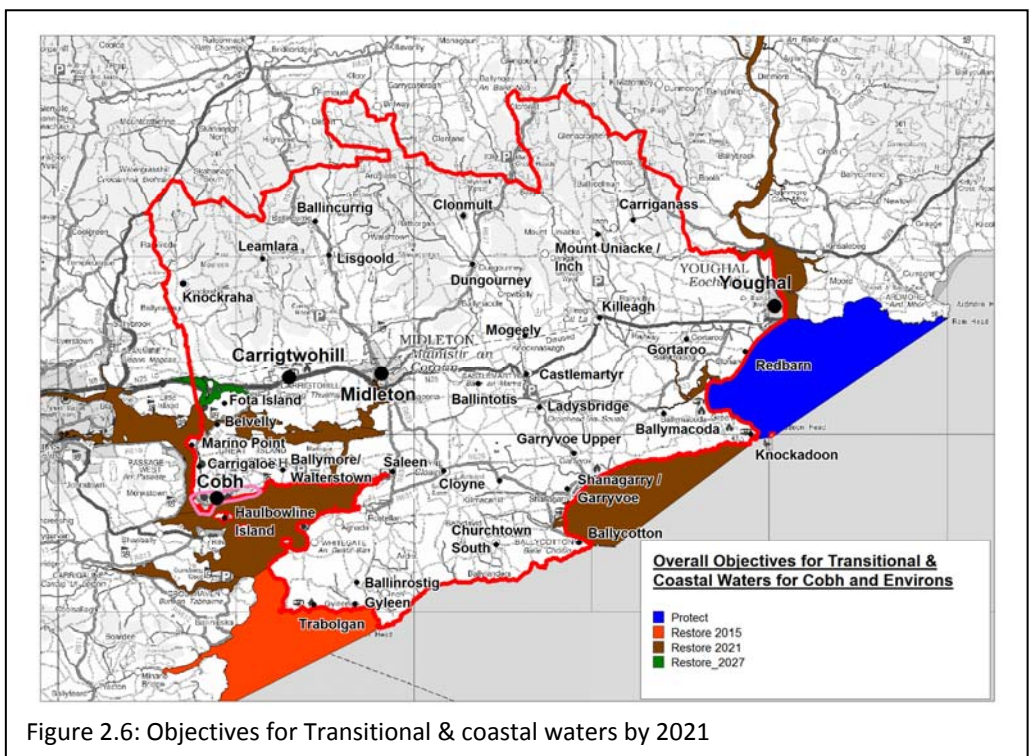


Figure 2.6: Objectives for Transitional & coastal waters by 2021

**Water Quality**

**2.3.7** The transitional and coastal waters of Cork Harbour are designated as a “Protected Area” which requires special protection under EU legislation because they are nutrient sensitive and designated as a Special Protection Area, candidate Special Area of Conservation and proposed Natural Heritage Area. According to the EPA’s recent assessment of water quality in the Harbour it was deemed of “moderate” status. The overall objective for 2021 is to restore water quality to “good status”. The most critical issue in securing this objective is the delivery of the Lower Harbour Sewage Scheme.

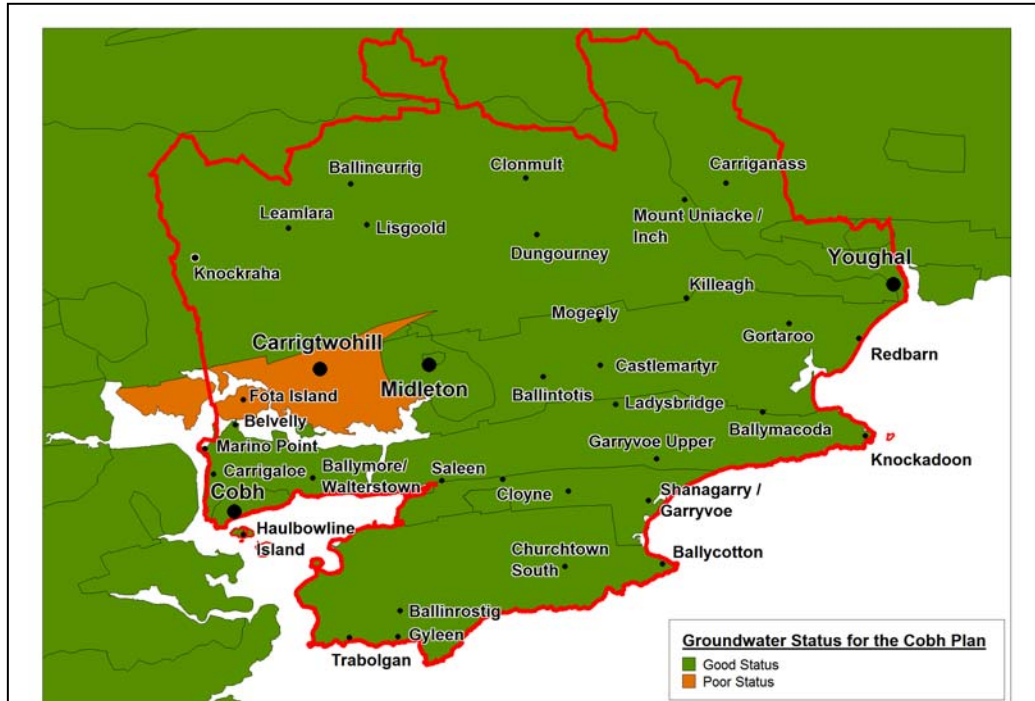


Figure 2.7: Groundwater Status for Cobh

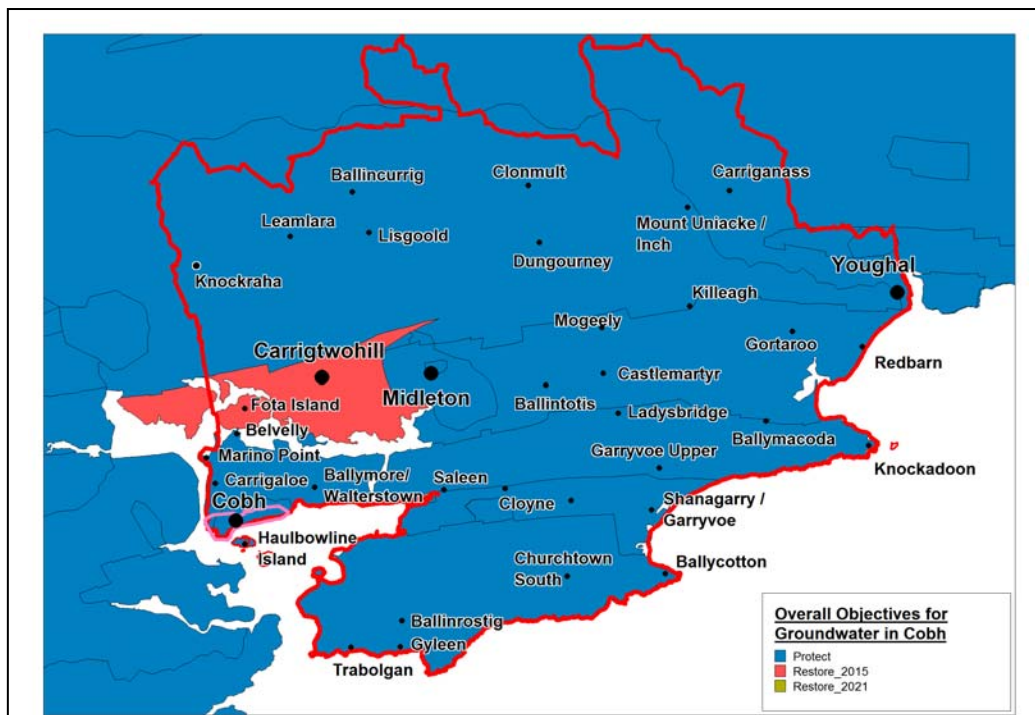


Figure 2.8: Objectives for Groundwater in Cobh

**Groundwater status**

2.3.8 According to the groundwater monitoring programme undertaken in conjunction with the preparation of the South West River Basin Management Plan, groundwater in the vicinity of Cobh has been designated as “good status”. It is an objective to protect this status as per figure 2.8 above.

### ***Flood Risk in Cobh***

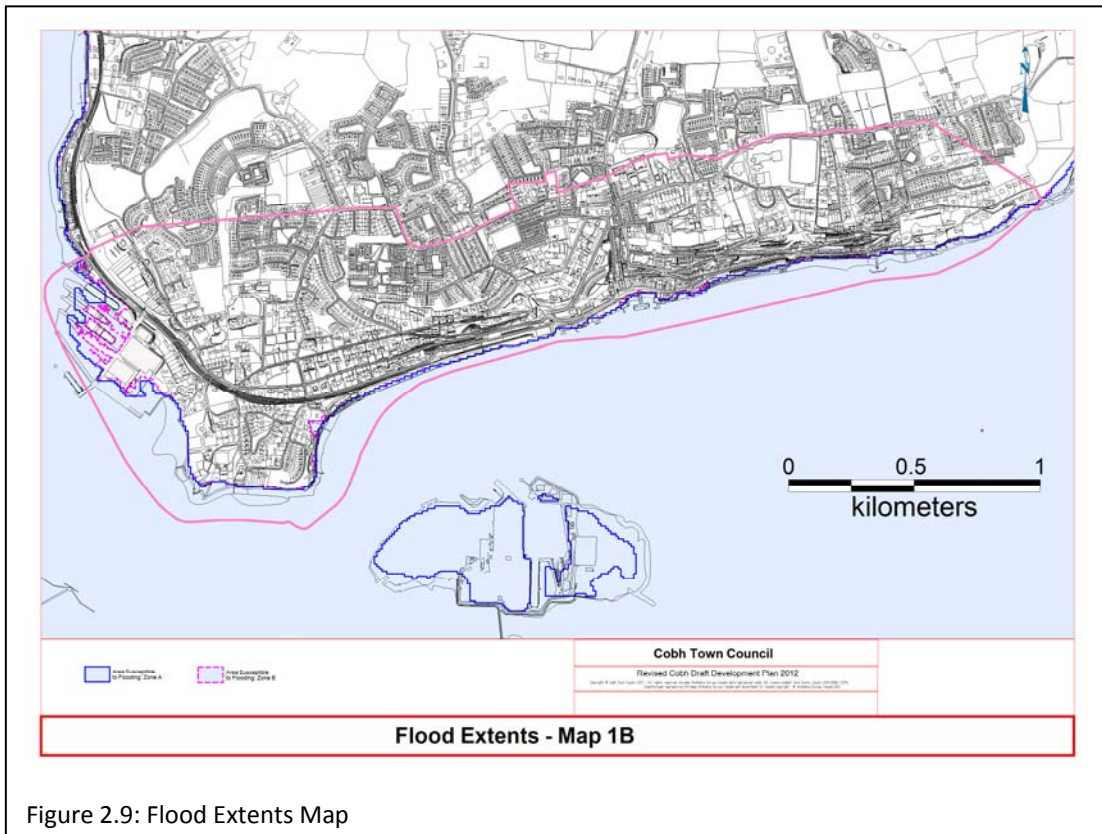


Figure 2.9: Flood Extents Map

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

- River Lee Catchment Flood Risk Assessment and Management Study (Lee CFRAMS) commissioned and published by the OPW.
- [www.floodmaps.ie](http://www.floodmaps.ie) – the national flood hazard mapping website operated by the OPW and
- Flood Hazard Mapping for fluvial and tidal areas commissioned by Cork County Council from JBA Consulting.

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

### ***The Environmental Report***

**2.3.11** Having established in the Scoping Report the environmental baseline, the key aspect of the SEA was the collection of relevant environmental baseline data for the Cobh Area. The collection of this information has informed the identification of key environmental sensitivities, sensitive areas and areas of pressure within the town as set out in the above figures.

**2.3.12** The SEA then used a system of Environmental Protection Objectives (EPOs) with targets and indicators in the assessment of the Draft Plan. Baseline data collection and the

preparation of sensitivity mapping helped focussed the EPOs at the plan level and at issues relevant to the town.

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

#### ***Early Identification and Evaluation of Alternatives***

2.3.14 A range of potential alternative scenarios for the types of planning strategies adopted for the Development Plan were identified at an early stage in the process and evaluated for their likely significant environmental effects (see Section 4).

2.3.15 The environmental sensitivities and overlay mapping shown on Figures 2.1 to 2.9 were used in order to predict and evaluate the environmental effects of implementing the scenarios.

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

2.4.1 Before its publication, the objectives contained in the Draft Town Plan were evaluated against the Environmental Protection Objectives (EPO's). This completed evaluation was outlined in Chapter 9 of the Environmental Report.

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

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

2.4.3 Arising from this analysis it was considered that there were adequate compensatory objectives to negate any potential significant impacts from the objectives in the proposed Development Plan. This demonstrates that the preparation of the Draft Plan has been very pro-active in including positive environmental objectives in relation to key infrastructural improvements and the protection of heritage and amenity and so on.

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

2.5.1 The amendments as outlined in the Managers Report (November 2012) in line with Section 12(7) of the Planning and Development Acts were examined in order to assess the significant effects on the environment that were likely to occur as a result of the recommended amendments to the Draft Town Plan. The same methodology was used in the Environmental Report thus a matrix was prepared and all the proposed amendments were assessed. The matrix was used as a screening process where new and modified policies, objectives and text were formally assessed by identifying whether the change(s) would be likely to have significant environmental effects.

2.5.2 After screening (using the matrix approach) a proposed amendment was either 'screened out' or was concluded as 'possible environmental effects identified'. In relation to the latter it was necessary to provide mitigation measures where potential conflict was found with the EPOs.

2.5.3 Only one proposed amendment was found to have a potential conflict with the EPO's; proposed amendment App 1 regarding the removal of 2 no. cranes from the Record of Protected Structures. While the SEA stated that the most appropriate mitigation would be the removal of the proposed amendment (i.e. the retention of the cranes on the RPS), the proposed amendment was approved by the Members against the Manager's advice.

2.5.4 The assessment was carried out having regard also to the parallel process of Appropriate Assessment where relevant mitigation measures from the AA were carried through into the SEA.

## 2.6 EU Habitats Directive- Appropriate Assessment

2.6.1 Another key aspect of the assessment process was the undertaking of an Appropriate Assessment of the plan. This parallel process ensured that environmental considerations, specifically focused on Natura 2000 sites, were integrated into the plan throughout the plan-making process. The Natura Impact Reports include details of all the changes made to the Draft Plan as a result of Appropriate Assessment.

## 2.7 Mitigation

2.7.1 An examination of the proposed development objectives in the Draft Plan concluded that there was adequate compensatory text in the objectives of the Plan to negate any potential significant impacts.

2.7.2 On foot of submissions from the public and prescribed bodies, however, a number of recommendations were made to include additional text and/or objectives in relation to achieving enhanced environmental protection within the Plan area. These are outlined in the Table below.

2.7.3 The Elected Members also recommended changes to the Draft Plan. These included the removal of 2 no. cranes from the RPS and a mapping change to lands at West View. The loss of the cranes was **NOT** recommended by the Manager given the structures' regional significance and their presence on the National Inventory of Architectural Heritage which would result in a conflict with a number of Environmental Protection Objectives contained in the Environmental Report (CH1 & L1). The Elected Members' justification for their removal was based on maintenance costs.

2.7.4 Mitigation measures generally benefit multiple environmental components e.g. a measure providing for the upgrading of wastewater facilities could beneficially impact upon the protection of biodiversity, flora and fauna and human health.

Mitigation Measure Topic	Provisions integrating considerations into the Plan
Biodiversity, flora & fauna (protected sites & species)	D-01, section 3.7.2 & EDT-13;
Biodiversity (Shellfish protection Areas)	Section 7.1.12 & INF-06;

Human health	Section 4.4.3 & TCW-03 (a);
Brownfield sites	Section 3.7.17
Water Quality (Bathing Areas)	Section 7.1.13
Flooding	D-01
Heritage	Section 8.1.11 & HE-09
Architectural Heritage	Section 4.5 & U-01;
Cultural Heritage	Section 3.6.5
Landscape	HE-16
Transport	D-01; Section 9.4.2 & TP-20

## **Section 3 Environmental Report and Submissions & Observations received.**

### **3.1 Introduction**

3.1.1 This section details how the submissions and observations made to the planning authority at each stage of the SEA process have been taken into account during the preparation of the Plan.

### **3.2 SEA Scoping submissions**

3.2.1 The EPA was sent an SEA scoping notice indicating that submissions or observations were invited in relation to the scope and level of detail of the information to be included in the Environmental Report for the Cobh Town Plan.

3.2.2 A submission was received on the scope of the SEA from the Environmental Protection Agency. The submission included an updated SEA Pack and Scoping Guidance Document providing details on the issues to be considered during the SEA process, in accordance with current best practice in relation to the SEA Process itself and the integration of environmental considerations into the Draft Plan.

3.2.3 The issues raised in the submission were taken into account during the formulation of the scope of the SEA and while undertaking the SEA process.

### **3.3 Environmental Report : Submissions and Observations**

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

3.3.2 The Environmental Report and the Draft Plan were placed on public display on 29<sup>th</sup> March 2012 for a period of 8 weeks (until the 08<sup>th</sup> June 2012).

3.3.3 A total of 17 no. submissions were received on foot of the public consultation process for the Draft Plan. Two of these related to the Environmental Report and were received from the South West Regional Authority and the Environmental Protection Agency.

3.3.4 Issues raised by the South West Regional Authority relate to the use of monitoring indicators in the SEA Statement published as part the Regional Planning Guidelines. No changes were proposed as the monitoring indicators were considered largely consistent with the Regional Planning Guidelines.

3.3.5 The EPA recommended the inclusion of a cumulative environmental sensitivity map for the Plan area to highlight areas where there is potential for significant cumulative effects to occur. Other recommendations include updating references to legislation and guidelines, the content of the non-technical summary, dealing with comments received during the public consultation phase, inclusion of a table summarising the assessment of environmental effects of each of the alternatives considered and identification of appropriate mitigation measures and monitoring procedures. The EPA submission also recommended consideration of “disturbance” as well as habitat fragmentation as another significant biodiversity related cumulative effect in Table 8.1. Clarification was also sought on how the

full range of environmental effects of the implementation of the Plan have been assessed and documented.

3.3.6 Arising from the EPA's submission, a number of amendments were made to the Draft Plan. These included proposed amendments 01.03.05, 01.03.08, 01.07.01, 01.07.02, 01.07.03., 01.08.01, 01.08.02 and 01.08.03.

### **3.4 The Amendments Submissions and Observations**

3.4.1 Following consideration of the Draft Plan and the submissions received, and the deliberations of Cobh Town Council Members at the Council meetings of the 02<sup>nd</sup> of October 2012, a number of material amendments to the Draft Plan were published for public consultation between the 19<sup>th</sup> October and the 16<sup>th</sup> November 2012.

3.4.2 An SEA Screening Report was also prepared at this stage that considered the likely significant impacts of implementing the proposed amendments to the Draft Plan by assessing the amendments against the environmental objectives set out in the Environment Report. The SEA Screening report was published alongside the material amendments to the Plan. The report highlighted that one of the proposed amendments, *APP 1* in relation to the removal of 2 no. cranes within the Dockyard from the Record of Protected Structures, does raise some concern regarding potential for conflict with a number of environmental protection objections. Officials advised against this amendment on the basis that the cranes are included on the Record of Protected Structures in recognition of their historical and cultural significance.

3.4.3 Following publication of the amendments seven submissions were received. Only two submissions raised environmental issues. The submission from the EPA acknowledged that many of the points raised in their previous submission in relation to the Environment Report have been addressed by the amendments. The submission also outlined the requirement under legislation to prepare an SEA Statement. The second submission was from the OPW and deals with flooding issues – use of most up to date Lee CFRAMS maps etc.

3.4.4 Arising from the concerns highlighted in the SEA of Proposed Amendment APP1, the Managers Report on the proposed amendments issued to the members of Cobh Town Council in December 2012 included a recommendation that the proposed amendment not be included in the final plan. Nonetheless the Members decided to proceed with the amendment to remove the cranes from the Record of Protected Structures.

### **3.5 Environmental Statement**

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

## Section 4 Alternatives and the Plan

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

### 4.2 The Scenarios

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

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

*Scenario 1: Diversion of growth to the Environs Scenario.*

4.2.3 This scenario is characterised by:

- The diversion of growth to Greenfield sites in the environs of the town;
- This could result in the further decline of the commercial and residential viability of the town centre with all new development exclusively located on the periphery.

4.2.4 The planning and environmental impacts are outlined as follows:

- The strategy would have the potential to adversely impact upon the “traditional heart” of the town as the injection of new population and business opportunities into the centre would be lost;
- Failure to redevelop brownfield sites and infill opportunity sites in the centre goes against sustainable development principles.
- Potential negative impacts on ecology with ecological networks likely to be compromised with the development of Greenfield lands.
- Potential to create public transport links with the town via the construction of a new train station.

*Scenario 2: Strong growth & increased environmental awareness.*

4.2.5 This scenario is characterised by:

- Strict controls on all development with a large emphasis on protection of the environment, ensuring that development would not result in negative environmental impacts with little development allowed in areas of sensitivity.
- All sites which are the subject of European Natura designations would be managed carefully to ensure their conservation value is maintained and not undermined or threatened by development.
- Growth is `facilitated in both the town and environs to achieve a balanced and sustainable growth pattern.
- Development in the town would have to be served by the planned Lower Harbour Sewage Scheme to ensure treatment is to the highest standards, to ensure the environment is not negatively impacted upon, particularly water quality and its impact on Cork Harbour SPA.

4.2.6 The planning and environmental impacts are outlined as follows:

- Stricter controls would be applied on the standards regarding the treatment of wastewater. Developments should not be considered in isolation and care will need to be taken with regard to the cumulative effect of development on the environment, especially regarding areas identified as “at risk” or “probably at risk” in terms of compliance with the Water Framework Directive.
- Avoidance of development on sites where there would be any environmental risks, thus adopting a precautionary approach.
- Development would only be allowed where the landscape value, character and sensitivity would be able to accommodate development without undermining or threatening the landscape or environmental quality.
- Careful consideration would have to be taken of any proposals that may unduly impact on the built heritage and archaeological sites within the town.

### *Scenario 3 – Densification of the Town*

4.2.7 The scenario is characterised by:

- Cobh Town Council area is seen as having an important strategic role in delivering the growth strategy and seeks to optimise its location on a rail corridor. New growth is achieved through the application of high densities on available land and the intensification of use of the existing building stock.
- Appropriate social infrastructure, particularly with regard to community facilities would need to be developed in tandem with the provision of new development in the town.
- Strong emphasis on the delivery of high numbers of housing units which may compromise the character of the town. The intensification of the use of the historic building stock may compromise the character of the building layout and the overall town.

### *Planning/Environmental Impacts*

4.2.8 The planning and environmental impacts are outlined as follows:

- Use of Brownfield sites and sites close to the town centre is favoured on the grounds of sustainable development. Sites are considered on their merits based on their location, environmental considerations and where appropriate with adequate mitigation for flooding and other environmental considerations and prescribed in specific objectives.
- Growth apportioned to Cobh in terms of population change and households on the basis of higher order plans sees the town as having a strategic role to play in the future sustainable development of the County.
- Physical and social infrastructure would have to be provided in tandem or ideally prior to new development.
- Developments would have to be served by appropriate waste water treatment infrastructure to avoid impacts upon abstraction sources of water, groundwater and coastal waters, and will have to be carefully analysed to anticipate and avoid any further negative impacts on the status of water quality, in an effort to comply with the requirements of the Water Framework Directive.
- Developments should not be considered in isolation and care should be taken regarding the cumulative effects of development on the environment, particularly in areas which have been identified as being “at risk” or “probably at risk”.

risk” in terms of compliance with the Water Framework Directive to ensure that environmental quality is not compromised.

- The high density nature of new residential development may not be appropriate in all locations within the town given the difficult topography, historic townscape and marine heritage.
- In order to facilitate the ambitious population targets, new residential developments may need to be developed on existing areas of open space, eroding important amenity areas.
- Emphasis would be placed on more sustainable forms of commuting and development would continue to be directed to areas within easy walking distance of the railway station.
- Conflicts will arise between meeting population and employment targets and environmental/heritage considerations.

### 4.3 Reasons for choosing the Plan in light of other reasonable alternatives

4.3.1 Having considered each proposal, it was decided in the Draft Town Development Plan that Scenario 2 – Strong Growth and Increased Environmental Awareness was considered the most appropriate approach. This scenario was deemed the most appropriate for a number of reasons;

- a) It presented a sustainable, equitable model of development, which balanced environmental concerns with the need to facilitate population growth and economic development. The aim of scenario 1 was to target population growth to the environs with a very loose overall development strategy and an emphasis on market led growth with limited consideration for the proper co-ordinated development of the town. Scenario 1 could result in an unsustainable demand for infrastructure and services while potentially relegating environmental considerations to the periphery. The adoption of scenario 3 would compromise the unique townscape and historic character of the town by applying a high density solution across the town to meet the growth targets, regardless of the impacts on character and the environment.
- b) The development strategy as outlined in scenario 2 is more consistent with the growth targets set out in the South Western Regional Planning Guidelines 2010-2022, is in line with the objectives of the Cork Area Strategic Plan and represents an approach more in line with the proper planning and sustainable development of the town than either scenario 1 or 3.
- c) Scenario 2 presented the most favourable outcome when evaluated against Strategic Environmental Objectives (SEOs).

Figure 4.1 Types of Cumulative Effects

Cumulative Effects	Affected Receptor	Causes
Habitat fragmentation	Biodiversity	Use of land for flood management, transport Infrastructure, buildings, zoning of Greenfield lands
Climate Change	Air and Climate	Greenhouse gas emissions from development and increases in traffic volumes
Loss of Tranquillity	Population and Human Health	Development and increases in traffic volumes

Cumulative Effects	Affected Receptor	Causes
Deterioration in Water Quality	Population and Human Health/Water	Inappropriate Wastewater Treatment, pollution
Loss of Agricultural Lands	Soils and Geology	Zoning of Greenfield lands
Loss of Natural Landscape Features	Landscape	Zoning of Greenfield lands, Roads Infrastructure

**Figure 4.2 Comparison of Alternatives - Cumulative Effects**

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

#### 4.4 Assessment

4.4.1 With the integration of appropriate mitigation measure (including those identified in Section 2.4 of this report) potential adverse environmental effects which could arise as a result of implementing this scenario are likely to be avoided, reduced or offset.

4.4.2 Scenario 2 was chosen to be developed for the Development Plan by the Plan-making team and was put on public display and adopted by the Elected Members having regard to both:

- a) The environmental effects which were identified by the Strategic Environmental Assessment and
- b) Planning effects.

## **Section 5 Monitoring Measures**

### **5.1 Introduction**

5.1.1 The SEA Directive requires that the significant environmental effects of the implementation of plans are monitored in order to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action. Monitoring can also be used to analyse whether the plan is achieving its environmental protection objectives and targets, whether such objectives need to be re-examined and whether the proposed mitigation measures are being implemented.

5.1.2 Cork County Council is required to monitor the significant environmental effects arising from the implementation of the plan. This Environmental Report puts forward proposals for monitoring the plan. The primary purpose of monitoring is to cross check significant environmental impacts which arise during the implementation stage against those predicted during the plans preparation stage.

### **5.2 Indicators and Targets**

5.2.2 Monitoring is often based on indicators which measure changes in the environment, for example the CSO provides important data in relation to demographic changes and can therefore act as an indicator to measure population change in a study area. Employment data can also be similarly used. Measurements for indicators should come from existing monitoring sources and no new monitoring should be required to take place. The indicators identified in the following section will be used to monitor the predicted environmental impacts of implementing the plan. These indicators (data) will be assessed for future reviews of the plan in order to determine its effect on the environment.

### **5.3 Sources**

5.3.2 Most of the sources of data are available to Cobh Town Council but close co-operation with other authorities may be required in some instances e.g. National Parks and Wildlife Service (NPWS), Environmental Protection Agency etc. In all cases the indicators will both quantify and simplify the information and will also enable both the public and the policy makers to access and understand the information more clearly.

### **5.4 Reporting**

5.4.2 A preliminary monitoring evaluation report on the effects of implementing the Plan will be prepared to coincide with the Manager's Report to the Elected Members on the progress achieved in securing the Plan objectives within 2 years of the making of the Plan (as per requirement to make Manager's Progress Report under Section 15 of the Act).

5.4.3 Indicators and targets will be reviewed during the preparation of the preliminary monitoring evaluation report.

### **5.5 Responsibility**

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

**Table 5.1 EPO's and Monitoring Targets**

<b>EPO</b>	<b>ENVIRONMENTAL OBJECTIVE</b>	<b>TARGET</b>
B1	Conserve the diversity of habitats and species and to avoid significant adverse impacts (direct, cumulative and indirect)	No significant adverse impacts, (direct, cumulative and indirect impacts), to relevant habitats, species or their sustaining resources and to improve protection for protected sites and species including a provision of adequate and appropriate buffer zones
		Conserve the diversity of habitats and species in non-designated sites
B2	Protect habitats from invasive species and promote awareness of and support control and eradication programmes for invasive species	No new invasive species in County Cork and no increase in coverage of existing invasive species.
Q1	Improve people's quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns	Avoid the location of inappropriate activities that impact on the quality of the town.
		Enhance provision of, and access to, amenity space within Cobh.
		Increase number of cycle friendly measures associated with Cobh.
		Increase number of pedestrian friendly measures associated with Cobh.
		Increase modal shift to public transport and reduction in journey to work (time/distance)
		Use of Construction Management Plans to minimise adverse impacts during construction phase(s).
S1	Maintain soil integrity and quality	Soil management to inform detailed designs within Development Plan area.
		Use of Waste Management Plans to minimise adverse impacts arising from pollution
S2	To maximise the sustainable re-use of Brownfield lands and the existing built environment, rather than developing Greenfield lands while also protecting agriculturally productive lands.	Identification of Brownfield lands within the town area and assessing the reduction in quantity of Brownfield lands during the lifetime of the plan
W1	Improve water quality and the management of watercourses to comply with the standards of the Water Framework Directive and	Improvement, or at least no deterioration, in water quality in Cork Harbour and groundwater

EPO	ENVIRONMENTAL OBJECTIVE	TARGET
	incorporate the objectives of the Floods Directive into sustainable planning and development	
		Appropriate management of zones vulnerable to flooding
W2	Make best use of existing water infrastructure and promote the sustainable development of new wastewater infrastructure as a matter of priority.	Development Plan Area to be served by planned waste water treatment infrastructure for the Lower Harbour settlements.
W3	To maintain and improve the quality of drinking water supplies	Maintain and improve drinking water quality to comply with the requirements of the European Communities (Drinking Water) Regulations and to prevent leakage in new systems
A1	Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency	Maintain good air quality standards
CH1	Promote the protection and conservation of the cultural heritage	To protect all cultural features within the plan area and where necessary to impact upon same to manage and record action in accordance with National Heritage Policies
L1	Protect natural and historic landscapes and features within them in a sustainable manner	Integrate natural & historic landscape features into detailed design