



Comhairle Contae an Chláir
Clare County Council

Shannon Town and Environs Local Area Plan 2012–2018

Strategic Environmental Assessment

Part II: Non Technical Summary



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1.0 Introduction

This is the final version of the SEA Non-Technical Summary which is a summary of the Environmental Report associated with the Shannon Town & Environs Local Area Plan 2012-2018.

The primary objective of the Strategic Environmental Assessment is to provide for a high level of environmental protection and to contribute to the integration of environmental considerations into the preparation of the Local Area Plan.

The core objective of the process is to assess the Plan in terms of its overall environmental impact, both positive and negative, and to indicate where necessary how improvements can be incorporated into the Plan to improve the Plans' environmental performance.

The purpose of this Summary is to ensure that the key issues and findings of the Environmental Report will be readily understood and insofar as possible the use of technical jargon is omitted.

1.1 The Shannon Town & Environs Plan Area

Shannon is located on the River Shannon, which forms part of the southern boundary of County Clare. The settlement is defined by a number of component parts, namely Shannon Airport, Shannon Free Zone and Smithstown Industrial Estates, Shannon town, Hurlers Cross and agricultural lands to the east, west and north. Shannon developed from the 1960's in response to the growth of Shannon International Airport and the Shannon Free Zone. Its strategic importance is recognised in its designation in the National Spatial Strategy 2002-2020 as part of a linked gateway with Limerick. Shannon Town and Environs is of critical importance to the future economic development of the Mid-West Region. It occupies a strategic position along the Atlantic corridor and has excellent road connectivity to the Gateway cities of Limerick, Cork and Galway. This designation, together with the significant population and employment base, has necessitated that Shannon town be subject to its own local area plan and is therefore separated from the South Clare Local Area Plan 2012-2018, which deals with the other settlements in the South Clare area.

The population of the Plan area is 9,222 (Census 2006). The Plan area is illustrated in Map 1.1 below and covers the existing urban area, Shannon Airport, Shannon Free Zone, Westpark, Smithstown, Hurlers Cross, Shannon estuary and surrounding countryside to the west, east and north.

1.2 The Shannon Town & Environs Local Area Plan 2012-2018

Under the Planning and Development Act, 2000 (as amended) each planning authority must prepare a Local Area Plan for its functional area every 6 years. There has previously been no Local Area Plan for the Shannon Area; Shannon was part of a larger South Clare Local Area Plan. However, in light of a significant population base and employment location and in accordance with Section 19 (1)(b) of the Planning and Development Act 2000 (as amended), Clare County Council proposed to prepare a new Shannon Town & Environs Local Area Plan. This will be the statutory Plan for the Shannon Town & Environs Area and will be in operation from 2012-2018.

The Local Area Plan has two main purposes;

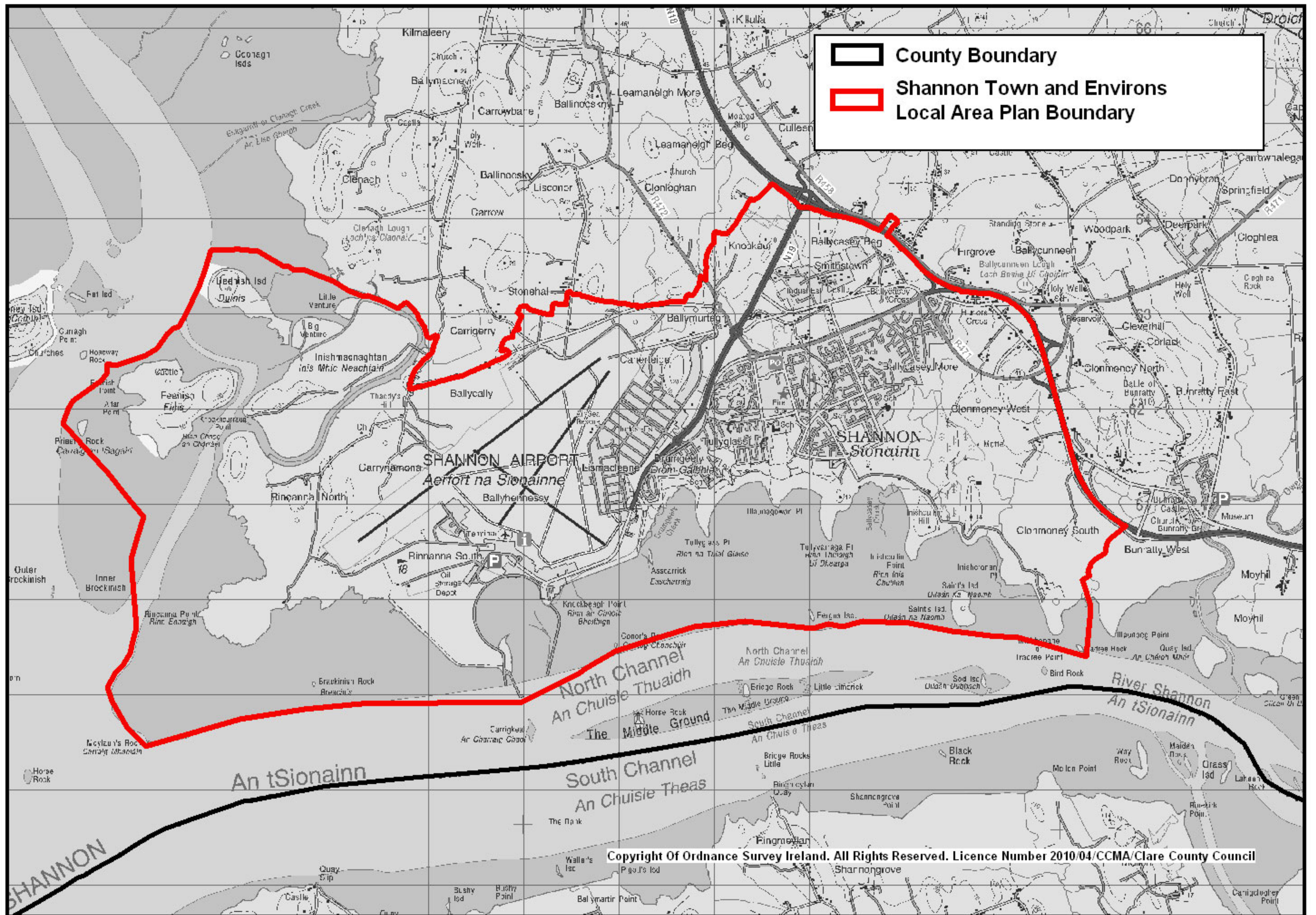
1. Firstly to provide a framework of acceptable uses within the Plan area, defining acceptable forms of development and where it should be directed; and,
2. Secondly to provide a detailed basis for the promotion and control of development

The Vision for Shannon can be encapsulated by the following statement:

'A town where people want to live and work sustainably and visit because of its strong identity and sense of place high amenity value and quality of life. A sustainable low carbon town which continues to be the regional leader for economic development and employment maximising its strategic location accessibility and Gateway status'

Shannon Town & Environs Local Area Plan 2012-2018

Achieving this vision will govern the overall land use objectives for the Shannon Town & Environs Local Area Plan 2012-2018.



2.0 Methodology

2.1 Scoping

Clare County Council carried out a scoping exercise to establish the scope and extent of the Environmental Report and to list environmental issues which would require further consideration during the SEA process.

The scoping exercise was undertaken in July/August 2011 and the report was circulated to the statutory consultees for their input. The statutory consultees include;

- the Environmental Protection Agency;
- Minister for the Environment, Community and Local Government;
- Minister for Agriculture, Marine & Food;
- Minister for Communications, Energy and Natural Resources;
- Minister for Arts, Heritage & Gaeltacht Affairs.

The Scoping exercise highlighted a number of issues which are of concern and are critical to sustainable development within the Plan area. These included;

- Biodiversity - Shannon Estuary;
- Ground Water Protection;
- Flooding;
- Wastewater treatment;
- Landscape & Visual Amenity.

These issues have been comprehensively dealt within the Environmental Report.

2.2 Legislative and Policy Compliance

The Clare County Development Plan 2011-2017 is the 'parent' document to which this Shannon Town & Environs Local Area Plan 2012-2018 is made in accordance with. The Clare County Development Plan 2011-2017 transposes National and Regional policies and sets the strategic context for the ST&E LAP 2012-2018 which also provides detailed land-use zoning information for areas within the plan area.

3.0 Baseline Analysis

The baseline data assists in assessing the current state of the environment, facilitating the identification, evaluation and subsequent monitoring of the effects of the Plan. Thus, this information creates a platform whereby existing problems relevant to the Plan area can be quantified (where possible) or qualified thereby ensuring that the implementation of the Plan does not exacerbate these problems.

Baseline data has been collected based on the various broad environmental topics described in the SEA Directive and Regulations, i.e. population, biodiversity, fauna, flora, soil and geology, water, air, climate factors, material assets, cultural heritage including architectural and archaeological heritage and landscape.

The SEA Directive and Regulations requires that information be focused upon relevant aspects of the environmental characteristics of the area likely to be significantly affected by the Plan and the likely change, both in positive and negative terms, where applicable. The baseline data was collated from currently available, relevant data sources.

3.1 Population

According to data derived from the census of population, Shannon Town had a population of 9,673¹ in April 2011 (C.S.O 2011). This population has grown by 14% over the 9 year inter censal period between 2002 and 2011.

The age profile of Shannon Town and Environs shows that the 25-44 age cohort dominates the population. The challenge to the Shannon Plan is to provide opportunities to all age cohorts, from education facilities for the young, employment for adults and housing for all.

Shannon has always been a focus of immigration and therefore has a diverse range of ethnic minorities and nationalities residing there. 668 residents in Shannon Town and environs are from Poland and Lithuania and 282 residents are from other E.U 27 countries and 602 individuals are from 'The Rest of the World' (C.S.O 2011). From this data, it is evident that provision for diverse ranges of cultural backgrounds is catered for within the plan area.

The cumulative effects of population change can have relevance on human health and quality of life. Direct effects relate to matters such as water and air quality, noise, and landscape change. Indirect effects relate to such matters as flora and fauna.

In the absence of the ST&E LAP 2012-2018 there would not be a localised framework within which to regulate, aid and/or control development whether economic, social or environmental. A lack of controlled development could lead to pressure on adequate service provisions and infrastructural facilities, thus affecting the natural environment in which the population lives leading to human

¹ This population figure is the CSO data relating to Shannon Town and taken to be appropriate for the entire Plan area. The additional lands to the west of the plan area are within the Clenagh E.D. but these lands are predominantly characterised by enterprise development with minimal residential dwellings (maximum. 40 dwellings x 2.62 persons per dwelling = 104.8 additional persons). There is no specific population data reflecting the lands within Hurlers Cross (Drumline E.D.) to the east of the plan area, however it is accommodated for within the Clare County Development Plan 2011-2017.

health and quality of life issues. In the absence of an agreed target population and appropriate zoning of settlement land all of the environmental parameters would be adversely affected to varying degrees.

In the absence of the Plan, the process for assessing the issues which affect all of the inhabitants within the Plan area will go unchecked, resulting in deterioration in the environment and lack of critical capital expenditure in terms of targeted infrastructural development and employment opportunities. The predicted population increase will not be provided for by an adequate level of service provisions and the environmental consequences would be both deleterious and undesirable.

In order to properly plan for the sustainable development of the Plan area, it is essential to be aware of the population for whom the Plan area will cater. The assigned target population of 11,972 to 2017 must be taken into account when formulating objectives and policies for the settlements in the Plan area. In assessing demographic projections, cognisance has been taken of the impact of population projections on housing, education and workforce. In the absence of the Plan, Core Strategy and population targets; infrastructure, including services and housing provision would not be catered for accurately. Issues affecting the current population in addition to the population increase may not be realised and could result in deterioration of the environment and mismanaged resources.

However, considerable environmental protection would remain due to the implementation of the Clare County Development Plan 2011-2017 and its policies and objectives relating to the environment.

3.2 Biodiversity, Flora and Fauna

The natural heritage within the Plan area is an important asset and a unique resource. The variety of habitat types dispersed throughout the Plan area supports a wide range of flora and fauna. Protecting and conserving these habitats is of importance, not just to the residents of the area, but also in the National and International context.

There are a number of important habitat areas within and adjacent to the Plan area that are protected under EU and National legislation including 1 Special Area of Conservation (SAC), 1 Special Protection Areas (SPA), Natural Heritage Areas (NHA) and 1 proposed Natural Heritage areas (pNHA). Most notable is the Shannon Estuary. There is also extensive green infrastructure, and wildlife corridors, however, site and species benefiting from statutory protection do not alone represent the full extent of the natural heritage of the Plan area.

As required under the EU Habitats Directive the Local Authority will prepare a Habitats Directive Assessment on the likely impacts the Plan's implementation may have on designated areas. This assessment is part of the Plan preparation process.

A wide range of economic and social benefits and services result from the protection of biodiversity, for example, biodiversity forms the basis of our landscapes, provides for food and clean water supplies, opportunities for waste disposal, nutrient recycling, flood storage and regulation, and much more. In the absence of the new Plan pressures on natural resources would continue, though the rare or threatened habitats, protected under EU and national legislation would continue to be afforded protection under the Clare County Development Plan 2011-2017. The local authority does however have control over activities which

may adversely impact the sites both directly and indirectly. Certain activities such as wastewater treatment facilities, increased runoff due to urbanisation, etc. are all factors which influence the Local Area Plan process. In the absence of the Plan and careful consideration of the potential outcomes, deterioration in at least some of the protected areas would result. Also, other important habitats, currently not listed or proposed for statutory designation would be susceptible to adverse changes through incompatible uses, resulting in a diminished natural environment and loss of biodiversity.

The Clare County Development Plan 2011-2017 is the overriding document controlling, directing and managing development within the County. It contains specific policies in relation to the natural environment and therefore in the absence of the Shannon Town & Environs LAP 2012-2018 considerable protection to habitats/wildlife will continue through the implementation of the Clare County Development Plan 2011-2017.

County Clare has a vast and diverse natural heritage and as such there are many plans and guidance documents at European, National and Local level, which aim to guide development in order to ensure that this natural heritage is protected. However, in the absence of the ST&E LAP 2012-2018 there would not be a localized framework within which to regulate, aid and/or control development whether economic, social or environmental. In the absence of the Plan pressures on biodiversity, flora and fauna would occur and possibly escalate even though designated habitats and species are protected under EU and National legislation. Loss, disturbance, deterioration and fragmentation of biodiversity, flora and fauna are the greatest threats for biodiversity as well as changes in land use (increase, decrease or change in agricultural activity or other land use – particularly energy crops). Also, other important habitats currently not listed or proposed for statutory designation and their ecological connectivity would be susceptible to adverse changes through incompatible uses, resulting in a diminished natural environment and loss of biodiversity, flora and fauna. Furthermore, the cumulative effects of individual developments would not be easily overseen or coordinated and assessed for their effects on habitats, species and their ecological connectivity. Activities which would lead to, for example, Greenfield site development, wastewater treatment facilities, increased runoff due to urbanisation, etc. are all factors which are influenced by the Plan process and can potentially impact adversely on habitats and species. The role that biodiversity plays cannot be reproduced synthetically as it is a process that has taken thousands of years to develop. Each element of biodiversity is dependent on or responsible for another element. If something is effected within the biodiversity system, it can have a 'ripple effect'. Due to the interrelationships of biodiversity, flora and fauna with the other environmental parameters they would also be adversely affected to varying degrees. For example, development of floodplains would result not only in direct loss of habitats and species, but would also disrupt the hydrological system which would have consequentially negative effects on others aquatic environments. Thus, under these circumstances the evolution of biodiversity, flora and fauna in the absence of the Plan would be highly dependent on the implementation of the parent document and the rate and extent of uncontrolled developments. Ultimately, the potential for fragmentation, loss, and/or deterioration of biodiversity, flora and fauna would occur.

3.3 Soil and Geology

Changes in soil result from both natural processes and human activities; contribute to their dynamic and evolving nature. Such changes are matters of concern if they result in the physical, biological or chemical degradation of soils.

This can result in the impairment of ecologically-essential soil processes, the reduction in productive capacity, the depletion of soil quality and biodiversity and the direct loss of soil. Furthermore the type and depth of soil has direct implications on water movement which can lead to increased pollution threats if not properly considered.

Many of the changes to soil arise as a result of pressures from human activities. Land spreading of both organic and artificial fertilizers, the use of pesticides/herbicides/fungicides can, if inappropriately used, particularly when adverse weather conditions prevail, be carried from the point of use to rivers, lakes and ground water resources. The protection of the 'soil' environment is indirectly enforced through the Code of Good Agricultural Practice (2006), published by the Department of Agriculture.

Also in certain areas the soil's poor percolation characteristics render them unsuitable for conventional septic tank methods of domestic effluent disposal. This has implications for rural housing.

The need to develop a more coherent approach to the protection of soils has been recognised at European level and has resulted in the establishment of such bodies as the European Soil Bureau (ESB), the European Soil Forum (ESF) and European Environment Agency (EEA) Topic Centre on the Terrestrial Environment (ETC/TE). The key soil issues, which have been identified at the European level, include erosion and desertification, industrial contamination, diffuse pollution including organic waste disposal and air deposition, soil loss through urbanisation, soils and climate change, soil biodiversity and salinisation. The result of this development and changing attitude will result in the publication of the European Soils Directive.

The plan will be the guiding document for development within the plan area for the coming years and promotes sustainable development. In its absence development is likely to be sporadic and uncontrolled leading to a significant deterioration in the soil and geology environment i.e. soil loss and run-off, directly impacting on water and causing indirect impacts from potential contamination due to ancillary works associated with the development or lack of appropriate waste water facilities. Furthermore, the cumulative effects of individual developments would not be easily overseen or coordinated and assessed for their effects on soil and geology. Soil and geology is closely linked to biodiversity and landscape thus loss, fragmentation and/or deterioration of soils and geology would have a direct negative impact on biodiversity and the landscape. Also the process for assessing the issues which affects the soil and geological environment within the plan area will go unchecked, resulting in a general deterioration of this natural resource. Ultimately the result would be unsustainable and undesirable.

3.4 Water

For the purposes of this section of the Environmental Report the water environment is taken to include natural surface water features such as lakes, rivers and streams, groundwater, estuarine, flooding, drinking water and water conservation. Wastewater Treatment may be referred to only in this section; it is discussed in more detail under the Material Assets section.

Groundwater

Groundwater resources are an invaluable source of water supply for the public, industry and agriculture and also perform an important role in sustaining base flows in the rivers within the plan area and their tributaries.

Ensuring that this valuable resource is protected from pollution is paramount in the interests of sustainability and the future needs of generations to come. The WFD groundwater status in the ST&E LAP plan area is determined to be of 'good' status. Complimentary to this is the Geological Survey of Ireland (GSI) groundwater vulnerability which rates aquifers according to their vulnerability to pollution. Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter underground water. The plan area has intermittent areas classified as being of 'low', 'moderate', and 'high' vulnerability. There are also areas to the periphery of the plan area and airport lands which are categorised as having 'extreme' groundwater vulnerability (including where rock is close to the surface).

Surface Water

The most notable surface water features within the plan area are the Shannon Estuary and Fergus Estuary which together form the country's largest estuarine complex.

The Clare County Development Plan 2011-2017 includes objectives for the management and protection of water sources in the county, these were formulated in correlation with WFD objectives and significant water management issues identified in the Water Matters Consultation publications;

- Objective CDP8.2 Protection of Water Resources
- Objective CDP8.3 Protection of Surface Waters

Since 2000, Water Management in the EU has been directed by the Water Framework Directive (WFD) which establishes a common framework for the sustainable and integrated management of all waters. The key objective of this Directive is that all water bodies in a Member State (divided into River Basin Districts) achieve (or retain) good status by 2015. The Plan area is located within the Shannon International River Basin District (SIRBD). Areas within this river basin have one of the highest proportions of water bodies across all water types at risk from pressures. The SRBD Management Plan establishes four core environmental objectives to be achieved generally by 2015:

- prevent deterioration;
- restore good status;
- reduce chemical pollution;
- achieve water related protected areas

Estuarine Waters

Since 2000, estuarine water management in the EU has been directed by the Water Framework Directive. The WFD has assigned the Shannon Estuary as being 'Good' status in its upper part changing to 'Moderate' status in the mid section and the mouth of the Shannon (after Kilrush) is 'High' Status. The Fergus Estuary is classified as 'Moderate' status. The Shannon River Basin Management Plan (SRBMP) and associated Programme of Measures (POMS) also consider the estuarine areas of the ST&E LAP 2012-2018.

Flooding

The underlying causes of flooding, heavy rain and high sea levels are, essentially uncontrollable. However, the factors affecting the extent and severity of the flood, such as development on floodplains, can be addressed. The most influential of these factors is development, in particular development in flood plains i.e. areas adjacent to rivers that tend to become flooded following periods of heavy rain. Historic records help to indicate which areas are prone to flooding, although it is always possible that areas not known to have flooded in the past or for which no records of flooding are available, might flood in the future due to changes in upstream or downstream conditions or the occurrence of a more extreme rainfall event.

Much of Shannon consists of low-lying coastal flatlands which are within a Flood Zone protected from tidal flooding by embankments. The existing and future suitability of these embankments to act as flood defence barriers has been the subject of a detailed flood risk. Further to this, a preliminary flood risk assessment was completed in August 2011 for Shannon, as part of the Catchment Flood Risk Assessment and Management Study (CFRAM) Study for the Shannon River Basin District (SRBD) in compliance with the requirements of the EU Floods Directive. Shannon will be the focus of a further assessment and detailed flood mapping will be produced (2013), this will be followed by a flood risk management Plan (2015) which will define the current and future flood risk in the Shannon RBD and set out how this risk can be managed.

The Flood Risk Areas are not an exhaustive measure and areas not illustrated here could still be at risk of flooding. Where potential risk of flooding exists, the OPW Flood Risk Management approach will be considered in consultation with the OPW.

The Clare County Development Plan 2011-2017 also contains three specific objectives in relation to flooding and flood risk management and these objectives apply to the Plan area and to the preparation of the Shannon Town & Environs Local Area Plan 2012-2018.

- Objective CDP9.15 Strategic Flood Risk Assessment
- Objective CDP9.16 Maintenance of Rivers and Waterways
- Objective CDP9.17 Monitoring

Drinking Water

Drinking water is monitored for microbiological, chemical and indicator parameters as part of an established monitoring programme in accordance with European Communities (Drinking Water) (No. 2) Regulations 2007. The following supplies are monitored:

- All public water supplies
- Public and private group water schemes supplying $>10\text{m}^3$ per day
- Private supplies that supply $<10\text{m}^3$ per day but is a commercial activity

The Environmental Protection Agency (EPA) is the supervisory authority for public water supplies and the local authority are in turn the supervisory authority for group water schemes.

The Shannon Water supply is subject to check monitoring 34 times a year and 4 Audit Monitoring's per year. Where non-compliance is detected it is reported to

the relevant staff and action is taken to ensure that the water is compliant with the drinking water regulations. A protocol is in place between Clare County Council and the Health Service Executive (HSE).

Water Conservation

Clare County Council acknowledge the importance of water conservation and as such support and provide measures to promote conservation of water:

- Works involving the installation of a network of bulk flow meters in order to monitor flows and determine where leakage is worst.
- Works involving active leak detection, whereby specialist teams identify leaks to be repaired using the latest sounding and correlation equipment. This work is ongoing.
- Provides for replacement and rehabilitation of water mains

Water conservation measures also focus on reduction in water wastage and allow for greater capacity for additional development in areas with deficient supply without the need to abstract further water resources. The use of innovative approaches to achieve reduction in demand from the schemes will be encouraged, this may include rainwater harvesting with a view to its re-use in various non-potable high water use areas (gardening, car wash etc)

The Clare County Development Plan 2011-2017 contains a specific objective in relation to water conservation which will apply to the Plan area:

- CDP8.5 Water Conservation

There is significant legislation which provides for the protection and enhancement of water resources and quality at European, National, Regional and County level. These include the Water Framework Directive and associated EU Directives, the Shannon River Basin Management Plan, and associated WMU action plans, the Planning Guidelines on Flooding and Risk Management and the Clare County Development Plan 2011-2017. In the absence of the ST&E LAP 2012-2018, these instruments will continue to provide universal protection to surface, groundwater and estuarine waters and their associated habitats and species. However, there would not be a localised settlement specific planning framework within which to regulate, aid and/or control development whether economic, social or environmental. The Local Area Plan sets out specific zoning objectives for Shannon Town and is adaptable to local issues, particularly in relation to potable water, wastewater treatment and land development. The combination of all approaches will yield the best approach to improving and safeguarding water resources.

If new and uncontrolled development is not accompanied by appropriate wastewater infrastructure/capacity then it is most likely that surface and groundwater bodies would fail to meet the objectives of the WFD; and there would be significant adverse direct and indirect impacts, etc. on water and the other environmental parameters to varying degrees. For example, human health would be directly adversely affected as a result of poor water quality. Furthermore, in the absence of the Plan, the issue of Sustainable Drainage Systems (SuDS) would not be implemented in site specific locations, thus surface water run-off due to uncontrolled development would be discharged directly into the groundwater system. The cumulative effects of such run-off have the potential if combined with other factors, e.g. severe rainfall, to result in flooding. Biodiversity would be exposed and vulnerable to a direct loss of species types and

numbers, and tourism could indirectly suffer if water bodies in the surrounding plan area suffered reduction in their water quality status.

While EU and national legislation will apply, the primary issues affecting water quality and flood control such as population increase, loss of floodplain, increased run-off etc which can be controlled at the LAP level will not be addressed adequately at a local level. Ultimately the result would be unsustainable and undesirable.

3.5 Air and Climatic Factors

Air quality

Air quality monitoring in Ireland is undertaken largely to implement EC Directives on smoke and sulphur dioxide (SO₂), lead, ozone and nitrogen dioxide (NO₂) to assess compliance with national air quality standards. The vast majority of air monitoring sites in Ireland monitor smoke and SO₂ only. However in recent years, the EPA has become involved in air quality monitoring and has installed a number of air quality monitoring stations throughout Ireland, including Shannon. The Shannon site is located on Clare County Council premises within the town. There has only been one exceedance of the daily PM₁₀ value of 50ug/m³ and no exceedances of the hourly limit value for NO₂ in the first ten months of 2011. Benzene, SO₂ and CO levels have all been low, below their respective lower assessment threshold levels, and are typical of Zone D town concentrations across the network. The Real-Time monitoring began in March 2011 and it is expected to continue until 2012.

The quality of air at Shannon airport is monitored at 6 monthly intervals in three strategic locations over continuous 10-day periods. The monitoring programme collects a range of data for a number of prescribed parameters, which are then compiled in a detailed report for review by the Safety & Environmental Department at Shannon Airport. There are 9 IPPC licensed activity within the plan area.

Climate Change

Climate change is a transboundary issue affecting the entire globe and is fundamental to social stability and sustainable development. It is widely recognised that the build up of atmospheric Greenhouse Gases (GHG's) such as carbon dioxide is threatening global climate stability.

Ireland ratified the UN Framework Convention on Climate change in 1994 and the Kyoto Protocol in 1997. Ireland has given an undertaking to limit the net growth of GHG to 13% above 1990 levels by the period 2008-2012. However the economic growth witnessed in Ireland over the past decade has resulted in GHG emissions being 29% above 1990 levels in 2002.

In the absence of the ST&E LAP 2012-2018 there would not be a localised settlement specific planning framework within which to regulate, aid and/or control development whether economic, social or environmental. Air pollution would impact on the health of sensitive populations or groups and eco systems. In the absence of the Plan sustainable mobility objectives may not be implemented thus the transport sector which is a great energy consumer could not be monitored. Specific issues associated with climate change such as sea-level rise, extreme flooding and drought, changes in species distribution would continue unchecked and lead to catastrophic consequences, for example,

continued and increased flooding, significant risk to human quality of life, property, biodiversity, agriculture productivity and water quality.

3.6 Material Assets

For the purposes of this section of the report the Material Assets section includes

- Transportation,
- Waste Management,
- Water Supply,
- Waste Water Treatment,
- Renewable and Alternative Energy

1. Transportation

The Limerick/Shannon area is designated as a Gateway under the National Spatial Strategy. Gateways are strategically located both nationally and relative to their surrounding areas. Such centres provide national-scale social, economic infrastructure and support services. Further development of these Gateways is a key component of the National Spatial Strategy. This designation has brought forward improvements in transport infrastructure

Shannon is located relative to two National Primary Roads, the N18/M18 Limerick to Galway road, and the N19 which links the N18 with Shannon Airport. There are no National Secondary Roads directly serving the Plan area.

The Plan area is also served by many regional roads which link important centres within the plan area and outside, these include:

- R471 - Shannon to Sixmilebridge
- R472 - Shannon to Newmarket on Fergus

Shannon International Airport is located within the plan area; it is a key infrastructural safeguard in the Mid-West Region having the second longest runway in Europe and preclearance facilities for entry to the US. There is no existing rail service in Shannon however, an Infrastructure Safeguard for the Shannon – Limerick rail link is outlined in the land use map for the ST&E LAP, and there is also provision for a central station within the Town Centre. Shannon is served by Bus Éireann daily intercity buses, with routes to Limerick, Ennis and Galway. However there is no local bus service, which negates travelling by bus as a viable option and accelerates car dependence. Objectives relating to Smarter travel and Electric Vehicle charge points are also addressed in the ST&E LAP.

Shannon is strategically well equipped to cater for an increase in pedestrian and cycle paths. Improvement to the existing lanes/paths and linkages to service areas and open space are encouraged as set out in the following objective 11.10 and 11.11 of the ST&E LAP.

2. Waste Management

The Replacement Waste Management Plan 2006-2011 is currently in effect in the Shannon Town & Environs plan area, however, a replacement document is being prepared by the Local Authorities of Clare County Council, Kerry County Council, Limerick City Council and Limerick County Council which will be adopted within the lifetime of the plan and implemented in the plan area. There is 1 recycling facility located within the Plan area caters for all major recycling streams in

addition to waste oil, batteries, metal, textiles, W.E.E and timber. There are also recycling bring banks located on the grounds of Shannon Leisure Centre. Clare County Council also provide home composters and encourages the composting of household organic waste thus reducing need for landfill. The compost demonstration site in Shannon is a pioneering initiative supported by Clare County Council and the Stop Food Waste Initiative of the EPA which promotes composting of decomposable waste. Shannon is also involved in the Tidy Towns competition which raises environmental awareness and contributes to community life. The Town Council rates environmental issues highly as is evident from the range of policies including the 'Litter Management Plan 2010-2013' which it embraces.

3. Water Supply

Water supply in the Shannon LAP area is derived from the Castle Lake scheme at Sixmilebridge. The lake is currently classified as mesotrophic, meaning that it is of intermediate productivity, and is within an area of 'extreme' groundwater vulnerability (GSI). This signifies its importance as a resource which requires increased protection. Castle Lake is a proposed Natural Heritage Area within the East Clare Plan area which feeds the Owenogarney or Ratty River, which in turn forms part of the Ratty River Cave SAC and flows into the Shannon Estuary SAC. This is an existing water abstraction source, and abstraction is not expected to significantly increase throughout the Plan period. As such, water abstraction from Castle Lake is not likely to have a significant negative impact on the Natura 2000 Site Network. Shannon Airport has its own water supply independent from the Castle Lake public supply which serves the majority of the plan area. This supply is derived from Rosroe Lough, which is a proposed Natural Heritage Area, has a WFD 'Moderate' lake water body status and is within an area of 'high' groundwater vulnerability (GSI).

To protect the broader water resource from impacts caused by abstraction, the Clare County Development Plan 2011 – 2017 contains three objectives specific to water supply and protection, namely,

- Objective CDP 8.4: Water Supply,
- Objective CDP 8.5: Water Conservation, and
- Objective CDP 8.6: Water Abstraction.

The EPA is the supervisory authority for public water supplies and the local authority are in turn the supervisory authority for group water schemes.

4. Wastewater Treatment

The safe treatment and disposal of sewage is fundamental to the sustainable development of our society. The treatment of wastewater in the Plan area is of concern. The Shannon Treatment Plant at Traderee caters for both domestic and industrial wastewater in Shannon town but also serves Bunratty and the surrounding environs. The industrial waste is treated using a chemical system while the domestic waste uses a standard aeration system. There is sufficient capacity in principle to accommodate additional development proposals over the plan period, however the plant is currently not capable of complying with EPA discharge licence requirements and thus requires upgrading. Plans for an upgrade were approved under WSIP 2010-2012 with construction likely to commence post 2013, and due to be operational by 2015. Shannon Airport has a private WWTP at Duglish Island. It is currently compliant with terms of the licence and is underloaded relative to design and underloaded relative to projections.

5. Renewable and Alternative Energy

The Council recognises the importance of developing renewable sources of energy in the interest of supporting environmental sustainability. To this end the Council have identified the 'preferred' areas and areas 'open for consideration' for the development of wind energy infrastructure in the Clare County Wind Energy Strategy, included as Volume 5 of the Clare County Development Plan 2011-2017. Shannon Town & Environs LAP area is within the broad remit of being 'Open to Consideration'.

It is also an objective of the Council to develop a Renewable Energy Strategy during the lifetime of the County Development Plan. This will outline and encourage the development of renewable energy, the reduction in waste of energy, the maximising usage of renewable energy sources and support energy conservation initiatives while making a significant contribution to reducing Ireland's energy related CO₂ emissions and creating employment.

Effects of Not Implementing the Plan

Transport – In the absence of the Plan, formal consultation with the NRA regarding localised issues of capacity, operational efficiency and safety would be limited. Rural transport links would not be offered the same protection and the future investment in key infrastructure will not be targeted appropriately to key development areas.

Waste - In the absence of the Plan, the process for assessing the issues which affect waste management within the plan area will go unchecked resulting in a general deterioration in this aspect of the environment. Ultimately the result would be unsustainable and undesirable.

Water Supply – In the absence of the Plan, issues such as future water demand, resource identification and protection will not be comprehensively assessed resulting in a poor level of service provision and possible degradation of important reserves. Also, the future investment in key infrastructure would not be targeted appropriately to key development areas. The result would be a haphazard, un-coordinated delivery of service, resulting in negative environmental impacts.

Waste Water Treatment - The significant shortfall in wastewater treatment capacity in the Shannon Town & Environs LAP area would undoubtedly continue to exist resulting in a poor level of service provision and further degradation of important natural water reserves. The cumulative and secondary effects of population, water, human health & quality of life would not be comprehensively assessed environmentally and deterioration of the environment would occur.

Renewable Energy – In the absence of the Plan associated issues of landscape, water, material assets etc would not be cumulatively addressed and no comprehensive database of information would be available which would aid in both compiling a Renewable Energy Strategy for the County or in developing Renewable Energy projects in the ST&E LAP area. Also, the future investment in key infrastructure would not be targeted appropriately to key development areas.

3.6 Cultural Heritage

Taking into consideration the urban fabric of the plan area, the presence of a rich vernacular heritage within the Plan area is sparse. There are currently 3 buildings within the Record of Protected Structures. It can be noted however that

there may be other structures which have not generally been considered important enough for inclusion in the Record of Protected Structures, but nevertheless contribute to the character of the area by their scale, age and use of local materials and many have features which are typical to their particular locality, namely the built environment at Shannon Airport. It is important that such buildings are preserved to maintain the attractive character of our rural landscape and contribute to the amenity and pleasure of residents and visitors alike.

All archaeological structures, caves, sites, constructions, groups of buildings, developed sites, all recorded monuments as well as their contexts, and moveable objects, situated both on land, underwater or in intertidal zones are part of the Archaeological Heritage of County Clare. The County as a whole has the highest number of archaeological sites of any county in Ireland. The significant breadth of archaeological heritage within the plan area varies from castles, churches, graveyards, earthworks, enclosures, ring forts, Fulacht Fia and megalithic wedge tomb which contribute in total to over 70 recorded monuments. However, it can be noted that the archaeological heritage of Shannon is not confined to the archaeological sites within the Record of Monuments and Places. It includes any archaeological site that may not have been recorded yet, as well as archaeology beneath the ground surface, underwater as well as the context of any such site discovered. Therefore, the full extent of cultural heritage has yet to be completely identified.

In the Shannon Plan area there are some archaeological monuments and protected structures which are covered by National legislation and local policy and objectives.

The Planning and Development Act, 2000 (as amended) introduced a tiered and plan-led system, setting out the framework for the provision of local area plans to give more detailed and localised effect to the policies and objectives of the County Development Plan. Thus, in the absence of the Shannon Town & Environs LAP, the process of assessing the pressure on Shannon's cultural heritage would be highly dependent on the CCDP 2011-2017. The value of the ST&E LAP with regard to establishing individual settlement objectives and zoning (both general and specific) could result in the potential loss of valuable and irreplaceable aspects of the Shannon cultural heritage.

Potential indirect effects due to the absence of a Plan include a negative impact on the cultural amenity value and the tourism economy. Uncontrolled development could lead to the excavation and movement of soil which could in turn interfere with subsurface cultural heritage. Furthermore, the cumulative effects of individual developments would not be easily monitored or coordinated and assessed for their effects on the archaeological or architectural landscape.

3.7 Landscape

Landscapes are areas as perceived by people; the character of landscapes is shaped by their natural characteristics such as land form and landcover in combination with their associated human values. Landscapes are constantly evolving, both through the actions of nature and human intervention, therefore the challenge is to cater for change and permit development which respects and enhances the landscape.

The Heritage Council Landscape Character Assessment (2004) characterised the the landscape as per units that are geographically specific and have their own character. The prominent landscape character areas in the plan area are:

- Shannon Estuary Farmland
- Fergus Estuary

Seascapes comprise of one or more; views from land to sea, views from sea to land, views along the coastline and the effect on landscape of the conjunction of sea and land. There are 12 seascape character areas identified in County Clare, 2 of these are located in the Plan area including:

- River Shannon, and
- Fergus Estuary

In the Clare County Development Plan 2011-2017, Clare County Council in conjunction with CAAS Environmental Services have revisited the policy approach termed 'Clare's Living Landscapes'. This approach builds on the 'Landscape Character Assessment of County Clare'. The three Living Landscape types are:

Settled landscapes – where people live and work

- Working Landscapes – intensively settled and developed areas within Settled landscapes or areas with a unique natural resource
- Heritage Landscapes – where natural and cultural heritage are given priority but where development is not precluded rather things must happen more slowly and carefully.

The majority of the LAP area comprises the Western Corridor - Ennis to Limerick Working Landscape and Heritage Landscape 3 – The Fergus/Shannon Estuary.

Scenic Routes offer attractive views of a variety of landscapes across County Clare. There is one scenic route within the plan area which offers a very attractive cross-sectional view and overall impression of differing landscapes including views and vistas to the Shannon Estuary.

In the absence of the ST&E LAP 2012-2018 there would not be a localised settlement specific planning framework within which to regulate, aid and/or control development whether economic, social or environmental. Development would have no policy regulation or guidance over where it could occur this could lead to non-strategic developments in isolated areas resulting in a disregard for the landscape designations described. Furthermore, the cumulative effects of individual developments would not be easily overseen or coordinated and assessed for their effects.







4.0 Environmental Objectives




In order to achieve the aim of assessing and improving the environmental performance of the Local Area Plan, a number of Environmental Objectives, specific to each environmental topic have been formulated. These Environmental Objectives are a fundamental part of the SEA process. The Objectives are derived through consultation between the planning authority, the report authors (guided by SEA guidelines, incorporating where relevant international, national and regional policies which govern environmental protection/conservation) and are based on the overall strategy of the planning authority to safeguard the environmental integrity of the LAP area and to develop its functional area in a sustainable manner.

Environmental Objectives are distinct from the objectives and policies contained in the Plan, though the process of preparing the LAP in conjunction with the SEA allows for the incorporation of environmental themes at an early stage of the process. The Environmental Objectives are used to assess the proposed development strategies of the Local Area Plan, its policies and objectives, in order to evaluate and identify where conflicts may occur.

Table 4.1 – SEOs for Shannon Town & Environs LAP 2012-2018

This table has been updated in line with the monitoring table in Chapter 9 and the tables in appendices E and F.

Parameter	Strategic Environmental Objective
Population 	<p>P1 – Protect, enhance and improve people’s quality of life based on high quality residential, community, working and recreational environments and on sustainable travel patterns.</p> <p>P2 – To protect human health from hazards or nuisances arising from exposure to incompatible land uses/developments</p> <p>P3 – Implementation and enforcement of the County Litter Management Plan 2009-2012 and any subsequent plans.</p> <p>P4 – Adhere to the County Emergency Plan and other objectives of relevance to human health.</p> <p>P5 – Provision of green spaces for amenity</p>
Biodiversity 	<p>B1 – Conserve and protect, or maintain and restore Natura 2000 sites and the Natura 2000 Network designated under Art. 6 of the Habitats Directive</p> <p>B2 – Conserve and protect other sites of nature conservation including NHAs, pNHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries.</p> <p>B3 – Protect, conserve and avoid loss of diversity and integrity of the broad range of habitats, species and wildlife corridors (non-designated sites) within the Shannon Plan area.</p> <p>B4 – Conserve and protect annexed and other protected species</p> <p>B5 – Protect the inland aquatic environment.</p> <p>B6 – Protect habitats (terrestrial and aquatic) from invasive species.</p> <p>B7 – Conservation of Wetlands and their use and resources</p>
Soil & Geology 	<p>S1 – Give preference to the use of derelict, disused and infill sites, rather than Greenfield sites.</p> <p>S2 – Protect, improve and maintain the quality of soils.</p> <p>S3 – Minimise the consumption of non-renewable deposits on site and the amount of waste to landfill from site.</p> <p>S4 – Conserve, protect and avoid loss of diversity and integrity of designated habitats, geological features, species or their sustaining resources in designated ecological sites.</p>
Water 	<p>W1 – Maintain or improve the quality of surface and groundwater water (including estuarine) to status objectives as set out in the Water Framework Directive (WFD), SRBM & POMS.</p> <p>W2 – Protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystem (quality, level, flow).</p> <p>W3 – Implement appropriate sustainable drainage systems (SuDS) in any future development in the Shannon Area.</p> <p>W4 – Reduce the impact of polluting substances to all waters and prevent pollution and contamination of ground water by adhering to aquifer protection plans.</p> <p>W5 – Maintain and improve the quality of drinking water supplies</p> <p>W6 – Promote sustainable water use based on a long-term protection of available water resources and water conservation measures.</p> <p>W7 – Reduce risk of flooding through avoidance of development in flood plains or in areas at risk of flooding</p> <p>W8 – Provide provision of flood relief through management of flood risk and living with floods rather than engineered flood solutions.</p> <p>W9 – Promote Integrated Coastal Zone Management.</p>
Air/Climate 	<p>C1 – Minimise all forms of air pollution and maintain/improve ambient air quality.</p> <p>C2 – Minimise emissions of greenhouse gases and contribute to a reduction and avoidance of human-induced global climate change.</p> <p>C3 – Reduce car dependency within the plan area by way of, inter alia, encouraging modal change from car to more sustainable forms of transport and encouraging development which will not be dependent on private transport</p>
Transport 	<p>T1 – Maximise sustainable modes of transport and encourage use of walkways/cycle paths as alternative route to school, work, shops</p> <p>T2 – Provide for ease of movement for all road users and to promote</p>

	development patterns that protect and enhance road safety
	T3 – Provide an upgraded/improved public transport network.
	T4 – Promote, encourage and implement a Cycle Strategy for Shannon in association with an accessible walking network
Waste	WA1 – Implement the waste pyramid and encourage reuse/recycling of material wherever possible.
Water Supply 	WS1 - To ensure that drinking water supplies are both wholesome and clean and free of contamination.
	WS2 - Improve efficiency in distribution of potable water to the population.
	WS3 - To promote long-term protection of available water resources through sustainable water use.
	WS4 - Upgrade infrastructure to meet future water supply needs
Waste Water	WW1 - To ensure that all zoned lands (existing and proposed) are connected to the public sewer network ensuring treatment of wastewater prior to discharge.
	WW2 - Upgrade existing wastewater treatment plant infrastructure
	WW3 - Reduce the dependency on individual proprietary wastewater treatment facilities.
Renewable Energy	RE1 - Reduce waste of energy, promote use of renewable energy sources and support energy conservation initiatives
	RE2 - Promotion of energy conservation across all sectors. Promote the development of low carbon commerce and buildings
Cultural Heritage 	CH1 – Protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded and recorded monuments), architectural (Protected Structures, vernacular buildings, materials and urban fabric) and manmade landscape features (e.g. field walls, footpaths, gate piers etc.).
	CH2 – Conserve historic fabric of urban settlements.
	CH3 – To ensure the restoration and re-use of existing uninhabited and derelict structures where possible opposed to demolition and new build (to promote sustainability and reduce landfill).
Landscape 	L1 – Conserve, protect and enhance valued natural landscapes and features within them including those of geological and aesthetic value.
	L2 – Protect designated landscapes and scenic views, routes and landscape features of local value
	L3 – Conserve and protect cultural landscapes including archaeological and architectural.
	L4 - Minimise visual impacts through appropriate design, assessment and siting

5.0 Alternatives

Article 5 of the SEA Directive specifies that the Environmental Report should consider 'reasonable alternatives taking into account the objectives and geographical scope of the plan or programme'.

The issue of alternatives is a critical function of the SEA process and is necessary to evaluate the likely environmental consequences of a range of alternative development strategies for the LAP area within the constraints imposed by environmental conditions. The Plan is based on the principles of sustainable development and in applying these principles the following development scenarios were considered:

1. 'Business as Usual' Approach
2. Gateway Approach
3. Demand Led Approach
4. Ad-Hoc Development
5. Economic Development Approach
6. Strong Environment led Approach
7. Sustainable Planning and Development

1. 'Business as Usual' Approach

Shannon Town is addressed in the South Clare Local Area Plan 2009-2015. As required under Section 10(1B) of the Planning and Development (Amendment) Act 2010, planning authorities must ensure that core strategies are incorporated into development plans within 1 year of the adoption of the relevant Regional Planning Guidelines; in this instance the Mid-West Regional Planning Guidelines came into effect in September 2010. In demonstrating consistency with the Regional Planning Guidelines and the Clare County Development Plan 2011-2017, the core strategy must also be incorporated into Local Area Plans. Therefore the South Clare LAP 2009-2015 has been revoked and a new South Clare Local Area Plan 2012-2015 prepared. However, Shannon does not form part of this new SCLAP 2012-2018 and thus would not be subject to localised planning framework.

The 'Business as Usual' approach would not accommodate a new LAP for the Shannon area and instead utilise the Clare County Development Plan 2011-2017 as the leading planning instrument for Shannon.

The 'Business as Usual' approach was rejected on grounds that in the absence of a Local Area Plan for Shannon Town & Environs, a localised planning framework would not exist for the area and the Clare County Development Plan 2011-2017 would be the leading planning instrument.

2. 'Gateway' Approach

Strengthening the critical mass of the existing Limerick/Shannon Gateway is a key component of the NSS. The existing airport and port facilities, road infrastructure and enterprise development forms the platform for capitalising on the strategic location of this gateway, in pursuit of national scale social and economic needs. A diverse population base is also key to achieving this and providing sufficient land to accommodate future residential growth is paramount to the growing strength of Shannon as a Gateway. This option would ensure that land was available for development as required in order to strengthen and promote the Gateway designation. The physical and environmental constraints of land availability or suitability would not be addressed.

Targeting economic growth in a particular area without recognising the surrounding environment is not conducive to proper planning and sustainable development. A balanced approach to development is required.

3. Demand-Led Approach

This approach would be predominantly based on a 'demand only' basis. Utilisation of vacant buildings and the reuse and redevelopment of existing buildings on brownfield sites would be encouraged prior to the development of new build on Greenfield sites. This would have a short term environmentally positive effect, but negates the requirement for core strategy and does not incorporate a strategic approach to sustainable development and proper planning. Also, this option does not address deficiencies in types of housing required.

The availability of land space is a constraint in providing a viable demand led approach to development. The Shannon Estuary, Airport and Enterprise lands and the N18 act as physical boundaries to development in all directions and land which may seem available within the periphery of the LAP boundary is unsuitable on environmental grounds. The possibility of acquiring lands for development to the east of the plan area to Hurlers Cross was considered but refuted on land availability and environmental concerns. Also, this option does not accommodate core strategy requirements.

4. Ad- Hoc Approach

Promoting development in the Plan area in an ad-hoc and unrestrictive manner;

- at any location within its functional area, not having regard to geographical scope,
- without restriction on development at or adjacent to existing built heritage,
- without regard to the current available levels of infrastructure and service utilities,
- without regard for environmental and ecological designations, sensitivities and constraints,
- without regard for the likely significant impacts on water resources.

Ad Hoc Development envisages potentially inappropriate lands zoned for development without truly assessing the overall need for, or scale of development. Consequently development would occur in un-serviced or in insufficiently serviced areas. Therefore, this strategy was rejected on grounds that it would put unnecessary pressure both on the fringes of Shannon as well as in the open countryside surrounding the town and lead to significant levels of ribbon development between Shannon and surrounding settlements, it would have a negative impact on the significant and rich cultural heritage of the individual settlements in the Plan area, it would put undue pressure on the existing infrastructural provision prior to upgrade, and it would cause undue negative impacts on all aspects of the environment. By adopting such a Non-Planned approach, development of all areas would occur with little control exerted; it would present significant environmental problems and would be contrary to the principles of sustainable development. This option would not allow for the orderly and sustainable development of the County.

5. Economic Development Approach

This approach would aim to facilitate economic stability in Shannon by providing sufficient land and requirements for development purposes. This option would create opportunities for employment, enterprise, and tourism development, etc. without restrictive environmental and planning constraints. Development at Shannon Airport and Shannon Estuary would be facilitated in the interests of economic sustainability. Linkages to marine industry would be accommodated to further enhance the Gateway designation as a key driver in the economic growth of the region.

Economic Development Approach; the planning consequences of Option 5 would be severe and while this alternative would allow for development and provide some short term economic benefits to the plan area and surrounding hinterland, it is not sustainable and therefore not a viable or acceptable alternative in practice. This scenario takes a short term view of development with no consideration of the long term negative environmental consequences; therefore, taking into consideration the following conditions, this strategy was rejected in favour of a more sustainable viable option.

- It would lead to deterioration in the settlement structure of the county, with a significant shift towards rural rather than urban development.
- Ultimately it would lead to a loss of population base within key centres and consequently a loss of critical mass for the development of key services and facilities within those centres.
- Lack of consideration for environmental constraints e.g. Natura 2000 site designations and flooding would undoubtedly lead to short & long term, cumulative negative impacts.
- Urban generated housing within the transport corridors would have long term implications for future road development and would compromise re-alignments, or road geometry with adverse risks to road users
- Development would have no policy regulation or guidance over where it could occur, this could lead to non-strategic developments in isolated areas resulting in significant increases in population, increase in private transport usage, decrease in quality of life for nearby residents, etc.
- Specific issues associated with climate change such as sea-level rise, extreme flooding and drought, changes in species distribution would continue unchecked and lead to catastrophic consequences, for example, continued and increased flooding, significant risk to human quality of life, property, biodiversity, agriculture productivity and water quality.
- Cumulative effects of individual developments would not be easily overseen or coordinated and assessed for their effects
- Such development is uncontrolled and essentially developer-led but without adequate provision for necessary infrastructure. This option would result in the development of the plan area through market forces in an unsustainable manner.
- Domination of market forces resulting in piecemeal development
- Furthermore, Core Strategy is a transparent evidence based rationale for the amount of land proposed to be zoned and as such must be adhered to.

6. Strong Environment led Approach

This scenario, essentially eco-centrally based, would offer strong short-term protection to the natural, cultural and aesthetic landscape, for example, areas of

ecological interest and visually sensitive areas. Severely restrictive policies towards development in highly defined sensitive areas such as those listed as NHA, SPA, SAC or indeed those areas highlighted as being sensitive in terms of ground water resource protection or visually sensitive would apply. A zone of influence would apply which would apply a much broader interpretation as to which areas were designated as environmentally sensitive, therefore, much of Shannon would be deemed as such, leading to very minimal development occurring. Strict adherence to EU principles for protection of water quality, air emissions, cultural heritage, etc. would dominate. There would be a strict demarcation between urban and rural areas. Design of developments would be very prescriptive. The density of Shannon Town would increase with major emphasis on infill development and brownfield development. In summary, the key environmental impacts would include:

- Areas which are the subject of ecological designations would be carefully managed and sustained to ensure that the inherent, conservation value of biodiversity, flora and fauna would not be compromised
- Developments would be served by appropriate wastewater treatment infrastructure thus avoiding impacts upon abstraction sources of water and surface and groundwater resources,
- Development would avoid negative impacts on the status of water quality, in an effort to comply with the requirements of the Water Framework Directive,
- Highly valued landscapes would remain as such to ensure that the character and quality is maintained.
- The environmental effects and cumulative impacts of development would be considered with development needs in the overall development of the County.

Option 6 - Strong Environment led Approach promotes a strong environmental approach; however, this scenario would have major negative implications for socio-economic growth. Infrastructure in Shannon Town would come under enormous pressure with the sudden influx of growth, which could in turn lead to long-term negative environmental impacts. There would be prevalence towards residential development in peripheral settlements in South Clare where wastewater and flooding issues are evident and the surrounding rural areas would experience decline due to less development, employment opportunities and thus, potential rural population migration. For example, traditional agricultural activities would decline, and alternative agricultural practices would not be an option. Tourism development would not be permitted in rural areas; thereby incomes from the revenue source would decline. In general, with this approach the degree of protection offered to the environment would be great while the level of economic and social growth would be lessened.

- It would have the effect of focusing development on the larger Shannon urban centre with the potential for a consequent decline in the social, cultural and economic wellbeing of the surrounding rural areas.
- Significant negative impact on socio-economic growth in the County, particularly in relation to agriculture, tourism and rural industry (i.e. in areas outside of major hubs).
- Much of the rural County would be deemed not available for development, leading to very little development occurring, resulting in a decline in the social, cultural and economic wellbeing of rural areas.

7. Sustainable Planning and Development

Sustainable development in Shannon can be achieved through the promotion, maintenance and enhancement of the existing viable urban community, preservation of the quality and character of the natural and man-made environment and concentration on infrastructural investment. A planned approach to the approval of acceptable development within the Plan area will ensure that development will be targeted in key areas in a sustainable and managed way. This approach emphasises the NSS designated gateway and the targeted accommodation of the predicted future population need in a planned and orderly manner. Ultimately the core issue of sustainability is addressed and significantly a balance between development and environmental protection is enshrined in the plan. This approach offers a full spectrum of planned options, thus, this approach offers a long term vision for the Plan area. Under this scenario the following results are envisaged:










- Implementation of Core Strategy highlighting population targets and a quantification of requirements for zoning of lands for residential/other development
- Implementation of the hierarchical gateway within the Settlement Strategy;
- Key areas for growth identified and promoted;
- Strategic or key routes and linkages identified and preserved;
- A high level of environmental protection;
- Valuable natural resources such as water quality are protected
- Key designations such as the Shannon Estuary are sustainably and environmentally addressed in the overall scheme of development.

This option includes objectives for promoting the growth within Shannon without compromising on character; promotion of tourism and enterprise; provision of enhanced waste water treatment facilities and protection/enhancement of the natural and cultural heritage of the settlements.

As a result of further analysis and consultation, additional alternative options can sometimes be considered, however, given the legislative requirements in this instance, it is envisaged that the ST&E LAP 2012-2018 will progress as planned.

In conducting SEA, the likely significant environmental effects of implementing a plan or programme must be appraised and "*an outline of the reasons for selecting the alternatives dealt with*" (*Annex I (h)*). In this regard, Table 5.1 represents an environmental assessment only of the alternatives proposed.

Table 5.1 – Assessment of Alternatives

Environmental Assessment of the Alternatives									
									
Option 1 – ‘Business as Usual’ Approach	○	○	○	○	○	○	○	○	○
Option 2 – Gateway Approach	○	○	○	○	○	○	○	○	○
Option 3 – Demand Led Approach	○	○	○	○	○	○	○	○	○
Option 4 – Ad- Hoc Approach	○	○	○	○	○	○	○	○	○
Option 5 - Economic Development Approach	○	○	○	○	○	○	○	○	○
Option 6 - Strong Environment led Approach	○	○	○	○	○	○	○	○	○
Option 7 - Sustainable Planning & Development	○	○	○	○	○	○	○	○	○

Likely to Improve status of SEOs -	○	Probable Conflict with status of SEOs unlikely to be Mitigated -	○
Potential Conflict with status of SEOs likely to be mitigated by measures	○	Uncertain interaction with status of SEOs	?
Neutral Interaction with status of SEOs	-	No Likely interaction with status of SEOs	-

Option 7 Sustainable Planning & Development is the development scenario adopted by the Local Authority as a planned approach to the further development of the town incorporating the principles of sustainable development and is the option best suited to the Shannon Town & Environs LAP area.

Development will be focused within zoned and serviced areas. Significant restrictions will be put in place to development in areas designated for environmental purposes such as Shannon Estuary as well as areas of archaeological importance or where threats to natural resources prevail, such as ground and surface waters. This scenario is based on the principles of sustainable development which means that the Plan is promoted in accordance with International, National, Regional and County guidelines and the entire Plan area is also covered by the objectives and policies of the Clare County Development Plan 2011-2017 and the mitigation measures proposed in such. In conclusion a planned approach to the further development of the area incorporating the principles of sustainable development is the option best suited to Shannon.

Therefore, the above proposed alternatives which are ‘realistic and reasonable’ and capable of being implemented were rejected in favour of this chosen, more sustainable approach.

The entire Plan area is also covered by the objectives and policies of the Clare County Development Plan 2011-2017 and the mitigation and monitoring measures proposed in the accompanying SEA.

6.0 The Assessment

This Section is a summary of the detailed assessment of the zoning objectives within the Shannon Town & Environs Local Area Plan, the issues of concern highlighted at the onset of the plan preparation process and an environmental assessment of the activities within the plan area.

The general and specific zoning objectives outlined in the ST&E LAP 2012-2018 have been assessed against the SEOs detailed in Section 4.

Notwithstanding this a discussion is also provided for each zoning with further expansion, where relevant, on the significance (profound, moderate, and imperceptible) of the identified impact; the duration (short, medium, long term, permanent or temporary) of the identified impact; and the type (cumulative, irreversible, and synergistic) of the identified impact, in accordance with current guidelines.

A cumulative assessment of the environmental sensitivities, aligned to the SEOs of the plan was also assessed and mapped,

It has been demonstrated that there are a number of areas where the impact is uncertain due to location specific issues. Also, a limited number of areas have been shown to have a potentially negative environmental impact. Particular attention is drawn to MAP 6.1 on the environmental vulnerabilities occurring within the plan area as identified within the SEA. In response, a series of mitigation measures are provided designed to limit or eliminate identified impacts. Furthermore due regard must be had of the County Development Plan, its policies and objectives in relation to environmental protection and the accompanying Strategic Environment Assessment Report and the mitigation measures contained within. Both apply to the Local Plan area and should be read in conjunction with the Local Area Plan. In addition, monitoring the implementation of the Plan will ensure that if any impact becomes a reality it will be identified and appropriate actions taken to remedy the situation.

Furthermore, due regard must be had to the Clare County Development Plan 2011-2017, its policies and objectives in relation to environmental protection and the accompanying Strategic Environmental Report. Appendix E - Strategic Environmental Objectives' (SEOs) comprehensively outlines the relationships between the SEOs for the Shannon Town and Environs Local Area Plan 2012-2018, the Clare County Development Plan 2011-2017 and the Regional Planning Guidelines 2010-2022. Also, Appendix F details the interrelationship between Shannon Town and Environs Local Area Plan SEOs and Clare County Development Plan 2011- 2017 objectives. Also note the last paragraph under Section 5 Alternatives above which states that:

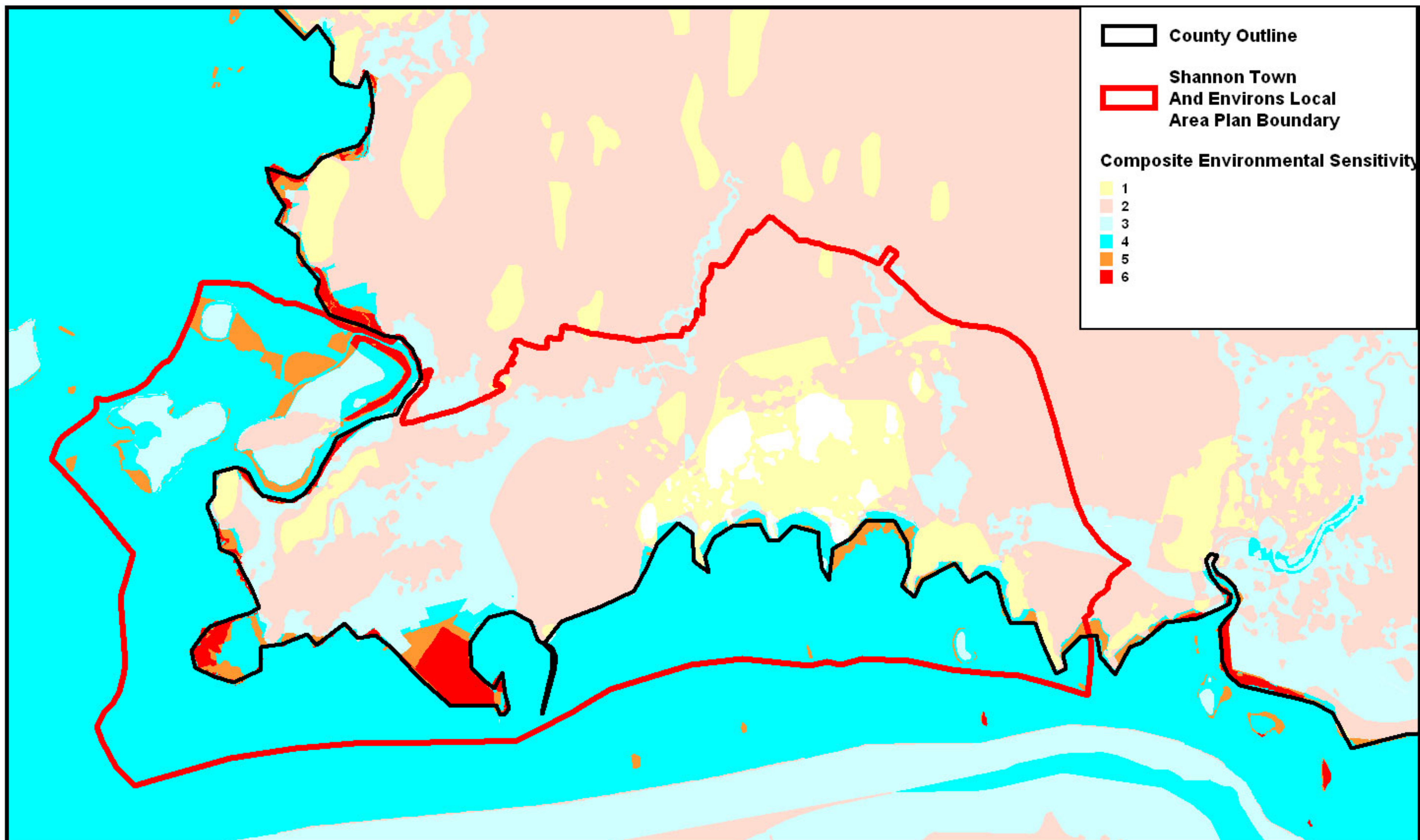
'The entire Plan area is also covered by the objectives and policies of the Clare County Development Plan 2011-2017 and the mitigation and monitoring measures proposed in the accompanying SEA'.

6.1 Cumulative Assessment

The purpose of the SEA is to identify where impacts are likely to occur and subsequently to identify where those impacts can be mitigated against. In order to identify and assess where more sensitivities occur within the Plan area, a number of environmental sensitivities, aligned to the SEOs of the plan were weighted and mapped overlapping each other. These include:

Environmental Parameter	Environmental Sensitivity	
Biodiversity, Flora and Fauna	Special Protection Area	
	Special Area of Conservation	
	Natural Heritage Area	
	Proposed Natural Heritage Area	
Water	Flood Zone A	1 in 100 year flood risk (Fluvial and Tidal)
	Groundwater Vulnerability	
Cultural Heritage	Protected Structures	A 10m was provided for surrounding structures
	Recorded Monuments	
Landscape	Heritage Landscape	
	Working Landscape	

Environmental sensitivities are indicated by colour which range from low sensitivity (white) to high vulnerability (red). Where the mapping shows a concentration of environmental sensitivities there is an increased likelihood that development will conflict with the receiving environment and cause environmental deterioration. Map 6.1 - Environmental Sensitivity in Shannon Town & Environs has been prepared for the LAP area showing areas where the potential for cumulative significant effects may exist within the Plan area. This is beneficial in the context of ensuring that those areas are afforded significant protection.



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New Road,
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PROJECT: SHANNON TOWN AND ENVIRONS LOCAL AREA PLAN 2012 - 2018

TITLE: Map 6.1 - Environmental Sensitivity In Shannon

SCALE: NOT TO SCALE

PROJECT NO.

DRAWING NO.

DATE:
OCTOBER 2012

DRAWN BY:
P. McMANUS

CHECKED:
B. MCCARTHY

7.0 Mitigation Measures

The quality of the environment within the Plan area is an important issue for consideration by the Local Authority and only through its protection, preservation and enhancement can sustainable development be truly achieved. The Plan area contains a rich and varied landscape of international repute, as well as natural and man-made heritage assets. These form the basis for a high level of amenity and tourism potential in the area. To this end, the mitigation and enhancement measures outlined in the Environmental Report will ensure the continued protection of the natural and built environments throughout the lifetime of the Plan, while recognising the tourism potential of the Plan area.

In general terms, all proposals for development will be required to have due regard to the environmental considerations outlined in Local Area Plan. Proposals for development which are deemed contrary to the environmental objectives and policies contained within the Plan will not normally be permitted, and if permitted, not without the appropriate site and development specific mitigation measures.

At the outset of the SEA process and during the scoping stage of the Strategic Environmental Assessment, a number of specific issues were raised which were of immediate concern for the process and are critical to the sustainable development of the Plan area. The issues highlighted include;

- Biodiversity - Shannon Estuary;
- Ground Water Protection;
- Flooding;
- Wastewater treatment;
- Landscape & Visual Amenity.

These issues are discussed in more detail in the Environmental Report.

8.0 Monitoring

Monitoring of the Shannon Town & Environs Local Area Plan 2012-2018 and its implications on the environment is paramount to ensure that the environment of the Plan area is not adversely affected through the implementation of the Plan.

While considerable environmental data is directly available to the County Council such as water quality, recycling rates etc, other sources of information will be accessed to provide a comprehensive view of the effect of the Plan. In this regard the Local Authorities will work with other agencies with environmental mandates to gather data for the purposes of monitoring the implementation of the Plan. Therefore, while monitoring specific elements of the environment is not strictly the preserve of the Council, the Council will continue to liaise and work with the EPA, NPWS, Inland Fisheries Ireland, as well as others in the pursuit of environmental conservation and protection through existing environmental monitoring procedures.

It is proposed to base monitoring on a series of indicators which measure changes in the environment, especially changes which are critical in terms of environmental quality, for example water or air pollution levels. The indicators have been prepared specifically for the Shannon Town & Environs Local Area Plan 2012-2018, tailored to reflect the issues of major concern in the area. Guidance has however been provided on the formulation of the indicators from the EPA report "Environment in Focus 2006 – Environmental Indicators for Ireland". The

indicators aim to simplify complex interrelationships and provide information about environmental issues which easily understood.

9.0 Overall Findings

The Local Area Plan for Shannon Town & Environs and its policies and objectives as set out by the Local Authority, are key to the future sustainable development of the area. The Plan aims to balance the needs of the future population with the preservation and conservation of environment in which that population will live and work. The Plan therefore has a strong focus towards the concept of sustainability. The chosen development strategy as set out in the Plan and summarised in Chapter 1, has been assessed in terms of its overall sustainability and its potential to impact on the environment. The policies and objectives of the Plan were assessed against the environmental objectives and the results indicate that the full implementation of the plan will not generally result in a significant negative or adverse impact on the environmental resources within the plan area. Where there is the potential for negative impacts, mitigation as well as enhancement measures have been identified. The implementation of these measures, coupled with the monitoring procedures will ensure the proposed Local Area Plan is acceptable from an environmental perspective. At the outset of the assessment process, a number of environmental issues were identified, principally;

- Biodiversity – Shannon Estuary;
- Wastewater;
- Flooding;
- Groundwater protection;
- Landscape & Visual Amenity.

While these are and remain the key environmental challenges facing the Council over the lifetime of the plan, they also have complex interrelationships with other environmental receptors. Therefore the imperative is to promote a holistic, all inclusive response towards the protection of the natural assets within the plan area.

It is acknowledged that a planned approach to the orderly development of the plan area is required. Development is both necessary and desirable to achieve economic growth and the purpose of the Strategic Environmental Assessment is to ensure that the guiding principals for development do not impact in an adverse manner on the environmental quality of the plan area. Monitoring of the Plan throughout its lifetime will ensure that any potential adverse environmental impacts, unforeseen at this stage will be identified early, so as to prevent any deterioration of the environment.



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