

Amendment

No.1



Comhairle Contae an Chláir
Clare County Council

Shannon Town and Environs Local Area Plan 2012–2018

Amendment No. 1

17th June 2019

To change the zoning of part of the lands at Illaunmanagh, Shannon, to a revised land use zoning objective of 'Community' to facilitate an extension to the existing Burial Ground.

Strategic Environmental Assessment - Environmental Report

Table of Contents

1	Introduction	1-1
1.1	Background	1-1
1.2	Strategic Environmental Assessment	1-1
1.3	SEA Screening	1-2
1.4	SEA Scoping	1-2
2	Proposed Amendment to the Shannon Town and Environs LAP 2012 – 2018.....	2-1
2.1	Background	2-1
2.2	Purpose of the Proposed Amendment.....	2-2
3	SEA Methodology	3-1
3.1	Overview	3-1
3.2	Guidelines and Methodology.....	3-1
3.3	Environmental Assessment of the Proposed Amendment	3-2
3.4	Relationship with Appropriate Assessment.....	3-2
4	Relevant Plans and Programmes.....	4-1
5	Description of the Environmental Baseline	5-1
5.1	Introduction.....	5-1
5.2	Population	5-1
5.3	Biodiversity, Flora and Fauna	5-3
5.4	Soil and Geology	5-5
5.5	Water	5-7
5.6	Air and Climate.....	5-10
5.7	Material Assets.....	5-10
5.8	Cultural Heritage	5-12
5.9	Landscape.....	5-12
6	Strategic Environmental Objectives.....	6-1
6.1	Introduction.....	6-1
6.2	Development of Strategic Environmental Objectives.....	6-1
7	Impact Assessment	7-1
7.1	Introduction.....	7-1
7.2	Impact Assessment Methodology	7-1
7.3	Impact Assessment Matrix	7-1
7.4	Summary of Findings	7-3
7.5	Assessment of Alternatives	7-3
8	Mitigation Measures	8-1

9	Monitoring	9-1
9.1	Introduction.....	9-1
9.2	Monitoring Indicators	9-1
9.3	Monitoring of the Proposed Amendment.....	9-1
10	Next Steps.....	10-1

Appendices

Appendix 1	EPA Scoping Response
Appendix 2	Monitoring Proposals

Figures

Figure 2.1	Plan Area
Figure 2.2	Proposed Amendment Area
Figure 5.1	Age Profile – Shannon Town, 2016
Figure 5.2	Employment by Socio-Economic Group – Shannon Town, 2016
Figure 5.3	Designated Sites

1 INTRODUCTION

1.1 Background

The Shannon Town and Environs Local Area Plan (LAP) 2012 – 2018 sets out the land-use plan for the proper planning and sustainable development of the settlement of Shannon and its environs. On 12th June 2017, the elected members of Clare County Council resolved to defer the making of a new Shannon Town and Environs LAP for a period not exceeding five years, and therefore the 2012 – 2018 LAP remains in effect until a new plan is made in 2023.

In conjunction with the Clare County Development Plan 2017 – 2023 (as varied), the Shannon Town and Environs LAP 2012 – 2018 provides the statutory basis for the consideration by Clare County Council of applications for planning permission within the LAP area.

Under Section 18 of the Planning and Development Act 2000 (as amended), Clare County Council now intends to amend the Shannon Town and Environs LAP 2012 – 2018, to change the zoning of part of the lands at Illaunmanagh, from 'Open Space OS5' to 'Community C18' in order to facilitate an extension to the existing Burial Ground at this location.

1.2 Strategic Environmental Assessment

Strategic Environmental Assessment (SEA) is the formal, systematic evaluation of the likely significant environmental effects of implementing a plan or programme, or modification to a plan or programme, before a decision is made to adopt it. Under the requirements of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment ('the SEA Directive'), certain plans or programmes are subject to SEA prior to their adoption and implementation.

The SEA Directive is transposed onto Irish legislation by the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations (S.I. No. 435 of 2004 as amended by S.I. No. 200 of 2011) and the Planning and Development (SEA) Regulations (S.I. No. 436 of 2004 as amended by S.I. No. 201 of 2011).

The main stages of the SEA process are:

- Screening: determining whether or not SEA is required;
- Scoping: determining the range of environmental issues to be covered by the SEA – includes consultation with statutory consultees;
- Identification, evaluation and mitigation of potential impacts and preparation of the Environmental Report (current stage);
- Consultation, revision and post-adoption activities, including:
 - Public consultation on the Draft Plan/Programme and associated Environmental Report;
 - Evaluation of submission and observations made on the Draft Plan/Programme and associated Environmental Report;
 - Integration of environmental considerations into the final Plan/Programme if required;
 - Issuing the SEA Statement: describes the rationale for decisions taken and extent to which environmental considerations and consultation have been integrated into the final Plan/Programme.
 - Monitoring: monitoring of environmental effects over the lifetime of the Plan/Programme

The SEA process and key tasks and outputs of each stage are summarised in Plate 1 below.

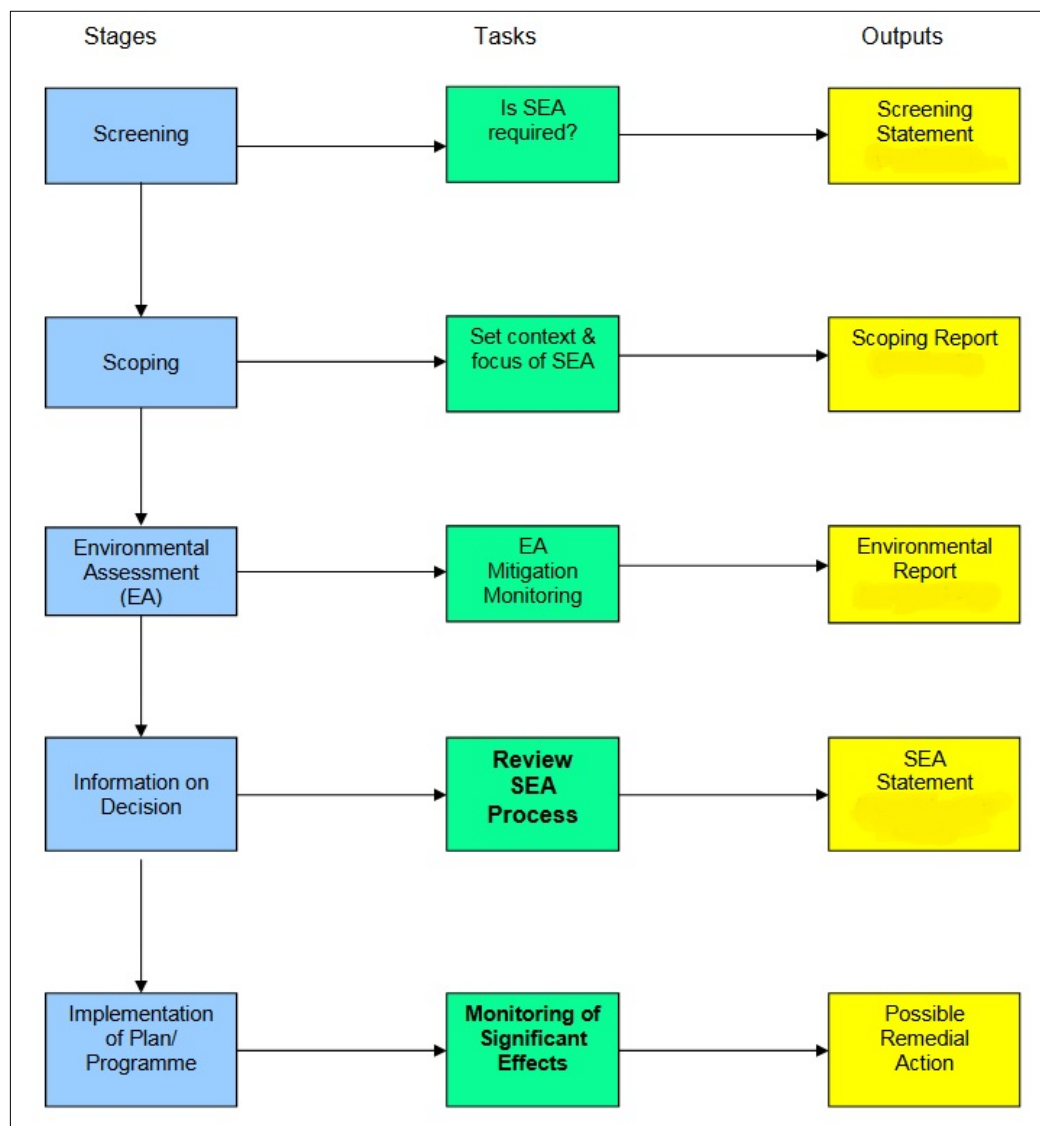


Plate 1. SEA Process (Source: 'SEA Process Checklist - Consultation Draft', EPA, 2008)

This Environmental Report is also summarised in a Non-Technical Summary, which is presented as an accompanying volume to this document.

1.3 SEA Screening

Under the requirements of Article 8 (14B) of the Planning and Development (SEA) Regulations 2004, as amended by the Planning and Development (SEA) (Amendment) Regulations 2011, SEA is mandatory for the preparation or amendment of Local Area Plans in areas with a population of 5,000 or more persons.

The population of the Shannon Town and Environs LAP 2012-2018 Plan Area was recorded as 9,729 persons during the 2016 Census, and therefore SEA of the proposed amendment to the Plan and preparation of an Environmental Report is required. MKO was appointed by Clare County Council to carry out the assessment of the proposed amendment to the Plan and prepare an Environmental Report.

1.4 SEA Scoping

Scoping is the process of determining the range of environmental issues to be covered by the SEA, including the scope and level of detail of the information to be contained in the

Environmental Report. A Scoping Document was issued to the prescribed environmental authorities on 27th February 2019, in line with the requirements of the Planning and Development (SEA) Regulations 2004 – 2011. The purpose of scoping was to inform the relevant environmental authorities of the proposed amendment to the LAP and to ensure that the relevant environmental issues would be identified so that they can be addressed appropriately in the SEA Environmental Report.

The Scoping Document was circulated to the following statutory consultees:

- Environmental Protection Agency (EPA),
- Department of Housing, Planning and Local Government,
- Department of Culture, Heritage and the Gaeltacht,
- Department of Agriculture, Food and the Marine,
- Department of Communications, Climate Action and Environment, and
- Limerick County Council (as an adjoining Planning Authority).

A scoping response was received from the EPA, a copy of which is provided in Appendix 1 of this report. The EPA response provided guidance on the SEA of Local Authority Land Use Plans, including recommendations on suitable resources and available datasets.

2 PROPOSED AMENDMENT TO THE SHANNON TOWN AND ENVIRONS LAP 2012 – 2018

2.1 Background

2.1.1 Shannon Town and Environs LAP 2012 - 2018

The Shannon Town and Environs Local Area Plan (LAP) 2012 – 2018 consists of a written statement and a land-use zoning map. The zoning strategy for the LAP area was prepared in accordance with the overall strategy of the Clare County Development Plan, which sets the policy framework to ensure that the availability and orderly development of suitably zoned lands, housing in the countryside and infrastructure provision are sufficient to accommodate the population requirements within the lifetime of the Plan.

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 town is a major industrial and employment centre within the region.

The Plan Area boundary of the Shannon Town and Environs LAP 2012 – 2018 is shown in Figure 2.1.

2.1.2 Land Use Zoning

Appendix 1 of the Shannon Town and Environs LAP 2012-2018 presents the definitions of the land-use zoning types within the Plan area, including Open Space and Community, as follows:

Open Space

"The use of land as 'Open Space' shall be taken to include the use of land for afforestation, playgrounds, housing estate open spaces, landscaped areas and parks. Developments incidental to the enjoyment of open space including sports centres, outdoor recreation centres and landscapes areas, play equipment, dressing rooms and similar facilities are open for consideration. There may be limitations to what 'Open Space' can allow, particularly in relation to sensitive ecological sites. It should be noted that lands zoned as Open Space are not necessarily in public ownership and members of the public should not automatically assume that access to the lands is permitted."

Community

"The development of lands for Community uses shall be taken to include the use of land for community, public or educational uses, including the provision of schools, community halls, health care institutions, utilities, libraries and the development of other community uses. Ancillary facilities such as dedicated open space and sports facilities will also be facilitated within this type of zoned land."

Within the Plan area, a number of Open Space areas are identified as component parts of an integrated Green Infrastructure approach within Shannon Town and Environs.

The lands zoned as 'Open Space OS5' at Illaunmanagh are described as follows in the Plan:
OS5 – Shannon Allotments and lands in the vicinity of Hastings Cottage

"The existing allotments on this site are an important resource for the local community and should be retained. There is also the opportunity to expand these allotments, subject to dealing satisfactorily with all environmental constraints."

The ruins of Hastings Cottage (Protected Structure) adjoin the eastern perimeter of the cemetery (C11). The sensitive redevelopment of Hastings Cottage, subject to environmental constraints and its designation as a Protected Structure, has the potential to further open up this area to recreational and tourism-related activity."

The location of the OS5-zoned lands at Illaunmanagh are also shown in Figure 2.1.

2.2 Purpose of the Proposed Amendment



Under the proposed amendment to the LAP, Clare County Council proposes to change the zoning of part of the lands at Illaunmanagh, Shannon, which are currently zoned as 'Open Space OS5' to a revised land-use zoning of 'Community C18' in order to facilitate an extension to the existing Burial Ground at this location. Under the current Land Use Zoning Matrix within the Shannon Town and Environs LAP 2012 – 2018, a cemetery is listed as 'not normally permitted' use within Open Space areas. Cemeteries are however listed as an 'open for consideration' land use within Community-zoned areas.

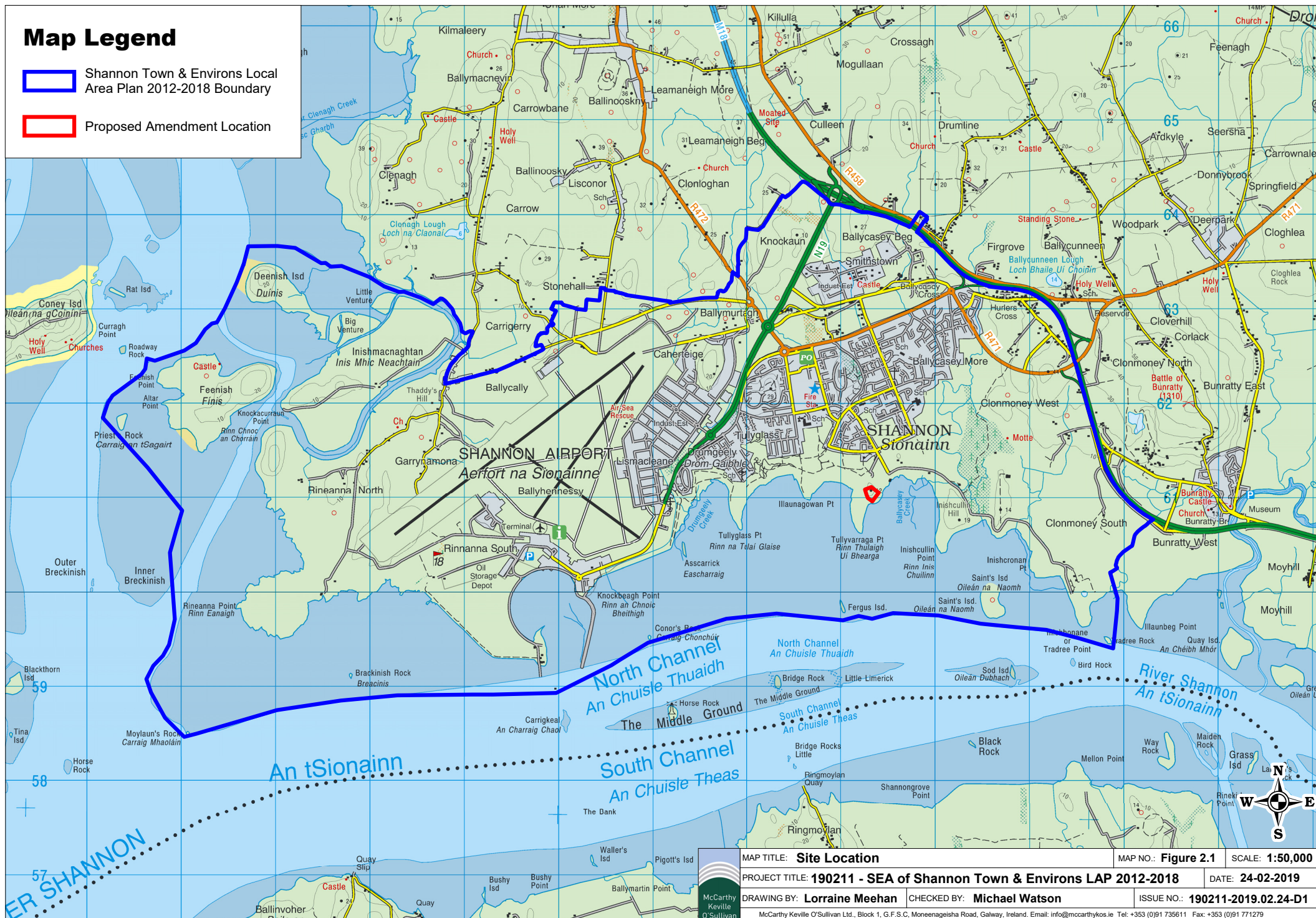
The proposed zoning amendment area measures approximately 1.25 hectares and is shown in Figure 2.2. The proposed land-use zoning for the amendment area is as follows;

Community C18

"The lands are zoned as Community to solely facilitate the extension of the Illaunmanagh Burial Ground. Any proposed development to extend the Burial Ground onto these lands shall be subject to the requirement to undertake an appropriate assessment at project level."

Map Legend

-  Shannon Town & Environs Local Area Plan 2012-2018 Boundary
-  Proposed Amendment Location



MAP TITLE: **Site Location**

MAP NO.: **Figure 2.1**

SCALE: **1:50,000**

PROJECT TITLE: **190211 - SEA of Shannon Town & Environs LAP 2012-2018**

DATE: **24-02-2019**

DRAWING BY: **Lorraine Meehan**

CHECKED BY: **Michael Watson**

ISSUE NO.: **190211-2019.02.24-D1**






McCarthy Keville O'Sullivan Ltd., Block 1, G.F.S.C. Moneenageisha Road, Galway, Ireland. Email: info@mcCarthyKos.ie Tel: +353 (0)91 735611 Fax: +353 (0)91 771279

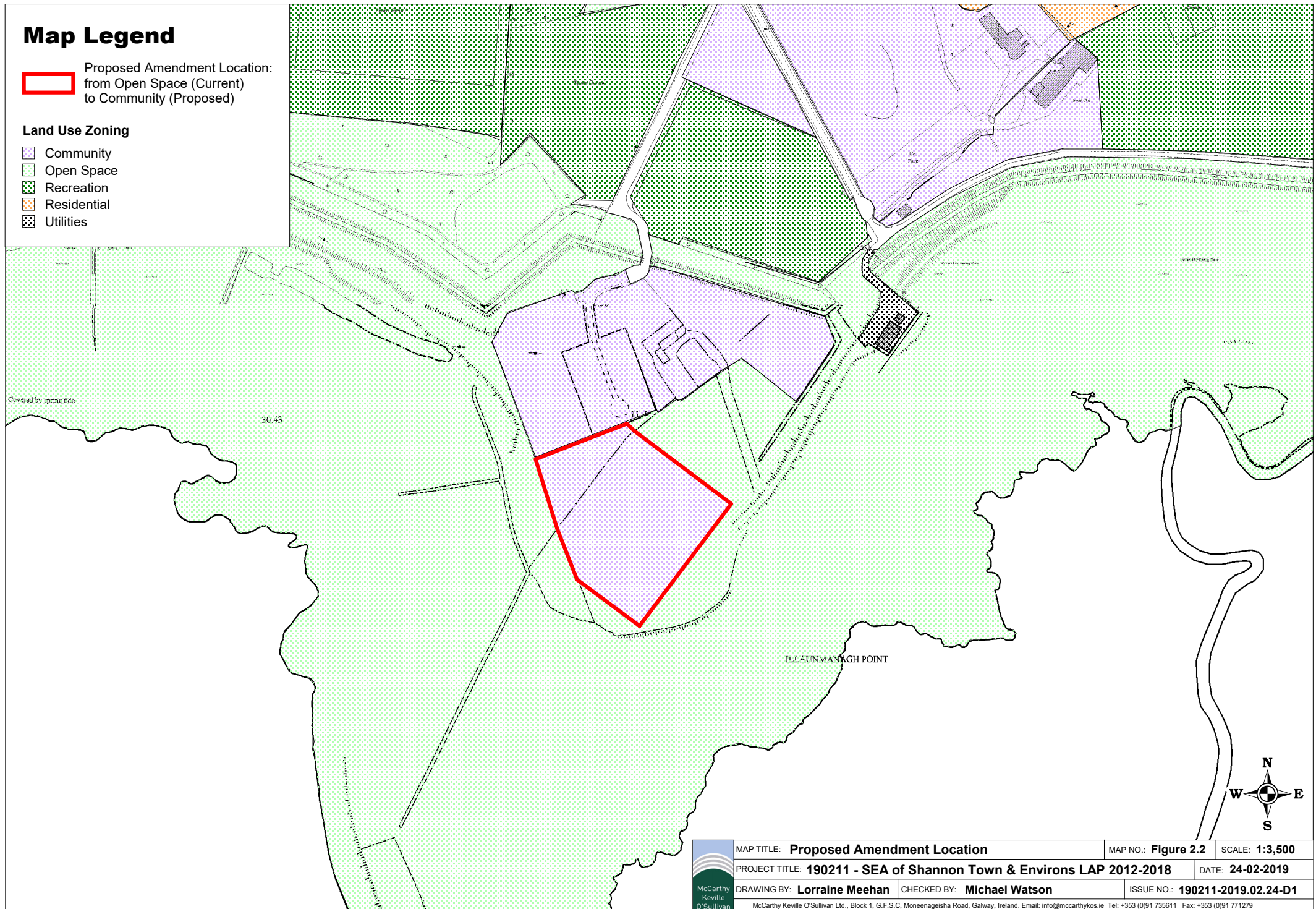
Ordnance Survey Ireland Licence No. AR 0021815 © Ordnance Survey Ireland/Government of Ireland


Map Legend

 Proposed Amendment Location:
from Open Space (Current)
to Community (Proposed)

Land Use Zoning

-  Community
-  Open Space
-  Recreation
-  Residential
-  Utilities



	MAP TITLE: Proposed Amendment Location	MAP NO.: Figure 2.2	SCALE: 1:3,500
	PROJECT TITLE: 190211 - SEA of Shannon Town & Environs LAP 2012-2018	DATE: 24-02-2019	
	DRAWING BY: Lorraine Meehan	CHECKED BY: Michael Watson	ISSUE NO.: 190211-2019.02.24-D1
	McCarthy Keville O'Sullivan Ltd., Block 1, G.F.S.C. Moneenageisha Road, Galway, Ireland. Email: info@mccarthykos.ie Tel: +353 (0)91 735611 Fax: +353 (0)91 771279		

3 SEA METHODOLOGY

3.1 Overview

The purpose of Strategic Environmental Assessment (SEA) is to facilitate environmental protection and to ensure the integration of environmental considerations into the adoption of a proposed plan or programme, or amendment to a plan or programme.

The Shannon Town and Environs Local Area Plan (LAP) 2012 – 2018 was subject to SEA at the time of its preparation, the results of which are set out in the SEA Environmental Report which accompanies the Plan.

3.2 Guidelines and Methodology

The SEA of the proposed amendment to the Shannon Town and Environs LAP 2012 – 2018 has been carried out in line with best practice guidance and methodology, including the following:

- *'SEA of Local Authority Land Use Plans – EPA Recommendations and Resources'* (EPA, 2019)
- *'SEA Pack'* (EPA, 2018)
- *'SEA Spatial Information Sources Inventory'* (EPA, 2018)
- *'Developing and Assessing Alternatives in Strategic Environmental Assessment (SEA)'* (EPA, 2015)
- *'Integrating Climate Change into Strategic Environmental Assessment in Ireland - A Guidance Note'* (EPA, 2015)
- *'Assessment of the Effects of Certain Plans and Programmes on the Environment – Guidelines for Regional Authorities and Planning Authorities'* (Department of the Environment, Heritage and Local Government, 2004)
- *'Development of Strategic Environmental Methodologies for Plans and Programmes in Ireland'* (EPA, 2003)

Article 8 (14D) of the Planning and Development (SEA) Regulations 2004, as amended by the Planning and Development (SEA) (Amendment) Regulations 2011, sets out the required contents of the Environmental Report, which encompass the following:

- a) An outline of the contents and main objectives of the plan and relationship with other relevant plans;
- b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan;
- c) The environmental characteristics of areas likely to be significantly affected;
- d) Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to the Birds Directive or Habitats Directive;
- e) The environmental protection objectives, established at international, European Union or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation;
- f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;
- g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan;
- h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical

- deficiencies or lack of know-how) encountered in compiling the required information;
- i) A description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan;
- j) Non-technical summary of the information provided under the above headings.

The Environmental Report is required to include the information that may be *reasonably required*, taking into account:

- i. Current knowledge and methods of assessment,
- ii. The contents and level of detail in the plan or amended plan
- iii. The stage of the plan or amended plan in the decision-making process, and
- iv. The extent to which certain matters are more appropriately assessed at different levels in the decision-making process in order to avoid duplication of environmental assessment.

As specified Article 8 (14D), the Environmental Report must also take account of any submission or observation received during the scoping exercise.

The Environmental Report is also summarised in a Non-Technical Summary, which is presented as an accompanying volume to this document.

3.3 Environmental Assessment of the Proposed Amendment

The SEA process uses environmental protection objectives or Strategic Environmental Objectives (SEOs) as measures against which to assess a proposed Plan/Programme, or modification to a Plan/Programme. The use of SEOs allows for the identification of areas in which potential adverse impacts are likely to occur as a result of implementation of the Plan/Programme. As part of the SEA process, mitigation measures can then be identified to avoid, reduce or offset such impacts.

A range of SEOs was developed by Clare County Council during the SEA of the Shannon Town and Environs LAP 2012 – 2018, based on consultation with the statutory consultees, in-house expertise, the SEA team and best practice guidelines. The SEOs were also developed in line with the then 'parent' Clare County Development Plan 2011 – 2017 and the Mid-West Regional Planning Guidelines 2010 – 2022.

The environmental assessment of the proposed amendment to the Shannon Town and Environs LAP 2012 – 2018 utilises the same range of SEOs used during preparation of the original Plan. These SEOs have also been reviewed with reference to the current Clare County Development Plan 2017 – 2023 (as varied), and updated where required to incorporate any key additions which were developed during the SEA of the current Plan. Further details are presented in Section 6 of this report, which sets out the SEOs used in the assessment.

3.3.1 Difficulties Encountered

No difficulties were encountered during the strategic environmental assessment process or the preparation of this Environmental Report.

3.4 Relationship with Appropriate Assessment

As part of the overall process of environmental assessment, a screening for Appropriate Assessment (AA) has also been carried out in accordance with the Habitats Directive (92/43/EEC) and S.I. No. 477/2011 (the European Communities (Birds and Natural Habitats) Regulations 2011.)

Article 6(3) of the Habitats Directive establishes the requirement for AA:

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

Where there is potential for significant or indeterminate effects on the conservation objectives of any European site(s) as a result of implementation of a proposed Plan/Programme or amendment to a Plan/Programme, an Appropriate Assessment must be undertaken by the competent authority, based on objective scientific information. This information is presented in a Natura Impact Report (NIR).

SEA and AA are parallel but separate processes that commonly overlap but also differ. An SEA and AA of a Plan/Programme are required to be clearly distinguished in terms of their respective scope and conclusions, although the processes may be carried out concurrently and draw on common data and information. The key findings of the AA are also reflected in the relevant section(s) of the SEA Environmental Report.

An AA Screening Report has been prepared for the proposed amendment to the Shannon Town and Environs LAP 2012 – 2018. The screening exercise concluded that the potential exists for effects on the conservation objectives of European sites, and therefore an AA and the preparation of an NIR has also been carried out.

4 RELEVANT PLANS AND PROGRAMMES

The Shannon Town and Environs Local Area Plan (LAP) 2012 – 2018 sits within a hierarchy of legislation, plans, programmes and strategies, which includes international, EU, national, regional and local levels. The principle requirements in relation to international Plans and Programmes have been incorporated into the national and regional Plans and Programmes. The LAP must comply with relevant higher-level legislation, plans and strategic actions and may, in turn, guide lower level strategic actions.

The Shannon Town and Environs LAP 2012 – 2018 was prepared with cognisance of the relevant spatial planning policies and objectives of the Clare County Development Plan 2011 – 2017 (i.e. the Plan in place at the time of its preparation), which was subject to SEA prior to its adoption. The Shannon Town and Environs LAP 2012-2018 is also required to comply with the current Clare County Development Plan 2017 – 2023 (as varied), which was also subject to SEA.

The SEA Environmental Report for the Shannon Town and Environs LAP 2012 – 2018 provided a review of the plans and programmes with which the Plan interacts, and included those summarised below at international, national and regional/local level. These lists have been reviewed and updated as part of the SEA of the proposed amendment to the LAP, to take account of new or updated plans or programmes which have been prepared since then, and to remove other plans or programmes which are no longer in existence.

International and European Plans/Programmes:

- 6th Environmental Action Plan of the European Community (2002)
- Agenda 21 (1992). Action for Sustainable Development
- Air Framework Directive, Directive on Air Quality Assessment and Management (Framework Directive) (1996/62/EC) as amended
- Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive
- Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)
- Birds Directive 79/409/EEC on the Conservation of Wild Birds
- Convention on Wetlands of International Importance 1971 (amended 1982 and 1987) (Ramsar Convention)
- Directive 2000/60/EC Water Framework Directive as amended
- Directive 2001/92/EC Energy performance of buildings
- Directive 2002/96/EC, The WEEE Directive on waste electrical and electronic equipment
- Directive 2007/60/EC Flood Risk Management Assessment and Management of Flood Risk
- Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive)
- Directive 99/31/EC Landfill Directive
- Directive on national emission ceilings for certain atmospheric pollutants (2001/81/EC)
- EC Directive on Hazardous Waste (91/689/EEC)(as amended)
- Environmental Impact Assessment Directive 85/337/EEC (amended by Directive 97/11/EC), European Communities (Environmental Impact Assessment) (Amendment) Regulations 1989 – 2006, as amended by Directive 2014/52/EC
- EU Directive on Air Quality Assessment and Management (Framework Directive) (1996/62/EC) as amended
- EU Bathing Water Directive (76/160/EEC)
- EU Dangerous Substances in Water Directive (79/464/EEC)
- EU Directive on National Emission Ceilings for Certain Atmospheric Pollutants WHO Air Quality Guidelines (1999).

- EU Directive on the assessment and management of flood risks (2007/60/EC)(Floods Directive)
- EU Directive on the Promotion of the Use of Energy from Renewable Sources (2009/28/EC) and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC
- EU Drinking Water directive (98/83/EC)
- EU Freshwater Fish Directive (78/659/EEC)(S.I. No. 293 of 1988)
- EU Groundwater Directive (1980/68/EEC)
- EU Nitrates Directive (91/676/EEC)
- EU Surface Water Directive (75/440/EEC)
- EU Thematic Strategy for Soil Protection
- EU Urban Wastewater Directive (91/271/EEC)
- EU White Paper on Renewable Energy, 1997
- European Biodiversity Strategy to 2020
- European Climate Change Programme Aims to reduce emissions;
- European Communities (Bird and Natural Habitats) Regulations
- European Convention for Protection of the Architectural Heritage of Europe 1992
- European Convention on the Protection of the Archaeological Heritage, 1992 (the 'Valletta Convention')
- European Landscape Convention (2000)
- European Spatial Development Perspective (1999)
- European Strategy for Sustainable Development (2006)
- Freshwater Fish Directive (78/659/EEC)
- Granada Convention for Protection of the Architectural Heritage of Europe 1985
- Kyoto Protocol (1997) and the Paris (Climate Change) Agreement
- Pan-European Biological and Landscape Diversity Strategy (1995)
- Strategic Environmental Assessment (SEA) Directive 2001/42/EEC
- The EU Environment and Health Strategy 2004- 2010
- The Gothenburg Strategy Communication from the Commission on Sustainable Europe for a Better World 2001
- The Stockholm Convention 2001
- UN Convention on Biological Diversity 1992

National Plans/Programmes:

- 3rd National Biodiversity Action Plan 2017-2021
- Architectural Heritage Protection - Guidelines for Planning Authorities (2011)
- Delivering Homes, Sustaining Communities, 2007
- Design Standards and New Apartments Guidelines, DOEHLG, 2007
- Draft Landscape and Landscape Assessment Guidelines 2000
- Guidelines on Sustainable Residential Development in Urban Areas 2009
- Irish Water Capital Investment Programme (2017-2021)
- Irish Water Services Strategic Plan SEA and AA (2015)
- Local Authority Adaptation Strategy Development Guidelines, EPA (2016)
- National Adaptation Framework (2018)
- National Heritage Plan 2002
- National Housing Strategy for people with a disability, Building for Everyone (BFE) 2009
- National Landscape Strategy (2015-2025)
- National River Basin District Management Plan (2018)
- National Spatial Strategy 2002 – 2020
- Our Sustainable Future - A Framework for Sustainable Development in Ireland 2012
- Planning Policy Statement, (2015)
- National Development Plan 2018-2027
- Project 2040 National Planning Framework (2018)
- Sectoral Planning Guidelines for Climate Change Adaptation, (2018)
- Smarter Travel, A Sustainable Transport Future, A New Transport Policy for Ireland 2009-2020

- Sustainable Residential Development in Urban Areas and accompanying Urban Design Manual, (DoEHLG) 2009
- Sustainable Rural Housing Guidelines 2005
- The Housing (Traveller Accommodation) Act, 1998
- The Planning System and Flood Risk Management – Guidelines for Planning Authorities 2009
- The Right Living Space – The housing and accommodation needs of people with disabilities 2008
- The Role of Data Centres in Ireland's Enterprise Strategy, Department of Business, Enterprise and Innovation, 2018
- The Wildlife Act 1976 and the Wildlife (Amendment) Act 2000
- Urban Waste Water Treatment Directive (91/271/EEC)
- Water Services (Amendment) Act (2012)
- Water Services Act (2007)
- Waterways Ireland Heritage Plan 2014-2020

Regional/Local Plans:

- Clare County Biodiversity Action Plan 2017 - 2023
- Clare County Development Plan 2017 – 2023 (as varied)
- Clare County Heritage Plan 2017 - 2023
- Clare County Local Economic and Community Plan 2017 – 2022
- Clare Landscape Character Assessment 2003
- Clare Wind Energy Strategy 2017 - 2023
- County Clare Enterprise Strategy
- Noise Action Plan 2018
- Draft Regional Spatial and Economic Strategy for the Southern Region
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessments – August 2018
- Mid-West Regional Planning Guidelines, 2010-2022
- Record of Monuments and Places, County Clare
- Shannon Estuary Strategic Integrated Framework Plan for the Shannon Estuary 2013 – 2020
- Ennis Municipal District Written Statement & Settlement Plans (Vol 3a of Clare County Development Plan 2017 – 2023 (as varied))
- Shannon Municipal District Written Statement & Settlement Plans (Vol 3b of Clare County Development Plan 2017 – 2023 (as varied))
- Killaloe Municipal District Written Statement & Settlement Plans (Vol 3c of Clare County Development Plan 2017 – 2023 (as varied))
- West Clare Municipal District Written Statement & Settlement Plans (Vol 3d of Clare County Development Plan 2017 – 2023 (as varied))

5 DESCRIPTION OF THE ENVIRONMENTAL BASELINE

5.1 Introduction

The SEA Environmental Report for the Shannon Town and Environs Local Area Plan (LAP) 2012 – 2018 includes a detailed description of the baseline environment of the Plan Area. The environment is described under the key headings of Population, Biodiversity: Flora and Fauna, Soil and Geology, Water, Air and Climate, Material Assets, Cultural Heritage and Landscape. Material Assets encompass the topics of Transportation, Waste Management, Water Supply, Wastewater Treatment Infrastructure and Renewable and Alternative Energy.

During scoping for and preparation of the original Environmental Report for the Shannon Town and Environs LAP 2012 – 2018 as adopted, key issues of particular relevance to the Plan area and critical to sustainable development were identified, including Biodiversity in the Shannon Estuary, Groundwater Protection, Flooding, Wastewater, and Landscape and Visual Amenity.

It is not intended to reiterate the full description of the environmental baseline of the Plan Area within this Environmental Report. A summary of the baseline environment is provided below, including identification of relevant key trends or threats, with updates incorporated as appropriate. Particular relevance is given to the area in which the proposed amendment site is located.

Existing sources of environmental data have been used in the preparation of this section of the Environmental Report, including reference to the comprehensive '*SEA Spatial Information Sources Inventory*', as published by the EPA in July 2018.

5.2 Population

5.2.1 Overview

The Plan Area of the Shannon Town and Environs LAP encompasses Shannon Airport, Shannon Free Zone and Smithstown Industrial Estates, Shannon town, Hurlers Cross and agricultural lands to the east, west and north. Shannon town developed from the 1960's in response to the growth of Shannon International Airport and the Shannon Free Zone. Its strategic importance was recognised in its designation in the National Spatial Strategy 2002 – 2020 as part of a linked Gateway with Limerick. Gateways were defined as centres with a strategic location, nationally and relative to their surrounding areas, providing national-scale social and economic infrastructure and support services.

The National Spatial Strategy is now replaced by the '*Project Ireland 2040: National Planning Framework*' (February, 2018), which sets out the Government's high-level strategic plan for shaping the growth and development of Ireland to 2040. The National Planning Framework refers to the setting up of Regional Spatial and Economic Strategies (RSES) and Metropolitan Area Strategic Plans, and states that the Metropolitan Area Strategic Plan for the Limerick-Shannon area will incorporate Shannon Airport and Town and this has been set out in the Draft RSES prepared by the Southern Regionally Assembly.

The Shannon Town and Environs LAP 2012-2018 area is situated within Zone 1 in the Settlement Strategy of the current Mid-West Regional Planning Guidelines 2010 - 2022. Zone 1 encompasses Limerick, Shannon and Ennis, and contains over half of the Region's population and more than two-thirds of the Region's employment. This is the core area of the Mid-West Region, which has a high level of population growth, good internal and external accessibility, a large range of social and community facilities, and a strong settlement structure.

The Mid-West Regional Planning Guidelines will be superseded by a Regional Spatial and Economic Strategy, which is currently at draft stage.

5.2.2 Population Trends

The population of the Shannon Town and Environs LAP 2012-2018 area as recorded during the 2016 Census is 9,729 persons. This in comparison to the population of 9,222 persons recorded during the 2006 Census, and 9,673 during the 2011 Census. The analysis of population trends over time shows that population growth levels within the area have been consistent over time, however, much slower than originally predicted.

Shannon is Clare's newest town and the only planned 20th Century town in Ireland, making it unique. Accordingly, the demographic composition was unusual in that '*when the first residents settled there were no grandparents and no grandchildren among them*' (Sweeney, 2004). This has been redressed in the intervening period. The age profile of Shannon Town, as demonstrated in Figure 5.1 below, shows that the 25-44 age cohort currently represents the largest percentage of the population (www.cso.ie). The challenge to the Plan Area is to provide opportunities to all age cohorts, from education facilities for the young, employment for adults and housing for all.

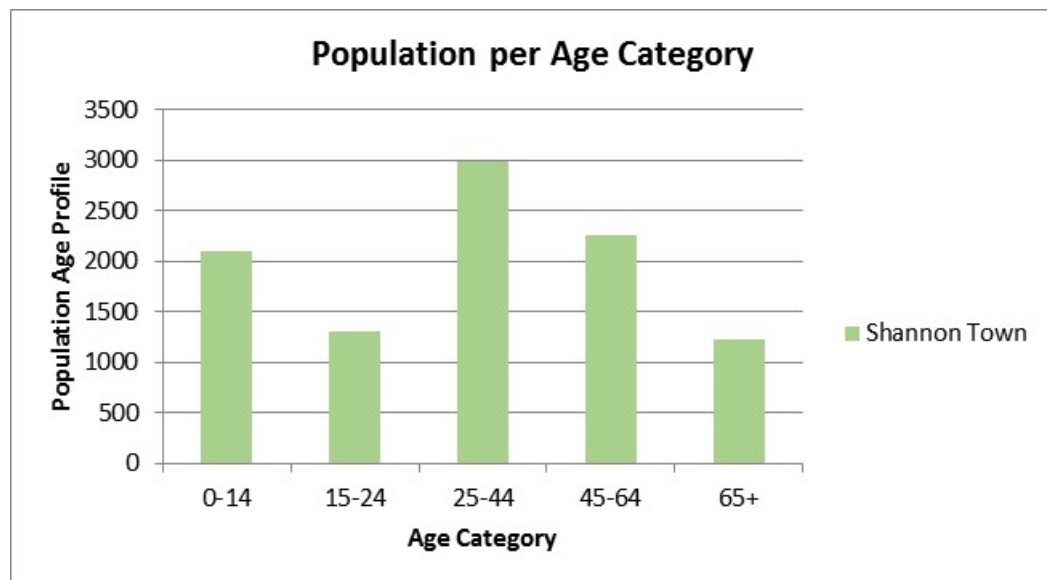


Figure 5.1 Age Profile – Shannon Town, 2016 (CSO, 2016)

5.2.3 Employment

Shannon is a major industrial and employment centre base for a broad range of economic sectors within County Clare and the wider region. As shown in Figure 5.2, approximately 19% of workers were recorded within the 'Non-manual' category during the 2016 Census. Approximately 16% of people were recorded in the 'Semi-skilled' category, with approximately 13% living in Shannon classified as employers or managers; this is consistent with the business nature of many of the companies located within the town area.

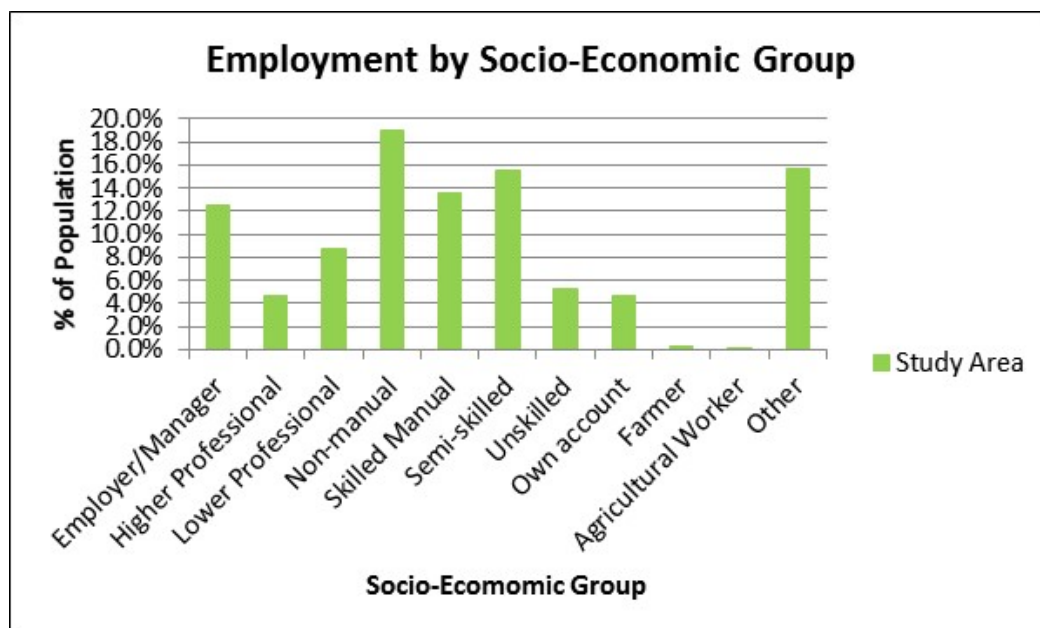


Figure 5.2 Employment by Socio-Economic Group – Shannon Town, 2016 (CSO, 2016)

5.2.4 Summary

The Shannon Town and Environs LAP 2012-2018 area, along with the remainder of the country, has experienced ever-increasing development pressures. Challenges associated with population growth include the retention of the younger age cohorts within the area and encouraging those who work within the area to live within it also. Ultimately, all of the effects of a development on the environment impinge upon human beings and their quality of life, both positively and negatively. 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. Accordingly, the topic of population/human beings and their quality of life are addressed in the SEA process by means of an appraisal of the indirect effects of a plan or programme on the other environment parameters, of which human beings and their quality of life are an integral part.

5.3 Biodiversity, Flora and Fauna

5.3.1 Overview

In general terms, biodiversity refers to different habitats such as woodlands, wetlands, grasslands and estuarine habitats, and the range of flora and fauna species they support. It also refers to the genetic diversity within species, which is vital for healthy populations of individual species to survive. Of equal importance, green infrastructure refers to those features of the landscape, which by virtue of their linear and continuous structure (such as hedgerows or streams) or their function as stepping stones (such as ponds or small woods) are essential for the migration, dispersal and genetic exchange of wild species.

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 Shannon, wildlife areas include the estuary, woodlands, scrub, wetlands, parks, streams, hedgerows, tree lines, roadside verges, housing estate open spaces and gardens. Gardens and housing estate open spaces in particular provide suitable conditions (a combination of heat and food supply), which offers opportunities for many species, and particularly small birds.

The landscape surrounding Shannon town, Shannon Freezone and Shannon Airport is predominantly agricultural land, interspersed with pockets of woodland and scrub, small lakes (Ballycunneen Lough), rivers and streams, extensive hedgerows and field boundaries, and various types of grasslands, particularly wet grassland. By connecting the wildlife areas within the town centre, free zone and airport, to the wider countryside, it allows the inward and outward migration, dispersal and genetic exchange of wild species, and therefore allows biodiversity to co-exist and even thrive within the urban environment, rather than merely survive.

The Shannon Estuary

The Shannon Estuary is a significant part of the Shannon Town and Environs LAP 2012-2018 Plan Area and its status as the most important site in Ireland for over-wintering wildfowl and waders, and an important breeding site in the summer season is noted. It is internationally important for the number and species of overwintering wildfowl and waders, including Annex 1 species such as Whooper Swan, Golden Plover and Bar-tailed Godwit. It also hosts internationally important numbers of Light-bellied Brent Goose, Dunlin, Black-tailed Godwit and Redshank, and nationally important numbers of wintering species.

The Lower River Shannon Special Area of Conservation (SAC) is also designated for a range of coastal, estuarine and riparian habitats including Estuaries, Mudflats, Sandflats, Coastal lagoons, Sea cliffs, Salicornia and other annuals colonizing mud and sand, Atlantic and Mediterranean salt meadows, Alluvial forests, Sandbanks, Large shallow inlets and bays, Reefs, Perennial vegetation of stony banks, Spartina swards and Molinia meadows. It also supports species such as River, Brook and Sea Lamprey, Atlantic Salmon, Bottlenose Dolphin, Otter and Freshwater Pearl Mussel.

5.3.2 Designated Sites

European Sites

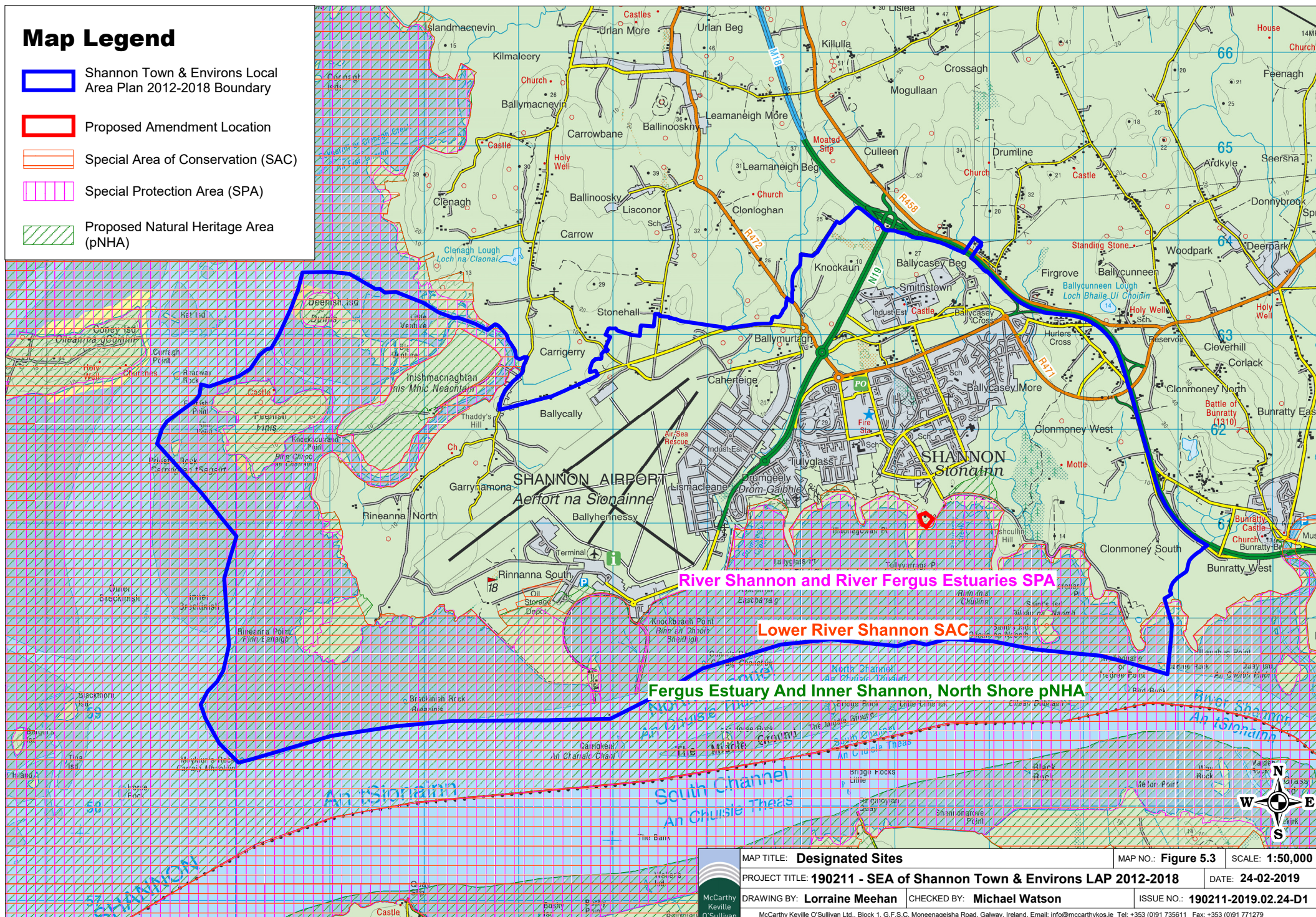
There are two Natura 2000 sites located within the Plan Area boundary of the Shannon Town and Environs LAP: the Lower River Shannon SAC, and the River Shannon and River Fergus Estuaries Special Protection Area (SPA), as shown on Figure 5.3. A number of other Natura 2000 sites are located within a 15-kilometre radius of the Plan area.

Where a plan or project is likely to have a significant effect upon a European site (either individually or in-combination with other plans or projects) an appropriate assessment (AA) is required under Article 6(3) of the Habitats Directive (Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora). The AA process is designed to protect any Natura 2000 site, and the habitat or species they were designated to protect. An appropriate assessment of the proposed amendment to the Shannon Town and Environs LAP 2012-2018 has been carried out, the results of which are presented in a Natura Impact Report which forms part of the proposed amendment for public display and consideration.

The AA process considered the potential for impacts on any Natura 2000 site within a 15-kilometre radius of the Plan Area boundary, in addition to any other sites within the wider area where a potential pathway for impacts was identified. Table 5.1 below presents the European sites considered as part of the AA process.

Map Legend

-  Shannon Town & Environs Local Area Plan 2012-2018 Boundary
-  Proposed Amendment Location
-  Special Area of Conservation (SAC)
-  Special Protection Area (SPA)
-  Proposed Natural Heritage Area (pNHA)



River Shannon and River Fergus Estuaries SPA

Lower River Shannon SAC

Fergus Estuary And Inner Shannon, North Shore pNHA

MAP TITLE: **Designated Sites**

MAP NO.: **Figure 5.3** SCALE: **1:50,000**

PROJECT TITLE: **190211 - SEA of Shannon Town & Environs LAP 2012-2018**

DATE: **24-02-2019**

DRAWING BY: **Lorraine Meehan** CHECKED BY: **Michael Watson**

ISSUE NO.: **190211-2019.02.24-D1**

McCarthy Keville O'Sullivan Ltd., Block 1, G.F.S.C. Moneenageisha Road, Galway, Ireland. Email: info@mcCarthyKeville.ie Tel: +353 (0)91 735611 Fax: +353 (0)91 771279

Ordnance Survey Ireland Licence No. AR 0021815 © Ordnance Survey Ireland/Government of Ireland

Table 5.1 European Sites within the Potential Zone of Impact

European Site	Distance (km)
Special Areas of Conservation (SAC)	
Lower River Shannon SAC [site code 002165]	Within & outside LAP boundary. Adjacent to proposed amendment site
Lough Gash Turlough SAC (000051)	3.2km from LAP boundary 6.5km from proposed amendment site
Askeaton Fen Complex SAC (002279)	5.1km from LAP boundary 7.3km from proposed amendment site
Ratty River Cave SAC (002316)	6.6km from LAP boundary 9.4km from proposed amendment site
Curraghchase Woods SAC (000174)	7.1km from LAP boundary 8.7km from proposed amendment site
Barrigone SAC (000432)	8.4km from LAP boundary 14.9km from proposed amendment site
Knockanira House SAC (002318)	8.8km from LAP boundary 15.4km from proposed amendment site
Newhall and Edenvale Complex SAC (002091)	9.2km from LAP boundary 14.4km from proposed amendment site
Poulnagordon Cave (Quin) SAC (000064)	9.7km from LAP boundary. 12.8km from proposed amendment site
Kilkishen House SAC (002319)	10.9km from LAP boundary. 13.6km from proposed amendment site
Old Domestic Building (Keelvagh) SAC (000353)	11.6km from LAP boundary. 14.9km from proposed amendment site
Danes Hole, Poulnalecka SAC (000030)	12.4km from LAP boundary. 15.1km from proposed amendment site
Pouladatig Cave SAC (000037)	13.1km from LAP boundary. 18.6km from proposed amendment site
Special Protection Area (SPA)	
River Shannon and River Fergus Estuaries SPA (004077)	Within & outside LAP boundary. Adjacent to proposed amendment site

The Natura Impact Report which has been prepared for the proposed amendment to the Shannon Town and Environs LAP 2012 – 2018 concludes that the proposed amendment to the Plan, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site.

Natural Heritage Areas and Proposed Natural Heritage Areas

There is one proposed Natural Heritage Area (pNHA) located within the Plan area boundary; the Fergus Estuary and Inner Shannon, North Shore pNHA, as shown in Figure 5.3.

5.3.3 Threats to Biodiversity

The key threat to Biodiversity in the Shannon Plan area is potential impacts on water quality and particularly the Shannon Estuary. Other threats include habitat loss, fragmentation and disturbance to wildlife, flooding, climate change, and invasive species.

5.4 Soil and Geology

5.4.1 Soil

Soil is a non-renewable natural resource as it develops over a long time period and is valuable. It comprises for the most part organic matter, minerals and fine to coarse grained weathered rocks. The variability in the constituent parts and the percentage content of each

in the soil matrix results in differing characteristics. This has implications for overall land-use and the appropriateness for differing land use practices.

A large proportion of the Shannon Town and Environs LAP 2012 – 2018 Plan Area has no soil grouping, however the main Great Soil Groups in the Area are:

- Gleys: soils in which the effects of drainage impedance dominate and which have developed under the influence of permanent or intermittent waterlogging. Waterlogging may be due to a high water table giving groundwater gleys, a perched water table due to impervious nature of the soils giving a surface water gley, or from seepage or runoff from slopes. Most gleys have poor physical conditions and restricted growth seasons. Peaty gleys have organic horizons containing 20 to 50% organic matter on the surface and are found in wetter conditions.
- Grey Brown Podzolics: usually formed from a calcareous parent material which counters the effects of leaching. This restricts the podzolisation process. Grey Brown Podzolics are good all-purpose soils.
- Brown Earths: relatively mature well-drained mineral soils processing a uniform soil horizon. Most Brown Earths occur on lime-deficient parent materials and are therefore acid in nature i.e. Acid Brown Earths. Brown Earths can also occur on more lime-rich materials. Brown Earths possess medium soil texture and have good structure and drainage characteristics and are extensively cultivated. They have relatively low nutrient status. Brown Earths are evident in two small areas in the Plan Area.

Changes in soil result from natural processes and human activities; both contributing 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. Many of the changes arise as a result of pressures from human activities. The main pressures on soil resources in Ireland arise from the following sectors:

- intensive agriculture and organic waste disposal;
- forestry;
- industry;
- peat extraction; and
- urbanisation and infrastructure development.

The proposed Amendment site is located in an area with deep well-drained mineral soils, derived from mainly calcareous parent materials (soil code BminDW). This defines the soil type of this area as being typical of grey brown podzolics and brown earths. The adjacent soil type is made of marine/estuarine sediments due to proximity to the estuary.

5.4.2 Geology

The geology of the landscape surrounding the Fergus Estuary and Upper Shannon Estuary, including the Shannon Town and Environs Plan Area, is underlain predominantly by limestone, which contains:

- Courceyan Limestone
- Lower Limestone Shale
- Marine Shelf Facies, and
- Waulsortian Mudbank.

Limestone dominates the geological makeup of the Plan Area. There are also areas of exposed limestone, or where the bedrock is within one metre of the surface and the majority of the area is overlain by limestone derived till or estuarine sediment.

There are 89 areas of geological importance within the county. These sites are considered to be of national importance as best representative examples of particular geological formations or features, for example, cave systems, limestone pavements and mushroom stones. The Geological Survey of Ireland (GSI) as part of their Irish Geological Heritage Programme has identified some of these areas as Geological Heritage Sites. There is one Geological Heritage Site located within the Plan Area, at Rineanna Point.

5.4.3 Threats to Soil and Geology

Threats to soil include the rezoning of agricultural land for development purposes, and the inappropriate land-spreading or application of fertilisers/farm effluent or pesticides/herbicides/ fungicides. 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.

5.5 Water

5.5.1 Overview

The water environment for the purposes of this section of the Environmental Report encompasses the following:

- groundwater,
- natural surface water features such as lakes, rivers and streams,
- estuarine waters,
- flooding, and
- drinking water.

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. It covers groundwater, inland surface waters, transitional waters and coastal waters.

The provisions of the Water Framework Directive are implemented through River Basin Management Plans. At the time of preparing the Shannon Town and Environs LAP 2012 – 2018, the Plan Area was located within the Shannon International River Basin District. For the second cycle of the Water Framework Directive (2018 – 2021), a single national River Basin District (RBD) has been defined. The RBD is broken down into 46 catchment management units, which are further sub-divided into 583 sub-catchments.

5.5.2 Groundwater

Groundwater is defined as the water stored underground in formations of saturated rock, sand, gravel, and soil. Surface water and groundwater are intimately linked to each other within the hydrological cycle and is an important source of water for streams, rivers and lakes. Thus, the protection of groundwater quality from the impact of human activities is a high priority as resources are susceptible to pollution with long term consequences both for humans and the natural environment.

The WFD groundwater status in the Shannon Town and Environs LAP 2012-2018 Area is determined to be of 'good' status. Complementary 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).

The location of the proposed amendment area is noted as having low to moderate groundwater vulnerability by both the Shannon Town and Environs LAP 2012-2018 SEA ER and the GSI Groundwater Viewer¹.

5.5.3 Surface Water and Estuarine 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.

Estuarine waters are subject to a wide variety of environmental threats and pressures. These include inputs of organic matter, nutrients and contaminants from sources such as urban waste water, industrial discharges, riverine inputs and accidental spillages. Local impacts can also arise from marine-based activities such as dredging and aquaculture.

The quality of surface water in Ireland is monitored by the EPA and local authorities. The latest EPA Water Quality Report ('*Water Quality in 2017: an Indicator's Report*', EPA, 2018) notes that the number of river water bodies at satisfactory quality (high or good) declined in 16 catchments, including the Upper Shannon and Shannon Estuary South. It also states that since 2007, there has been a significant decrease in dissolved inorganic nitrogen in seven water bodies, including the Fergus Estuary in Co. Clare.

Strategic Integrated Framework Plan for the Shannon Estuary

The Clare County Development Plan 2017 – 2023 (as varied) includes the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary, which is Ireland's largest estuary and one of its most important maritime resources. The SIFP is an inter-jurisdictional land and marine-based framework to guide the future development and management of the Shannon Estuary. It is an over-arching goal of the Clare County Development Plan 2017 – 2023 (as varied) to build on the strategic location and natural resources of the Shannon Estuary by facilitating and maximising its potential for various forms of development while managing the estuarine and natural environment in full compliance with all relevant EU Directives.

5.5.4 Flooding

The '*Planning System and Flood Risk Management Guidelines*' (Office of Public Works and Department of the Environment, Heritage and Local Government, 2009) state that:

"Flooding is a natural process that can happen at any time in a wide variety of locations. Flooding from the sea and from rivers is probably best known but prolonged and intense rainfall can also cause sewer flooding, overland flow and groundwater flooding. When it impacts on human activities, it can threaten people, their property and the environment. Assets at risk can include housing, transport and public service infrastructure, and commercial, industrial and agricultural enterprises. The health, social, economic and environmental impacts of flooding can be significant and have a wide community impact."

Thus, 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 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

¹ <https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4coab2fbde2aaac3c228>

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. The Office of Public Works (OPW) monitors flooding throughout Ireland and records significant flood events.

Management of flood-related issues is of critical importance to the future sustainable development of Co. Clare. The Clare County Development Plan 2017 – 2023 (as varied) includes a Strategic Flood Risk Assessment (SFRA) for the county. Within the Shannon settlement, the SFRA notes there is a coastal, tidal and fluvial risk of flooding, as well as risk of defence overtopping or breach. Much of Shannon consists of low-lying coastal flatlands, protected from tidal flooding by embankments at a level of approximately 7.3 metres O.D.

It is an objective of the Clare County Development Plan 2017 – 2023 (as varied) to ensure that proposals for development in areas where there is a risk of flooding, (based on the Flood Risk Maps contained in Volume 2 of the Clare County Development Plan 2017-2023 (as varied), or any updated version), shall have regard to '*The Planning System and Flood Risk Management (and Technical Appendices) – Guidelines for Planning Authorities 2009*' and any future OPW flood assessment information. Such proposals must also demonstrate that appropriate mitigation measures can be put in place. The current proposed amendment has been subject to a Strategic Flood Risk Assessment, the conclusion of which states "The flood risk assessment confirms that as the proposed Amendment site is within Flood Zone C, it is at low risk of flooding and the amendment as proposed is considered appropriate".

5.5.5 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 >10m³ per day
- Private supplies that supply <10m³ per day but is a commercial activity

The principal source supplying water to the Plan Area is the Castle Lake scheme. Castle Lake is a proposed Natural Heritage Area (pNHA), which feeds the Owenagarney or Ratty River, which in turn forms part of the Ratty River Cave Special Area of Conservation (SAC) and flows into the Shannon Estuary.

5.5.6 Water Conservation

Clare County Council acknowledges the importance of water conservation and as such supports and provides measures to promote conservation of water, including:

- 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 2017 – 2023 (as varied) states that in general there is sufficient water supply treatment capacity in the County to meet the needs of the target population identified in the core strategy. However it also estimates that 48% of the water

supplied in County Clare is lost as a result of leakage as well as illegal use of water. Water conservation is therefore essential to ensure security of supply in the future, and the Plan contains objectives to promote such.

5.6 Air and Climate

5.6.1 Air

Air Quality Monitoring

The Environmental Protection Agency (EPA) has designated four Air Quality Zones for Ireland:

- Zone A: Dublin City and environs
- Zone B: Cork City and environs
- Zone C: 16 urban areas with population greater than 15,000
- Zone D: Remainder of the country.

These zones were defined to meet the criteria for air quality monitoring, assessment and management described in the Framework Directive and Daughter Directives. The Shannon Town and Environs LAP Area lies within Zone D, which represents rural areas located away from large population centres.

The Environmental Protection Agency has installed a number of air quality monitoring stations throughout Ireland, including Shannon. The index rating derived at Shannon is for overall air quality in Zone D which is made up of rural parts of the country, villages and towns. Currently the air quality there is 'Good'.

The key threats to air quality within the Plan Area is road traffic.

5.6.2 Climate

County Clare has a temperate oceanic climate, resulting in mild winters and cool summers.

Although climate change is thought to be a natural process, the rate at which the climate is changing has been accelerated rapidly by human activities. Climate change is one of the most challenging global issues facing us today and is primarily the result of increased levels of greenhouse gases in the atmosphere. These greenhouse gases come primarily from the combustion of fossil fuels in energy use. Changing climate patterns are thought to increase the frequency of extreme weather conditions such as storms, floods and droughts. In addition, warmer weather trends can place pressure on animals and plants that cannot adapt to a rapidly changing environment. Moving away from our reliance on coal, oil and other fossil fuel-driven power plants is essential to reduce emissions of greenhouse gases and combat climate change.

Ireland is a Party to the Kyoto Protocol and the Paris Agreement, which are international agreements that sets limitations and reduction targets for greenhouse gases for developed countries.

5.7 Material Assets

The term 'Material Assets' is not defined in the SEA Directive, but is defined in the *'Advice Notes on Current Practice in the Preparation of Environmental Impact Statements'* (EPA, 2003) as 'resources that are valued and that are intrinsic to specific places'. This includes cultural assets, economic assets of natural heritage, and economic assets of human origin. This section of the Environmental Report encompasses Transportation, Waste Management, Water Supply, Wastewater Treatment Infrastructure and Renewable and Alternative Energy

5.7.1 Transportation

The Shannon Town and Environs LAP 2012 – 2018 includes the following key transport infrastructure:

- Shannon Airport
- N18/M18 Motorway
- N19 National Primary Road
- R471 Regional Road- Shannon to Sixmilebridge
- R472 Regional Road - Shannon to Newmarket on Fergus
- Shannon Estuary

Transportation is one of the cornerstones of the Irish economy and will continue to be promoted as an essential component to the further sustainable development of Shannon. Improvements are required to public transport infrastructure to reduce reliance on cars.

5.7.2 Waste Management

According to the EPA, there is an increasing amount of waste being exported for energy recovery, while landfill within Ireland has decreased. The number of landfills in Ireland accepting municipal waste for disposal in 2008 was five, compared to 29 No. landfills in 2007². There was a critical shortage of landfill availability in Ireland in 2016, which has been alleviated short-term with the addition of extra areas at existing facilities. Also, capacity for energy recovery within Ireland has recently increased with the addition of a second municipal waste incinerator operating at full capacity.

There are currently two waste facilities within the Shannon Town and Environs LAP Plan Area:

- Enva Ireland Limited (Shannon) Hazardous Waste Facility
- Tradaree Point Sludge Treatment Facility

5.7.3 Water Supply

Water supply in the Shannon Town and Environs LAP 2012-2018 Area is derived from the Castle Lake scheme at Sixmilebridge. 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.

5.7.4 Waste Water Management

The safe treatment and disposal of sewerage is fundamental to the sustainable development of our society. The Plan Area relies principally on wastewater treatment plants and individual septic tank units. There are implications however from the operation of both forms of treatment, principally the discharge to the receiving environment. Insufficient treatment has the potential to adversely affect the quality of the groundwater and surface water with significant potential to adversely affect biodiversity, human health and amenity. If wastewater treatment systems are not working properly, nutrients, organic material, chemicals and bacteria may seep from wastewater treatment plants into groundwater, contaminating nearby drinking water wells or damaging the quality of receiving waters, lakes or marine waters.

5.7.5 Renewable and Alternative Energy

Clare County Council recognises the importance of developing renewable sources of energy in the interest of supporting environmental sustainability. The Clare County Development Plan 2017 – 2023 (as varied) includes both the Clare Renewable Energy Strategy, and the Clare Wind Energy Strategy.

² <http://epa.ie/nationalwastestatistics/infrastructure/>

5.8 Cultural Heritage

5.8.1 Overview

The Shannon Town and Environs LAP 2012 – 2018 Plan Area has an important built heritage, including archaeological and architectural heritage. Development which involves material alteration or additions to protected structures can detract from the special character of the structure and its setting, and have the potential to result in the loss of features of architectural or historic interest unless the historic form and structural integrity of the structure are retained. Also, development in close proximity to sites and areas of cultural heritage may adversely impact upon the cultural landscape setting and features which form part of the interior or exterior of all these structures.

5.8.2 Architectural Heritage

The Record of Protected Structures (RPS) and Architectural Conservation Areas (ACAs), together with policies pertaining to the protection of vernacular and industrial architecture, cover the architectural heritage of Co. Clare. There are three structures within the Plan Area included on the Record of Protected Structures. The nearest of these to the proposed amendment area is Hastings Cottage located at Illaunamanagh Point and described as follows:

"Ruin of former detached, cob-built, 4 bay thatched cottage c.1820 at Illaunmanagh Point Shannon. The house was used during the War of Independence as the prison of British Brigadier General Lucas captured by the IRA and later released."

Hastings Cottage is now almost completely ruined and overgrown and lies adjacent to the eastern boundary of the graveyard. Clare County Council intends to facilitate the sensitive restoration of this important historical building and site, subject to the consideration of all environmental constraints.

It can be noted 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 landscape and contribute to the amenity and pleasure of residents and visitors alike.

5.8.3 Archaeological Heritage

The protection of archaeological areas and sites is covered by the legislation contained in the National Monuments Acts 1930 to 1994 (as amended) and covers man-made structures built prior to the year 1700 AD, with some exceptions. The archaeological heritage includes National Monuments in the care of the State, archaeological and architectural monuments and sites in the Record of Monuments and Places and the Register of Historic Monuments, zones of archaeological potential in Historic Towns; the underwater archaeological heritage, including Historic Wrecks; unknown and unrecorded archaeological sites (including subsurface elements with no visible surface remains); potential sites located in the vicinity of large complexes of site or monuments, present or former wetlands, unenclosed land, rivers or lakes, or the inter-tidal zone.

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.

5.9 Landscape

The landscape is made up of a range of unique characteristics including land form and land cover in combination with associated human values. As well as being an important part of

people's lives, giving individuals and communities a sense of identity and belonging, and bestowing a sense of place on our surroundings, the landscape is the context in which all change takes place.

5.9.1 Clare's Living Landscapes

The Clare County Development Plan 2017 – 2023 (as varied) acknowledges that the County comprises a number of areas that have similar characteristics for which similar planning policies are applicable. The Plan therefore proposes that planning policies in Co. Clare be integrated by considering the County to comprise three types of landscapes, as follows:

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

The proposed amendment area of the Shannon Town and Environs LAP 2012 – 2018 is located within a Heritage Landscape: Heritage Landscape 3 – The Fergus/Shannon Estuary.

Heritage Landscapes define places where the majority of County Clare's sensitive environmental resources – scenic, ecological and historic – occur together. The principle role of Heritage Landscapes is to sustain natural and cultural heritage. These landscapes have to continue to evolve to accommodate both the renewal of existing houses, farms, roads, power-lines etc., as well as the development of new facilities needed to support the community.

It is an objective of Clare County Development Plan 2017 – 2023 (as varied) to require that all proposed developments in Heritage Landscapes demonstrate that every effort has been made to reduce visual impact. This must be demonstrated for all aspects of the proposal, from site selection through to details of siting and design.

5.9.2 Landscape Character Assessment

A Landscape Character Assessment of Co. Clare was published by Clare County Council in 2003 and provides an analysis of the character, value, and sensitivity of landscapes identified within the County. The Landscape Character Assessment identifies Landscape Character Types, Landscape Character Areas and Seascape Character Areas.

Landscape Character Type

Landscape character types (LCTs) are distinct types of landscape that are relatively homogenous in character. They are generic in nature in that they may occur in different localities throughout the County. Nonetheless, where they do occur, they commonly share similar combinations of geology, topography, land cover and historical land use, for example, limestone river valleys and blanket bog uplands. The Clare Landscape Character Assessment identifies 26 Landscape Character Types sub divided into 3 groups, namely; Upland Types, Lowland Types and Coastal Types.

The Shannon Town and Environs LAP 2012 – 2018 encompasses the LCTs of River Valley Farmland, Built-up Areas and Flat Estuarine Farmland and Islands.

Landscape Character Areas

Landscape Character Areas (LCAs) are units of the landscape that are geographically specific and have their own character and sense of place. Each LCA's distinctive character is based upon patterns of geology, landform, landuse, cultural, historical and ecological features.

The Shannon Town and Environs LAP 2012 – 2018 encompasses the LCAs of Sixmilebridge Farmland and Fergus Estuary. The key landscape features of each LCA are presented below.

Sixmilebridge Farmland

- An undulating, well maintained landscape, with the principal river of Owengarney draining from Doon Lough in the north.
- An area of considerable archaeological and historical interest testifying to its strategic location and good land resources.
- Principal roads cross through this area such as the N18 and there is a significant urban and commercial centre at Shannon, as well as the smaller settlement of Sixmilebridge.

Fergus Estuary

- Flat estuarine farmland divided by drainage ditches, post and wire fences and degraded thorny hedgerows.
- Open expansive views are afforded across the estuary to the River Shannon, though these are limited in places due to flood defence embankments.
- Settlement is sparse reflecting the areas past tendency to flood, some settlement on higher ground. On eastern boundary, increased settlement due to proximity to Shannon Airport and town.
- Scattered holy wells with a number of graveyards and standing stones.

The proposed Amendment area is located adjacent to the coastline and forms part of the Sixmilebridge Farmland LCA.

Seascape Character Areas

In the context of Landscape Character Assessment, a 'Seascape' is defined as comprising one or more views from land to sea, views from sea to land, views along coastline, and/or the effect on landscape of the conjunction of sea and land. The Landscape Character Assessment of Co. Clare identifies 12 Seascape Character Areas, two of which are located in the Shannon Town and Environs Plan Area; the River Shannon and the Fergus Estuary.

The proposed amendment area is located within the Fergus Estuary Seascape Character Area and adjacent to the River Shannon Seascape Character Area.

6 STRATEGIC ENVIRONMENTAL OBJECTIVES

6.1 Introduction

Strategic Environmental Objectives (SEOs), or environmental protection objectives, are methodological measures against which the environmental effects of a proposed Plan/Programme, or amendment to a Plan/Programme, can be assessed. The use of SEOs allows for the identification of areas in which potential adverse impacts are likely to occur as a result of implementation of the Plan/Programme. As part of the SEA process, measures can then be identified to avoid, reduce or mitigate such impacts.

6.2 Development of Strategic Environmental Objectives

A range of SEOs was developed by Clare County Council during the SEA of the Shannon Town and Environs LAP 2012 – 2018, based on consultation with the statutory consultees, in-house expertise, the SEA team and best practice guidelines. The SEOs were also developed in line with the then 'parent' Clare County Development Plan 2011 – 2017 and the Mid-West Regional Planning Guidelines 2010 – 2022.

The proposed amendment to the Shannon Town and Environs LAP 2012-2018 has been assessed against the same SEOs used for the original Plan. However, as part of this exercise, the original SEOs have also been reviewed against those used in the environmental assessment of the current Clare County Development Plan 2017 – 2023 (as varied), and updated where relevant.

SEOs are distinct from the policies and objectives set out in the Plan itself; they are intended to enable the proposed amendment to be assessed in environmental terms. The SEOs against which the proposed amendment to the Shannon Town and Environs LAP 2012 – 2018 have been assessed are set out in Table 6.1 below. Where text is shown in *italics*, this additional wording has been incorporated into the SEOs to ensure compatibility with the Clare County Development Plan 2017 – 2023 (as varied).

Table 6.1 Strategic Environmental Objectives

Parameter	No.	Strategic Environmental Objective
Population	P1	Protect, enhance and improve people's quality of life based on high quality residential, community, educational, working and recreational environments and on sustainable travel patterns.
	P2	To protect human health from hazards or nuisances arising from exposure to incompatible land uses/developments
	P3	Implementation and enforcement of the County Litter Management Plan 2009-2012 and any subsequent plans.
	P4	Adhere to the County Emergency Plan and other objectives of relevance to human health.
	P5	Provision of green spaces for amenity
Biodiversity	B1	Protect, conserve, <i>enhance where possible</i> , 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.
	B2	Conserve and protect, or maintain and restore Natura 2000 sites and the Natura 2000 Network designated under Art. 6 of the Habitats Directive
	B3	Conserve and protect other sites of nature conservation including NHAs, pNHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries.

Parameter	No.	Strategic Environmental Objective
	B4	Conserve and protect annexed and other protected species
	B5	Protect the inland aquatic environment.
	B6	Meet the requirements of the Water Framework Directive and the River Basin Management Plan
	B7	Protect habitats (terrestrial and aquatic) from invasive species.
	B8	Protect the marine environment.
	B9	Conservation of Wetlands and their use and resources
	B10	Promote Integrated Coastal Zone Management.
	B11	<i>Promote green infrastructure networks, including riparian zones and wildlife corridors.</i>
Soil & Geology	S1	Give preference to the use of derelict, disused and infill sites, rather than Greenfield sites.
	S2	Protect, improve and maintain the quality of soils.
	S3	Minimise the consumption of non-renewable deposits on site
	S4	Implement aquifer protection plans.
	S5	Minimise the amount of waste to landfill from site
	S6	Conserve, protect and avoid loss of diversity and integrity of designated habitats, geological features, species or their sustaining resources in designated ecological sites
Water	W1	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).
	W2	Maintain or improve the quality of surface and groundwater water (including estuarine) to status objectives as set out in the Water Framework Directive, River Basin Management Plan & Programme of Measures.
	W3	Implement appropriate sustainable drainage systems (SuDS) in any future development in the Shannon Area.
	W4	Reduce the impact of polluting substances to all waters.
	W5	Prevent pollution and contamination of ground water by adhering to aquifer protection plans.
	W6	Maintain and improve the quality of drinking water supplies
	W7	Reduce the impact of polluting substances to all waters.
	W8	Promote sustainable water use based on a long-term protection of available water resources
	W9	Upgrade infrastructure to meet future water supply needs
	W10	Promote Integrated Coastal Zone Management.
	W11	Reduce risk of flooding through avoidance of development in flood plains or in areas at risk of flooding
	W12	Provide provision of flood relief through management of flood risk and living with floods rather than engineered flood solutions.
	W13	<i>Promote a responsible attitude to recreation and amenity use of water in relation to water quality and disturbance to species and to prevent pollution and contamination of designated bathing waters.</i>
Air/Climate	C1	Minimise all forms of air pollution and maintain/improve ambient air quality.
	C2	Minimise emissions of greenhouse gases and contribute to a reduction and avoidance of human-induced global climate change.

Parameter	No.	Strategic Environmental Objective
	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
Material Assets: Transport	T1	Maximise sustainable modes of transport and encourage use of walkways/cycle paths as alternative routes to school, work, shops
	T2	Provide for ease of movement for all road users and to promote 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
Material Assets: Waste	WA1	Implement the waste pyramid and encourage reuse/recycling of material wherever possible
Material Assets: 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
Material Assets: 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.
Material Assets: 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 including 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 unrecorded monuments), architectural (Protected Structures, Architectural Conservation Areas, vernacular buildings, materials and urban fabric) and manmade landscape features (e.g. field walls, footpaths, gate piers etc.).
	CH2	Conserve historic fabric of urban and rural 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 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
	L5	Maintain and Enhance landscape quality within the plan area
	L6	<i>No significant visual impact from development. Ensure no significant disruption of high landscape values.</i>

Further details on the impact assessment methodology in relation to the SEOs is provided in Section 7 of this report.

7 IMPACT ASSESSMENT

7.1 Introduction

This section of the Environmental Report assesses the potential effects on the environment of implementing the proposed amendment to the Shannon Town and Environs Local Area Plan (LAP) 2012 – 2018. The proposed amendment encompasses a change in the land-use zoning of an area measuring approximately 1.25 hectares from 'Open Space OS5' to 'Community C18' at Illaunmanagh, Shannon. The purpose of this amendment is to facilitate an extension to the existing Burial Ground at this location, as set out in Section 2 of this report.

7.2 Impact Assessment Methodology

As per the current Shannon Town and Environs LAP 2012 – 2018, the proposed amendment has been assessed against the Strategic Environmental Objectives (SEOs) which have been derived for this assessment; see Section 6 on SEOs. The results of the impact assessment are set out in matrix format and use the following broad scale rating system to indicate potential environmental effects:

- Positive effect: a change which improves the quality of the environment
- Negative effect: a change which reduces or lessens the quality of the environment
- Neutral effect: a change which does not affect the quality of the environment
- Uncertain effect: the scale and nature of the effect, either positive or negative, cannot be determined at this stage

Where any potential significant negative effects of implementing a Plan/Programme is identified, the SEA process requires that mitigation measures are put forward to prevent, reduce or as fully as possible offset those effects.

7.3 Impact Assessment Matrix

The impact assessment matrix for the proposed amendment to the Shannon Town and Environs LAP 2012 – 2018 is presented in Table 7.1. A summary of findings is also presented below.

Table 7.1 Impact Assessment Matrix

Parameter	SEO	Assessment of Proposed Land-Use Zoning Amendment from Open Space 'OS5' to Community 'C18'
Population	P1	Neutral effect
	P2	Neutral effect
	P3	Neutral effect
	P4	Neutral effect
	P5	Potential Negative effect
Biodiversity	B1	Neutral effect
	B2	Neutral effect
	B3	Neutral effect
	B4	Neutral effect
	B5	Neutral effect
	B6	Neutral effect
	B7	Neutral effect
	B8	Neutral effect
	B9	Neutral effect
	B10	Neutral effect

Parameter	SEO	Assessment of Proposed Land-Use Zoning Amendment from Open Space 'OS5' to Community 'C18'
	B11	Potential Negative effect
Soil & Geology	S1	Neutral effect
	S2	Neutral effect
	S3	Neutral effect
	S4	Neutral effect
	S5	Neutral effect
	S6	Neutral effect
Water	W1	Neutral effect
	W2	Neutral effect
	W3	Neutral effect
	W4	Neutral effect
	W5	Neutral effect
	W6	Neutral effect
	W7	Neutral effect
	W8	Neutral effect
	W9	Neutral effect
	W10	Neutral effect
	W11	Neutral effect
	W12	Neutral effect
	W13	Neutral effect
Air/Climate	C1	Neutral effect
	C2	Neutral effect
	C3	Neutral effect
Material Assets: Transport	T1	Neutral effect
	T2	Neutral effect
	T3	Neutral effect
	T4	Neutral effect
Material Assets: Waste	WA1	Neutral effect
Material Assets: Water Supply	WS1	Neutral effect
	WS2	Neutral effect
	WS3	Neutral effect
	WS4	Neutral effect
Material Assets: Waste Water	WW1	Neutral effect
	WW2	Neutral effect
	WW3	Neutral effect
Material Assets: Renewable Energy	RE1	Neutral effect
	RE2	Neutral effect
Cultural Heritage	CH1	Potential Positive effect
	CH2	Neutral effect
	CH3	Neutral effect
Landscape	L1	Neutral effect
	L2	Neutral effect
	L3	Neutral effect
	L4	Potential Positive effect
	L5	Neutral effect
	L6	Neutral effect

7.4 Summary of Findings

Overall, it has been assessed that the effects on the environment of implementing the proposed amendment to the Shannon Town and Environs LAP 2012 – 2018 are predominantly neutral, i.e. a change which does not affect the quality of the environment.

A potential negative effect on the environment has been identified in relation to two SEOs:

- Population P5: Provision of green spaces for amenity.
- Biodiversity B11: Promote green infrastructure networks, including riparian zones and wildlife corridors.

With regard to SEO P5, the proposed amendment to the LAP will result in the loss of an area of approximately 1.25 hectares of land currently zoned as Open Space OS5, which is used as allotments. These lands also form part of the green infrastructure network within the Shannon Town and Environs LAP 2012-2018 Area, and therefore a potential negative effect has also been identified in relation to SEO B11.

Within the context of the overall Plan area, and the remaining total area that is currently zoned as Open Space, it is not considered that the proposed amendment will have a *significant* negative effect on the environment. Notwithstanding this, the potential negative effects are further addressed in Section 8 of this report on mitigation measures.

The potential for a positive effect on the environment has also been identified in relation to two SEOs:

- Cultural Heritage CH1: Protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded and unrecorded monuments), architectural (Protected Structures, Architectural Conservation Areas, vernacular buildings, materials and urban fabric) and manmade landscape features (e.g. field walls, footpaths, gate piers etc.).
- Landscape L4: Minimise visual impacts through appropriate design, assessment and siting.

With regard to SEO CH1, the proposed amendment will facilitate the extension of the existing Illaunmanagh Burial Ground (subject to the requirements of the Habitats Directive and all other statutory planning environmental considerations). The siting of the extended burial ground at this location is in keeping with the cultural heritage setting of the current landscape and adjoining existing land-use. This gives rise to a potential positive effect in relation to SEO L4 also, in terms of appropriate site selection.

7.4.1 Cumulative Effects

Cumulative effects on the environment are those that result from incremental changes caused by the strategic action together with other past, present, and reasonably foreseeable future actions. These effects can result from individually minor but collectively significant actions taking place over time or space.

The proposed amendment to the Shannon Town and Environs LAP 2012 – 2018, in combination with the policies and objectives of the existing LAP and the over-arching Clare County Development Plan 2017 – 2023, will have an overall positive cumulative effect in terms of providing a high-quality community environment for the population of the Plan area.

7.5 Assessment of Alternatives

The SEA process is required to take account of reasonable alternatives, having regard to the objectives and geographical scope of the Plan/Programme under assessment. There can be

different ways of fulfilling the plan or programme objectives, or of dealing with environmental problems. The alternatives should be realistic, capable of implementation and should fall within the legal and geographical competence of the authority concerned.

With regard to the proposed amendment to the Shannon Town and Environs LAP 2012 – 2018, the purpose of this amendment is solely to facilitate an extension to Illaunmanagh Burial Ground. The existing graveyard at Illaunmanagh is bordered by lands zoned as Open Space, the use of which for a cemetery is listed within the current Plan as 'not normally permitted'. Under the current Land Use Zoning Matrix, a cemetery is however considered as an 'open to consideration' use within lands zoned as Community, Commercial or Agriculture. The existing Illaunmanagh Burial Ground is currently zoned for Community use and it is therefore considered that this zoning is the most appropriate type for the proposed extension area. The zoning of the proposed amendment area as either Commercial or Agricultural use are not considered to be more appropriate alternatives.

8 MITIGATION MEASURES

The SEA Directive requires that where significant adverse environmental effects associated with the implementation of a proposed Plan/Programme are identified, a clear link should be presented with relevant and appropriate mitigation measure(s). Mitigation measures are required to prevent, reduce and as fully as possible offset any significant effects on the environment of implementing the Plan/Programme. The emphasis is required, in the first instance, on the avoidance of significant adverse effects.

No significant adverse environmental effects have been identified during the assessment of the proposed amendment to the Shannon Town and Environs LAP 2012 – 2018. A potential negative effect was identified in relation to SEO Population P5: Provision of green spaces for amenity, and SEO Biodiversity B11: Promote green infrastructure networks, including riparian zones and wildlife corridors. It is not considered that this will give rise to any significant negative effects on the environment, as addressed in Section 7.4 of this report. In terms of mitigation however, any works carried out within the subject area at Illaunmanagh as a result of the proposed amendment will remain subject to the statutory planning and environmental framework and the relevant policies and objectives set out in the current LAP and Clare County Development Plan 2017 – 2023 (as varied).

The Shannon Town and Environs LAP 2012 – 2018 as a whole is influenced by a hierarchy of international, national and regional plans, strategies and legislation to ensure environmental protection, and is consistent with the core strategies of the relevant statutory guidance, particularly the Clare County Development Plan 2017 – 2023 (as varied). The LAP and County Development Plan were each subject to SEA and appropriate assessment at the time of their preparation to ensure the integration of environmental considerations into the Plans.

The policies and objectives of the current LAP and County Development Plan which seek to protect and conserve environmentally sensitive areas will not be altered or affected by the proposed amendment. The proposed amendment will not affect the implementation of EU legislation with regard to protection of the environment. The Natura Impact Report which has been prepared for the proposed amendment concludes that the proposed amendment to the Plan, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site.

9 MONITORING

9.1 Introduction

Strategic Environmental Assessment (SEA) requires the Environmental Report to include a description of the measures envisaged to monitor any significant environmental effects of implementation of a Plan/Programme. Monitoring of Plans/Programmes is required in order to identify at an early stage any unforeseen adverse effects and to undertake the appropriate remedial action.

The '*Assessment of the Effects of Certain Plans and Programmes on the Environment – Guidelines for Regional Authorities and Planning Authorities*' (Department of the Environment, Heritage and Local Government, 2004) state that monitoring does not necessarily require new research activity; existing sources of information and data can be used.

9.2 Monitoring Indicators

Environmental indicators are measures of an environmental variable over time, which are used to measure and track achievement of environmental objectives and targets. In terms of SEA, indicators are used to monitor the effects on the environment of implementing a Plan/Programme or amendment to a Plan/Programme.

The monitoring of environmental indicators can potentially show positive, negative or neutral effects on the environment. Where an indicator value shows a positive or neutral effect, it is likely that the policies and objectives of the relevant plan or programme are well defined with regard to the environment. Conversely, where monitoring shows that an objective has a negative effect on the environment, it may be necessary to review and/or vary that objective or take some other form of remedial action.

9.3 Monitoring of the Proposed Amendment

As set out in the SEA Environmental Report on the current Shannon Town and Environs LAP 2012 – 2018, Clare County Council is responsible for monitoring implementation of the Plan. This includes:

- collating existing relevant monitored data,
- devising a monitoring programme,
- Preparation and publication of a monitoring report,
- ensuring all relevant agencies are aware of their involvement,
- ensuring all arrangements are in place for the timely collection of monitoring data,
- evaluating the results of monitoring and/or the carrying out of corrective action, if necessary

While considerable environmental data is directly available to the Local Authority, for example, water quality, recycling rates, etc., the Council also works with other agencies with environmental mandates, such as the Environmental Protection Agency, National Parks and Wildlife Service, and Inland Fisheries Ireland, to gather data for the purposes of monitoring implementation of the Plan.

Monitoring of the proposed amendment to the Shannon Town and Environs LAP 2012 – 2018 will be incorporated into the existing LAP monitoring programme. This monitoring is based on a series of targets and indicators identified during preparation and assessment of the Plan, 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 aim

to simplify complex inter-relationships and provide information about environmental issues which is easy to understand. Indicators allow quantitative measures of trends and progress over time relating to the SEOs used in the assessment of the Plan. Focus is given to indicators which are relevant to the likely significant environmental effects of implementing the Plan and existing monitoring arrangements are used, where possible, in order to monitor the selected indicators.

The targets and indicators against which the current Shannon Town and Environs LAP 2012 – 2018 is monitored, and against which the proposed amendment to the Plan will also be monitored, are set out in Appendix 2 of this document. The objectives for each environmental parameter together with their associated targets, indicators, thresholds and the responsible Authority are outlined.

10 NEXT STEPS

The proposed amendment to the Shannon Town and Environs LAP 2012 – 2018, along with the Environmental Report and the Natura Impact Report, will be placed on public display in the offices of Clare County Council and made available on the Clare County Council website at: www.clarecoco.ie.

Copies of above documentation will also be forwarded to the prescribed environmental bodies, as listed in Section 1.4 of this report.

Submissions or observations in respect of the Environmental Report will be invited to be made to Clare County Council during the specified period, which will not be less than six weeks from the date of notice of the proposed amendment. Following this consultation period, any submissions or observations received will be reviewed, and incorporated into the Environmental Report and proposed amendment where appropriate.

An SEA Statement will be issued by Clare County Council, which describes the rationale for decisions taken and extent to which environmental considerations and consultation have been integrated into the amended Plan.

Appendix 1

EPA Scoping Response

Ms Helen Quinn
Senior Executive Planner
Planning Department
Clare County Council
Aras Contae an Chlair
New Road
Ennis
V95 DXP2

19th March 2019

Our Ref: SCP190207.1

Re. SEA Scoping for Proposed Amendment No. 1 to the Shannon Town and Environs Local Area Plan 2012-2018}

Dear Ms Quinn,

We acknowledge your notice, dated 27th February 2019, in relation to the Proposed Amendment No. 1 to the Shannon Town and Environs Local Area Plan 2012-2018 (the 'Amendment').

The EPA is one of five statutory environmental authorities under the SEA Regulations. In our role as an SEA environmental authority, we focus on promoting the full and transparent integration of the findings of the Environmental Assessment into the Plan and advocating that the key environmental challenges for Ireland are addressed as relevant and appropriate to the plan. Our functions as an SEA environmental authority do not include approving or enforcing SEAs or plans.

As a priority, we focus our efforts on reviewing and commenting on key sector plans. For land use plans at county and local level, we provide a 'self-service approach' via the attached guidance document '*SEA of Local Authority Land Use Plans – EPA Recommendations and Resources*'. This document is updated regularly and sets out our key recommendations for integrating environmental considerations into Local Authority land use Plans. We recommend that you take this guidance document into account in preparing the Amendment and SEA.

Available Guidance

Our website contains SEA resources and guidance, including:

- SEA process guidance and checklists
- list of relevant spatial datasets
- topic specific SEA guidance, such as how to integrate climate change into SEA or consideration of alternatives in SEA.

You can access these resources at: <http://www.epa.ie/pubs/advice/ea/>

State of the Environment Report – Ireland’s Environment 2016

In preparing the Amendment and SEA, the recommendations, key issues and challenges described within our most recent State of the Environment Report *Ireland’s Environment – An Assessment 2016 (EPA, 2016)* should be considered, as relevant and appropriate to the Amendment.

Transition to a low carbon climate resilient economy and society

You should ensure that the Amendment aligns with national commitments on climate change mitigation and adaptation, as well as relevant sectoral, regional and local adaptation plans.

EPA SEA Search and Reporting Tool

This tool allows public authorities to explore, interrogate and produce high level environmental summary reports. It is intended to assist in screening and scoping exercises. The tool is available through EDEN www.edenireland.ie

EPA WFD Application

Our WFD Application provides a single point of access to water quality and catchment data from the national WFD monitoring programme. The Application is accessed through EDEN <https://wfd.edenireland.ie/> and is available to public agencies. Publicly available data can be accessed via the Catchments.ie website.

Environmental Authorities

Under the SEA Regulations, you should also consult with:

- The Minister for Housing, Planning and Local Government
- Minister for Agriculture, Food and the Marine, and the Minister for Communications, Climate Action and Environment, where it appears that the plan or programme, or modification of the plan or programme, might have significant effects on fisheries or the marine environment
- where it appears that the plan or programme, or amendment to a plan or programme, might have significant effects in relation to the architectural or archaeological heritage or to nature conservation, the Minister for Culture, Heritage and the Gaeltacht, and

- any adjoining planning authority whose area is contiguous to the area of a planning authority which prepared a draft plan, proposed variation or local area plan.

If you have any queries or need further information in relation to this submission, please contact me directly. I would be grateful if you could send an email confirming receipt of this submission to: sea@epa.ie.

Yours Sincerely,

A handwritten signature in black ink, reading 'David Galvin'.

David Galvin
SEA Section
Office of Evidence and Assessment
Environmental Protection Agency

Appendix 2

Monitoring Proposals

Table 9.1 –Schedule of Monitoring

Strategic Environmental Objective		Target	Indicator	Responsible Authority	Timeframe
Population, Human Health and Quality of Life					
Population	P1 - Protect, enhance and improve people's quality of life based on high quality residential, community, educational, working and recreational environments and on sustainable travel patterns.	- Increase in the number of green spaces & amenities available to the public -Improved trends in perceived quality of life related to these matters - Bonds to ensure the completion of developments until taken charge	- No/area of green spaces & amenities available to the public -Improved trends in perceived quality of life related to these matters as gathered through surveys - Employment rates over the lifetime of the Plan - Completion handover of development to CCC -Availability of public transport/ smarter travel initiatives	CSO CCC Iarnrod Eireann Bus Eireann	TBC
Human Health	P2 - To protect human health from hazards or nuisances arising from exposure to incompatible land uses/developments	- Increase in the number of green spaces & amenities available to the public - No significant deterioration in human health as a result of environmental factors - No spatial concentrations of health problems arising from environmental factors	- No/area of green spaces & amenities available to the public - Occurrence of any decline in human health around the particular area in the plan area - Occurrence (any) of a spatially concentrated deterioration in human health	EPA HSE	
Litter	P3 - Implementation and enforcement of the County Litter Management Plan 2009-2012 and any subsequent plans.	- No litter fines during the lifetime of the Plan.	- Number of litter fines issued.	CCC	
County Emergency Plan	P4 - Adhere to the County Emergency Plan and other objectives of relevance to human health.	- No 'boil water' notices - Maintain or improve levels of ambient SO2, NOx, & particulate matter as conducted by EPA monitoring - Increase in the number of green spaces & amenities available to the public - Promotion of cyclepaths/ walkways in plan area - No Remedial Action List (RAL) from the EPA notices	- Drinking Water Quality - No. of remedial action list - No./timescale of boil notices -Maintaining and /or improving air quality in the plan area	CCC EPA	
Green Spaces	P5 - Provision of green spaces for amenity	- Increase in the number of green spaces available to the public. - Increase designation of trees for	- No/area of green spaces available to the public - No./areas of trees designated for preservation and amenity	CCC	

		preservation and amenity	- No. of new civic amenity sites provided during the lifetime of the Plan		
Biodiversity					
Non - Designated	B1 – 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.	<ul style="list-style-type: none"> - No/reduce loss of hedgerows - Operators who conduct mechanical hedge cutting should have achieved the Teagasc proficiency standard MT 1302-Mechanical Hedge Trimming - 30% broadleaf/native afforestation - Protection & promotion of non-designated salmonid rivers - No ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity to be lost without remediation as a result of implementation of the LAP 	<ul style="list-style-type: none"> - % of unique habitats and species lost in non-designated sites over the lifetime of the Plan through trending of annual/bi-annual surveys - % of broadleaf/native afforestation - Percentage loss of connectivity between areas of local biodiversity as a result of implementation of the LAP as evidenced from a resurvey of CORINE mapping 	CC OPW Coillte	
Europe Designated	B2 – Conserve and protect, or maintain and restore Natura 2000 sites and the Natura 2000 Network designated under Art. 6 of the Habitats Directive	<ul style="list-style-type: none"> - No loss of protected habitats & species during the lifetime of the Plan. - No compromise in the status of the Natura 2000 network 	<ul style="list-style-type: none"> - Designation of additional areas due to biodiversity &/or geological value - Percentage of unique habitats and species lost in designated sites through trending of annual surveys. - No./% of developments in/near Natura 2000 network - % of Natura 2000 sites in the plan area that are at 'Favorable' conservation status 	NPWS CCC SWRBD OPW	
National Designated	B3 – Conserve and protect other sites of nature conservation including NHAs, pNHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries.	<ul style="list-style-type: none"> - No loss of protected habitats & species during the lifetime of the Plan. - Submission of HDA for proposed developments with planning applications in/and/or near Natura 2000 sites. 	<ul style="list-style-type: none"> - Percentage of unique habitats and species lost in designated sites through trending of annual surveys. - Provision/No. of HDAs with developments proposed for sites in/and/or near Natura 2000 sites. 		
Annexed and other Protected Species	B4 – Conserve and protect annexed and other protected species	<ul style="list-style-type: none"> - Sites to be selected as NHA or CGS designation 	<ul style="list-style-type: none"> - No of sites designated - % of annexed and other protected species lost over the lifetime of the Plan through trending of annual/bi-annual surveys 		
Aquatic Habitats	B5 – Protect the inland aquatic environment.	<ul style="list-style-type: none"> - All waters to achieve good status by 2015 - Ensure the provision of a riparian zone of at least 5m for development close to water - Ensure new development are set back at least 10m from rivers 	<ul style="list-style-type: none"> - WFD risk levels for aquatic habitats - No of planning permissions/ applications close to water 	Inland Fisheries Ireland Waterways Ireland	
	B6 – Meet the requirements of the WFD and the RBMP				

Invasive Species	B7 - Protect habitats (terrestrial and aquatic) from invasive species	<ul style="list-style-type: none"> - Prevent no new invasive species - control/manage new/existing invasive species 	<ul style="list-style-type: none"> - No. and types of invasive spp. Identified - Increase/decrease in coverage of invasive species identified - No of submission/observations 	Inland Fisheries Ireland Waterways Ireland	
	B8 – Protect the marine environment				
Wetlands	B9 - Conservation of Wetlands and their use and resources	No deterioration	<ul style="list-style-type: none"> - % of unique habitats and species lost in wetlands over the lifetime of the Plan through trending of annual/bi-annual surveys - No./type of development in Wetland areas 		
	B10 – Promote Integrated Coastal Zone Management				
Soil & Geology					
Brownfield Development	S1 – Give preference to the use of derelict, disused and infill sites, rather than Greenfield sites.	<ul style="list-style-type: none"> - Preference for development on brownfield site over green field - Specified % of new applications granted to be on brownfield sites - Limited and controlled development of greenfield sites - Re-use of soil from redeveloped sites where possible 	<ul style="list-style-type: none"> - No/% of new developments on brownfield sites - Area of brownfield land developed over the plan period - % of total greenfield land developed - level of Urbanisation - Excessive landfilling of quality soil 		
Soil Quality	S2 – Protect, improve and maintain the quality of soils.	<ul style="list-style-type: none"> - No incidences of soil contamination - At least one site to be remediated during the lifetime of the Plan or - Preparation of report on contaminated/unregulated sites in the plan area 	<ul style="list-style-type: none"> - Incidents of soil contamination - No of sites identified & remediated. 		
Non-renewable deposits	S3 – Minimise the consumption of non-renewable deposits on site	<ul style="list-style-type: none"> - Re-use of soil from redeveloped sites where possible - Increased provision for C&D Waste facilities 	<ul style="list-style-type: none"> - Excessive landfilling of quality soil. - No. of facilities for C&D Waste 		
	S4 – Implement aquifer protection plans				
	S5 – Minimise the amount of waste to landfill from site				
Geological	S6 - Conserve, protect and avoid loss of diversity and integrity of designated habitats, geological features, species or their sustaining resources in	<ul style="list-style-type: none"> - No loss of diversity and integrity of designated habitats, geological features, species or their sustaining resources in designated ecological sites. - designation of sites as GSI 	<ul style="list-style-type: none"> - % of habitats, geological features, species etc lost over the lifetime of the Plan through trending of annual/bi-annual surveys - No of areas designated as Geological Heritage Sites 		

	designated ecological sites.				
Water					
Aquatic Ecosystems	W1 – 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).	- To achieve a Q Rating of 4 as per the WFD 'good' quality status by 2015.	- Biotic quality rating of river waters at EPA monitoring locations	EPA	
Water Quality	W2 – 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.	- Improvement or at least no deterioration in surface water quality by 2015 - Improvement or at least no deterioration in ground water quality by 2015 - - Aquifer water quality to remain or improve during the lifetime of the Plan	- Changes in receiving water quality as identified during water quality monitoring for the WFD, SRBD & POMS conducted by CCC and the EPA - Changes in groundwater quality as identified in monitoring programmes conducted by CCC and the EPA under the WFD/ SRBMP - Groundwater quality monitoring in aquifer	CCC EPA	
SuDS	W3 – Implement appropriate sustainable drainage systems (SuDS) in any future development in the Shannon Area.	- New drainage systems to be compliant with SuDS - Increase the use of SuDS - Require the development of SuDS as part of permitted developments granted by CCC - Provision for Drainage systems to be compliant with SuDS - Provision of SuDS compliant drainage plans for proposed developments in plan area	- Provision of SuDS compliant drainage plans for proposed developments in plan area - SuDS usage - Provision of SuDS compliant drainage plans for proposed developments in study area - % new development with SuDS		
Water Pollution	W4 – Reduce the impact of polluting substances to all waters	- Updated data on surface water generation within the County - No. of Pollution Reduction plans in place - No deterioration in aquifer water quality	- Quantified surface water flows from proposed developments as part of planning process - Measured river levels - No. of Pollution Reduction plans in place		
	W5 - prevent pollution and contamination of ground water by adhering to aquifer protection plans.				
Drinking water	W6 – Maintain and improve the quality of drinking water supplies	- Drinking Water Quality - Improvement or at least no deterioration in surface water quality by 2015 - Improvement or at least no deterioration in groundwater quality as per the WFD 'good'	- Drinking water quality - Changes in receiving water quality as identified during water quality monitoring for the WFD, SRBD & POMS conducted by CCC and the EPA - Changes in groundwater quality as identified in	EPA CCC	

		quality status by 2015/SRBMPs - Implement the Water Supply Plan as per the Water Services National Investment Programme - Extent to which drinking water standards in public/private water supplies are met - No. of annual exceedences in drinking water quality standards - Upgrade of water supply network	monitoring programmes conducted by CCC and the EPA under the WFD/ SRBMPs - No./timescale of boil notices - No. of supplies upgraded		
	W7 – Reduce the impact of polluting substances to all waters				
Water Conservation	W8 - Promote sustainable water use based on a long-term protection of available water resources	- Decrease in the number of 'water shortage' notices issued - Implementation of water conservation measures in new build - Greater public Awareness of the benefits of Water conservation - Reduction in use of water by population - Adoption/Implementation of Water management plans - Upgrade of water network/ reduction in leakages	- Frequency of 'water shortage' notices - % new development with water conservation measures - Public awareness programme - Reduction in use of water by population - Increase in water recycling - % new development with water conservation measures - Calculation of Water usage - No. of upgrades to water network - Extent of water recycling	EPA CCC	
	W9 – Upgrade Infrastructure to meet future water supply needs				
Coastal Zone Management	W10 – Promote Integrated Coastal Zone Management	- Proactive Approach to ICZM - No negative impacts on receiving environment - Promote natural protective measures rather than engineering structures - New development not located in areas that will augment coastal erosion/flooding - All Activities that Require Consent (ARC)	- No./%/nature of developments in areas of risk - No./%/nature of incidences of flooding/erosion - Consultation and implementation SIFP		
Flood Risk	W11 - Reduce risk of flooding through avoidance of development in flood plains or in areas at risk of flooding	- Provide for Flood Risk Assessment at the Local Area Plan level to guide zoning (in accordance with FRA Vol III of CCDP - In accordance with OPW/DOEHLG Flood Risk Assessment, require all applications within designation Flood Risk zones A and B to undertake a flood risk assessment as part of	- Level/ Incidence of flooding - Strategic CFRAM Report and Mapping guidelines 2015 - No./% of development in identified flood risk areas	OPW	

		the planning application.			
Flood Management	W12 - Provide provision of flood relief through management of flood risk and living with floods rather than engineered flood solutions.	<ul style="list-style-type: none"> - Coordinated approach to flooding in the SIRBD - Develop strategies for the management of flood risk 	<ul style="list-style-type: none"> - Implementation of Strategic CFRAM Report - No. of localised strategies 		
Air & Climate					
Air Quality	C1 – Minimise all forms of air pollution and maintain/improve ambient air quality.	<ul style="list-style-type: none"> - Maintain/ improve ambient air quality through reduction of private vehicle usage - Increased use of public transport - Alternative modes of travel 	<ul style="list-style-type: none"> - Air quality indicators - % of people using public transport on a regular basis - Availability of alternative modes of transport 	CCC EPA Bus Eireann Iarnrod Eireann	
Greenhouse Gases	C2 – Minimise emissions of greenhouse gases and contribute to a reduction and avoidance of human-induced global climate change.	<ul style="list-style-type: none"> - Provide for increased use of public transport - Increase numbers of cycle lanes & pedestrian routes in the plan area - Establish smarter travel incentives - Increase no. of permissions for renewable energy projects - Compliance with Part L (Amendment) of the Building Regs. S.I. No. 259 of 2008 - Increase in no. of energy audits conducted on existing facilities & new homes 	<ul style="list-style-type: none"> - Use of public transport - Provision of cycle lanes and walking routes - Types and popularity of incentives - No. of permissions granted for renewable energy projects - Provision of new homes to meet Regs - No of energy audits conducted 	CCC SEAI LCEA	
Smarter Travel	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	<ul style="list-style-type: none"> - An increase in the percentage of the population travelling to work or school by public transport or non-mechanical means - Safe walking to Schools Initiatives - Increase in numbers of cycle lanes & pedestrian routes in the plan area - Establish points for charge for electric vehicles - Introduction of bike schemes/ car pooling 	<ul style="list-style-type: none"> - Percentage of population within the plan area travelling to work or school by public transport or non-mechanical means - No./usage of electric charge points in plan area - Use of public transport - Types/ take up of sustainable forms of transport incentives - Introduction of bike schemes/ car pooling 	CCC SEAI	
Material Assets – Transport					
Sustainable Transport	T1 – Maximise sustainable modes of transport and encourage	<ul style="list-style-type: none"> - Reduce the number of private vehicles on the road. - Increase use of public transport. 	<ul style="list-style-type: none"> - Number of private cars on road as a percentage of AADT. - Extent of walkways/ cycle paths throughout 	CCC Shannon Town Council	

	use of walkways/cycle paths as alternative routes to school, work, shops	- Increase in the % of the population travelling to work or school by public transport or non-mechanical means	plan area	NRA	
Road Safety	T2 - Provide for ease of movement for all road users and to promote development patterns that protect and enhance road safety	- An increase in the percentage of the population travelling to work or school by public transport or non-mechanical means - A decrease in the average distance travelled to work or school - Integrated traffic/pedestrian management plan for Shannon Town - Safe walking to School Initiatives - Increased use of public transport.	- Percentage of population within the plan area travelling to work or school by public transport or non-mechanical means - Average distance travelled to work or school - No./% of s - Extent of walkways/cycle paths throughout plan area		
Public Transport	T3 - Provide an upgraded/improved public transport network.	- Increased use of public transport - Upgrade of bus shelters - Improved/Upgraded public transport network	- % of people using public transport on a regular basis - Extent of upgrade to bus infrastructure - Extent of improvement/upgrade to public transport network		
Walkways/ Cyclepaths	T4 - Promote, encourage and implement a Cycle Strategy for Shannon in association with an accessible walking network	- Increased use of walkways/cycle paths for work, amenity and leisure - Increased provision/upgrade of existing cycle paths and walkways - Integration of walkways/cycle paths with enterprise zones	- %/ usage of cycle paths/walkways - No./% of s - Extent of walkways/cycle lanes upgraded/developed		
Material Assets - Waste					
Waste	WA1 - Implement the waste pyramid and encourage reuse/recycling of material wherever possible.	- Reduction in the quantities of waste sent to landfill - Increase in the quantities of waste sent for recycling - Increase in the number of bring banks provided for the plan area - Compliance with the Waste Management Plan - 85% of C&D waste recycled by 2013	- Compliance with Waste Management Plan - Quantity of household waste sent to landfill - Quantity of household waste sent for recycling - The number of bring banks provided for in the plan area.	CCC EPA	
Material Assets - Water Supply					
Drinking Water	WS1 - To ensure that drinking water supplies are both wholesome and clean and free of	- Drinking Water Quality - Improvement or at least no deterioration in surface water quality by 2015 - Improvement or at least no deterioration in	- Drinking water quality - Changes in receiving water quality as identified during water quality monitoring for the WFD, SRBD & POMS conducted by CCC and the EPA	CCC EPA	

	contamination.	groundwater quality as per the WFD 'good' quality status by 2015/SRBMPs - Extent to which drinking water standards in public/private water supplies are met - No. of annual exceedences in drinking water quality standards	- Changes in groundwater quality as identified in monitoring programmes conducted by CCC and the EPA under the WFD/ SRBMPs - No./timescale of boil notices		
Distribution	WS2 - Improve efficiency in distribution of potable water to the population.	- Implement the Water Supply Plan as per the Water Services National Investment Programme	- Implementation of the Water Supply Plan as per the Water Services National Investment Programme		
Sustainable water use	WS3 - To promote long-term protection of available water resources through sustainable water use.	-Water Conservation Measures			
Future Needs	WS4 - Upgrade infrastructure to meet future water supply needs	- Upgrade of water supply network - Implement the Water Supply Plan as per the Water Services National Investment Programme	- No. of supplies upgraded		
Material Assets – Wastewater Treatment					
Connection to public network	WW1 - To ensure that all zoned lands (existing and proposed) are connected to the public sewer network ensuring treatment of wastewater prior to discharge.	- New development should be served by a public wastewater treatment system or an approved on site wastewater treatment plant designed, constructed and managed in accordance with EPA Guidelines	- New development should be served by a public wastewater treatment system or an approved on site wastewater treatment plant designed, constructed and managed in accordance with EPA Guidelines	EPA CCC	
Plant Infrastructure	WW2 - Upgrade existing wastewater treatment plant infrastructure	- Provision and upgrade to provide adequate wastewater infrastructure based on existing and forecasted population demands - Full Compliance with EPA Discharge Licence and monitoring at Tradaree	- Number of new or upgraded wastewater treatment plants - Compliance with EPA	CCC EPA	
Dependence on proprietary facilities	WW3 - Reduce the dependency on individual proprietary wastewater treatment facilities.	- Timely testing of individual proprietary wastewater treatment facilities in line with EU/National Guidance. - Sustainable alternative individual proprietary wastewater treatment facilities - Measures to promote, encourage and incentivise a change from traditional WW treatment systems to alternative, sustainable systems.	- Timely testing of individual proprietary wastewater treatment facilities. - Types/Usage/% of population using sustainable methods of wastewater treatment - Study of alternative, sustainable treatment systems in use in plan area		
Material Assets – Renewable Energy					
Renewable	RE1 - Reduce waste of	- Increase in renewable energy developments	- No. of applications submitted for renewable	CCC	

Energy	energy, promote use of renewable energy sources and support energy conservation initiatives	<p>and R&D in the County</p> <ul style="list-style-type: none"> - Address the potential Shannon Plan Area can make to the overall County contributions to National targets on energy efficiency, and energy related CO₂ emissions as set out in policy documents. - Meet or exceed County contributions to national energy efficiency/conservation targets. - Provision and upgrade to provide adequate electricity infrastructure based on existing and forecasted demands - Increase in number of renewable energy projects in plan area - Upgrade/maintain existing electricity infrastructure to accommodate supply and demand in region 	<p>energy projects</p> <ul style="list-style-type: none"> - No. of renewable energy developments granted planning permission - Establishment of R&D projects - Assessment of contribution of Shannon to County renewable energy targets. - Development & maintenance of existing electricity infrastructure. 	LCEA MWRA	
Energy Conservation	RE2 - Promotion of energy conservation across all sectors including the development of low carbon commerce and buildings	<ul style="list-style-type: none"> - Compliance with Part L (Amendment) of the Building Regs S.I. No. 259 of 2008 - Increase in no. of energy audits conducted on existing facilities & new homes - Number of permitted development for wind farms, bio-energy developments - Increased use of Building Energy Rating (BER) - Development of energy storage facilities at appropriate locations throughout the plan area, in line with Wind Energy Strategy and Chapter 10 of CDP - Development of district heating infrastructure 	<ul style="list-style-type: none"> - Compliance with Part L (Amendment) of the Building Regs - No of energy audits conducted - % low carbon building built/redeveloped - study of BER rating buildings in plan area - extent of district heating/ energy storage facilities 		
Cultural Heritage					
Cultural Heritage	CH1 – Protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded and unrecorded monuments), architectural (Protected Structures, Architectural Conservation Areas, vernacular buildings,	<ul style="list-style-type: none"> - No development permitted during the lifetime of the Plan which will result in the loss/partial loss of protected structures or sites of archaeological importance - Ensure that all planning applications that might have an impact on heritage are referred to the DoAHG for comment and that their recommendations are adhered to. - Use of National Heritage Plan (2002) and any subsequent plan in setting archaeological policies and principles - Number of cultural heritage sites developed 	<ul style="list-style-type: none"> - No Development permitted during the lifetime of the Plan resulting in the loss or partial loss of protected structures or sites of archaeological status. - Development of cultural heritage areas for amenity resources - No. of developments on/at-protected sites & complexes - No. of developments occurring which result in full or partial loss to entries listed in the RMPs or protected by the Council including Zones of Archaeological Potential & the context of the 		

	materials and urban fabric) and manmade landscape features (e.g. field walls, footpaths, gate piers etc.).	for amenity purposes. - No developments on/at protected sites & complexes. - No developments occurring which result in full or partial loss to entries listed in the RMPs or protected by the Council including Zones of Archaeological Potential & the context of the above within the surrounding landscape where relevant - Make additions to the Record of Protected Structures and additional ACAs where appropriate.	above within the surrounding landscape where relevant - Number of additions to the Record of Protected Structures and the number of additional ACAs		
Urban Settlements	CH2 – Conserve historic fabric of urban and rural settlements.	- No permitted developments (in towns) that will impact significantly on the location landscape character. - Developments to take account of Recorded Monuments and Protected structures within an urban setting	- Number of permitted developments that impact significantly on the existing character. - Number of areas with a distinct character and quality urban environments and public realms - A masterplan for Shannon to enhance townscape, place-making and green infrastructure		
Restoration	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).	- No developments during the lifetime of the Plan which could result in damage to archaeological features - Review of the annual Excavations Bulletin for archaeological potential in study area. - Use of “Framework and Principles for the Protection of Archaeological Heritage” DoEHLG and the National Monuments Act amended (1930-2004)	- Number of developments which result in the loss or damage to archaeological features		
Landscape					
Natural Landscapes and Features	L1 – Conserve, protect and enhance valued natural landscapes and features including those of geological and aesthetic value.	- Ensure no significant disruption of historic/cultural landscape & features through objectives of Clare County Development Plan - Conduct an audit of designated geological sites of importance in plan area & take cognisance of proposed designated sites of geological importance	- No of developments permitted and their impacts on cultural/historic landscapes. - Audit of geological sites of importance in plan area	CCC. Heritage Council Failte Ireland GSI NPWS	
Designated Landscapes	L2 – Protect designated landscapes and scenic views, routes and landscape features of local value	- No development to be conspicuously located within sensitive landscapes, designated scenic landscapes, features or routes - No significant disruption of designated views from Scenic Route - No degradation of areas designated as Heritage Landscapes	- No/type of dev. - No. of developments located within Scenic Route - No degradation of areas designated as Heritage Landscape		
Cultural Landscapes	L3 – Conserve and protect cultural	- Ensure no significant disruption of historic/cultural landscape & features	- No of developments permitted and their impacts on cultural/historic landscapes		

	landscapes including archaeological and architectural.	including archaeological and architectural through objectives of Clare County Development Plan			
Visual Impacts	L4 - Minimise visual impacts through appropriate design, assessment and siting	<ul style="list-style-type: none"> - No significant visual impact - Ensure no significant disruption of designated scenic views and scenic routes and high landscape areas through objectives of County Development Plan 	<ul style="list-style-type: none"> - No. of developments located within a designated scenic view or route or high landscape area that disrupt views (based on the LCA) - Loss of vista/views - Loss of TPO Trees - Loss of amenity woodland 		
	L5 – Maintain and Enhance landscape quality within the plan area				

This monitoring table is designed to be flexible to take account of various stages of the Plan and developed to accommodate for specific environmental issues as they arise. In this regard, the schedule may change due to unforeseen circumstances. Cumulative/In-combination effects will be considered as part of the review process in the Clare County Development Plan 2017-2023 (as varied).

SHANNON TOWN AND
ENVIRONS LOCAL
AREA PLAN

2012
2018



Comhairle Contae an Chláir
Clare County Council

Clare County Council,
Áras Contae an Chláir,
New Road,
Ennis, Co. Clare

Tel: +353 (65) 682 1616
planoff@clarecoco.ie
www.clarecoco.ie

Amendment
No.1

Shannon Town and Environs LAP 2012-2018
Strategic Environmental Assessment -
Environmental Report
17th June 2019