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Appendix 1 Monitoring Proposals

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.

Under Section 18 of the Planning and Development Act 2000 (as amended), Clare County Council 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' to 'Community', 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. 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;
- 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;
 - o Integration of environmental considerations into the final Plan/Programme;
 - 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 (current stage);
 - o Monitoring: monitoring of environmental effects over the lifetime of the Plan/Programme.

The proposed amendment No 1 to the Shannon Town and Environs LAP 2012 – 2018 has been subject to Strategic Environmental Assessment, including screening, scoping, preparation of the Environmental Report, and consultation with the prescribed authorities and the public.

This SEA Statement is intended to document how environmental considerations have been integrated into the proposed amendment to the LAP, and how the submissions and observations received from the statutory consultees and others have been taken into account. The SEA Statement is also intended to outline the measures decided upon to monitor any significant effects of implementing the proposed amendment.

2 INTEGRATION OF ENVIRONMENTAL CONSIDERATIONS INTO THE AMENDMENT

2.1 Proposed Amendment No 1 to the 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 then 'parent' Clare County Development Plan 2011 – 2017, 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.

Under amendment No 1 to the Shannon Town and Environs LAP 2012 – 2018, 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. The amendment area measures approximately 1.25 hectares. 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."

2.2 Legislative Context

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).

Under the requirements of Article 8(14I) of the Planning and Development (SEA) Regulations 2004, as amended by the Planning and Development (SEA) (Amendment) Regulations 2011, following the making or amending of a Local Area Plan the planning authority is required to issue a statement containing information on the decision. The SEA Statement is required to summarise:

- (a) How environmental considerations have been integrated into the Plan.
- (b) How (i) the environmental report, (ii) submissions and observations made to the planning authority, and (iii) any transboundary consultations, have been taken into account during preparation or amendment of the Plan.
- (c) The reasons for choosing the plan or amendment, as adopted, in light of the other reasonable alternatives dealt with, and
- (d) The measures decided upon to monitor the significant environmental effects of implementation of the Plan or amended plan.

2.3 SEA Process and Integration of Environmental Considerations

2.3.1 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 was required.

2.3.2 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. An SEA Scoping Document for the proposed amendment was issued by Clare County Council 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 could 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, which provided guidance on the SEA of Local Authority Land Use Plans, including recommendations on suitable resources and available datasets. This scoping response informed the preparation of the Environmental Report with regard to the compilation of baseline information and the identification of key issues to be addressed.

2.3.3 Preparation of the Environmental Report

An SEA Environmental Report was prepared, which identified and assessed the potential environmental effects of implementing the proposed amendment to the Shannon Town and Environs LAP 2012 – 2018.

Preparation of the Environmental Report encompassed the use of environmental protection objectives or Strategic Environmental Objectives (SEOs) as measures against which the proposed amendment was 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 a Plan/Programme or amendment to same. As part of the SEA process, mitigation measures can then be identified to avoid, reduce or offset such impacts.

A range of SEOs was originally 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 utilised the same range of SEOs as used for the original Plan. However, these SEOs were also reviewed with reference to the current Clare County Development Plan 2017 – 2023 (as varied) and the relevant key issues identified during scoping, and updated where required for the assessment of the proposed amendment.

The Environmental Report presented mitigation measures where any potential significant environmental effects were identified, and the measures proposed to monitor the effects of implementation of the proposed amendment to the Plan.

2.3.4 Submissions and Observations

The proposed amendment No 1 to the Shannon Town and Environs LAP 2012 – 2018 was placed on public display from 5th April 2019 to 20th May 2019. Details of the proposed amendment were also circulated to the prescribed authorities in accordance with Section 20(3)(a)(i) of the Planning and Development Act 2000 (as amended). The proposed amendment was accompanied by the SEA Environmental Report, the Appropriate Assessment Natura Impact Report (see Section 2.4 below) and a Strategic Flood Risk Assessment.

A total of three submissions were received by Clare County Council in relation to the proposed amendment. Submissions were received from the Office of the Planning Regulator, the Environmental Protection Agency (EPA) and Transport Infrastructure Ireland (TII). A summary of the key comments received from each body is presented below.

2.3.4.1 Office of the Planning Regulator

The submission from the Office of the Planning Regulator noted the content of the proposed amendment and the intent giving rise to it, and had no specific comments or recommendations to make in relation to the proposed variation.

2.3.4.2 Environmental Protection Agency (EPA)

The submission of the EPA referred to the guidance document 'SEA of Local Authority Land Use Plans- EPA Recommendations and Resources' (EPA, 2019) and to the EPA scoping response made in March 2019, which referred to same. The submission also referred to the document 'State of the Environment Report- Irelands Environment 2016' (EPA, 2016) and advised that that in finalising the amendment to the Shannon Town and Environs LAP 2012 – 2018 and integrating the findings of the SEA into the amendment, the recommendations, key issues and challenges described in that report should be considered as relevant and appropriate.

The EPA submission advised that any future amendment(s) to the proposed amendment should be screened for likely significant effects, using the same method of assessment applied in the environmental assessment of the amendment.

2.3.4.3 Transport Infrastructure Ireland (TII)

Transport Infrastructure Ireland (TII) had no specific observations on the proposed amendment.

2.3.5 Preparation of the Chief Executive's Report

The Chief Executive's Report on the submissions received on the proposed amendment No 1 to the Shannon Town and Environs LAP 2012 – 2018 has been issued to the Elected Members of Clare County Council. The report summarises the three submissions, as referred to above, and puts forward the Chief Executive's response and recommendations in relation to same.

No changes to the proposed amendment are recommended by the Chief Executive arising from the submissions received.

2.4 Relationship with Appropriate Assessment

As part of the overall process of environmental assessment, an Appropriate Assessment (AA) has also been carried out in accordance with Article 6(3) of the Habitats Directive (92/43/EEC) and S.I. No. 477/2011 (the European Communities (Birds and Natural Habitats) Regulations 2011.)

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, Appropriate Assessment must be conducted 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 was prepared for the proposed amendment No 1 to the Shannon Town and Environs LAP 2012 – 2018. The screening exercise concluded that the potential existed for effects on the conservation objectives of European sites, and therefore Appropriate Assessment was carried out and a Natura Impact Report prepared. The NIR concluded that on the basis of objective scientific information, that the proposed Amendment to the Shannon Town and Environs LAP 2012 – 2018, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site.

3 CONSIDERATION 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 No 1 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 currently zoned as Open Space. Within the Land Use Zoning Matrix of the LAP, the use of Open Space lands for a cemetery is listed as 'not normally permitted'. Under the 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 zoned for Community use and it is therefore considered that this is the most appropriate zoning for the proposed extension area. The zoning of the proposed amendment area as either Commercial or Agricultural are not considered to be more appropriate alternatives.

No significant adverse environmental effects were 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 the reduction of green spaces available for amenity or as part of green infrastructure networks; however, within the context of the overall Plan area, and the remaining total area that is zoned as Open Space, it is not considered that the proposed amendment will give rise to any significant negative effects on the environment. Any works proposed within the extension area as a result of the proposed amendment will remain subject to the statutory planning and environmental framework and relevant policies and objectives of the current LAP and Clare County Development Plan 2017 – 2023 (as varied).

No further environmental issues were identified during the SEA of the proposed amendment, including scoping, preparation of the Environmental Report, or during the consultation and evaluation of submissions and observations received, which gave rise to the identification of any other reasonable alternatives.

4 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 No 1 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 targets and indicators against which the current Shannon Town and Environs LAP 2012 – 2018 is monitored, and against which the proposed amendment No 1 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.

Appendix 1

Monitoring Proposals

Table 9.1 -Schedule of Monitoring

Strategic En	vironmental Objective	Target	Indicator	Responsible Authority	Timeframe
Population Hu	ıman 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	

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		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 (nondesignated sites) within the Shannon Plan area.	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	- % 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	No loss of protected habitats & species during the lifetime of the Plan. No compromise in the status of the Natura 2000 network	- 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.	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.	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	- Sites to be selected as NHA or CGS designation	- 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.	- 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	- 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				

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Invasive Species	B7 - Protect habitats (terrestrial and aquatic) from invasive species	Prevent no new invasive species control/manage new/existing invasive species	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	- % 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.	- 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	- 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.	- 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	- Incidents of soil contamination - No of sites identified & remediated.		
Non- renewable deposits	 S3 - Minimise the consumption of non-renewable deposits on site S4 - Implement aquifer 	Re-use of soil from redeveloped sites where possible Increased provision for C&D Waste facilities	- Excessive landfilling of quality soil No. of facilities for C&D Waste		
	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	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	- % 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		

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	designated ecological				
Water	sites.				
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	

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		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	Chapter Wille	Nonicomig
	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	

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Flood Management	W12 - Provide provision of flood relief through management of flood risk and living with floods rather than engineered flood solutions.	the planning application. - Coordinated approach to flooding in the SIRBD - Develop strategies for the management of flood risk	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.	- Maintain/ improve ambient air quality through reduction of private vehicle usage - Increased use of public transport - Alternative modes of travel	 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.	- 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	- 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	- 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	- 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	Reduce the number of private vehicles on the road. Increase use of public transport.	Number of private cars on road as a percentage of AADT. Extent of walkways/ cycle paths throughout	CCC Shannon Town Council

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	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					l e
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	

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	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	Chapter Wille	Homeomy
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		
	- Wastewater Treatment			l == .	
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		
	– Renewable Energy				
Renewable	RE1 - Reduce waste of	- Increase in renewable energy developments	- No. of applications submitted for renewable	CCC	

			SEA for the Shannon Town & Env		e – Monitoring
Energy Energy Conservation	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	and R&D in the County - Address the potential Shannon Plan Area can make to the overall County contributions to National targets on energy efficiency, and energy related CO ₂ 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 - 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	energy projects - 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. - 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	LCEA MWRA	e – Monitoring
		- 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			
Cultural Heritag	e				
Cultural Heritage	CH1 – Protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded and unrecorded	- 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	 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 & 		
	monuments), architectural (Protected Structures, Architectural Conservation Areas, vernacular buildings,	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	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		

			SLA for the Shannon Town & Life	Chapter Nine – Monit	
	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	Shapes Amo	<u></u>
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		

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				Chapter Mille	- Monitoring
	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	- 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	- 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).

