

Variation
No.1



Clare County Development Plan 2017–2023

Variation No. 1

11th March 2019

To give effect to the Government Policy Statement on the Development of Data Centres in Ireland by identifying in a plan led manner the preferred location of a Data Centre in County Clare.

Strategic Environmental Assessment Non-Technical Summary



CONTENTS

1 Non Technical Summary	2
1.1 Introduction	2
1.2 Background and Context	2
2 Contents of SEA Environmental Report	1
2.1 Approach to the SEA.	1
2.2 Relationship to other relevant plans and programmes.	1
2.2 Current Environmental Baseline	2
2.2.1 Biodiversity, Flora and Fauna.....	2
2.2.2 Population and Human Health	2
2.2.3 Water Resources including Flood Risk.....	3
2.2.4 Soil and Geology	3
2.2.5 Cultural heritage	3
2.2.6 Landscape	4
2.2.7 Air Quality and Climate	4
2.2.8 Climate Change	4
2.2.9 Material Assets	5
2.2.10 WASTEWATER TREATMENT:	5
2.2.11 Environmental Sensitivities of the Plan Area.....	6
3 STRATEGIC ENVIRONMENTAL OBJECTIVES	8
3.1 INTRODUCTION	8
4 CONSIDERATION OF ALTERNATIVES	11
4.1 INTRODUCTION	11
4.2 ALTERNATIVES CONSIDERED.....	11
4.3 PREFERRED SITE, CONSIDERATION OF APPROPRIATE LANDUSE ZONING IN THE CLARE CDP 2017-2023	12
4.4 PREFERRED ALTERNATIVE	13
5 Likely Significant Environmental Effects of the PROPOSED Variation	15
6 Mitigation measures.....	20
7 Monitoring Measures	21

1 NON TECHNICAL SUMMARY

1.1 INTRODUCTION

This is the Non- Technical Summary of the Environmental Report for the Strategic Environmental Assessment (SEA) of the proposed Variation No.1 to the Clare County Development Plan 2017-2023. The purpose of the SEA is to formally and systematically assess the likely significant effects of implementing a plan or programme, in this instance the Variation No.1. to the County Development Plan 2017-2023.

The Environmental Report identifies the significant environmental effects of the plan on the environment and where significant effects are identified, recommends appropriate measures to avoid or reduce such effects. As the proposed Variation is being prepared the SEA identifies and influences proposals, particularly through avoiding areas of greatest environmental sensitivity. This Environmental Report forms part of the SEA process, documents the SEA process and is the key consultation document in the SEA process as it facilitates interested parties to comment on the environmental issues associated with the proposed Variation itself. This Environmental Report has been prepared under the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I 436 of 2004), as amended by S.I.201/2011.

1.2 BACKGROUND AND CONTEXT

This proposed Variation has been prepared in response to a number of factors:

- Project Ireland 2040 - *National Planning Framework* which sets out the strategic importance of data centres in Ireland's Enterprise Strategy
- The Government Statement on '*The Role of Data Centres in Ireland*' which recommends a plan-led approach to providing for data centres.
- The request in June 2017 by the Industrial Development Authority (IDA) to all local authorities for their strategic input to an IDA research project regarding land/site identification in respect of land/ facilities suitable for data centre type development.
- The seeking of Expressions of Interest by Clare County Council looking for sites for potential data centres.

The lands at Toureen form the basis of this proposed Variation and as the existing land is partly zoned as Industrial and the remainder is located within the Open Countryside the need to consider a Variation to the Clare CDP 2017-2023 was identified.

The proposed variation provides for the following changes to:

(1) Volume 1 - Written Statement of the Clare County Development Plan 2017-2023:

- To incorporate the use and development of data centres and power generating infrastructure into the Enterprise zoning definition, the following additional text is proposed to be added into the zoning objective for Enterprise as set out in Chapter 19,

“data centres,” and “power generating infrastructure as well “.

(2) Volume 3(a) Ennis Municipal District – Written Statement and Settlement Plans of the Clare County Development Plan 2017-2023:

- Amend the zoning objective for the lands currently identified in the Ennis Settlement Plan as Industrial IND1 to Enterprise ENT3 at Toureen and extend the Enterprise ENT3 zoning objective to 45ha, onto lands currently identified as being in the open countryside;
- Zone an area of approximately 10 hectares as Buffer Space at Toureen;
- Replace text in Section 1.5.2 associated with lands currently identified in the Ennis Settlement Plan as Industrial Zoning (IND1) with text associated with the extended site identified as Enterprise (ENT3) to read as follows:

Project Ireland 2040 - National Planning Framework sets out the strategic importance of data centres in Irelands' Enterprise Strategy. Having regard to the Government Statement on 'The Role of Data Centres in Ireland', which in particular recommends having a plan-led approach to data centres, this 55ha site has been identified and zoned as Enterprise (45ha) and for Buffer Space (10ha) with a specific use for a Data Centre Campus due to its proximity to the electricity sub-station, its proximity to the M18 motorway and adjoining regional road network, the location of the site relative to the Gas Pipeline, the availability of Dark Fibre and the proximity of the site to Shannon International Airport and Ennis Town.

This site is zoned to accommodate a Data Centre campus which consists of one or more structures, used primarily for the storage, management and dissemination of data and the provision of associated power electricity connections and energy generating infrastructure.

- Replace text currently in Section 2.13.5 relating to lands at Toureen with new additional text to read as follows:

Project Ireland 2040 - National Planning Framework sets out the strategic importance of data centres in Irelands' Enterprise Strategy. Having regard to the Government Statement on 'The Role of Data Centres in Ireland', which in particular recommends having a plan-led approach to data centres, this 55ha site has been identified and zoned

as Enterprise (45ha) and Buffer (10ha) with a specific use for a Data Centre Campus due to; its proximity to the electricity sub-station; its proximity to the M18 motorway and adjoining regional road network; the location of the site relative to the Gas Pipeline; the availability of Dark Fibre and the proximity of the site to Shannon International Airport and to Ennis Town.

This site is zoned to accommodate a Data Centre campus which consists of one or more structures, used primarily for the storage, management and dissemination of data and the provision of associated power electricity connections and energy generating infrastructure.

Development proposals for this site shall include the following;

- A Traffic Management Plan for the construction and operation phase of development.*
- Any proposed development shall adopt sustainable practice in terms of building design, materials, construction and operation to maximise energy efficiency and conservation.*
- A Hydrological Assessment to determine the effects of the development on groundwaters and groundwater quality.*
- Located at the southern boundary of the site is a mesotrophic lake, which will require protection through the provision of a buffer incorporating the dense clump of trees to the west of the lake and shall be included in an overall Landscape Management Plan for the site.*
- A Construction and Environmental Management Plan shall be submitted as part of development proposals on site. This shall include a Flood Risk Assessment, a Surface Water Management Plan for the construction and operation phase of the development, a Pollution Prevention Plan and shall incorporate principles of Sustainable Urban Drainage Systems. During the construction phase of development on site, where applicable all relevant best practice guidelines shall be adhered to.*
- An Air Quality Impact Assessment with reference to potential impacts on European Sites and the surrounding area within the zone of influence of the proposed development shall be submitted, which shall inform an Appropriate Assessment Screening report and/or Natura Impact Report.*
- The hedgerows and scrub area on this site provide a potential foraging and commuting area for wildlife including Lesser Horseshoe bats. Future development proposals must be informed by a series of bat surveys to record the known usage of the site by in particular Lesser Horseshoe bats and ensure that there is no net loss of supporting habitat. The surveys must include a full light spill modelling study. Any habitat loss must be offset by additional landscape planting to ensure connectivity across the landscape.*
- Impacts of development on the site on conservation interest bird species of surrounding SPAs and breeding birds should be avoided, through protection and retention of breeding*

bird habitat in accordance with the Wildlife Acts. Development proposals for the site shall be accompanied by bird surveys (to include a winter bird survey) to assess the use of the site by bird species and where disturbance and/or displacement are predicted appropriate mitigation measures shall be identified. Hedgerow and treeline pruning or removal shall be conducted outside the breeding bird season (March 01st through August 31st).

- An Ecological Impact Assessment (designed by an appropriately qualified landscape architect and ecologist) and a Habitat Survey shall form part of development proposals for the site.

- A Landscape and Biodiversity Management Plan shall be submitted to provide landscape, visual and environmental screening and enhancement measures through planting and design.

- An Invasive Species Survey and Management Plan (if required) shall accompany development proposals for the site.

- Development proposals shall also include an Otter Use Survey of the site, and where disturbance and/or displacement are predicted appropriate mitigation measures shall be identified.

- A buffer will be required to be provided with regard to the location of a National Monument (CL-034-007) on site.

- Adequate wastewater treatment and disposal measures shall accompany development proposals for this site to ensure that there is no impact to water quality in the area.

This proposed change will form a Variation to the existing Clare CDP 2017-2023 (CDP). This plan came into effect in January 2017 and established the framework for development over a six year period for the County. The CDP was subject to Strategic Environmental Assessment, Appropriate Assessment and Strategic Flood Risk Assessment. Within the hierarchy of land use plans, the proposed Variation should be compliant with the policies and objectives of the CDP, as well as with national and regional plans and guidelines.

Figure 1.1 presents the proposed Variation Lands at Toureen in relation to County Clare and **Figure 1.2** presents an aerial photograph of the same lands.

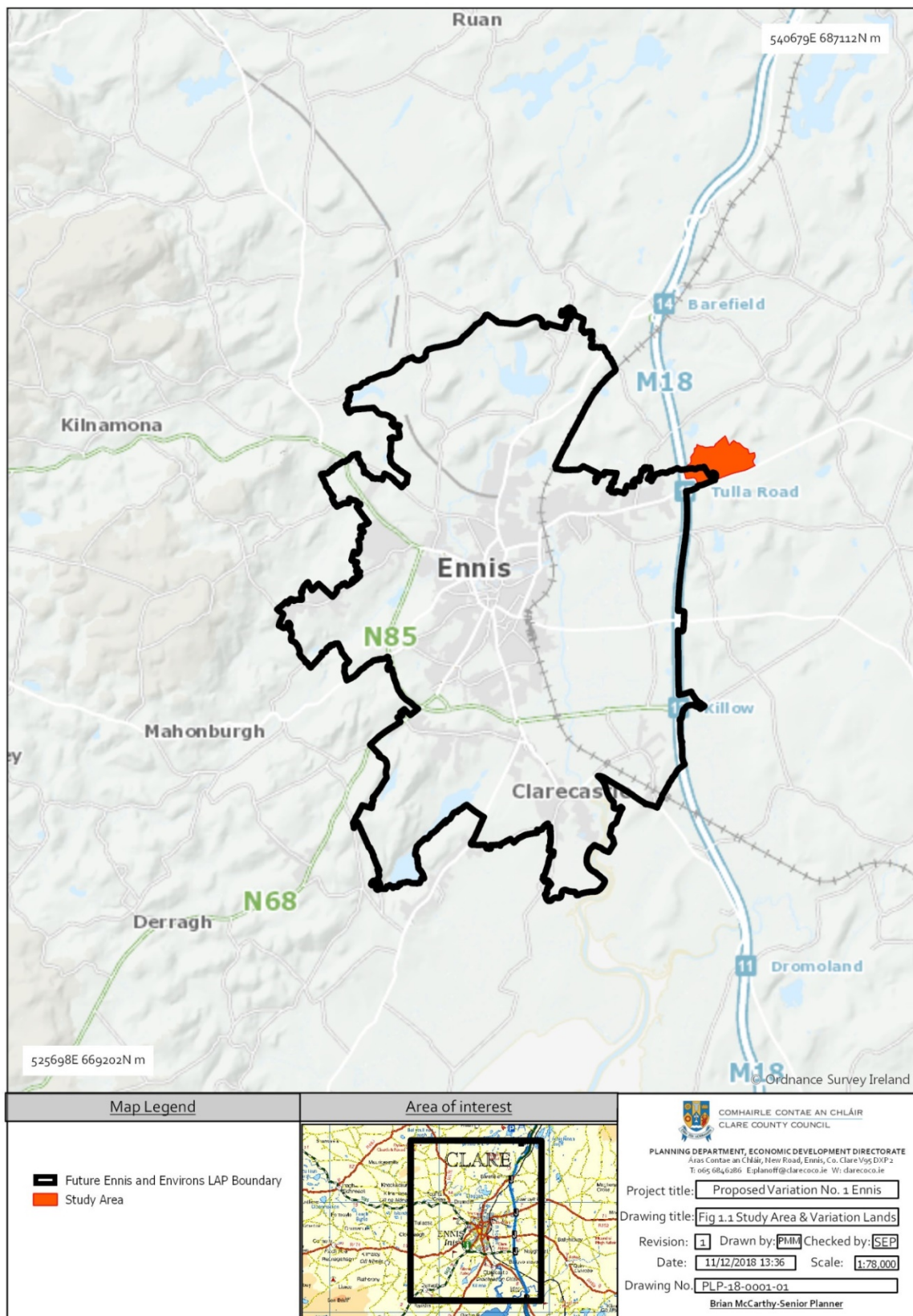


FIGURE 1.1 STUDY AREA AND VARIATION LANDS

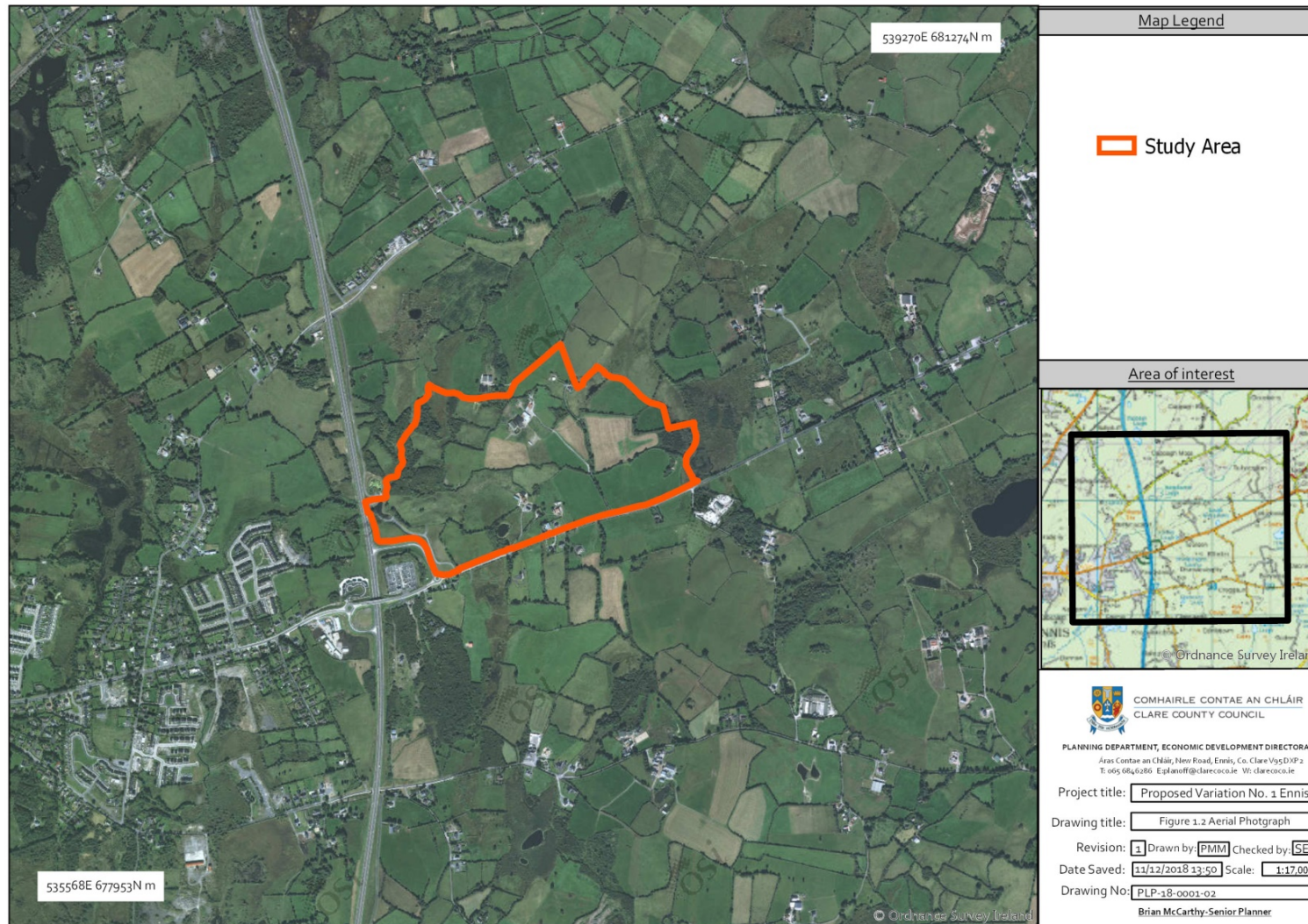


FIGURE 1.2 AERIAL PHOTOGRAPH OF VARIATION LANDS

2 CONTENTS OF SEA ENVIRONMENTAL REPORT

2.1 APPROACH TO THE SEA.

The SEA has been carried out alongside the proposed Variation preparation. Table 1 below sets out the stages in the SEA process and how these relate to the plan preparation so far.

Table 1 Stages in the SEA and Plan preparation process

Stage of SEA	Plan
Stage 1 Screening	Screening is the first stage of SEA to determine if the plan requires full SEA. A Screening report was prepared and it was determined, given the scale of the lands proposed and proposed change in landuses that full SEA was required. This was also supported by the screening for appropriate assessment that determined full Appropriate Assessment was required.
Stage 2 Scoping	The purpose of this stage is to work out what environmental topics and issues should be included in the SEA. The Scoping report was issued to statutory bodies including the Environmental Protection Agency and National Parks and Wildlife Service to discuss the potential environmental issues, baseline information, and approach to the SEA.
Stage3 Environmental Report-Current Stage	<i>This is the current stage of the SEA and the draft Variation. The Environmental Report tells the story of the plan and how environmental considerations have been addressed and included during the draft plan preparation process.</i> <i>This report is the main consultation document of the SEA process and hence is on display alongside the plan along with supporting reports.</i> <i>Following the public display period there may be changes to the plan and the SEA will also assess these and update the Environmental Report as required.</i>
Stage 4 SEA Statement	This stage is the final output of the SEA process and tells the story of the SEA process. It is prepared once the plan is finalised and adopted.

2.2 RELATIONSHIP TO OTHER RELEVANT PLANS AND PROGRAMMES.

Under the SEA Directive, the relationship between the proposed Variation and other relevant plans and programmes must be taken into account. A review of the relevant plans and programmes can be found in Annex B of the SEA ER and a list of same is presented in Chapter 3 of the SEA ER.

The preparation of the proposed Variation must be considered within the context of a hierarchy of policies, plans and strategies which include international, national, regional and local level policy documents. These documents set the policy framework within which the proposed Variation will operate.

The proposed Variation has been prepared having regard to the environmental protection objectives contained within the Clare County Development Plan 2017-2023. In addition, the plan has been designed and developed with the aim of sustainable development so during the plan preparation process areas of particular environmental sensitivity have been avoided where possible. The proposed Variation also contains a number of provisions and environmental protection and enhancement measures that will also apply during implementation.

2.2 CURRENT ENVIRONMENTAL BASELINE.

Baseline information was gathered during the preparation of the proposed Variation. An overview of the key environmental baseline is presented below whilst Chapter 5 of the SEA ER provides greater detail and figures for this information.

2.2.1 BIODIVERSITY, FLORA AND FAUNA

The closest European Site (Special Areas of Conservation or Special Protection Areas) to the proposed rezoned lands is the Lower River Shannon SAC, located some 1.49km south west as the crow flies. Other designated sites include Ballyallia lake SAC and Ballyallia Lough SPA some 2km northwest. Toureen Lough, located within the lands at Toureen may be used by the qualifying bird species for Ballyallia Lough.

The subject lands are largely covered in agricultural grassland, enclosed in hedgerows and treelines. There are extensive areas of hazel scrub and the Spencilhill Stream (also named Ballymacahill Stream)

2.2.2 POPULATION AND HUMAN HEALTH

This section provides information on the current population changes in the proposed Variation area and adjacent DEDs between 2011 and 2016 Census. Impacts can arise on people's health and quality of life from a range of environmental factors, often through a combination of environmental impacts such as land-use, water quality, air quality, noise and transport patterns

Table 2 below provides an overview of key population data for the County, as well as the Electoral Districts of relevance to the proposed Variation Lands at Toureen.

TABLE 2 KEY POPULATION DATA

	Census Population 2011	Census Population 2016	Percentage change in population 2011 -2016	HP Deprivation Index 2016 ¹
County Clare	117,196	118,817	0.02	-0.22 Marginally below average
Ennis Rural	17,359	17,709	0.02	-0.22 Marginally

¹ HP deprivation index, The Pobal HP Deprivation index is Ireland's most widely used social gradient metric, which scores each small area (50 – 200 households) in terms of affluence or disadvantage. The index uses information from Ireland's census, such as employment, age profile and educational attainment, to calculate this score. The index is used by various state agencies and government departments to target resources towards disadvantaged areas

	Census Population 2011	Census Population 2016	Percentage change in population 2011 -2016	HP Deprivation Index 2016 ¹
Electoral District (west of Variation lands)				below average
Spancilhill Electoral District (include Variation Lands at Toureen)	694	688	-0.01	-0.22 Marginally below average
Doora Electoral District (south of Variation lands)	1,873	1,986	0.07	-0.22 Marginally below average

2.2.3 WATER RESOURCES INCLUDING FLOOD RISK

Water resources and their quality have a clear interaction and impacts with other environmental parameters, therefore its protection and enhancement is of particular importance. A catchment is an area where water is collected by the natural landscape and flows from source through river, lakes and groundwater to the sea.

Toureen Lough is located at the southern end of the site and is a natural waterbody possibly spring fed. It has a high ecological value due to the surrounding buffer of wet grassland some of which may be alkaline fen and the dense hedgerow and hazel scrub to the west. In the context of the proposed Variation lands at Toureen, a tributary of the River Fergus, called Spancilhill (Ballymacahill) (code 010) flows southwest just north of the lands, and is culverted under the M18 prior to joining the River Fergus (code 070) at Ennis town. Both these rivers are classified overall as of poor quality and drain to the transitional waters at Clarecastle, where the waters are classified as being of moderate quality status.

A Site Specific Strategic Flood Risk Assessment² has been carried out as part of the Variation Process and areas within the site have been identified as Flood Zone A and Flood Zone B. These have been mapped and have informed the Variation process.

2.2.4 SOIL AND GEOLOGY

The lands at Toureen are situated over limestone that stretch from northern Clare, through the centre of the county to the southern centre and extending into east Clare.

The proposed Variation land comprises the Burren series, described as fine loamy soils over limestone bedrock. Much of the surrounding soils comprise the Elton series, again described as fine loamy soils over limestone bedrock.

2.2.5 CULTURAL HERITAGE

A review of the historic environment viewer for the area indicates only one recorded archaeological feature, a ringfort or cashel located in the eastern part of the proposed Variation site in the townland of Cahernalough (reference: CL034-007). Ennis is the closest

² JBA Consulting 2018

such ACA to the proposed Variation lands at Toureen. No Protected Structures are located within the Variation lands

2.2.6 LANDSCAPE

The proposed Variation lands are located within the Landscape Character Area 13 Ennis Drumlin Farmlands and the key characteristics are as follows:

- Settlement of Ennis is the focal point of the area where both historical and modern development is apparent.
- Ennis situated within drumlin farmland, drumlins oriented northeast to southwest punctuated by small loughs.
- Area can be disorientating due to many small winding roads and limited views.
- Communication centre for the region with Ennis as county town, with Fergus River running through the town.

The Clare CDP 2017-2023 identifies three Living Landscapes of which the central part of the County comprises Working Landscapes which include the proposed Variation lands, and is defined as follows:

“Working landscapes are those areas within Settled Landscapes that contain pockets of concentrated development or a unique natural resource. The central part of the County including the proposed Variation site, lies within the Western Corridor (Ennis to Limerick) Working Landscape. This corridor has the highest concentration of population and jobs and the strongest transport links and connectivity, which includes the County/Hub town of Ennis”.

2.2.7 AIR QUALITY AND CLIMATE

Air quality is dependent on a number of factors including the source of potential pollutants and weather conditions. The Air Framework Directive (96/62/EC) requires member states to divide countries into zones for the assessment and management of air quality. Ireland is divided into four zones which include:

- Zone A – Dublin Corporation
- Zone B – Cork Conurbation
- Zone C – Other Cities and large towns; and
- Zone D – Rural Ireland.

The majority of County Clare falls within Zone D with the exception of Ennis Town and surrounding urban area which falls under Zone C. Transport and industries are the main influences on air quality in County Clare.. The Environmental Protection Agency (EPA) manages the ambient Air Quality Network and there is a monitoring station located in Ennis at the Local Authority building at Waterpark House. The air quality in the Rural West Region and County Clare is “good” with daily up to date information available for download from <http://www.epa.ie/air/quality/#.VgAeTlc4ygl>

2.2.8 CLIMATE CHANGE

Climate change is defined by the Intergovernmental Panel on Climate Change (IPCC) as ‘.... any change in climate over time, whether due to natural variability or as a result of human activity’. Climate change and the effects associated with it present a significant challenge. It is acknowledged that global warming is contributing to climate change and that global

warming is associated with human activity. Resilience to climate change has been integrated into the County Development Plan through the appropriate use of mitigation and adaptation measures, and the location, nature and extent of zonings.

Ireland's first statutory National Adaptation Framework (NAF) was published in January 2018. The NAF sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of any positive impacts. The NAF was developed under the Climate Action and Low Carbon Development Act 2015.

2.2.9 MATERIAL ASSETS

Material assets are defined as the critical infrastructure essential for the functioning of society such as water supply, wastewater treatment, transportation etc. An overview of this is provided below.

Access to an efficient transport network contributes to opportunities for all sectors of the population to access services, facilities and social networks that are necessary to meet daily needs. Ease of accessibility enhances quality of life, promotes social inclusion, presents opportunities and promotes human health through expansion of cycle and walking infrastructure. The road network is made up of motorway, national primary roads and national secondary roads, regional and local roads. Car is the dominant mode of transport due to the large rural area and dispersed population. Existing main roads of relevance to the proposed Variation are the M18 motorway which by-passes Ennis, connects the town to the national motorway network and two National Primary Routes, the N18 Galway – Limerick and the N19 which starts at Shannon Airport and leads on to the N18. The proposed Variation lands at Toureen are accessed via Junction 13 of this motorway and onto the Regional road R352 which forms the southern boundary of these lands.

The rail services within the County consist of a branch off the Limerick line which serves Ennis. The Western Rail Corridor has been opened recently and it involved upgrading 36 miles of track and associated infrastructure, including provision of five stations. Ennis Bus and rail station is situated within walking distance of Ennis town centre

County Clare falls under the Southern Region Waste Management Plan area for which the management plan was published in 2015. There are a number of waste recycling facilities including recycling centres and transfer stations. The Central Waste Management facility is situated at Inagh and there is a recycling centre in Ennis.

Provision and management of water services (water supply and wastewater but excluding storm/surface water other than where sewage has been combined with surface water) was transferred to Irish Water in 2014. Irish Water has completed the water services infrastructure at national level and identified priority projects for inclusion in the Capital Investment Plan (draft). Irish Water is also responsible for the Ennis Water supply.

2.2.10 WASTEWATER TREATMENT:

The Urban Wastewater Treatment Directive (91/271/EEC, amended by Directive 98/15/EEC) aims to protect the environment from the adverse effects of wastewater discharges by ensuring that wastewater is appropriately treated before it is discharged to the environment. Such treatment is essential in order to meet the requirements of the

Water Framework Directive. The lands are Toureen are not served by any wastewater treatment.

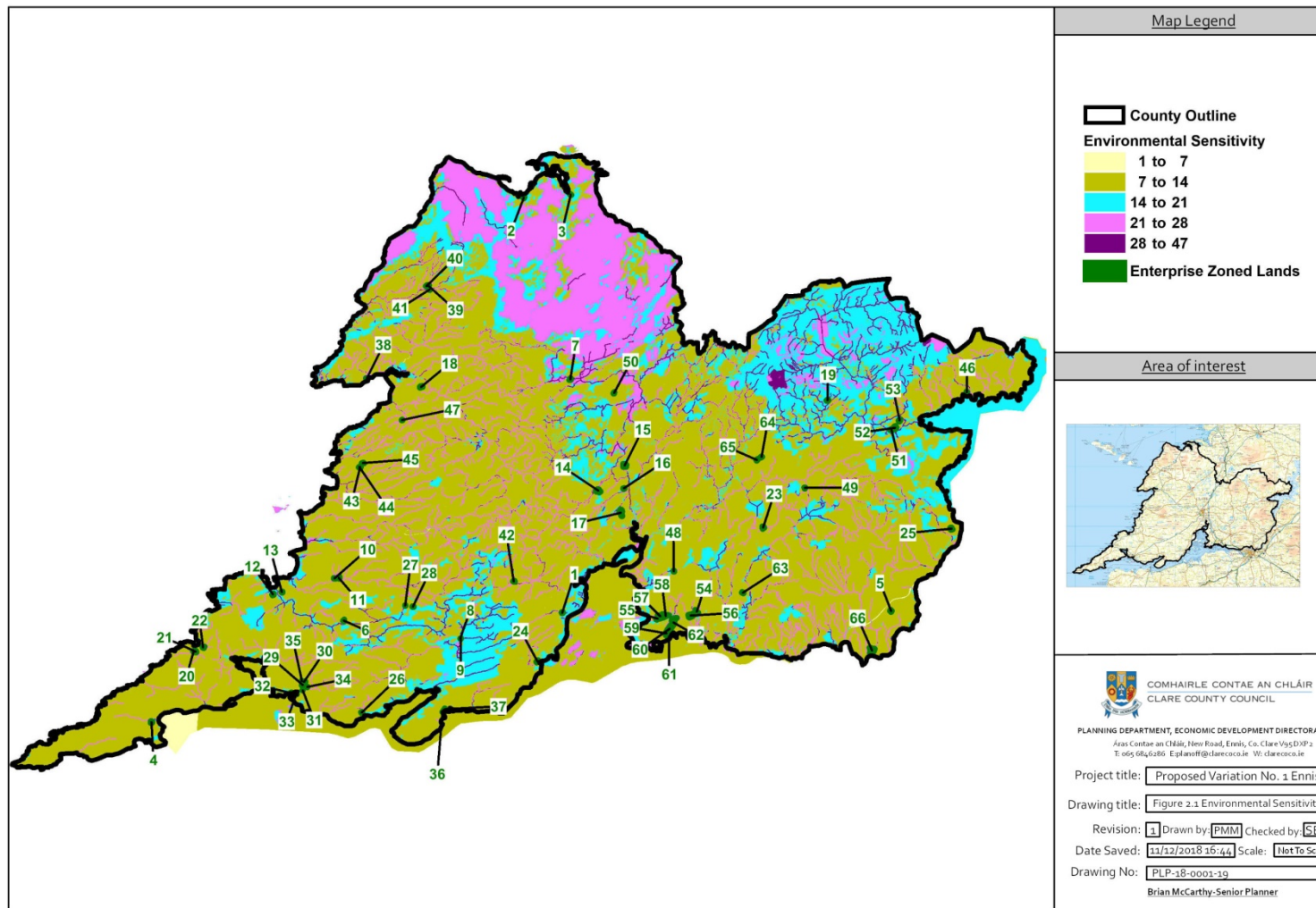
Article 4 of Directive 2009/28/EC on renewable energy requires each Member State to adopt a National Renewable Energy Action Plan (NREAP). Ireland's NREAP sets out our national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020. The plan demonstrates how the Member State will meet its overall national target established under the Directive. The National Energy Efficiency Action Plan (NEEAP) outlines how Ireland will achieve 20% energy efficiency savings, calculated on the basis of the average energy demand from 2001 to 2005. Central to this are the policies and measures identified by government to enable Ireland to achieve these targets.

2.2.11 ENVIRONMENTAL SENSITIVITIES OF THE PLAN AREA

The baseline information gathering has allowed an evaluation of the environmental sensitivities that exist within the Plan area. By mapping key environmental layers (GIS) to produce an environmental sensitivities map, it provides a visual impression which can assist in identifying which areas within the Plan area experience the highest concentration of environmental sensitivities and consequently the areas potentially most vulnerable to environmental impacts from development. It also facilitates an assessment of the inter-relationships between the different key environmental parameters.

The environmental sensitivities map (**Figure 2.1**) shows the level of overlap of environmental sensitivities and the range of physical environmental factors that require consideration in relation to the proposed Variation at county level for the lands zoned for Enterprise. The SEA ER of the Clare CDP 2017-2023 provides further detail on how the environmental sensitivity mapping was prepared.

FIGURE 2.1 ENVIRONMENTAL SENSITIVITY MAP



3 STRATEGIC ENVIRONMENTAL OBJECTIVES

3.1 INTRODUCTION

The purpose of the SEA Objectives is to ensure that the assessment process is transparent and robust and that the proposed Variation considers and addresses potential environmental effects. SEA Objectives have been set for each of the ten environmental topics identified at the Scoping Stage of the SEA process. The Table below presents these objectives used to assess the proposed Variation in terms of its sustainability.

The SEOs formulated for this SEA for the Variation to the Clare CDP area set out in **Table 3** below.

TABLE 3 STRATEGIC ENVIRONMENTAL OBJECTIVES

Parameter	Strategic Environmental Objective
Population (inc. Human Health and Quality of Life)	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 incompatible land uses/developments.
	P3 - Provision of green spaces for amenity and recreational uses.
Biodiversity, Flora and Fauna	B1 – Protect, conserve, enhance where possible and avoid loss of diversity and integrity of the broad range of habitats, species and wildlife corridors.
	B2 – To achieve the conservation objectives of European Sites (SACs and SPAs) and other sites of nature conservation.
	B3 - Conserve and protect other sites of nature conservation including NHAs, pNHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries as well as protected species outside these areas as covered by the Wildlife Act.
	B4 - Meet the requirements of the Water Framework Directive and the Shannon River Basin Management Plan/National River Basin Management Plan
	B5 – To minimise and, where possible, eliminate threats to bio-diversity including invasive species.
	B6 - Promote green infrastructure networks, including riparian zones and wildlife corridors.
Soil & Geology	S1 – To maximise the sustainable re-use of the existing built environment, derelict, disused and infill sites (brownfield sites), rather than greenfield sites.
	S2 – Minimise the excavation and movement of soils within site works
	S3 – Minimise the consumption of non-renewable deposits on site.
	S4 - Minimise the amount of waste to landfill from site.

Parameter	Strategic Environmental Objective
	S5 - 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 water and groundwater (including estuarine) to status objectives as set out in the Water Framework Directive (WFD), the Shannon River Basin Management Plan and POMS.
	W3 – Implement appropriate sustainable drainage systems (SuDS) in the County.
	W4 – Reduce the impact of polluting substances to all waters and prevent pollution and contamination of ground water by adhering to aquifer protection plans and to maintain and improve the quality of drinking water supplies.
	W5 - Promote sustainable water use and water conservation in the plan area and to maintain and improve the quality of drinking water supplies.
	W6 –Protect flood plains and areas of flood risk from development through avoidance, mitigation and adaptation measures.
	W7 – To 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.
Air/Noise/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.
	C3 - Reduce car dependency within the plan area by way of an integrated approach to sustainable urban transport (SUMP).
Material Assets	
Transport	T1 – Maximise sustainable modes of transport and encourage use of walkways/cycle paths as alternative routes to school, work, and shops.
	T2 - Provide for ease of movement for all road users and to promote development patterns that protect and enhance road safety.
Waste	WA1 – Implement the waste pyramid and encourage reuse/recycling of material wherever possible.
Water Supply	WS1 - To ensure adequate and clean drinking water supplies.
	WS2 - Improve efficiency in distribution of potable water to the population through pipe rehabilitation and to promote water conservation and sustainable water usage for long-term protection

Parameter	Strategic Environmental Objective
	of available water resources.
Waste Water	WW1 - To ensure that all zoned lands (existing and proposed) are connected to the public sewer network ensuring treatment of wastewater which meet EU requirements prior to discharge.
	WW2 - Reduce the dependency on individual proprietary wastewater treatment facilities and ensure the highest standards possible in existing and future wastewater treatment facilities.
Renewable Energy	RE1 - Reduce waste of energy, promote use of renewable energy sources and support energy conservation initiatives across all sectors including the development of low carbon business practices 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 – To protect, conserve and enhance local folklore, traditions and place names within the Plan area.
	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 Ensure no significant disruption of historic/cultural landscapes and features through objectives of the County Development Plan.
	L 2 No significant visual impact from development. Ensure no significant disruption of high landscape values.

4 CONSIDERATION OF ALTERNATIVES

4.1 INTRODUCTION

One of the critical roles of the SEA is to facilitate an evaluation of the likely environmental consequences of a range of alternative development scenarios. Alternatives must:

- Take into account the geographical scope, hierarchy and objectives of the plan –be realistic
- Be based on socio-economic and environmental evidence – be reasonable
- Be capable of being delivered within the plan timeframe and resources –be implementable
- Be technically and institutionally feasible – be viable

4.2 ALTERNATIVES CONSIDERED

The alternatives considered in preparing the proposed Variation in the first instance related to the strategic approach in how to most effectively facilitate, through policy and/or land use zoning provision, the implementation of the proposed Variation. The alternatives considered in this regard are set out below:

A. STRATEGIC NON SITE SPECIFIC WRITTEN OBJECTIVE IN THE CLARE CDP 2017-2023 TO FACILITATE DATA CENTRES. POLICY ONLY AMENDMENT

This objective would provide for a clear policy statement in the CDP that would support the provision of data centres, subject to compliance with the relevant standards, policies and objectives in the current CDP. Whilst such an objective may provide clarity in terms of an overall statement of support for Data centres, such an approach would have a number of disadvantages from the environmental and spatial planning perspective. This objective would not provide clarity to potential applicants or the public in terms of strategic site locations, that could fulfil the recommended criteria identified by the IDA in considering potential data centre locations. It would not allow for a careful consideration of strategic environmental considerations, as potential lands and applications could be submitted on an adhoc basis.

B. INDICATIVE STRATEGIC LOCATIONS IDENTIFIED FOR LOCATION OF DATA CENTRES. POLICY AND LANDUSE ZONING AMENDMENTS

This approach would use the recommended criteria provided by the IDA and allow for the identification of areas of potential for data centres at county level. This approach would have the positive effect of being able to identify potential opportunity areas, and avoid most environmentally sensitive areas (using the environmental sensitivity mapping used in the Clare CDP 2017-2023). However, the disadvantage to this approach is that it does not allow for greater scrutiny of these strategic lands and may result in areas being identified at strategic level, that are not suitable for this landuse activity upon closer consideration.

C. SPECIFIC SITES IDENTIFIED FOR LOCATION OF DATA CENTRES, POLICY AND LANDUSE ZONING AMENDMENTS

This approach would be similar to that outlined in the preceding alternative; however, it would expand the level of investigation and allow for more detailed assessment of potential lands at county level. Essentially this approach would also use IDA recommended criteria to identify potential sites, rather than strategic areas. This approach allows for a greater level of scrutiny of environmental resources as it narrows the focus of the search onto specific sites, rather than strategic areas. This should also allow for a greater level of confidence in the identification of sites as data centre locations. By amending the landuse zoning and policy objectives, this approach allows for greater clarity by showing support at policy level including the Government Statement on *The Role of Data Centres in Ireland's Enterprise Strategy* and also allowing environmental measures to be developed for specific sites reflecting local environmental sensitivities.

PREFERRED ALTERNATIVE SELECTION APPROACH:

Having considered the alternatives above the approach as summarised in *C. Specific sites identified for location of data centres, Policy and Landuse zoning amendments to the Clare CDP 2017-2023*, was identified as the preferred overall approach. The following stage progressed by identifying potential locations for a data centre which was the result of a process of site selection based on criteria recommended by the IDA as follows:

- Accessibility/ ease of connection to power
- Transport/ Roads accessibility
- Compatibility of surrounding land uses/ zoning
- Avoidance of designated sites
- Availability of the land
- The listed sites should include consideration of landbanks of c.50 acres in size, easily developable with the potential for future expansion possibilities.

Thereafter, through expressions of interest sought by Clare County Council sites were strategically assessed in terms of proper planning and sustainable development. Through this process of assessment the lands at Toureen emerged as the preferred potential site. The SEA then assessed the best policy response for the proposed Variation as set out in 4.3 below.

4.3 PREFERRED SITE, CONSIDERATION OF APPROPRIATE LANDUSE ZONING IN THE CLARE CDP 2017-2023

Having identified the preferred potential site for a data centre, consideration of the policy and land-use zoning approach to best facilitate this was considered.

1. EXTENSION OF CURRENT LANDUSE ZONING INDUSTRIAL.

This scenario would entail leaving the existing Industrial landuse zoning in place but extending it to a larger area. Depending on the type of development activity proposed under this Industrial zoning, could give rise to a variety of potential environmental effects; though these are difficult to quantify in the absence of potential development activities and existing environmental protection provisions in the Clare CDP 2017-2023 should mitigate adverse environmental effects at project level.

The Industrial landuse zoning generally applies to more intensive landuse activities for example, industrial processing or manufacturing. Therefore an expansion of the Industrial Landuse zoning at a specific site in the County could result in more intensive landuse activities, that are considered unnecessary in light of data centre requirements. Moreover the data centre does not represent industrial processing or manufacturing landuse and therefore this option is excluded on the basis that it does not fit the Industrial land use definition.

2 ASSESSMENT OF LANDUSE ZONING OF ENTERPRISE AS AN APPROPRIATE ZONING OBJECTIVE FOR DATA CENTRES

The Enterprise zoning definition in the CDP is more consistent with potential data centre landuse than (technology based industry and campus type development) Industrial land use zoning. Approximately 58 areas are zoned for Enterprise in the County however, most of these would not meet the IDA recommended criteria for data centre landuse.

3 CONSIDER A NEW LANDUSE ZONING SPECIFICALLY FOR DATA CENTRES.

This option would require a new landuse zoning in the CDP that would specifically address data centres. This would have the advantage of a clear policy statement that specifically supports data centres in the County and could be tailored to ensure that environmental considerations were embedded in any definition. However, the disadvantages to this is that by introducing a specific landuse measure for only one type of landuse, a precedent may be set. Moreover as a single site has been selected through the process outlined in the preceding sections, the proposed Variation would be identifying a s new landuse zoning definition for an individual site in the county. This may affect other potential data centre sites as discussed in the preceding section. Ultimately the environmental effects of data centres may be sufficiently considered through the Enterprise zoning.

4.4 PREFERRED ALTERNATIVE

The assessment of alternatives in sections 4.2 and 4.3 identify the lands at Toureen as particularly suitable for a potential data centre land use in light of its potential suitability.

In terms of landuse policies and zoning, the preferred alternative is to amend the Enterprise Zoning to allow for data centres and associated energy generating infrastructure with some particular provisions included.

This alternative provides for the Enterprise landuse definition and fulfils the recommended criteria for data centre potential landuse within the current provisions of the Clare CDP 2017-2023.

By complying with appropriate mitigation measures, including those which have been integrated into the proposed Variation, potential adverse environmental effects which could arise as a result of implementing this scenario would be likely to be avoided, reduced or offset. Please see Chapter 7 of the SEA ER for further details on the assessment.

5 LIKELY SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED VARIATION

The purpose of this section of the Environmental Report is to predict and evaluate as far as possible the environmental effects of the proposed Variation No.1 to the Clare CDP 2017-2023.

SEA is an iterative process and the proposed Variation has taken consideration of environmental issues raised during the SEA process to date. These issues have been incorporated into the proposed Variation and the principal purpose of this chapter is to discuss the evaluation of these. Table 4 below summarises the key potential environmental effects of the proposed Variation.

Biodiversity, Flora and Fauna:

In terms of predicted specific impacts if the land is rezoned, the following points are of note:

There will be a loss of habitats as listed above due to any rezoning and development. Some of the habitats on the site are worthy of protection or retention due to their floristic diversity or rarity at a local or County scale. These include calcareous grassland, oak-ash-hazel woodland, rich fen and flush and Toureen Lough. They also provide supporting habitat to a range of invertebrate species.

There will be a potential loss of woodland habitats to the footprint of future development within the lands.

The removal of the hedgerows during the construction phase of developments within the Toureen lands may affect the movements of lesser horseshoe bats between different roost sites and between foraging areas. It is a requirement of the County Development Plan that there is no net loss of potential Lesser Horseshoe feeding habitat, treelines and hedgerows within 3km of known roosts.

The Toureen lands support wetland habitats that may be used by special conservation interest bird species of the Ballyallia Lough SPA. In event that wetland habitats within the Toureen lands are relied upon by these species, then future development within the Toureen lands, supported by the proposed Variation will have the potential to result in disturbance and loss habitat for which these species rely

The zoning of lands at Toureen for future enterprise development, focusing on data-centre will, in the absence of appropriate environmental

safeguards and mitigation, have the potential to result in the pollution of surface waters and surrounding development sites during the construction phase. Any emission of contaminated surface water from development sites at Toureen to surrounding receiving surface waters will have the potential to convey pollution downstream to the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA estuary.

In the absence of appropriate control measures the construction phase of future developments will have the potential to result in the spread of invasive species within and surrounding the Variation Lands.

Additional lighting and noise emissions associated with the operation of enterprise activities such as data centres may adversely affect and disturb sensitive species including Lesser Horseshoe Bats, and crepuscular species such as the otter.

The management of surface water during construction and operation will require the preparation of a Surface Water Management Plan implementing Sustainable Urban Drainage Systems (SUDs).

Population, Human health and Quality of Life

Positive impacts identified for population and human health associated with increased economic activity and employment opportunity. At strategic level, the provision of a data centre will enhance the town of Ennis and environs for connectivity and future employment associated with the digital economy.

Whilst application of standard development management and control measures should ensure appropriate levels of protection for population and human health, potential impacts may arise in relation to noise, light and air quality associated with intensification of landuse activities.

Potential Enterprise activities may lead to noise emissions from such activity and from additional traffic volumes that may arise. Additional employment in this area is likely to generate additional traffic volumes, particularly as the area which is currently greenfield is not serviced well by public transport. There are a small number of residences close by which would be considered sensitive receptors with regard to noise emissions.

A number of residences are located across and adjacent to the lands at Toureen, these would require additional measures and buffers to avoid adverse effects in terms of light, noise and the alteration of agricultural lands to more intensive landuse activities.

Water including Flooding

In the absence of mitigation, during construction activities surface waters carrying contaminants or pollutants may enter European sites by the existing surface water network

Negative impacts could also arise in relation to emissions to water associated with development including increased run off and poor attenuation.

Increased hardstand due to redevelopment will result in an increase in run-off which will require mitigation to avoid flood impact.

Development can have an impact on connectivity between water bodies unless adequately considered in design . The buffer around the Toureen lough at the southern boundary and a second lake at the eastern boundary of the site requires assessment and consideration; in addition an appropriate buffer to protect the surface water of Spancillhill River (Ballymacahill) is recommended to avoid adverse effects on water quality and supporting habitats.

Groundwater is classified as extreme to high vulnerability, in addition to the potential presence of karst features, in the absence of further assessment and mitigation, the groundwater resource may be vulnerable to pollutants and or impacts on local groundwater level.

Should wastewater treatment capacity require addressing, emissions to the river itself would need assessment and monitoring.

Soil and Geology

In terms of predicted specific impacts if the land is rezoned, the following points are of note:

- There will be a loss of agricultural soil due to any rezoning and development.

- Increased hardstand due to redevelopment will result in reduced recharge to ground locally. This will in turn increase run-off to surface water. This can result in a slight reduction in the local groundwater level
- Landscaping for redevelopment can result in a loss or gain of soil cover. Management of this is required to minimise encroachment by invasive species in imported soil, increase in aquifer vulnerability due to loss of soil, and correct disposal or remediation of any waste soils encountered.
- Development on the greenfield site would result in permanent loss and sealing of soil in this area.
- Potential risks associated with introduction of alien and invasive species associated with site clearance and construction works

Air Quality

The proposed rezoning of the lands for Enterprise use has the potential to impact on ambient air quality and human health in the absence of mitigation. It should be noted that the type of Enterprise and the number and type of transport that may locate in the area will dictate the type and significance of the effects. Potential back up generators for a data centre may give rise to noise and air quality impacts depending on the fuel types used.

Climate Change

The proposed rezoning of the lands for Enterprise use has the potential to increase greenhouse gas emissions in the absence of mitigation. This is of particular relevance in relation to energy use by data centres. Energy provision for such activities from fossil fuel would not assist in County Clare meeting its carbon reductions, nor at national level.

The rezoning of the lands for Enterprise use is likely to lead to the need for construction of buildings and roadways in the zone. However, with effective implementation of construction management plans for each phase of any development, the proposed construction-related greenhouse gas emissions are expected to be negligible.

Potential Enterprise activities may lead to increased traffic along the adjoining roads and, depending on the type of enterprise, lead to greenhouse gas emissions transport associated with the activities.

Vehicle emissions associated with the development of the proposed rezoned lands will give rise to CO₂ and N₂O emissions in the region. Furthermore, emissions from space heating in enterprise units will also contribute to national emissions of greenhouse gases.

Cultural Heritage

Although there is only one existing recorded site and monument, at the lands at Toureen, more generally potential exists for further

archaeological material being revealed whenever the ground is disturbed by development.

Architectural Heritage

There are no known architectural heritage constraints within the lands at Toureen.

Cultural heritage impacts are likely to be sufficiently addresses through the planning and development management system and archaeological impact assessments.

Landscape

Given the proximity of these lands to the M18, regional road and pylons the rural character is diluted somewhat.

Notwithstanding this, the primary landuse currently being agricultural, the conversation to Enterprise represents a significant, permanent change in landscape character.

The visual relationship and connections to the woodland, Toureen lake, Spancilhill (Ballymacahill) River and the hedgerow systems are important contributors to local landscape character.

The generally lowlying and undulating topography of the area means tall or large structures may be visible over quite large areas.

The screening and ecosystem services provided by existing vegetation particularly mature hedgerows and treelines merit retention.

Material Assets

Services such as wastewater or water supplies would be required in advance of any development.

Energy provision and infrastructure required will be an important consideration in terms of supply, source and infrastructural requirements.

Changing landuse at Toureen to more intensive activities associated with Enterprise will likely give rise to increased traffic and transport considerations. In the absence of mitigation, this could be a long term adverse effect with related effects identified for noise and air quality and at local scale Greenhouse Gas emission.

Consideration of how any new service provision would impact on the capacity of the existing and planned waste and wastewater infrastructure.

6 MITIGATION MEASURES

Mitigation involves ameliorating significant negative effects. Mitigation measures can be generally divided into those that:

- Avoid effects;
- Reduce the magnitude or extent, probability and/or severity of effect;
- Repair effects after they have occurred, and
- Compensate for effects, by balancing out negative impacts with positive ones.

Whilst all the mitigation measures in the Clare CDP 2017-2023 will be required to be implemented for any particular development within the lands at Toureen, the following measures represent additional, specific mitigation for these lands.

TABLE 3 MITIGATION MEASURES RECOMMENDED FOR LANDS AT TOUREEN

TABLE 3 MITIGATION MEASURES RECOMMENDED FOR LANDS AT TOUREEN

Mitigation Measure	Included in Variation? Yes/No
A Traffic Management Plan for the construction and operation phase of development.	Yes
Any proposed development shall adopt sustainable practice in terms of building design, materials, construction and operation	Yes
A Hydrological Assessment to determine the effects of the development on groundwaters and groundwater quality shall be submitted with development proposals for the site	Yes
At the southern boundary of the site is a mesotrophic lake, which will require protection through the provision of a buffer incorporating the dense clump of trees to the west of the lake and shall be included in an overall Landscape Management Plan for the site.	Yes
A Construction and Environmental Management Plan shall be submitted as part of development proposals on site. This shall include a Flood Risk Assessment, a Surface Water Management Plan for the construction and operation phase of the development, a Pollution Prevention Plan and shall incorporate principles of Sustainable Urban Drainage Systems. During the construction phase of developments on site where applicable all relevant best practice guidelines shall be adhered to.	Yes
An Air Quality Impact Assessment with reference to potential impacts on European Sites within the zone of influence of the proposed development shall be submitted, this shall inform an Appropriate Assessment Screening report and/or Natura Impact Report. This Air Quality impact assessment	Yes

should also assess potential effects on residents or local population	
The hedgerows and scrub area on this site provide a potential foraging and commuting area for wildlife including Lesser Horseshoe bats. Future development proposals must be informed by a series of bat surveys to record the known usage of the site by in particular Lesser Horseshoe bats and ensure that there is no net loss of supporting habitat. The surveys must include a full light spill modelling study. Any habitat loss must be offset by additional landscape planting to ensure connectivity across the landscape	Yes
Impacts of development of the site on conservation interest bird species of surrounding SPAs and breeding birds should be avoided, through protection and retention of breeding bird habitat in accordance with the Wildlife Acts. Development proposals for the site shall be accompanied by bird surveys (to include a winter bird survey) to assess the use of the site by bird species and where disturbance and/or displacement are predicted appropriate mitigation measures shall be identified. Hedgerow and treeline pruning or removal shall be conducted outside the breeding bird season (March 01st through August 31st).	Yes
An Ecological Impact Assessment (designed by an appropriately qualified landscape architect and ecologist) and a Habitat Survey shall form part of development proposals for the site.	Yes
A Landscape and Biodiversity Management plan shall be submitted to provide landscape, visual and environmental screening and enhancement measures through planting and design	Yes
An Invasive Species Survey and Management plan (if required) shall accompany development proposals for the site	Yes
Development proposals shall also include an Otter Use Survey of the site, and where disturbance and/or displacement are predicted appropriate mitigation measures shall be identified	Yes
A buffer will be required to be provided with regard to the location of a National Monument (CKL-034-007) on site.	Yes
Adequate wastewater treatment and disposal measures shall accompany development proposals for this site to ensure that there is no impact to water quality in the area	Yes

7 MONITORING MEASURES

Article 10 of the Strategic Environmental Assessment Directive (2001/42/EEC) requires that monitoring must be undertaken of the significant environmental effects directly related to the implementation of the proposed Variation. This is to provide for any unforeseen adverse effects to be identified at an early stage in its implementation, allowing for appropriate remedial action to be undertaken.

The primary purpose of monitoring is to allow the actual impacts of the proposed Variation to the Clare CDP 2017-2023 on adoption to be assessed against the Strategic Environmental Objectives and their associated targets and indicators. The indicators used will show

changes that would be attributable to the implementation of the Clare County Development Plan 2017-2023.

Table 4 below presents the SEA Monitoring Table. The SEA Objectives formed the basis of the assessment of the proposed Variation to the Clare CDP and it includes targets (overall aim), indicators (measurement of monitoring change), data sources and agency/body responsible for the monitoring.

Table 4 Strategic Environmental Objectives, Targets and Indicators

Strategic Environmental Objective	Target	Indicator/Data Sources	Source/Responsibility/Frequency
Population, Human Health and Quality of Life			
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.	<p>Increase in the number of green spaces and amenities available to the public.</p> <p>Improved trends in perceived quality of life related to these matters.</p> <p>Bonds to ensure the completion of developments until taken charge.</p> <p>No significant deterioration in human health as a result of environmental factors.</p>	<p>No/area of green spaces and amenities available to the public.</p> <p>Improved trends in perceived quality of life related to these matters as gathered through surveys.</p> <p>Employment rates over the lifetime of the Plan.</p> <p>Completion handover of development to CCC.</p> <p>Availability of public transport/ smarter travel initiatives.</p> <p>Occurrence of any decline in human health around the plan area.</p>	<p>CSO – every six years in line with census CCC - Annual</p> <p>Iarnrod Eireann - Annual Bus Eireann – Annual</p>
P2 - To protect human health from hazards or nuisances arising from incompatible land uses/developments.	No spatial concentrations of health problems arising from environmental factors.	Any occurrence of spatially concentrated deterioration in human health.	CSO – every six years and as results arise on a yearly basis from the 2016 census CCC – Annual
P3 - Provision of green spaces for amenity and recreational uses.	Increase in the number of green spaces and amenities available to the public.	No. /area of green spaces and amenities available to the public.	CCC – Annual
Biodiversity			

<p>B1 – Protect, conserve, enhance where possible and avoid loss of diversity and integrity of the broad range of habitats, species and wildlife corridors.</p>	<p>No reduction in length or 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 and 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 Clare CDP 2017 – 2023 Afford the same level of protection to Margaritifera Sensitive Areas as is afforded to Freshwater Pearl Mussel SAC rivers</p>	<p>Percentage of unique habitats and species lost in non-designated sites over the lifetime of the Plan through trending of annual/bi-annual surveys. Percentage of broadleaf/native afforestation. Percentage loss of connectivity between areas of local biodiversity importance as a result of implementation of the Clare CDP as evidenced from a resurvey of CORINE mapping.</p> <p>Decrease in population of freshwater pearl mussels in <i>Margaritifera</i> sensitive areas and/or habitat and water quality deterioration.</p>	<p>CCC – Annual/bi-annual surveys OPW - Annual</p> <p>Coillte- Annual NPWS – Annual or as and when surveys completed by NPWS for National Monitoring programmes on a rolling basis and/or surveillance monitoring undertaken for compliance with Article 17 of the Habitats Directive and reported on every 6 years. CCC - Annual OPW - Annual National Biodiversity Data Centre – Annual</p> <p>Shannon RBD/National RBD – First and second RBMP Cycle</p>
<p>B2 – To achieve the conservation objectives of European Sites (SACs and SPAs) and</p>	<p>No loss of protected habitats and species during the lifetime of the Plan. No compromise in the favourable</p>	<p>Designation of additional areas due to biodiversity and/or geological value. Percentage of unique habitats and species lost in designated sites through trending of annual surveys.</p>	

other sites of nature conservation.	conservation condition of European sites. No compromise or impact on the achievement of the favourable conservation condition objectives (whether maintain or restore) of European sites.	No./percentage of developments in/near Natura 2000 network. Percentage of European sites in the plan area that are at 'Favourable' conservation status. Percentage of Qualifying Interest Features which have achieved their specific objectives of maintain or restore.	
B3 - Conserve and protect other sites of nature conservation including NHAs, pNHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries as well as protected species outside these areas as covered by the Wildlife Act.	No loss of protected habitats & species during the lifetime of the Plan. Submission of Screening Report or Natura Impact Statement for proposed developments with planning applications in/and/or near European Sites.	Percentage of unique habitats and species lost in designated sites through trending of annual surveys. Provision/No. of Screening Reports/Natura Impact Statements with developments proposed for sites in/and/or near European sites.	
B4 - Meet the requirements of the Water Framework Directive and the Shannon River Basin Management Plan/National River Basin Management Plan	All waters within the plan area to achieve the requirements of the WFD and the relevant River Basin Management Plan by 2027. Ensure provision of riparian zones at project/site	No. of surface and groundwater bodies achieving "Good Status". No. of waterbodies indicating deterioration in status. No. of planning applications with sufficient inclusion of buffer zones where necessary and applicable.	

	level.		
B5 – To minimise and, where possible, eliminate threats to biodiversity including invasive species.	<p>Prevent the introduction of new invasive or alien species.</p> <p>Control/manage new invasive species.</p> <p>Control/manage/eradicate invasive species throughout the county.</p>	<p>No., type and location of invasive species identified.</p> <p>No. of actions achieved under the Biodiversity Action Plan.</p> <p>Increase/decrease in coverage of invasive species identified.</p> <p>No. of submissions/observations submitted through invasive species Ireland “Alien Watch”.</p> <p>www.invasivespeciesireland.com/alien-watch</p> <p>The National Biodiversity Data Centre will track success in the implementation of the All-Ireland Pollinator Plan by measuring increases in the abundance and diversity of pollinators within the Irish landscape as the 81 actions are implemented.</p>	
B6 - Promote green infrastructure networks, including riparian zones and wildlife corridors.	<p>Ensure new development is set back from rivers.</p> <p>The recommended width for larger river channels (>10m) is 35m to 60m and for smaller channels (<10m) is 20m or greater. The determined width should be tailored to site specific, river reach or lakeshore</p>	No. planning permissions close to water.	

	characteristics and their associated habitats. It is important that the buffer zone is large enough to protect the ecological integrity of the river (including emergent vegetation), the riparian zone (bank side vegetation including trees) and takes into account the human history of the area.		
Soil and Geology			
S1 – To maximise the sustainable re-use of the existing built environment, derelict, disused and infill sites (brownfield 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 incidences of soil contamination.	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 land-filling of quality soil. Incidences of soil contamination.	CCC – Annual through a review of planning applications
S2 – Minimise the excavation and movement of soils within	Limited and controlled development of greenfield sites. Limit the amount	Volume of construction and demolition waste recycled. No. of brownfield sites that have been redeveloped.	CCC – Annual

site works.	of excavation in sensitive locations for example peat excavation in wind farm sites.		
S3 – Minimise the consumption of non-renewable deposits on site.	Re-use of soils from redeveloped sites where possible. Increased provision of construction and demolition waste facilities.	Excessive land-filling of quality soils. No. of facilities for Construction and Demolition Waste.	CCC – Annual
S4 - Minimise the amount of waste to landfill from site.	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 in the plan area. Compliance with the Southern Region Waste Management Plan.	Quantity of household waste sent to landfill. Quantity of household waste sent to recycling. The number of bring banks provided for in the plan area. Compliance with the Southern Region Waste Management Plan. Statistical Indicators (Primary and Secondary) reported on through the Southern Waste Region Statistical Indicators Annual Report.	CCC EPA Southern Waste Region – Annually through Statistical Indicators Report and Waste Management Plan Annual Report.
S5 - Conserve, protect and avoid loss of diversity and integrity of designated habitats, geological features,	No loss of diversity and integrity of designated habitats, geological features, species or their sustaining resources in designated	Percentage of habitats, geological features, species etc. Lost over the lifetime of the Plan through trending of annual/bi-annual surveys.	GSI CCC - Annual

species or their sustaining resources in designated ecological sites.	ecological sites. Designation of sites as County Geological Sites.	No. of areas designated as County Geological 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).	To achieve a Q rating of 4 ‘good’ quality status by 2015.	Biotic quality rating of river waters at EPA monitoring locations.	EPA – Annual as recorded through the WFD Monitoring Programme
W2 – Monitor the on-going trends in water quality status.	Demonstrate an on-going status improvement and an upward trend in water quality.	Progression from bad to poor, poor to moderate, moderate to good and good to high in terms of WFD Status.	EPA EDEN Portal – As up-dated through the 2 nd River Basin Management cycle by the EPA.
W3 – Maintain or improve the quality of surface water and groundwater (including estuarine) to status objectives as set out in the Water Framework Directive (WFD), the	Improvement or at least no deterioration in surface water quality by 2015.	Changes in receiving water quality as identified during water quality monitoring for WFD, ShIRBMP/National RBMP conducted by CCC and EPA.	CCC – As reported through the 1 st and 2 nd River Basin Management Plan. EPA – As reported through the 1 st and 2 nd River Basin Management Plan.

Shannon River Basin Management Plan and POMS.			
W4 – Implement appropriate sustainable drainage systems (SuDS) in the County.	New drainage systems to be compliant with SUDs.	No. of developments granted planning permission that incorporate SUDs.	CCC – Quarterely planning permissions granted.
W5 – Reduce the impact of polluting substances to all waters and prevent pollution and contamination of groundwater by adhering to aquifer protection plans and to maintain and improve the quality of drinking water supplies.	Improvement or at least no deterioration in surface and groundwaters by 2015.	Changes in receiving waters and groundwater quality as identified by water quality monitoring programmes conducted by CCC and EPA.	CCC - Annual EPA – Annual
W6 - Promote sustainable water use and water conservation in the plan area and to maintain and improve the quality of drinking water supplies.	Pressure on water and waste water treatment plants.	Decrease in no. of water shortage notices issued during drought periods. Decrease in the amount of water consumed per household in the plan area.	CCC/Irish Water
W7 –Protect	In accordance with	Level and location of	CCC – Records obtained

flood plains and areas of flood risk from development through avoidance, mitigation and adaptation measures.	OPW/DOEHLG, all planning applications within designated Flood Risk Zones A and B as identified in the Strategic Flood Risk Assessment for the plan are required to undertake Flood Risk Assessment.	flooding.	as and when flood events occur OPW – As updated on http://www.floods.ie/ and once CFRAMS final maps become available in 2017 and are updated as part of the overall implementation of the Floods Directive in Ireland.
W8 – To 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.	Maintain water quality, no pollution or contamination issues in our rivers and lakes in particular but also our estuaries and all waters designated as bathing waters.	Adherence to bathing water guidance and standards in accordance with the bathing water Directive and associated regulation Regulation (S.I. No. 79 of 2008).	Retention or approval for Blue Flag status - The Blue Flag is operated in Ireland by An Taisce-The National Trust for Ireland on behalf of the Foundation for Environmental Education (FEE) – Annually Progression of bathing waters from ‘sufficient’ to ‘good’ to ‘excellent’ with no waters categorised as ‘poor’ in accordance with the water quality standards specified in the 2008 Regulations with a classification of at least ‘sufficient’ to be achieved for all bathing waters.
Air and Climate Change			
C1 – Minimise all forms of air pollution and maintain/improve ambient air quality.	Maintain ambient air quality through reduction of private vehicle usage.	Air quality indicators.	CCC - Annual EPA - Annual
C2 – Minimise emissions of	Provide for increased use of	Use of public transport.	CCC – Annual as new cycle strategy and/or

greenhouse gases and contribute to a reduction and avoidance of human-induced global climate change.	<p>public transport.</p> <p>Increase number of cycle lanes and pedestrian routes in the plan area.</p> <p>Establish incentives/increase no. of permissions for renewable energy projects.</p>	<p>Provision of cycle lanes and walking routes.</p> <p>No. of grants given for insulation works; energy efficiency of new buildings – energy rating figures.</p> <p>No. of planning applications for residential houses with low carbon footprint.</p> <p>No. Of wind turbines permitted which may contribute to mitigation of, and adaptation to Climate Change.</p> <p>Location of permitted wind farms within areas of the greatest wind energy resource in County Clare as depicted through the SEAI Wind Atlas. http://maps.seai.ie/wind/</p>	<p>Green Infrastructure is published.</p> <p>CSO – Annual as figures/reports based on 2016 census become available.</p> <p>CCC – No and type of planning applications in relation to low carbon residential housing and wind turbines and/or commencement of construction of such on an annual basis.</p> <p>SEAI</p>
C3 - Reduce car dependency within the plan area by way of an integrated approach to sustainable urban transport.	<p>An increase in the percentage of the population travelling to work or school by public transport or non-mechanical means.</p> <p>A decrease in the average distance travelled to work or school by the population of the plan area.</p>	<p>Percentage population within the plan area travelling to work or school by public transport or non-mechanical means.</p> <p>Average distance travelled to work or school by the population of the plan area.</p>	CSO – every 6 years through census information.
Material Assets – Transport			
T1 – Maximise sustainable modes of transport and encourage use of	<p>An increase in provision of cycle lanes and pedestrian routes.</p> <p>An increase in</p>	<p>No. of cycle lanes and pedestrian routes provided in the plan area.</p> <p>Percentage of the population within the plan</p>	CCC – Achievement of Clare County Council Active Travel under the Departments Smarter Travel Scheme

walkways/cycle paths as alternative routes to school, work, and shops.	<p>population travelling to work and school by public transport or non-motorised transport.</p> <p>A reduction in the distance travelled to work or school by the population of the plan area.</p>	<p>area travelling to work or school by public transport or non-mechanical means.</p> <p>Average distance travelled to work or school by the population of the plan area.</p> <p>Number of private cars on road as a percentage of Annual Average Daily Traffic (AADT).</p>	<p>annually.</p> <p>CSO – every 6 years through census information.</p> <p>NRA</p>
T2 - Provide for ease of movement for all road users and to promote development patterns that protect and enhance road safety.	<p>Reduce the number of private vehicles on the road.</p> <p>Increase in public transport.</p> <p>Increase cycle and walking modes of transport.</p> <p>Integrated traffic management plan for the plan area.</p>	<p>No. of private cars on the road as a percentage of AADT.</p> <p>No. of applications for the Bike to Work Scheme.</p> <p>Traffic survey and pedestrian surveys undertaken in the preparation of a traffic management plan.</p>	CCC - ongoing
Material Assets – Waste			
WA1 – Implement the waste pyramid and encourage reuse/recycling of material wherever possible.	<p>Reduction in the quantities of waste sent to landfill.</p> <p>Increase in the quantities of waste sent for recycling.</p> <p>Increase in the number of bring banks in the plan area.</p> <p>Compliance with the Southern Region Waste Management Plan</p>	<p>Quantity of household waste sent to landfill.</p> <p>Quantity of household waste sent to recycling.</p> <p>The number of bring banks provided for in the plan area.</p> <p>Compliance with the Southern Region Waste Management Plan.</p>	<p>CCC – Environment Department statistics and reports.</p> <p>Southern Waste Region – Annually through Statistical Indicators Report and Waste Management Plan Annual Report</p>

Material Assets – Water Supply			
WS1 - To ensure adequate and clean drinking water supplies.	Upgrade existing water treatment plants within the plan area.	Number of upgrades undertaken within the plan area.	Irish Water – Achievement of Water Services Strategic Plan objectives Irish Water – The implementation of the Lead Mitigation Plan over the lifetime of the County Development Plan to achieve safe, clean drinking water for all.
WS2 - Improve efficiency in distribution of potable water to the population through pipe rehabilitation and to promote water conservation and sustainable water usage for long-term protection of available water resources.	<p>Reduce the amount of water usage.</p> <p>Reduce the amount of water lost through pipe leakage (currently 65%) through the pipe rehabilitation.</p> <p>Increase usage of water collected through water harvesting.</p>	<p>Water meter readings (Reintroduction of water charges based on conservation).</p> <p>Sale of water harvesting butts.</p> <p>Retrofitting of rainwater harvesting units.</p>	Irish Water – reduction in household costs for water charges based on conservation (This is dependent on water charges being reintroduced; meter readings are still on-going in the absence of charges.
Material Assets – Waste Water			
WW1 - To ensure that all zoned lands (existing and proposed) are connected to the public sewer network ensuring treatment of	Upgrade existing wastewater treatment plant infrastructure identified within the plan as being insufficient, based on existing and forecasted population demands to meet	Upgraded Waste Water Treatment Plants within the plan area.	<p>Irish Water – Achievement of Water Services Strategic Plan objectives.</p> <p>CCC – granting of permission conditioned based on a future WWTP upgrade.</p> <p>CCC – refusal of</p>

wastewater which meets EU requirements prior to discharge.	EU requirements.		permission as no upgrade to WWTP due to take place.
WW2 - Reduce the dependency on individual proprietary wastewater treatment facilities and ensure the highest standards possible in existing and future wastewater treatment facilities.	<p>Testing of individual proprietary wastewater treatment facilities in line with EU/National guidance.</p> <p>Sustainable alternative individual proprietary WWT facilities.</p> <p>Measures to promote encourage and incentivise a change from traditional WWTS to alternative sustainable systems.</p>	<p>No. planning applications for single houses within the plan area, served by individual WWT facility.</p> <p>Testing of individual WWT facilities.</p> <p>Types/usage/percentage using sustainable methods of WWT.</p>	CCC – ongoing.
Material Assets – Renewable Energy			
RE1 - Reduce waste of energy, promote use of renewable energy sources and support energy conservation initiatives across all sectors including the development of low carbon	Increase in renewable energy developments.	<p>No. of renewable energy developments granted planning permission.</p> <p>Establishment of R&D projects (one or more).</p> <p>Meet or exceed County contributions to national renewable energy targets.</p> <p>Meet or exceed County contributions to national energy efficiency/conservation</p>	<p>CCC – new solar farms, windfarms or other renewable energy developments granted.</p> <p>LCEA, Clare CoCo, SIFP – number of new R&D projects within the Plan area e.g. testing of tidal energy devices.</p> <p>Southern and Eastern</p>

business practices and buildings.		<p>targets.</p> <p>In line with the Wind Energy Strategy (Volume 5 of the Development Plan) achieve the minimum target of 550MW from wind energy by 2017.</p> <p>The number of hectares of land that has been converted to use for Bio energy production utilising Miscanthus; Oilseed Rape; Reed Canary Grass or SRC Willow. (Suitable lands have been identified through the SEAI Bioenergy Map http://maps.seai.ie/bioenergy/).</p>	Regional Assembly.
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,	No permitted development which involves loss of cultural heritage, including protected structures, archaeological sites, Architectural Conservations Areas and landscape features.	<p>No. of developments permitted during the lifetime of the plan which will result in the loss or partial loss of protected structures or sites of archaeological status.</p> <p>No. of additions to the list of Protected Structures.</p> <p>No. of additions to the list of Architectural Conservation Areas.</p> <p>Development of cultural heritage areas for amenity resources.</p>	CCC - ongoing

footpaths, gate piers etc.).			
CH2 – To protect, conserve and enhance local folklore, traditions and placenames within the Plan area.	To increase the use of local placenames within the plan area.	No. Of applications which are referred to the Conservation and Heritage Officers.	CCC - ongoing
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).	To increase the number of uninhabited and derelict structures that are restored opposed to demolition.	No. planning applications for restoration/re-use of vacant and derelict structures. No. planning applications for demolition and redevelopment of vacant and derelict sites.	CCC - ongoing
Landscape			
L1 – Conserve, protect and enhance valued natural, cultural and built landscapes, views of local value and features including those of geological and aesthetic value.	Ensure no significant disruption of historic/cultural landscapes and features through objectives of the County Development Plan.	No. of developments permitted and their impacts on cultural/historic landscapes. No. of developments located within Scenic Route or no degradation of areas designated as Heritage Landscapes (Locations in text and on maps). No. of developments located within a designated scenic view or route or high landscape area in County Clare that disrupt views	CCC – ongoing Heritage Council - ongoing Fáilte Ireland - ongoing GSI - ongoing NPWS - ongoing EPA SEA Unit in conjunction with CCC

		(based on the LCA). Development and application of framework in relation to the application of LCA and their contribution to SEA.	
L2 - Maintain and enhance landscape quality within the plan area by minimising visual impacts through appropriate design, assessment and siting.	No significant visual impact from development. Ensure no significant disruption of high landscape values.	No. of developments located within a high landscape area that disrupt views (based on LCA): Loss of vistas/views. Loss of trees. Loss of amenity woodland. No of large scale developments permitted.	CCC - ongoing

CLARE COUNTY
DEVELOPMENT PLAN

2017
2023



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

Variation
No.1

Clare County Development Plan 2017-2023
Strategic Environmental Assessment
Non-Technical Summary
11th March 2019