



APPROPRIATE ASSESSMENT SCREENING REPORT

FOR
CLIMATE CHANGE ADAPTATION
STRATEGY FOR CLARE COUNTY
COUNCIL

September 2019

ON BEHALF OF
Atlantic Seaboard South Region
Climate Action Regional Office
(CARO)

Prepared by

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DOCUMENT CONTROL SHEET

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1 INTRODUCTION

1.1 Background

Member States are required to designate Special Areas of Conservation (SACs) and Special Protected Areas (SPAs) under the EU Habitats and Birds Directives, respectively. SACs and SPAs are collectively known as Natura 2000 sites. An 'Appropriate Assessment' (AA) is a required assessment to determine the likelihood of significant impacts, based on best scientific knowledge, of any plans or projects on Natura 2000 sites. A screening for AA determines whether a plan or project, either alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site, in view of its conservation objectives.

This AA Screening has been undertaken to determine the potential for significant impacts on nearby Sites with European conservation designations (i.e. Natura 2000 Sites). The purpose of this assessment is to determine, the appropriateness, or otherwise, of the proposed development in the context of the conservation objectives of such sites.

1.2 Legislative Context

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats and wild fauna and flora by the designation of SACs and the Birds Directive (79/409/EEC) seeks to protect birds of special importance by the designation of SPAs. It is the responsibility of each member state to designate SPAs and SACs, both of which will form part of Natura 2000, a network of protected sites throughout the European Community.

An Appropriate Assessment is required under Article 6 of the Habitats Directive where a project or plan may give rise to significant effects upon a Natura 2000 Site, and paragraphs 3 and 4 states that:

6(3) Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site, in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

6(4) If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

The current assessment was conducted within this legislative framework and the published DEHLG (2009) guidelines. As outlined in these, it is the responsibility of the proponent of the project to provide a comprehensive and objective Screening for Appropriate Assessment, which can then be used by the competent authority in order to conduct the Appropriate Assessment (DEHLG, 2009).

1.3 Quality assurance and competence

Enviroguide Consulting, is a wholly Irish Owned multi-disciplinary consultancy specialising in the areas of Environment, Waste Management and Planning. Both directors carry scientific qualifications and have a wealth of experience working within the Environmental Consultancy sectors, having undergone extensive training and continued professional development.

Enviroguide Consulting as a company remains fully briefed in European and Irish environmental policy and legislation. Both directors have a diploma from the Law Society of Ireland in Environmental and Planning Law and have a Master's degree in Environmental and Natural Resources Law at University College Cork.

Enviroguide's staff members are highly qualified in their field. Professional memberships include the Chartered Institution of Wastes Management (CIWM), the Irish Environmental Law Association and Chartered Institute of Ecology and Environmental Management (CIEEM).

All reports have been carried out by qualified and experienced ecologists and environmental consultants. Donnacha Woods, Project Ecologist with Enviroguide, undertook the desktop research for this report. Donnacha has an M.Sc. (Biodiversity and Conservation) from Trinity College, and over 6 years' experience as an ecologist and is an Associate member of CIEEM. He has worked on a wide range of conservation, research and ecological monitoring projects across several different countries.

Muriel Ennis, Principal Environmental Consultant, has an M.Sc. in Ecosystem Conservation and Landscape Management and over 10 years' experience as an Environmental / Ecology Consultant and is also an Associate member of CIEEM. She has worked on a range of projects from Strategic Flood Studies to residential developments.

1.4 Stages of AA

This Appropriate Assessment Screening Report (the "**Screening Report**") has been prepared by Enviroguide Consulting which considers whether the proposed Climate Change Adaptation Strategy is likely to have a significant effect on a European Site and whether a Stage 2 Appropriate Assessment is required.

The AA process is a four-stage process, with issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

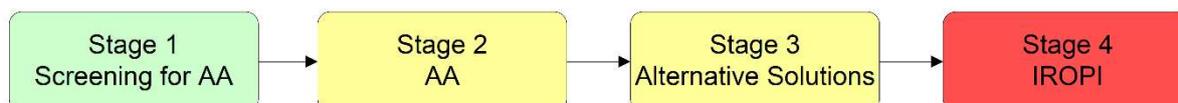


FIGURE 1. THE FOUR STAGES OF THE APPROPRIATE ASSESSMENT PROCESS (DEHLG, 2010).

The four stages of an AA can be summarised as follows:

- **Stage 1: *Screening*.** The first stage of the AA is to determine whether the project/plan 'either alone or in combination with other plans or projects' is likely to have a significant effect on a Natura 2000 site
- **Stage 2: *Appropriate Assessment*.** The second stage of the AA considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a Natura 2000 site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects. The proponent of the plan or project is required to submit a Natura Impact Statement (NIS). A NIS Report containing a professional, scientific examination of the plan and should include any mitigation measure to avoid, reduce or offset negative impacts.
- **Stage 3: *Assessment of alternative solutions*.** This stage examines any alternative solutions or options that could enable the plan or project to proceed without adverse effects on the integrity of a Natura 2000 site. The process must return to Stage 2 as alternatives will require appropriate assessment in order to proceed. Demonstrating that all reasonable alternatives have been considered and assessed, and that the least damaging option has been selected, is necessary to progress to Stage 4
- **Stage 4: *Assessment where no alternative solutions exist and where adverse impacts remain*.** The final stage is the main derogation process examining whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project to adversely affect a Natura 2000 site, where no less damaging solution exists.

The purpose of Stage 1, the Screening Stage is to determine the necessity or otherwise for a NIS. Screening for AA examines the likely effects of a project or plan alone, and in combination with other projects or plans, upon a Natura 2000 site, and considers whether it can be objectively concluded that these effects will not be significant.

If it is determined during screening stage that the proposal may have a significant effect on a Natura 2000 site, or such a significant effect cannot be ruled out, then a NIS will need to be prepared. The Screening is outlined in Section 2.

1.5 Screening Steps

This Screening for AA, or Stage 1 of AA, has been undertaken in accordance with the European Commission Methodological Guidance on the provision of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (EC, 2001) and the European Commission Guidance 'Managing Natura 2000 sites' (EC, 2000). Screening for AA involves the following:

- Establish whether the Strategy is necessary for the management of a Natura 2000 site;
- Description of the Strategy;
- Identification of Natura 2000 sites potentially affected;
- Identification and description of individual and cumulative impacts likely to result from the Strategy;
- Assessment of the significance of the impacts identified above on site-integrity; and
- Exclusion of sites where it can be objectively concluded that there will be no significant effects.

This Stage 1, Screening, examines whether likely effects upon a Natura 2000 site will be significant and determines whether the AA process for the proposed Plan alone and in combination with other developments in the area requires a Stage 2.

1.6 Stage 1 Screening Assessment Methodologies

1.6.1 Desk Study

A desk study was carried out to evaluate all available information on the area's natural environment. This comprised a review of a wide range of available publications, datasets and resources where applicable, including the following sources:

- Climate Change Adaptation Strategy – Clare County Council;
- National Parks and Wildlife Service (NPWS) datasets;
- Geological Survey Ireland (GSI) online datasets and mapping;
- Environmental Protection Agency (EPA) mapping and datasets;
- National Biodiversity Data Centre (NBDC) online mapping and species records;
- OSI aerial imagery and Discovery Series mapping;
- Satellite imagery from various sources and dates (Google, Digital Globe, Bing);
- The Status of EU Protected Habitats in Ireland (NPWS);

For a complete list of the specific documents consulted as part of this assessment, see *Section 4 References*.

1.6.2 Assessment of Impacts

The potential impacts of the Objectives and Actions of the Clare's County Council's Climate Change Adaptation Strategy are assessed against the criteria as outlined in *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2001), the significance of these is assessed using key indicators:

- Habitat loss or alteration;
- Habitat / species fragmentation;
- Disturbance and / or displacement of species;
- Changes in population density; and
- Changes in water quality and resource.

While also assesses key indicators, the following terms are defined when quantifying duration:

TABLE 1. DEFINITION OF DURATIONS (EPA, 2017).

Description of Duration	Corresponding Time Frame
Momentary Effects	Effects lasting from seconds to minutes
Brief Effects	Effects lasting less than a day
Temporary Effects	Effects lasting less than a year
Short-term Effects	Effects lasting one to seven years.

Medium-term Effects	Effects lasting seven to fifteen years.
Long-term Effects	Effects lasting fifteen to sixty years
Permanent Effects	Effects lasting over sixty years
Reversible Effects	Effects that can be undone, for example through remediation or restoration
Frequency of Effects	Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)

Furthermore, the criterion for confidence levels of the predicted likely impacts are given below in Table 2.

TABLE 2. IMPACT SIGNIFICANCE CRITERIA (EPA, 2017).

Significance of Effects	Definition
Imperceptible	An effect capable of measurement but without significant consequences.
Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.
Slight Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant Effects	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment

While assessing Clare’s Climate Changes Adaptation Strategy, each Objective and Action was assess using the key indicators as per *Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2001).

2 STAGE 1 SCREENING

2.1 Management of Natura 2000 Site

Clare County Council’s Climate Change Adaptation Strategy is not directly connected with or necessary for the management of Natura 2000 sites in County Clare or elsewhere.

2.2 Description of the Plan

2.2.1 Background

The Earth’s Climate is changing. While natural fluctuations in climate are considered normal, emerging research and observational records from across the world show rates of change that are far greater than those experienced in recent history. Global temperatures have risen and

are projected to rise further bringing changes in weather patterns, rising sea levels and increased frequency and intensity of extreme weather. Ireland’s climate is changing in line with global patterns, and these changes are bringing significant and wide-ranging economic, environmental and social impacts.

Climate change is now recognised as a global challenge with policy responses required in terms of both mitigating the causes of climate change and in adapting to the now inevitable consequences of our changing climate. Action at local level is vitally important to help reduce the risks and impacts of climate change across communities.

This local authority Climate Change Adaptation Strategy forms part of Ireland’s national strategy for climate adaptation as set out in the National Adaptation Framework (NAF) which was produced under the provisions of the Climate Action and Low Carbon Development Act 2015.¹

It is tasked with mainstreaming climate change adaptation over time into all functions, operations and services of the local authority. It seeks to inform or ‘climate proof’ existing plans and policies produced and implemented by the local authority. This ensures a considered, consistent and coherent approach, facing head-on the challenges of a changing climate. Crucially, it also helps in building resilience within the local authority organisation itself as well as across all communities.

2.2.2 Climate Change Adaptation Strategy Objectives

The purpose of the Clare’s County Council’s Climate Change Adaptation Strategy is to achieve the national objective of becoming a more climate resilient society and economy by 2050. In order to help tackle current and future challenges that climate change can present, Clare County Council has set out a number of key objectives in their strategy, under seven thematic principles. The seven themes are listed below:

1. Local Adaptation Governance and Business Operations
2. Infrastructure and Built Environment
3. Land Use and Development
4. Drainage and Flood Management
5. Natural Resources and Cultural Infrastructure
6. Community Health and Wellbeing

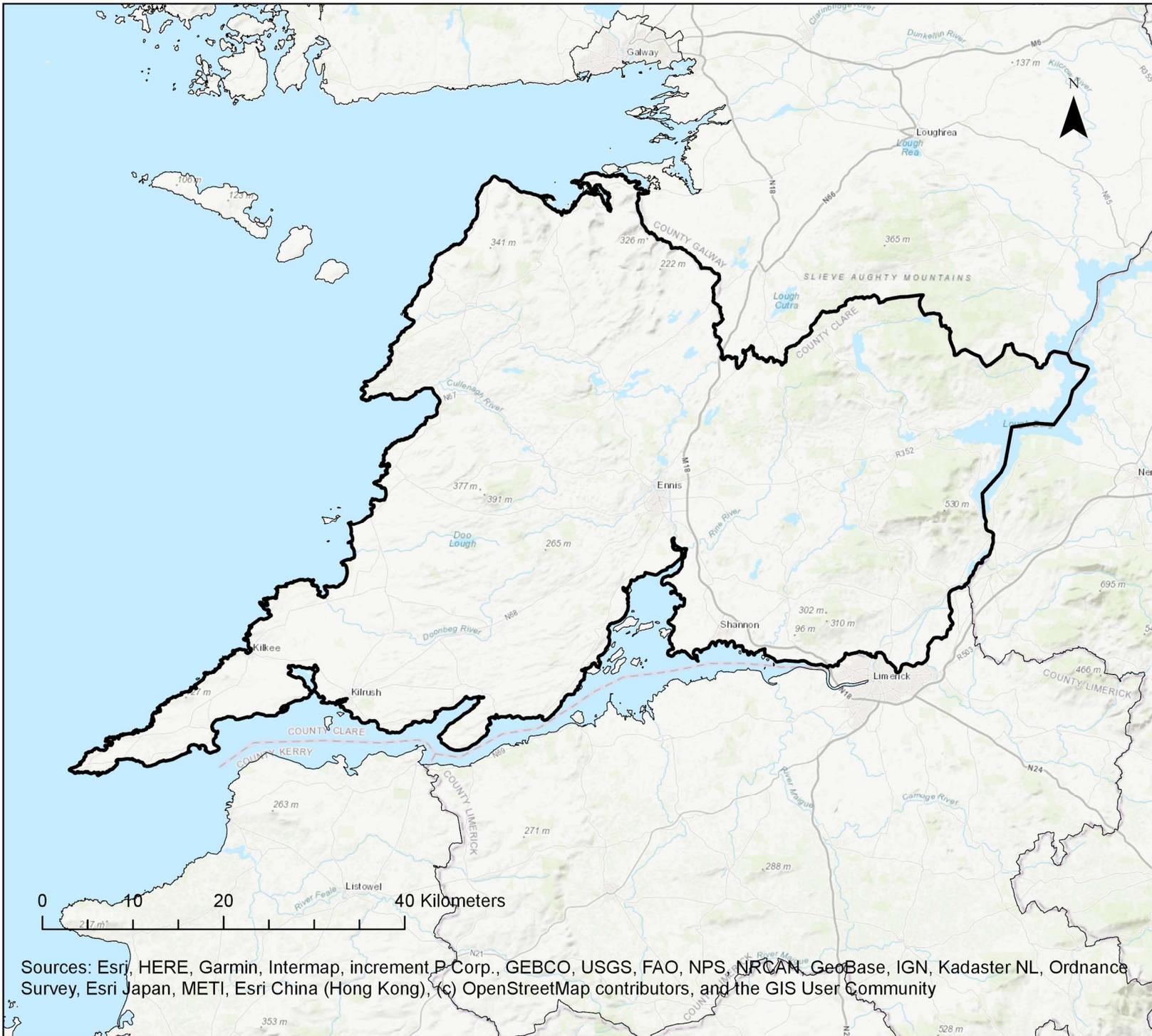
Table 3 below outlines Clare County Councils Climate Change Adaptation Strategy objectives per theme.

TABLE 3. CLARE COUNTY COUNCIL’S CLIMATE CHANGE ADAPTATION STRATEGY OBJECTIVES

G1 Local Adaptation Governance and Business Operations	
1	To ensure that climate adaptation is mainstreamed into all activities and operations of the Local Authority. To implement an appropriate response in addressing diversity of climate change impacts.
G2 Infrastructure and Built Environment	
1	To ensure and increase the resilience of infrastructural assets and inform investment decisions.
2	To promote County Clare as a Low Carbon County and support the development of low carbon and green technology businesses and industries throughout the County.
3	To support sustainable travel in County Clare.

¹ Climate Action and Low Carbon Development Act 2015 (S.I. No. 25/2016).

4	To support land use policy, future development proposals and transportation strategies that ensure the viability of bus and rail services in County Clare.
G3 Land Use and Development	
1	To provide for the integration of planning, land-use and transportation considerations in identifying the optimum location for future development.
2	To integrate climate action consideration into landuse planning policy and influence positive behaviour.
G4 Drainage and Flood Management	
1	To manage the risk of flooding through a variety of responses
2	To ensure that areas that are at risk of Flooding are clearly identified and to ensure that inappropriate development does not take place within areas that are at risk of flooding.
3	To mitigate the risk and impact of flooding
4	To undertake measures to reduce coastal flooding and to proactively react to incidences of coastal flooding in County Clare.
G5 Natural Resources and Cultural Infrastructure	
1	To provide for enhancement of natural environment to work positively towards climate action
2	To protect heritage and cultural infrastructure.
3	To promote effective Bio-diversity management and enhance protection of natural habitats and landscapes.
4	To promote and facilitate the provision of high quality, secure, efficient and reliable renewable energy sources along with appropriate energy storage facilities in order to assist in the creation of a low carbon County Clare.
5	To support the Strategic Integrated Framework Plan for the Shannon Estuary in order to harness the significant energy resources of the Shannon Estuary.
6	To protect and preserve the Burren and Cliffs of Moher Geopark while only allowing for appropriate development in accordance with environmental legislation.
7	To liaise and work with other bodies and agencies responsible for the management of water resources.
8	To expand the cultural infrastructure of County Clare through the development of the tourism industry, the green infrastructure and public amenities and facilities of the county.
G6 Community Health and Wellbeing	
1	To build capacity and resilience within communities



Legend	
 County Clare	
	
Project	
Appropriate Assessment Screening Report for Climate Change Adaptation Strategy for Clare Co Co	
Client	
Climate Action Regional Office (CARO)	
Title	
Figure 2: Area encompassed by Strategy	
	
<small> a 3D Core C, Block T1, The Plaza Park West, Dublin 12 D12F9TH w www.enviroguide.ie e info@enviroguide.ie t +353 (0)1 565 4730 </small>	
Drawn by: ME	Projection:
Checked : JD	IRENET95 Irish Transverse Mercator
Date: 26/06/2019	Scale: 1:566,697 @A4
Notes: Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries.	

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

2.2.3 Identification of Relevant Natura 2000 Sites

In identifying potentially affected Natura 2000 sites, it has been decided to adopt the precautionary principle and includes all SPAs and SACs within the Strategy area, including a surrounding 15km buffer zone. Within this overall area, a total of 76 SACs and 18 SPAs are found, each site name, corresponding code and qualifying interests are detailed in Table 4 below.

TABLE 4. NATURA 2000 SITES WITHIN A 15KM RADIUS OF THE STRATEGY AREA.
* = PRIORITY; NUMBERS IN BRACKETS ARE NATURA 2000 CODES

Site Code	Site Name	Qualifying Interests	Location
Special Areas of Conservation (SAC)			
000014	Ballyallia Lake SAC	- [3150] Natural Eutrophic Lakes	Within Co. Clare
000016	Ballycullinan Lake SAC	- [7210] Cladium Fens*	Within Co. Clare
000019	Ballyogan Lough SAC	- [7210] Cladium Fens*	Within Co. Clare
000020	Black Head-Poulsallagh Complex SAC	- [1170] Reefs - [1220] Perennial Vegetation of Stony Banks - [2130] Fixed coastal dunes with herbaceous vegetation (grey dunes) - [3260] Floating River Vegetation - [4060] Alpine and Subalpine Heaths - [5130] Juniper Scrub - [6210] Orchid-rich Calcareous Grassland* - [6510] Lowland Hay Meadows - [7220] Petrifying Springs* - [8240] Limestone Pavement* - [8330] Sea Caves - [1395] Petalwort (<i>Petalophyllum ralfsii</i>)	Within Co. Clare
000030	Danes Hole, Poulnal-ecka SAC	- [8310] Caves - [91A0] Old Oak Woodlands - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>)	Within Co. Clare
000032	Dromore Woods and Loughs SAC	- [3150] Natural Eutrophic Lakes - [6430] Hydrophilous Tall Herb Communities - [8240] Limestone Pavement* - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) - [1355] Otter (<i>Lutra lutra</i>)	Within Co. Clare
000036	Inagh River Estuary SAC	- [1310] Salicornia Mud - [1330] Atlantic Salt Meadows - [1410] Mediterranean Salt Meadows - [2120] Marram Dunes (White Dunes) - [2130] Fixed Dunes (Grey Dunes)*	Within Co. Clare

000037	Pouladatig Cave SAC	<ul style="list-style-type: none"> - [8310] Caves - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within Co. Clare
000051	Lough Gash Turlough SAC	<ul style="list-style-type: none"> - [3180] Turloughs* - [3270] Chenopodium rubri p.p. and Bidention p.p. vegetation 	Within Co. Clare
000054	Moneen Mountain SAC	<ul style="list-style-type: none"> - [3180] Turloughs* - [4060] Alpine and Subalpine Heaths - [5130] Juniper Scrub - [6210] Orchid-rich Calcareous Grassland* - [7220] Petrifying Springs* - [8240] Limestone Pavement* - [1065] Marsh Fritillary (<i>Euphydryas aurinia</i>) - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within Co. Clare
000057	Moyree River System SAC	<ul style="list-style-type: none"> - [3260] Floating River Vegetation - [7230] Alkaline Fens - [8240] Limestone Pavement* - [8310] Caves - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) - [1355] Otter (<i>Lutra lutra</i>) 	Within Co. Clare
000064	Poulnagordon Cave (Quin) SAC	<ul style="list-style-type: none"> - [8310] Caves - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within Co. Clare
000268	Galway Bay Complex SAC	<ul style="list-style-type: none"> - [1140] Tidal Mudflats and Sandflats - [1150] Coastal Lagoons* - [1160] Large Shallow Inlets and Bays - [1170] Reefs - [1220] Perennial Vegetation of Stony Banks - [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts - [1310] Salicornia Mud - [1330] Atlantic Salt Meadows - [1410] Mediterranean Salt Meadows - [3180] Turloughs* - [5130] Juniper Scrub - [6210] Orchid-rich Calcareous Grassland* - [7210] Cladium Fens* - [7230] Alkaline Fens - [8240] Limestone Pavement* - [1355] Otter (<i>Lutra lutra</i>) - [1365] Common (Harbour) Seal (<i>Phoca vitulina</i>) 	Within Co. Clare
000308	Loughatorick South Bog SAC	<ul style="list-style-type: none"> - [7130] Blanket Bogs (Active)* 	Within Co. Clare
000994	Ballyteige (Clare) SAC	<ul style="list-style-type: none"> - [6410] Molinia Meadows 	Within Co. Clare
000996	Ballyvaughan Turlough SAC	<ul style="list-style-type: none"> - [3180] Turloughs* 	Within Co. Clare

001013	Glenomra Wood SAC	- [91A0] Old Oak Woodlands	Within Co. Clare
001021	Carrowmore Point to Spanish Point and Islands SAC	- [1150] Coastal Lagoons* - [1170] Reefs - [1220] Perennial Vegetation of Stony Banks - [7220] Petrifying Springs*	Within Co. Clare
001321	Termon Lough SAC	- [3180] Turloughs*	Within Co. Clare
001912	Glendree Bog SAC	- [7130] Blanket Bogs (Active)*	Within Co. Clare
001926	East Burren Complex SAC	- [3140] Hard Water Lakes - [3180] Turloughs* - [3260] Floating River Vegetation - [4060] Alpine and Subalpine Heaths - [5130] Juniper Scrub - [6130] Calaminarian Grassland - [6210] Orchid-rich Calcareous Grassland* - [6510] Lowland Hay Meadows - [7210] Cladium Fens* - [7220] Petrifying Springs* - [7230] Alkaline Fens - [8240] Limestone Pavement* - [8310] Caves - [91E0] Alluvial Forests* - [1065] Marsh Fritillary (<i>Euphydryas aurinia</i>) - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) - [1355] Otter (<i>Lutra lutra</i>)	Within Co. Clare
002010	Old Domestic Building (Keevagh) SAC	- [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>)	Within Co. Clare
002091	Newhall and Edenvale Complex SAC	- [8310] Caves - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>)	Within Co. Clare
002126	Pollagoona Bog SAC	- [7130] Blanket Bogs (Active)*	Within Co. Clare
002157	Newgrove House SAC	- [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>)	Within Co. Clare
002165	Lower River Shannon SAC	- [1110] Sandbanks - [1130] Estuaries - [1140] Tidal Mudflats and Sandflats - [1150] Coastal Lagoons* - [1160] Large Shallow Inlets and Bays - [1170] Reefs - [1220] Perennial Vegetation of Stony Banks - [1230] Vegetated Sea Cliffs - [1310] Salicornia Mud - [1330] Atlantic Salt Meadows - [1410] Mediterranean Salt Meadows	Within Co. Clare

		<ul style="list-style-type: none"> - [3260] Floating River Vegetation - [6410] <i>Molinia</i> Meadows - [91E0] Alluvial Forests* - [1029] Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) - [1095] Sea Lamprey (<i>Petromyzon marinus</i>) - [1096] Brook Lamprey (<i>Lampetra planeri</i>) - [1099] River Lamprey (<i>Lampetra fluviatilis</i>) - [1106] Atlantic Salmon (<i>Salmo salar</i>) - [1349] Bottle-nosed Dolphin (<i>Tursiops truncatus</i>) - [1355] Otter (<i>Lutra lutra</i>) 	
002245	Old Farm Buildings, Ballymacrogan SAC	<ul style="list-style-type: none"> - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within Co. Clare
002246	Ballycullinan, Old Domestic Building SAC	<ul style="list-style-type: none"> - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within Co. Clare
002247	Toonagh Estate SAC	<ul style="list-style-type: none"> - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within Co. Clare
002250	Carrowmore Dunes SAC	<ul style="list-style-type: none"> - [1170] Reefs - [2110] Embryonic Shifting Dunes - [2120] Marram Dunes (White Dunes) - [2130] Fixed Dunes (Grey Dunes)* - [1014] Narrow-mouthed Whorl Snail (<i>Vertigo angustior</i>) 	Within Co. Clare
002264	Kilkee Reefs SAC	<ul style="list-style-type: none"> - [1160] Large Shallow Inlets and Bays - [1170] Reefs - [8330] Sea Caves 	Within Co. Clare
002312	Slieve Bernagh Bog SAC	<ul style="list-style-type: none"> - [4010] Wet Heath - [4030] Dry Heath - [7130] Blanket Bogs (Active)* 	Within Co. Clare
002314	Old Domestic Buildings, Rylane SAC	<ul style="list-style-type: none"> - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within Co. Clare
002316	Ratty River Cave SAC	<ul style="list-style-type: none"> - [8310] Caves - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within Co. Clare
002318	Knockanira House SAC	<ul style="list-style-type: none"> - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within Co. Clare
002319	Kilkishen House SAC	<ul style="list-style-type: none"> - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within Co. Clare
002343	Tullaheer Lough and Bog SAC	<ul style="list-style-type: none"> - [7110] Raised Bog (Active)* - [7120] Degraded Raised Bog - [7140] Transition Mires - [7150] Rhynchosporion Vegetation 	Within Co. Clare
000212	Inishmaan Island SAC	<ul style="list-style-type: none"> - [1170] Reefs - [1220] Perennial Vegetation of Stony Banks - [1230] Vegetated Sea Cliffs 	Within the 15km buffer

		<ul style="list-style-type: none"> - [2110] Embryonic Shifting Dunes - [2120] Marram Dunes (White Dunes) - [21A0] Machairs* - [4030] Dry Heath - [6210] Orchid-rich Calcareous Grassland* - [6510] Lowland Hay Meadows - [8240] Limestone Pavement* 	
000216	River Shannon Callows SAC	<ul style="list-style-type: none"> - [6410] Molinia Meadows - [6510] Lowland Hay Meadows - [8240] Limestone Pavement* - [91E0] Alluvial Forests* - [1355] Otter (<i>Lutra lutra</i>) 	Within the 15km buffer
000231	Barroughter Bog SAC	<ul style="list-style-type: none"> - [7110] Raised Bog (Active)* - [7120] Degraded Raised Bog - [7150] Rhynchosporion Vegetation 	Within the 15km buffer
000238	Caherglassaun Turlough SAC	<ul style="list-style-type: none"> - [3180] Turloughs* - [3270] Chenopodium rubri p.p. and Bidenton p.p. vegetation - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within the 15km buffer
000242	Castletaylor Complex SAC	<ul style="list-style-type: none"> - [3180] Turloughs* - [4060] Alpine and Subalpine Heaths - [5130] Juniper Scrub - [6210] Orchid-rich Calcareous Grassland* - [8240] Limestone Pavement* 	Within the 15km buffer
000248	Cloonmoylan Bog SAC	<ul style="list-style-type: none"> - [7110] Raised Bog (Active)* - [7120] Degraded Raised Bog - [7150] Rhynchosporion Vegetation - [91D0] Bog Woodland* 	Within the 15km buffer
000252	Coole-Garryland Complex SAC	<ul style="list-style-type: none"> - [3150] Natural Eutrophic Lakes - [3180] Turloughs* - [3270] Chenopodium rubri p.p. and Bidenton p.p. Vegetation - [5130] Juniper Scrub - [6210] Orchid-rich Calcareous Grassland* - [8240] Limestone Pavement* - [91J0] Yew Woodlands* 	Within the 15km buffer
000261	Derrycrag Wood Nature Reserve SAC	<ul style="list-style-type: none"> - [91A0] Old Oak Woodlands 	Within the 15km buffer
000286	Kiltartan Cave (Coole) SAC	<ul style="list-style-type: none"> - [8310] Caves - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within the 15km buffer
000297	Lough Corrib SAC	<ul style="list-style-type: none"> - [3110] Oligotrophic Waters containing very few minerals - [3130] Oligotrophic to Mesotrophic Standing Waters - [3140] Hard Water Lakes - [3260] Floating River Vegetation 	Within the 15km buffer

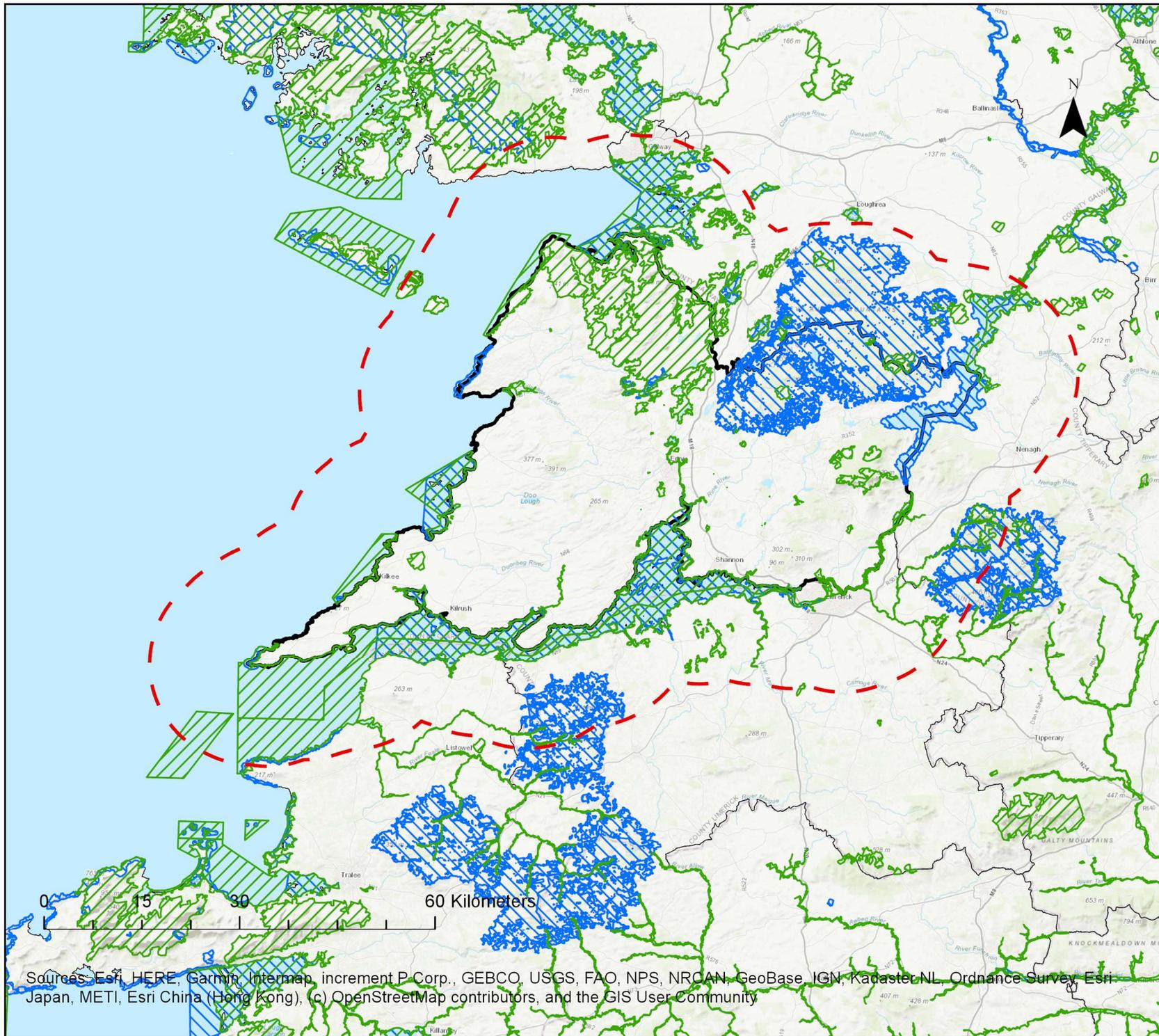
		<ul style="list-style-type: none"> - [6210] Orchid-rich Calcareous Grassland* - [6410] Molinia Meadows - [7110] Raised Bog (Active)* - [7120] Degraded Raised Bog - [7150] Rhynchosporion Vegetation - [7210] Cladium Fens* - [7220] Petrifying Springs* - [7230] Alkaline Fens - [8240] Limestone Pavement* - [91A0] Old Oak Woodlands - [91D0] Bog Woodland* - [1029] Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) - [1092] White-clawed Crayfish (<i>Austropotamobius pallipes</i>) - [1095] Sea Lamprey (<i>Petromyzon marinus</i>) - [1096] Brook Lamprey (<i>Lampetra planeri</i>) - [1106] Atlantic Salmon (<i>Salmo salar</i>) - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) - [1355] Otter (<i>Lutra lutra</i>) - [1393] Slender Green Feather-moss (<i>Drepanocladus vernicosus</i>) - [1833] Slender Naiad (<i>Najas flexilis</i>) 	
000299	Lough Cutra SAC	<ul style="list-style-type: none"> - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within the 15km buffer
000318	Peterswell Turlough SAC	<ul style="list-style-type: none"> - [3180] Turloughs* - [3270] Chenopodium rubri p.p. and Bidenton p.p. vegetation 	Within the 15km buffer
000319	Pollnacknockaun Wood Nature Reserve SAC	<ul style="list-style-type: none"> - [91A0] Old Oak Woodlands 	Within the 15km buffer
000606	Lough Fingall Complex SAC	<ul style="list-style-type: none"> - [3180] Turloughs* - [4060] Alpine and Subalpine Heaths - [5130] Juniper Scrub - [6210] Orchid-rich Calcareous Grassland* - [7210] Cladium Fens* - [8240] Limestone Pavement* - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within the 15km buffer
001275	Inisheer Island SAC	<ul style="list-style-type: none"> - [1150] Coastal Lagoons* - [1170] Reefs - [4030] Dry Heath - [6210] Orchid-rich Calcareous Grassland* - [6510] Lowland Hay Meadows - [8240] Limestone Pavement* 	Within the 15km buffer
001285	Kiltiernan Turlough SAC	<ul style="list-style-type: none"> - [3180] Turloughs* 	Within the 15km buffer
001313	Rosturra Wood SAC	<ul style="list-style-type: none"> - [91A0] Old Oak Woodlands 	Within the 15km buffer

001913	Sonnagh Bog SAC	- [7130] Blanket Bogs (Active)*	
002034	Connemara Bog Complex SAC	- [1150] Coastal Lagoons* - [1170] Reefs - [3110] Oligotrophic Waters containing very few minerals - [3130] Oligotrophic to Mesotrophic Standing Waters - [3160] Dystrophic Lakes - [3260] Floating River Vegetation - [4010] Wet Heath - [4030] Dry Heath - [6410] Molinia Meadows - [7130] Blanket Bogs (Active)* - [7140] Transition Mires - [7150] Rhynchosporion Vegetation - [7230] Alkaline Fens - [91A0] Old Oak Woodlands - [1065] Marsh Fritillary (<i>Euphydryas aurinia</i>) - [1106] Atlantic Salmon (<i>Salmo salar</i>) - [1355] Otter (<i>Lutra lutra</i>) - [1833] Slender Naiad (<i>Najas flexilis</i>)	Within the 15km buffer
002117	Lough Coy SAC	- [3180] Turloughs*	Within the 15km buffer
002180	Gortacarnaun Wood SAC	- [91A0] Old Oak Woodlands	Within the 15km buffer
002181	Drummin Wood SAC	- [91A0] Old Oak Woodlands	Within the 15km buffer
002244	Ardrahan Grassland SAC	- [4060] Alpine and Subalpine Heaths - [5130] Juniper Scrub - [8240] Limestone Pavement*	Within the 15km buffer
002293	Carrowbaun, Newhall and Ballylee Turloughs SAC	- [3180] Turloughs*	Within the 15km buffer
002294	Cahermore Turlough SAC	- [3180] Turloughs*	Within the 15km buffer
002295	Ballinduff Turlough SAC	- [3180] Turloughs*	Within the 15km buffer
002317	Cregg House Stables, Crusheen SAC	- [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>)	Within the 15km buffer
002341	Ardagullion Bog SAC	- [7110] Raised Bog (Active)* - [7120] Degraded Raised Bog - [7150] Rhynchosporion Vegetation	Within the 15km buffer
002263	Kerry Head Shoal SAC	- [1170] Reefs	Within the 15km buffer

000174	Curraghchase Woods SAC	<ul style="list-style-type: none"> - [91E0] Alluvial Forests* - [91J0] Yew Woodlands* - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within the 15km buffer
000432	Barrigone SAC	<ul style="list-style-type: none"> - [5130] Juniper Scrub - [6210] Orchid-rich Calcareous Grassland* - [8240] Limestone Pavement* - [1065] Marsh Fritillary (<i>Euphydryas aurinia</i>) 	Within the 15km buffer
000439	Tory Hill SAC	<ul style="list-style-type: none"> - [6210] Orchid-rich Calcareous Grassland* - [7210] <i>Cladium</i> Fens* - [7230] Alkaline Fens 	Within the 15km buffer
001432	Glenstal Wood SAC	<ul style="list-style-type: none"> - [1421] Killarney Fern (<i>Trichomanes speciosum</i>) 	Within the 15km buffer
002279	Askeaton Fen Complex SAC	<ul style="list-style-type: none"> - [7210] <i>Cladium</i> Fens* - [7230] Alkaline Fens 	Within the 15km buffer
000930	Clare Glen SAC	<ul style="list-style-type: none"> - [91A0] Old Oak Woodlands - [1421] Killarney Fern (<i>Trichomanes speciosum</i>) 	Within the 15km buffer
000939	Silvermine Mountains SAC	<ul style="list-style-type: none"> - [4010] Wet Heath - [6230] Species-rich <i>Nardus</i> Grassland* 	Within the 15km buffer
001197	Keeper Hill SAC	<ul style="list-style-type: none"> - [4010] Wet Heath - [7130] Blanket Bogs (Active)* 	Within the 15km buffer
002206	Scohaboy (Sopwell) Bog SAC	<ul style="list-style-type: none"> - [7120] Degraded Raised Bog 	Within the 15km buffer
002258	Silvermines West Mountains SAC	<ul style="list-style-type: none"> - [4010] Wet Heath - [4030] Dry Heath - [6130] Calaminarian Grassland 	Within the 15km buffer
Special Protection Areas (SPA)			
004005	Cliffs of Moher SPA	<ul style="list-style-type: none"> - [A009] Fulmar (<i>Fulmarus glacialis</i>) - [A188] Kittiwake (<i>Rissa tridactyla</i>) - [A199] Guillemot (<i>Uria aalge</i>) - [A200] Razorbill (<i>Alca torda</i>) - [A204] Puffin (<i>Fratercula arctica</i>) - [A346] Chough (<i>Pyrrhocorax pyrrhocorax</i>) 	Within Co. Clare
004031	Inner Galway Bay SPA	<ul style="list-style-type: none"> - [A003] Great Northern Diver (<i>Gavia immer</i>) - [A017] Cormorant (<i>Phalacrocorax carbo</i>) - [A028] Grey Heron (<i>Ardea cinerea</i>) - [A046] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) - [A050] Wigeon (<i>Anas penelope</i>) - [A052] Teal (<i>Anas crecca</i>) - [A056] Shoveler (<i>Anas clypeata</i>) - [A069] Red-breasted Merganser (<i>Mergus serrator</i>) - [A137] Ringed Plover (<i>Charadrius hiaticula</i>) - [A140] Golden Plover (<i>Pluvialis apricaria</i>) 	Within Co. Clare

		<ul style="list-style-type: none"> - [A142] Lapwing (<i>Vanellus vanellus</i>) - [A149] Dunlin (<i>Calidris alpina</i>) - [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>) - [A160] Curlew (<i>Numenius arquata</i>) - [A162] Redshank (<i>Tringa totanus</i>) - [A169] Turnstone (<i>Arenaria interpres</i>) - [A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) - [A182] Common Gull (<i>Larus canus</i>) - [A191] Sandwich Tern (<i>Sterna sandvicensis</i>) - [A193] Common Tern (<i>Sterna hirundo</i>) - Wetland and Waterbirds [A999] 	
004041	Ballyallia Lough SPA	<ul style="list-style-type: none"> - [A050] Wigeon (<i>Anas penelope</i>) - [A051] Gadwall (<i>Anas strepera</i>) - [A052] Teal (<i>Anas crecca</i>) - [A053] Mallard (<i>Anas platyrhynchos</i>) - [A056] Shoveler (<i>Anas clypeata</i>) - [A125] Coot (<i>Fulica atra</i>) - [A156] Black-tailed Godwit (<i>Limosa limosa</i>) - Wetland and Waterbirds [A999] 	Within Co. Clare
004058	Lough Derg (Shannon) SPA	<ul style="list-style-type: none"> - [A017] Cormorant (<i>Phalacrocorax carbo</i>) - [A061] Tufted Duck (<i>Aythya fuligula</i>) - [A067] Goldeneye (<i>Bucephala clangula</i>) - [A193] Common Tern (<i>Sterna hirundo</i>) - Wetland and Waterbirds [A999] 	Within Co. Clare
004077	River Shannon and River Fergus Estuaries SPA	<ul style="list-style-type: none"> - [A017] Cormorant (<i>Phalacrocorax carbo</i>) - [A038] Whooper Swan (<i>Cygnus cygnus</i>) - [A046] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) - [A048] Shelduck (<i>Tadorna tadorna</i>) - [A050] Wigeon (<i>Anas penelope</i>) - [A052] Teal (<i>Anas crecca</i>) - [A054] Pintail (<i>Anas acuta</i>) - [A056] Shoveler (<i>Anas clypeata</i>) - [A062] Scaup (<i>Aythya marila</i>) - [A137] Ringed Plover (<i>Charadrius hiaticula</i>) - [A140] Golden Plover (<i>Pluvialis apricaria</i>) - [A141] Grey Plover (<i>Pluvialis squatarola</i>) - [A142] Lapwing (<i>Vanellus vanellus</i>) - [A143] Knot (<i>Calidris canutus</i>) - [A149] Dunlin (<i>Calidris alpina</i>) - [A156] Black-tailed Godwit (<i>Limosa limosa</i>) - [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>) - [A160] Curlew (<i>Numenius arquata</i>) - [A162] Redshank (<i>Tringa totanus</i>) - [A164] Greenshank (<i>Tringa nebularia</i>) - [A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) - Wetland and Waterbirds [A999] 	Within Co. Clare
004114	Illauonearaun SPA	<ul style="list-style-type: none"> - [A045] Barnacle Goose (<i>Branta leucopsis</i>) 	Within Co. Clare

004119	Loop Head SPA	- [A188] Kittiwake (<i>Rissa tridactyla</i>) - [A199] Guillemot (<i>Uria aalge</i>)	Within Co. Clare
004168	Slieve Aughty Mountains SPA	- [A082] Hen Harrier (<i>Circus cyaneus</i>) - [A098] Merlin (<i>Falco columbarius</i>)	Within Co. Clare
004182	Mid-Clare Coast SPA	- [A017] Cormorant (<i>Phalacrocorax carbo</i>) - [A045] Barnacle Goose (<i>Branta leucopsis</i>) - [A137] Ringed Plover (<i>Charadrius hiaticula</i>) - [A144] Sanderling (<i>Calidris alba</i>) - [A148] Purple Sandpiper (<i>Calidris maritima</i>) - [A149] Dunlin (<i>Calidris alpina</i>) - [A169] Turnstone (<i>Arenaria interpres</i>) - Wetland and Waterbirds [A999]	Within Co. Clare
004220	Corofin Wetlands SPA	- [A004] Little Grebe (<i>Tachybaptus ruficollis</i>) - [A038] Whooper Swan (<i>Cygnus cygnus</i>) - [A050] Wigeon (<i>Anas penelope</i>) - [A052] Teal (<i>Anas crecca</i>) - [A156] Black-tailed Godwit (<i>Limosa limosa</i>) - Wetland and Waterbirds [A999]	Within Co. Clare
004056	Lough Cutra SPA	- [A017] Cormorant (<i>Phalacrocorax carbo</i>)	Within the 15km buffer
004096	Middle Shannon Cal-lows SPA	- [A038] Whooper Swan (<i>Cygnus cygnus</i>) - [A050] Wigeon (<i>Anas penelope</i>) - [A122] Corncrake (<i>Crex crex</i>) - [A140] Golden Plover (<i>Pluvialis apricaria</i>) - [A142] Lapwing (<i>Vanellus vanellus</i>) - [A156] Black-tailed Godwit (<i>Limosa limosa</i>) - [A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) - Wetland and Waterbirds [A999]	Within the 15km buffer
004107	Coole-Garryland SPA	- [A038] Whooper Swan (<i>Cygnus cygnus</i>)	Within the 15km buffer
004142	Cregganna Marsh SPA	- [A395] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)	Within the 15km buffer
004181	Connemara Bog Complex SPA	- [A017] Cormorant (<i>Phalacrocorax carbo</i>) - [A098] Merlin (<i>Falco columbarius</i>) - [A140] Golden Plover (<i>Pluvialis apricaria</i>) - [A182] Common Gull (<i>Larus canus</i>)	Within the 15km buffer
004161	Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	- [A082] Hen Harrier (<i>Circus cyaneus</i>)	Within the 15km buffer
004189	Kerry Head SPA	- [A009] Fulmar (<i>Fulmarus glacialis</i>) - [A346] Chough (<i>Pyrrhocorax pyrrhocorax</i>)	Within the 15km buffer
004165	Slievefelim to Silvermines Mountains SPA	- [A082] Hen Harrier (<i>Circus cyaneus</i>)	Within the 15km buffer



Legend	
	Special Protection Areas
	Special Area of Conservation
	County Clare
	County Clare 15km Buffer
Project	
Appropriate Assessment Screening Report for Climate Change Adaptation Strategy for Clare Co Co	
Client	
Climate Action Regional Office (CARO)	
Title	
Figure 3: Natura 2000 sites within 15km of Strategy area	
<small>3D Core C, Block 71, The Plaza Park West, Dublin 12 D12F9TH www.enviroguide.ie info@enviroguide.ie +353 (0)1 565 4730</small>	
Drawn by: ME	Projection:
Checked : JD	IRENET95 Irish Transverse Mercator
Date: 26/06/2019	Scale: 1:786,432 @A4
Notes:	
Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries.	

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri, Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

2.3 Assessment of Significance of Potential Impacts

The potential for significant impacts resulting from the Clare County Council's Climate Change Adaptation Strategy has been assessed in relation to Natura 2000 sites within the precautionary zone of potential impact.

Impacts that require consideration are categorised under the following criteria, as outlined in *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2001).

- Habitat loss or alteration;
- Habitat / species fragmentation;
- Disturbance and / or displacement of species;
- Changes in population density; and
- Changes in water quality and resource.

Please find in Appendix 1, a detailed assessment of each Objective and Action against each of the criteria set out above.

Following this assessment, as outlined in Appendix 1, it is considered that the Climate Change Adaptation Strategy will not result in any significant effects on any Natura 2000 sites.

Clare County Council's Climate Change Adaptation Strategy is designed to inform responses throughout the local authority to the effects of climate change and does not identify specific areas for development. Any future projects resulting from the objectives laid out in the Strategy will need to comply with the relative legislation in relation to Appropriate Assessment, where appropriate.

2.3.1 In-combination Effects

The following planning and policy documents were reviewed and considered for possible in-combination effects with the proposed Strategy:

- Clare County Development Plan 2017-2023; and
- Clare Biodiversity Action Plan 2017-2023

Due to the nature of Clare County Council's Climate Change Adaptation Strategy, and in particular its main objective of mainstreaming Climate Adaptation into all functions within Clare County Council, there is no in-combination effects identified to any Natura 2000 sites as a result of this Climate Change Adaptation Strategy.

Clare County Council's Climate Change Adaptation Strategy is designed to inform council policy documents and actions in relation to climate change adaptation. As such it is high level and the objectives and actions are high level and not area specific.

Other Local Authority documents such as the County Development Plan will take their lead from the Climate Change Adaptation Strategy. These, as part of the plan preparation process will be subject to compliance with the SEA Directive and Article 6 of the Habitats Directive that ensures that objectives and actions that result will be adequately examined for ecological effects.

Should specific actions result from these plans these will be subject to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist. The EIA and AA will ensure that any possible environmental and ecological effects of any outcomes from the adaptation plans will be adequately assessed.

2.3.2 Screening Matrix

Brief description of the plan:
Preparation of the Clare County Council Climate Change Adaptation Strategy. This document is designed to inform the policy documents of Clare County Council in adapting to the effects of climate change.
Brief description of the Natura 2000 sites Located in County Clare. Table 4 and Figure 3 above details the exhausted list of SAC and SPAs and the qualifying interests of Natura 2000 sites inside and outside Clare County.
<p>County Clare has a number of important inland and coastal SAC and SPAs. There are a number of SACs designated for Turloughs, Lakes, Fens and Blanket Bog. Ballyogan Lough SAC [000019] and Ballycullinan Lake SAC [000016] are designated for Cladium Fens, an Annex I Habitat.</p> <p>Ballyvaughan Turlough SAC [000996], Termon Lough SAC [001321] and Lough Gash Turlough SAC [000051] are designated solely for Turloughs, which is also an Annex I habitat. Other SACs such as Moneen Mountain SAC [000054], Moyree River System SAC [000057] and East Burren Complex SAC [001926] are designated as SACs for a range of habitats types, such as Juniper Scrub, Orchid-rich Calcareous Grassland, Limestone Pavement, Alkaline Fens and Alpine and Subalpine Heaths. The East Burren Complex SAC [001926] is a large site incorporates all of the high ground in the east Burren in Counties Clare and Galway and extends south-eastwards to include a complex of calcareous wetlands. The area encompasses a range of limestone habitats that include limestone pavement and associated calcareous grasslands and heath, scrub and woodland together with a network of calcareous lakes and turloughs. The site exhibits some of the best and most extensive areas of oligotrophic limestone wetlands to be found in the Burren and in Europe.</p> <p>Tullaheer Lough and Bog SAC [002343], Slieve Bernagh Bog SAC [002312], Pollagoona Bog SAC [002126], Glendree Bog SAC [001912], Loughatorick South Bog SAC [000308] are designated for their bog habitat, in particular Active Blanket Bog. Other SACs such as Tullaheer Lough and Bog SAC [002312] and Slieve Bernagh Bog SAC [002343] are designated for the wet and dry heath habitat and raised bog and transitional mires.</p> <p>Due to County Clare limestone bedrock, it supports a range of features including limestone pavement, which is an Annex I habitat in addition to Caves habitat. Pouladatig Cave SAC [000037], Ratty River Cave SAC [002316], Poulmagordon Cave (Quin) SAC [000064] and Newhall and Edenvale Complex SAC [002091] are designated for the Cave habitats.</p> <p>The SACs that are designated for Cave habitats generally support populations of Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>). The following SACs have Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) as their qualify interest; Old Domestic Building (Keevagh) SAC [002010], Newhall and Edenvale Complex SAC [002091], Newgrove House SAC [002165], Old Farm Buildings, Ballymacrogan SAC [002245], Ballycullinan, Old Domestic Building SAC [002246], Toonagh Estate SAC [002247], Old Domestic Buildings, Rylane SAC [002314], Ratty River Cave SAC [002316], Knockanira House SAC [002318], Kilkishen House SAC [002319], Poulmagordon Cave (Quin) SAC [000064] , Pouladatig Cave SAC [000037] , Dromore Woods and Loughs SAC [000032] and Danes Hole, Poulnalecka SAC [000030].</p> <p>The remaining inland site, such as Ballyallia Lake SAC [000014] is designated as for Natural Eutrophic Lakes. Glenomra Wood SAC supports Old Oak Woodlands habitat and Ballyteige (Clare) SAC [000994] Molina Meadows.</p> <p>The coastline of Clare supports a range of SACs and SPAs. The SACs, such as Black Head-Poulsallagh Complex SAC [000020], Inagh River Estuary SAC [000036], Galway Bay Complex SAC [000268], Carrowmore Point to Spanish Point and Islands SAC [001021], Lower River Shannon SAC [002165], Carrowmore Dunes SAC [002250] and Kilkee Reefs SAC [002264] are designated for a range of habitats and species such as Reefs,</p>

Fixed coastal dunes with herbaceous vegetation, Mediterranean Salt Meadows, Mudflats and Sandflats, Marram Dunes (White Dunes), Atlantic Salmon (*Salmo salar*), Bottle-nosed Dolphin (*Tursiops truncatus*) and Otter (*Lutra lutra*).

The SPA along the Clare coast, such as the Cliffs of Moher SPA [004005] and Loop Head SPA [004119] are designated for a variety of breeding seabirds such as, Fulmar (*Fulmarus glacialis*), Kittiwake (*Rissa tridactyla*), Guillemot (*Uria aalge*), Razorbill (*Alca torda*), and Puffin (*Fratercula arctica*). The lower lying coastal SPA such as Inner Galway Bay SPA [004031], River Shannon and River Fergus Estuaries SPA [004077], Lough Derg (Shannon) SPA [004058] and Mid-Clare Coast SPA [004182] are designated for supporting high numbers of wetland birds and waders such as Ringed Plover (*Charadrius hiaticula*), Sanderling (*Calidris alba*), Purple Sandpiper (*Calidris maritima*), Dunlin (*Calidris alpina*) and Turnstone (*Arenaria interpres*). Similarly, Ballyallia Lough SPA [004041] and Corofin Wetlands SPA [004220] support large numbers of wetlands and waterbirds.

Illaunonearaun SPA [004114] is a small inaccessible island located approximately 300m off the west Co. Clare coast, about 7 km south-west of Kilkee and supports a population of wintering Barnacle Goose (*Branta leucopsis*), which is the SPAs qualifying interest.

Slieve Aughty Mountains SPA [004168] a large site that extends southwards from Lough Rea, County Galway to Scariff in County Clare. The peaks are not notably high or indeed pronounced; the site rises to a maximum 400 m at Maghera west of Lough Graney. This site is designated for support populations of Hen Harrier (*Circus Cyaneus*) and Merlin (*Falco columbarius*).

Describe the individual elements of the plan (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site:

The Adaptation Strategy is designed to inform Council Policy documents and actions in relation to climate change adaptation. As such it is high level and the objectives and actions are high level and not area specific.

Other Local Authority documents such as County Development plans will take their lead from the Climate Change Adaptation Strategy. These, as part of the plan preparation process will be subject to SEA and AA that ensures that objectives and actions that result will be adequately examined for ecological effects.

Should specific actions result from these plans these will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist. The EIA and AA will ensure that any possible environmental and ecological effects of any outcomes from the adaptation plans will be adequately assessed.

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:

• Size and scale;

The adaptation strategy takes in all of county Clare see Figure 2 above. Of the actions in the plan, it would also be worth mentioning that the effects of the implementation of the adaptation strategy would be expected to be beneficial as it reduces risk from climate change and actions exist in the strategy to use environmentally friendly adaptation measures, such as the objective *To promote effective bio-diversity management and enhance protection of natural habitats and landscapes.*

• Land-take;

None envisaged at this stage of the process. Please note that any actions and projects, as yet unknown that may arise, will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist.

• Distance from Natura 2000 site or key features of the site;

See Brief Description of Natura 2000 sites above and also Table 4

• Resource requirements (water abstraction etc.);

<p>No policies within the Climate Change Adaptation Strategy indicate the need for abstraction of water from any designated site.</p>
<p>• Emission (disposal to land, water or air);</p> <p>No uncontrolled emissions are envisaged as a result of the objectives and actions of the Climate Change Adaptation Strategy. Where these might arise, at project level and not strategy level, these will be subject to appropriate assessment in line with planning and wildlife legislation.</p>
<p>• Excavation requirements;</p> <p>Clare’s Climate Change Adaptation Strategy is chiefly designed to inform policy responses to climate adaptation. No excavation related activities have been mentioned in the strategy. Where this might arise at project level they will be subjected to assessment at that stage.</p>
<p>• Transportation requirements;</p> <p>It is not considered that any of the policies put forward in the strategy call for the development of new routes and as such will not have any effect on any designated sites.</p>
<p>• Duration of construction, operation, decommissioning, etc;</p> <p>The lifespan of the Climate Adaptation Strategy will be five years, i.e. from 2019 to 2024.</p>
<p>• Other</p> <p>None.</p>
<p>Describe any likely changes to the site arising as a result of:</p>
<p>• reduction of habitat area:</p> <p>None – the objectives and actions of the Climate Change Adaptation Strategy are high level and at this stage do not envisage habitat reduction in any of the Natura 2000 sites. As outlined above, where this might arise at project stage, it will be assessed at that level. It should be noted, that some of actions of the plan promote ecological solutions to climate adaptation issues and these offer opportunities for habitat creation. These might take the form of flood residence areas for example.</p>
<p>• disturbance to key species;</p> <p>None- the plan is about climate adaptation. The adoption of ecological solutions would have beneficial ecological effects and these might well allow additional buffer areas and areas that function as green infrastructure.</p>
<p>• habitat or species fragmentation;</p> <p>None- see comments immediately above.</p>
<p>• reduction in species density;</p> <p>None envisaged as the objectives and actions of the adaptation strategy are designed to inform council responses to climate adaptation issues and do not envisage interventions in designated sites. As outlined above the adaptation of ecologically based responses to climate adaptation could well offer an opportunity to create wildlife habitats that would make a positive contribution to species that are of conservation interest.</p>
<p>• changes in key indicators of conservation value</p>

<p>No projects giving rise to significant adverse changes in key indicators of conservation value for Natura 2000 sites are likely given that policies are in place in the County Development Plan to control possible effects and to ensure that the potential for such effects is adequately assessed and taken into account in any projects.</p>
<p>• Climate change:</p> <p>This is a Climate Change Adaptation Strategy that is designed to inform responses to the effects of climate change. These include the promotion of ecologically based adaptation to climate change and also mentions the need to consider the issue of invasive alien species as part of this process.</p>
<p>Describe any likely impacts on the Natura 2000 site as a whole in terms of:</p>
<p>• interference with the key relationships that define the structure of the sites;</p> <p>None, see above in relation to promotion of ecologically based adaptation responses. Any projects that might result will also be assessed at design stage for possible ecological effects.</p>
<p>• interference with key relationships that define the function of the sites;</p> <p>None.</p>
<p>Provide indicators of significance as a result of the identification of effects set out above in terms of:</p>
<p>• loss;</p> <p>Not applicable.</p>
<p>• Fragmentation;</p> <p>Not applicable, see response above regarding the use of ecologically based responses which would allow for the development of buffers</p>
<p>• Disruption;</p> <p>Not applicable.</p>
<p>• Disturbance;</p> <p>Not applicable.</p>
<p>• Change to key elements of the site (e.g. water quality etc.);</p> <p>Not applicable.</p>
<p>Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts are not known.</p>
<p>The objectives and actions are high level and are intended to serve as guidance for the inclusion of material in other council policy documents such as the County Development Plan. It is here through mechanisms such as zoning and planning policy that the Adaptation Strategy will be given effect. These, as part of the plan preparation process will be subject to compliance with the SEA Directive and Article 6 of the Habitats Directive that ensures that objectives and actions that result will be adequately examined for ecological effects.</p>

2.3.3 Findings of No Significant Effects Matrix

Brief description of the plan:	Clare County Council Climate Adaptation Strategy 2019-2024.
<p>Natura 2000 sites within County Clare, see also Figure 3 and Table 4 for exhausted list:</p>	<p>County Clare has a number of important inland and coastal SAC and SPAs. There are a number of SACs designated for Turloughs, Lakes, Fens and Blanket Bog. Ballyogan Lough SAC [000019] and Ballycullinan Lake SAC [000016] are designated for Cladium Fens, an Annex I Habitat.</p> <p>Ballyvaughan Turlough SAC [000996], Termon Lough SAC [001321] and Lough Gash Turlough SAC [000051] are designated solely for Turloughs, which is also an Annex I habitat. Other SACs such as Moneen Mountain SAC [000054], Moyree River System SAC [000057] and East Burren Complex SAC [001926] are designated as SACs for a range of habitats types, such as Juniper Scrub, Orchid-rich Calcareous Grassland, Limestone Pavement, Alkaline Fens and Alpine and Subalpine Heaths. The East Burren Complex SAC [001926] is a large site incorporates all of the high ground in the east Burren in Counties Clare and Galway and extends south-eastwards to include a complex of calcareous wetlands. The area encompasses a range of limestone habitats that include limestone pavement and associated calcareous grasslands and heath, scrub and woodland together with a network of calcareous lakes and turloughs. The site exhibits some of the best and most extensive areas of oligotrophic limestone wetlands to be found in the Burren and in Europe.</p> <p>Tullaheer Lough and Bog SAC [002343], Slieve Bernagh Bog SAC [002312], Pollagoona Bog SAC [002126], Glendree Bog SAC [001912], Loughatorick South Bog SAC [000308] are designated for their bog habitat, in particular Active Blanket Bog. Other SACs such as Tullaheer Lough and Bog SAC [002312] and Slieve Bernagh Bog SAC [002343] are designated for the wet and dry heath habitat and raised bog and transitional mires.</p> <p>Due to County Clare limestone bedrock, it supports a range of features including limestone pavement, which is an Annex I habitat in addition to Caves habitat. Pouladatig Cave SAC [000037], Ratty River Cave SAC [002316], Poulmagordon Cave (Quin) SAC [000064] and Newhall and Edenvale Complex SAC [002091] are designated for the Cave habitats.</p> <p>The SACs that are designated for Cave habitats generally support populations of Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>). The following SACs have Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) as their qualify interest; Old Domestic Building (Keavagh) SAC [002010], Newhall and Edenvale Complex SAC [002091], Newgrove House SAC [002165], Old Farm Buildings, Ballymacrogan SAC [002245], Ballycullinan, Old Domestic Building SAC [002246], Toonagh Estate SAC [002247], Old Domestic Buildings, Rylane SAC [002314], Ratty River Cave SAC [002316], Knockanira House SAC [002318], Kilkishen House SAC [002319], Poulmagordon Cave (Quin) SAC [000064], Pouladatig Cave SAC [000037], Dromore Woods and Loughs SAC [000032] and Danes Hole, Poulnalecka SAC [000030].</p>

	<p>The remaining inland site, such as Ballyallia Lake SAC [000014] is designated as for Natural Eutrophic Lakes. Glenomra Wood SAC supports Old Oak Woodlands habitat and Ballyteige (Clare) SAC [000994] Molina Meadows.</p> <p>The coastline of Clare supports a range of SACs and SPAs. The SACs, such as Black Head-Poulsallagh Complex SAC [000020], Inagh River Estuary SAC [000036], Galway Bay Complex SAC [000268], Carrowmore Point to Spanish Point and Islands SAC [001021], Lower River Shannon SAC [002165], Carrowmore Dunes SAC [002250] and Kilkee Reefs SAC [002264] are designated for a range of habitats and species such as Reefs, Fixed coastal dunes with herbaceous vegetation, Mediterranean Salt Meadows, Mudflats and Sandflats, Marram Dunes (White Dunes), Atlantic Salmon (<i>Salmo salar</i>), Bottle-nosed Dolphin (<i>Tursiops truncatus</i>) and Otter (<i>Lutra lutra</i>).</p> <p>The SPA along the Clare coast, such as the Cliffs of Moher SPA [004005] and Loop Head SPA [004119] are designated for a variety of breeding seabirds such as, Fulmar (<i>Fulmarus glacialis</i>), Kittiwake (<i>Rissa tridactyla</i>), Guillemot (<i>Uria aalge</i>), Razorbill (<i>Alca torda</i>), and Puffin (<i>Fratercula arctica</i>). The lower lying coastal SPA such as Inner Galway Bay SPA [004031], River Shannon and River Fergus Estuaries SPA [004077], Lough Derg (Shannon) SPA [004058] and Mid-Clare Coast SPA [004182] are designated for supporting high numbers of wetland birds and waders such as Ringed Plover (<i>Charadrius hiaticula</i>), Sanderling (<i>Calidris alba</i>), Purple Sandpiper (<i>Calidris maritima</i>), Dunlin (<i>Calidris alpina</i>) and Turnstone (<i>Arenaria interpres</i>). Similarly, Ballyallia Lough SPA [004041] and Corofin Wetlands SPA [004220] support large numbers of wetlands and waterbirds.</p> <p>Illaunonearaun SPA [004114] is a small inaccessible island located approximately 300m off the west Co. Clare coast, about 7 km south-west of Kilkee and supports a population of wintering Barnacle Goose (<i>Branta leucopsis</i>), which is the SPAs qualifying interest.</p> <p>Slieve Aughty Mountains SPA [004168] a large site that extends southwards from Lough Rea, County Galway to Scariff in County Clare. The peaks are not notably high or indeed pronounced; the site rises to a maximum 400 m at Maghera west of Lough Graney. This site is designated for support populations of Hen Harrier (<i>Circus Cyaneus</i>) and Merlin (<i>Falco columbarius</i>).</p>
<p>Description of the Project or Plan</p>	<p>As given in Screening Matrix above.</p>
<p>Is the Project or Plan directly connected with or necessary to the management of the site (provide details)?</p>	<p>No.</p>
<p>Are there other projects or plans that together with the project of plan being assessed could affect the site (provide details)?</p>	<p>None.</p>

The Assessment of Significance of Effects	
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 sites:	None envisaged as the objectives and actions of the adaptation strategy are designed to inform council responses to climate adaptation issues and do not envisage interventions in designated sites. As outlined above the adaptation of ecologically based responses to climate adaptation could well offer an opportunity to create wildlife habitats that would make a positive contribution to species that are of conservation interest.
Explain why these effects are not considered significant:	The effects of the implementation of the adaptation strategy would be expected to be beneficial as it reduces risk from climate change and actions exist in the strategy to use environmentally friendly adaptation measures
List of Agencies Consulted: Provide contact name and telephone or email address:	<p>Clare County Council on the 9th July 2019 sent the Draft Climate Change Adaptation Strategy, the SEA Screening Report and Appropriate Assessment (AA) Screening to the following Environmental Authorities:</p> <ul style="list-style-type: none"> • Minister for Culture, Heritage and the Gaeltacht; • Minister for Communications, Climate Action and Environment; • Minister for Housing, Planning and Local Government; • Minister for Department of Agriculture, Food and the Marine; and • Environmental Protection Agency. <p>Clare County Council also conducted a four-week period from 12th July 2019 to 9th August 2019, where the Draft Climate Adaptation Strategy, with the accompanying SEA Screening Report and AA Screening Report, were presented for public consultation.</p>
Summary of Responses received for previous draft.	<p>29 submissions were received, from the following organisation and individuals. They can be summarised into the following themes:</p> <ul style="list-style-type: none"> • Specific Objectives outlined in submissions. • Primary Legislation required • Adaptation versus Mitigation • Objective already included • Other documents conflated with this strategy • Objectives not relevant • Advertising <p>Post review of all of the submissions, Clare County Council have concluded no further amendments are required to the Climate Change Adaptations Strategy. The Chief Executive Report attached with Clare's Climate Change Adaptation Strategy provides a detailed summary and Clare County Councils specific response to each of the submissions.</p>

Data Collected to Carry out the Assessment			
Who carried out the Assessment?	Sources of Data	Level of assessment Completed	Where can the full results of the assessment be accessed and viewed
Enviroguide Consulting	Existing NPWS - Site Synopses, Conservation Objectives and Natura 2000 forms – see section 4 of this document	Desktop study	With Climate Change Adaptation Strategy

3 CONCLUSION

In conclusion, further to a screening of Clare County Council's Climate Change Adaptation Strategy for possible significant effects on Natura 2000 sites no significant effects were identified. The screening outlined in this report included an assessment of possible in-combination effects. Based on the objective information contained in this report and applying the precautionary principle, it is concluded that the Strategy will not have a significant effect on Natura 2000 sites.

Other Local Authority documents such as the County Development Plan will take their lead from the Climate Change Adaptation Strategy. These, as part of the plan preparation process will be subject to compliance with the SEA Directive and Article 6 of the Habitats Directive that ensures that objectives and actions that result will be adequately examined for ecological effects.

Furthermore, should specific actions result from these plans these will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist. The EIA and AA will ensure that any possible environmental and ecological effects of any outcomes from the adaptation plans will be adequately assessed.

3.1 Reason for Conclusion

The reasons for the above conclusion are detailed in this report but are summarised as follows:

due to the nature of Clare County Council's Climate Change Adaptation Strategy, and in particular its main objective of mainstreaming Climate Adaptation into all functions within Clare County Council, there is no possible effects identified to any Natura 2000 sites as a result of the Climate Change Adaptation Strategy.

4 REFERENCES

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APPENDIX 1 – CRITERIA ASSESSMENT OF OBJECTIVES AND ACTIONS

Objectives	Impact Assessment on Natura 2000 Sites as per Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC					
	Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required
Local Adaptation Governance and Business Operations						
To ensure that climate adaptation is mainstreamed into all activities and operations of the Local Authority. To implement an appropriate response in addressing diversity of climate change impacts.	No	No	No	No	No	No – As this objective aim is to mainstream Climate Adaptation measures into future Clare County Council plans
Infrastructure and Built Environment						
To ensure and increase the resilience of infrastructural assets and inform investment decisions.	No	No	No	No	No	No – As this objective aims to compile information and data to help Clare County Council make informed decisions and produce robust forward planning documents.
To promote County Clare as a Low Carbon County and support the development of low carbon and green technology businesses and industries throughout the County.	No	No	No	No	No	No – As this objective aims to identify the risk and to plan for Clare County Council building and housing infrastructure
To support sustainable travel in County Clare.						No – As this objective aims to inform Clare County Council travel planning
To support land use policy, future development proposals and transportation strategies that ensure the viability of bus and rail services in County Clare.						No – As this objective aims to inform Clare County Council transportation planning
Land Use and Development						
To provide for the integration of planning, land-use and transportation considerations in identifying the optimum location for future development.	No	No	No	No	No	No – As this objective aims to inform Clare County Council travel and transportation planning
To integrate climate action consideration into landuse planning policy and influence positive behaviour.						No – As this objective aim is to mainstream Climate Adaptation measures into future County Council initiatives
Drainage and Flood Management						
To manage the risk of flooding through a variety of responses	No	No	No	No	No	No – As this objective aim is manage Climate Adaptation measures to flood responses
To ensure that areas that are at risk of Flooding are clearly identified and to ensure that inappropriate development does not take place within areas that are at risk of flooding.	No	No	No	No	No	No – As this objective aims to identify and mitigate the risks from flooding to County Clare
To mitigate the risk and impact of flooding	No	No	No	No	No	No – As this objective aims to ensure consistent planning and preventative measures to climate change adaptation
To undertake measures to reduce coastal flooding and to proactively react to incidences of coastal flooding in County Clare.	No	No	No	No	No	
Natural Resources and Cultural Infrastructure						
To provide for enhancement of natural environment to work positively towards climate action	No	No	No	No	No	No – As this objective aim is to assess Climate Change adaptation factors, in combination with biodiversity issues and identify biodiversity risks

	Impact Assessment on Natura 2000 Sites as per Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC					
	Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required
Objectives						
To protect heritage and cultural infrastructure.	No	No	No	No	No	No – As this objective aim is to protect heritage and cultural infrastructure to elements of Climate Change and adaptation measures.
To promote effective Bio-diversity management and enhance protection of natural habitats and landscapes.	No	No	No	No	No	No – As this objective aim is investigate and plan for sustainable energy production and use
To promote and facilitate the provision of high quality, secure, efficient and reliable renewable energy sources along with appropriate energy storage facilities in order to assist in the creation of a low carbon County Clare.	No	No	No	No	No	No – as this objective looks to support an integrated framework plan that already incorporated SEA planning.
To support the Strategic Integrated Framework Plan for the Shannon Estuary in order to harness the significant energy resources of the Shannon Estuary.	No	No	No	No	No	No – as this objective looks to protect an area through planning policy.
To protect and preserve the Burren and Cliffs of Moher Geopark while only allowing for appropriate development in accordance with environmental legislation.	No	No	No	No	No	No – as this objectives looks to collaborate with relevant bodies regarding water resources.
To liaise and work with other bodies and agencies responsible for the management of water resources.	No	No	No	No	No	No – as this objective looks to protect and enhance an area through planning policy.
To expand the cultural infrastructure of County Clare through the development of the tourism industry, the green infrastructure and public amenities and facilities of the county.	No	No	No	No	No	No – as this objective looks to protect and enhance an area through planning policy.
Community Health and Wellbeing						
To build capacity and resilience within communities	No	No	No	No	No	No – As this objective aim is to promote awareness in communities of the effects of climate change

Local Adaptation Governance and Business Operations	Actions	Impact Assessment on Natura 2000 Sites						NOTE
		Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required	
1	Establish an Adaptation Steering Group with representatives from across key functions of local authority to ensure the successful implementation of the actions of this Climate Change Adaptation Plan and to report on progress.	No	No	No	No	No	No	
2	Main Stream Climate Action Policy as integral considerations in the Corporate Plan objectives providing for all the local authority activities and the delivery of functions and services across the administrative area.	No	No	No	No	No	No	
3	Undertake and implement a Business Continuity Plan to identify and address specifically, the impacts associated with extreme weather events on all functions/services of the local authority including: <ul style="list-style-type: none"> · Preparing for critical services disruptions, · Mitigating / Minimising the impact of service disruption and, · Improving the capacity / ability to recover. 	No	No	No	No	No	No	As part of Strategy preparation, compliance with the SEA Directive and Article 6 of the Habitats Directive that ensures that objectives and actions that result will be adequately examined for ecological effects.
4	Through our Learning and Development Unit we will work with all Directorates in the first instance to raise awareness and basic understanding of Climate Change and Adaptation among our staff, Councillors and the wider community. We will work through our existing networks and partners (i.e. Junior Achievement / Regional Training Centres etc) to develop more formalised structures and training: particularly in the areas of response and Health & Safety.	No	No	No	No	No	No	
5	Liaise, collaborate and work in partnership with the sectors identified in the National Adaptation Framework in the delivery of the sectoral adaptation actions, as approved by Government, where they relate and are relevant to the functions and activities of Clare County Council at local level and in local communities.	No	No	No	No	No	No	

Infrastructure and Built Environment	Actions	Impact Assessment on Natura 2000 Sites						NOTE
		Habitat Loss or Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required	
1	Apply a robust risk assessment and management framework to Local Authority owned buildings and properties to identify and protect against the key vulnerabilities to the impacts of climate change and mitigate against service disruption.	No	No	No	No	No	No	
2	Integrate climate considerations into the design, planning and construction of all roads, footpaths, bridges, public realm and other construction projects. Make provision to incorporate green infrastructure as a mechanism for carbon offset.	No	No	No	No	No	No	Specific actions resulting from these plans will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist.
3	Under a Risk Assessment of physical infrastructure in the area identify the severity of climate change risks on their function and condition. The risk assessment should provide for an understanding and quantification of risks posed. The findings should be integrated into decision making processes, road infrastructure programmes and physical investment strategies.	No	No	No	No	No	No	
4	Incorporate climate change impacts into Major Emergency Risk Assessment. These include an assessment of the risks to Co. Clare associated with severe weather extremes (wind storms, severe cold/ice, electrical storms, heat waves, flooding, landslides and forest fires), and maintenance of critical infrastructure	No	No	No	No	No	No	
1	Facilitate through land use, policy objectives, the Development Management Process and subject to the necessary environmental investigations and safeguards, the development of energy sources which will achieve low carbon outputs.							
2	Promote measures to reduce emissions of greenhouse gases through the adoption of sustainable planning strategies, as well as objectives for the integration of land use and transportation planning.							
3	Raise awareness and understanding of the impacts of climate change on both the local economy and communities in the County.							
4	Support sustainable modes of transport such as walking and cycling through promotional strategies and the provision of infrastructure where required.							
5	Support on-land and off-shore renewable energy production by a range of appropriate technologies							Specific actions resulting from these plans will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist. OR As part of Strategy preparation, compliance with the SEA Directive and Article 6 of the Habitats Directive that ensures that objectives and

Infrastructure and Built Environment	Actions	Impact Assessment on Natura 2000 Sites						NOTE
		Habitat Loss or Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required	
								actions that result will be adequately examined for ecological effects.
6	(a)As a means of de-carbonising the economic and social sectors, thus reducing greenhouse gases, we will support the increased use of renewable energy in the commercial and agricultural sectors. (b)Support energy efficiency in industry and communal programmes at town and village level in households. (c)Support public sector bodies to achieve energy efficiency targets in their use of energy and support them in adopting energy management systems (E.G. ISO 50001)							
7	Develop and Promote Clare as a sustainable, secure affordable and low carbon economy as a means of attracting inward investment. Increase participation of businesses in energy management programmes.							
8	Develop a risk assessment to safeguard capital buildings such as housing stock, libraries, community buildings, fire stations, Museum, Leisure Centres, Visitor attractions, works depots and Civic Amenity sites that Clare County Council owns and maintains from the risks associated with the impacts of climate change.							
9	In accordance with the objectives of the Atlantic Economic Corridor, identify the vacant Council owned buildings and Enterprise space in key towns in the County and work to maximise occupation of existing vacant buildings and brown field sites.							
1	Prepare an integrated transport strategy that takes account of 'Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009-2020' and promote the development of walking, cycling, public transport and other sustainable forms of transport.							As part of Strategy preparation, compliance with the SEA Directive and Article 6 of the Habitats Directive that ensures that objectives and actions that result will be adequately examined for ecological effects.
2	Support the provision of green infrastructure development, active living and sustainable residential development.							Specific actions resulting from these plans will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist.
3	(a) Prepare and implement a Sustainable Urban Mobility Plan for the Ennis and Environs area. (b) implement an Active Travel Towns programme in the Ennis area arising from the Ennis 2040 strategy.							Specific actions resulting from these plans will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist. OR As part of Strategy preparation, compliance with the

Infrastructure and Built Environment	Actions	Impact Assessment on Natura 2000 Sites						NOTE
		Habitat Loss or Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required	
								SEA Directive and Article 6 of the Habitats Directive that ensures that objectives and actions that result will be adequately examined for ecological effects.
1	Support and facilitate the improvement and expansion of rail infrastructure and services and the opening/reinstating of railway stations on the Western Railway Corridor within County Clare and in particular Crusheen.							Specific actions resulting from these plans will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist.
2	Support and work with relevant partners to sustain year round rail services from Ennis to Limerick.							
3	Through land use zoning and the Development Management Process, identify and safeguard land required for the development of rail infrastructure including bridges, stations and goods terminals and areas necessary for the development of the rail infrastructure in the County.							
4	Work with relevant stakeholders to encourage and promote a sustainable, community-based public transport scheme that will enable access to service centers for all members of the community in the County.							

Landuse and Development	Actions	Impact Assessment on Natura 2000 Sites						NOTE
		Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required	
1	Through the Development Plan and Local Area Plan process, ensure that sufficient lands are zoned at appropriate locations in order to meet the envisaged land use requirements of the area during the lifetime of the Development Plan.	No	No	No	No	No	No	As part of Strategy preparation, compliance with the SEA Directive and Article 6 of the Habitats Directive that ensures that objectives and actions that result will be adequately examined for ecological effects..
2	Input into the development of the Limerick Shannon Metropolitan Area Transport Strategy (LSMATS) and implement when adopted.	No	No	No	No	No	No	
1	Integrate and promote climate-smart and NZEB (Near zero energy buildings) design performance outcomes in development standards through the development management process.	No	No	No	No	No	No	Specific actions resulting from these plans will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist.
2	Promote the integrated planning; design and delivery of green infrastructure (including urban greening) through appropriate provisions in planning policies, development standards, and infrastructural, public realm and community projects.	No	No	No	No	No	No	Specific actions resulting from these plans will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist.
3	Research and incorporate, in the statutory planning process, measures in accordance with Section 10 (n) of the Planning and development Acts 2000 (as amended) for: (n) the promotion of sustainable settlement and transportation strategies in urban and rural areas	No	No	No	No	No	No	

Drainage and Flood Management	Actions	Impact Assessment on Natura 2000 Sites						NOTE
		Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required	
1	Develop a surface water management plan for the assessment and management of flood risks with the aim of reducing the adverse consequences of flooding, to prioritise projects to reduce surface water and groundwater flood risk	No	No	No	No	No	No	Specific actions resulting from these plans will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist..
2	Stipulate the requirement for the design and specification of urban stormwater drainage systems including SUDS (sustainable urban drainage systems) for new development to take account of the potential future impact of climate change.	No	No	No	No	No	No	
3	Maintain Clare County Council Flood Emergency Plan, this includes specific flood response plans for identified areas	No	No	No	No	No	No	
1	Through the Development Management process ensure that proposals for development in areas where there is a risk of flooding, have regard to the document 'The Planning System and Flood Risk Management (and Technical Appendices) – Guidelines for Planning Authorities 2009' and any current ie CFRAMS and future OPW flood assessment information.	No	No	No	No	No	No	
2	(a) Ensure that adequate storm water infrastructure is in place to accommodate the planned level of growth in County Clare. (b) Require developments to provide a separate foul and surface water drainage system and request the submission of details regarding Surface Water Attenuation Systems	No	No	No	No	No	No	As part of Strategy preparation, compliance with the SEA Directive and Article 6 of the Habitats Directive that ensures that objectives and actions that result will be adequately examined for ecological effects..
3	Through land use and development policy and zoning objectives, facilitate green infrastructure developments as a means of managing flood risk and enhancing the natural environment.	No	No	No	No	No	No	
1	Incorporate considerations of the impact of climate change into proposals submitted under the Minor Works Programme to ensure that measures proposed are adaptable to future changes.	No	No	No	No	No	No	
2	Ensure that potential future flood information is obtained/ generated by way of a Flood Risk Assessment (FRA) and used to inform suitable adaptation requirements within the Development Management process in line with the Guidelines for Planning Authorities on Flood Risk Management (DoECLG & OPW, 2009)	No	No	No	No	No	No	
3	Assess the impact of Climate Change on the potential shock flows of surface water on to Clare's beaches during severe weather events, and how increased surface water flows will impact on bathing water quality and erosion of the beach infrastructure.	No	No	No	No	No	No	

		Impact Assessment on Natura 2000 Sites						NOTE
Drainage and Flood Management	Actions	Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required	
4	Liaise with Irish Water to identify Waste Water Treatment plants which are subject to flooding from severe weather events, the consequence of which impact negatively on amenity and sensitive areas and Prioritise these plants for suitable upgrades.	No	No	No	No	No	No	
1	(a) Engage with the Office of Public Works to develop appropriate strategies for the management of identified coastal flood and erosion hazards and associated risks. (b) Seek funding for defence works based on the outcome of detailed Coastal Erosion and Flood Risk Management Studies undertaken in areas identified as being at risk.	No	No	No	No	No	No	

Natural Resources and Cultural Infrastructure	Actions	Impact Assessment on Natura 2000 Sites						NOTE
		Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required	
1	Develop a strategy to undertake and implement an active Tree Planting programme in the context of climate adaptation in conjunction with an awareness campaign that informs of the benefits to communities.	No	No	No	No	No	No	Specific actions resulting from these plans will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist.
2	Make provision for natural borders/buffers and include as an integral component of the design of greenways / blueways, tracks and trails and amenity areas to promote natural enhancement.	No	No	No	No	No	No	
1	Undertake a risk assessment of the Heritage and Cultural Assets in the county to assess the vulnerability and the risk to the historical environment from the impacts of climate change and to help build resilience to these important assets.	No	No	No	No	No	No	As part of Strategy preparation, compliance with the SEA Directive and Article 6 of the Habitats Directive that ensures that objectives and actions that result will be adequately examined for ecological effects..
1	Review Bio-diversity Plans / habitat conservation strategies, plans and projects to ensure that: · all risks from adverse climate change have been identified; · future changes are assessed and measures employed to address issues identified · carbon capture within habitats is considered · To protect all designated European sites in County Clare in accordance with the relevant Directives and Legislation	No	No	No	No	No	No	
2	(a) Research and map areas considered beneficial for use as local carbon offset through carbon sequestration and (b) include the development of a Green Infrastructure strategy.	No	No	No	No	No	No	
1	(a) Encourage proposals for renewable energy developments and ancillary facilities in order to meet national, regional and county renewable energy targets, and to facilitate a reduction in CO2 emissions and the promotion of a low carbon economy through Planning Policy and land use objectives. (b) Through land use policy and objectives, support and facilitate the development of new alternatives and technological advances in relation to renewable energy production and storage. (c) Support the implementation of the policy document 'Ireland's Transition to a Low Carbon Energy Economy 2015-2030'	No	No	No	No	No	No	

Natural Resources and Cultural Infrastructure	Actions	Impact Assessment on Natura 2000 Sites						NOTE
		Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required	
1	Work to promote and harness the potential of the Shannon Estuary for the sustainable development of renewable energy sources to assist in meeting renewable energy targets.	No	No	No	No	No	No	
2	Ensure that all development in the Shannon Estuary that is associated with the energy sector has regard to the Strategic Integrated Framework Plan (SIFP) – as per Volume 7 of the Clare County Development Plan 2017-2023.	No	No	No	No	No	No	
1	Advocate for the funding and preparation, by the National Parks & Wildlife Service, of a Conservation Management Plan for the Burren National Park.	No	No	No	No	No	No	Specific actions resulting from these plans will be subjected to compliance with the EIA Directive and Article 6 of the Habitats Directive when sufficient design details exist
2	Continue to work in partnership with all relevant stakeholders to support the on-going work of the Burren and Cliffs of Moher Geopark and to secure the retention of the 'Geopark' status into the future.	No	No	No	No	No	No	
3	Seek, on an on-going basis, new funding mechanisms for the work of the Geopark e.g. from national and EU sources.	No	No	No	No	No	No	
1	Work with and support Irish Water and Group Water Scheme Sector in identifying public drinking water sources vulnerable to climate change and develop source protection or alternative sources, in order to maintain water quantity and quality levels.	No	No	No	No	No	No	
2	Work with Irish Water and LAWPRO (Local Authority Water Programme) to identify the impacts of critical and vulnerable receptors in accordance with the River Basin Management Plan and Water Framework Directive.	No	No	No	No	No	No	
3	Liaise and work with Irish Water in the development, conservation and upgrade of the water supply systems so as to ensure County Clare has robust infrastructure and adequate supply of water to address climate change demands.	No	No	No	No	No	No	
1	Facilitate the on-going development and improvement of green infrastructure in County Clare, including green networks, green amenities and linked green corridors which ensure the provision of recreational amenities, natural areas for the growth of wildlife and biodiversity, and a network of infrastructure which results in a better quality of life for visitors and inhabitants alike.	No	No	No	No	No	No	
2	Undertake a review of the Gardening Section operations to determine what current operations should be adapted and to support the All Ireland Pollinator Plan 2015-2020.	No	No	No	No	No	No	

		Impact Assessment on Natura 2000 Sites						NOTE
Community Health and Wellbeing	Actions	Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	Stage 2 AA Required	
1	Through public participation network raise awareness of the impacts of climate change and ways for communities to increase response and resilience to these impacts.	No	No	No	No	No	No	
2	Assess communities across the county in the context of their vulnerability to the impacts of climate change. Identify vulnerable communities and the risks to the community.	No	No	No	No	No	No	
3	For identified vulnerable communities, develop and implement a programme to enhance their capacity to respond to and recover from extreme weather events with specific aims to: <ul style="list-style-type: none"> · help the vulnerable community to develop a stronger facilitating role for mitigating risks · provide advice on the risk of extreme events affecting their locality · devise mitigating actions to enhance preparedness · provide support to develop appropriate resilience arrangements to enable response and recovery 	No	No	No	No	No	No	
4	Ensure that future development proposals contribute to the creation of sustainable communities throughout County Clare.	No	No	No	No	No	No	