

APPROPRIATE ASSESSMENT SCREENING REPORT

FOR

DRAFT CLIMATE CHANGE
ADAPTION STRATEGY FOR
LIMERICK CITY AND COUNTY
COUNCIL

May 2019

ON BEHALF OF

CLIMATE ACTION REGIONAL
OFFICE (CARO)

Prepared by

Enviroguide Consulting

 *Dublin*

3D Core C, Block 71, The Plaza,
Park West, Dublin 12

 *Kerry*

19 Henry Street
Kenmare, Co. Kerry

 www.enviroguide.ie

 info@enviroguide.ie

 +353 1 565 4730



DOCUMENT CONTROL SHEET

Client	Climate Action Regional Office
Project Title	Climate Change Adaption Strategy for Limerick City and County Council
Document Title	Appropriate Assessment Screening Report

Revision	Status	Author(s)	Reviewed	Approved	Issue Date
1.0	Internal Draft	Donnacha Woods, <i>Project Ecologist</i>	Jim Dowdall, <i>Director</i>	-	24 April 2019
2.0	Draft for Client	Donnacha Woods, <i>Project Ecologist</i>	Muriel Ennis, <i>Principal Environmental Consultant</i>	Jim Dowdall, <i>Director</i>	30 April 2019
3.0	Final Draft for Consultation	Mairead Foran <i>Environmental Consultant</i>	Muriel Ennis, <i>Principal Environmental Consultant</i>	Muriel Ennis, <i>Principal Environmental Consultant</i>	02 May 2019

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	BACKGROUND	1
1.2	LEGISLATIVE CONTEXT	1
1.3	STAGES OF AA	2
1.4	SCREENING STEPS	3
1.5	STAGE 1 SCREENING ASSESSMENT METHODOLOGIES	3
1.5.1	<i>Desk Study</i>	3
1.5.2	<i>Assessment of Impacts</i>	3
2	STAGE 1 SCREENING	5
2.1	MANAGEMENT OF NATURA 2000 SITE	5
2.2	DESCRIPTION OF THE PLAN.....	5
2.2.1	<i>Background</i>	5
2.2.2	<i>Draft Climate Change Adaptation Strategy Objectives</i>	5
2.2.3	<i>Identification of Relevant Natura 2000 Sites</i>	8
2.2.4	<i>Screening Matrix</i>	13
2.2.5	<i>Findings of No Significant Effects Matrix</i>	16
2.3	ASSESSMENT OF SIGNIFICANCE OF POTENTIAL IMPACTS	19
2.3.1	<i>In-combination Effects</i>	19
3	CONCLUSION	19
4	REFERENCES	20

LIST OF TABLES

Table 1.	Definition of Durations (EPA, 2017).	4
Table 2.	Impact Significance Criteria (EPA, 2017).	4
Table 3.	Limerick City and County Council Draft Climate Change Adaptation Strategy Objectives	6
Table 4.	Natura 2000 sites within a 15km radius of the Strategy area.	8

LIST OF FIGURES

Figure 1.	The four stages of the Appropriate Assessment Process (DEHLG, 2010).	2
Figure 2.	Area encompassed by Strategy.....	7
Figure 3.	Natura 2000 sites located within 15km of the strategy's area.	12

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 Stages of AA

This Appropriate Assessment Screening Report (the “**Screening Report**”) has been prepared by Enviroguide Consulting which considers whether the proposed Draft 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.

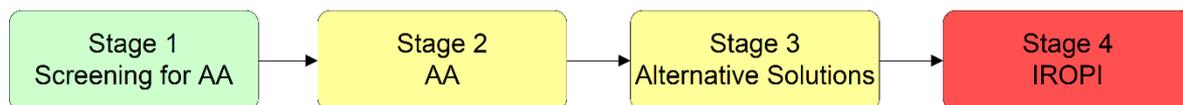


FIGURE 1. THE FOUR STAGES OF THE APPROPRIATE ASSESSMENT PROCESS (DEHLG, 2010).

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

- Stage 1: *Screening*. The first stage of the AA process is to determine the likelihood of significant impacts of a proposal.
- Stage 2: *Natura Impact Statement (NIS)*. The second stage of the AA process assesses the impact of the proposal (either alone or in combination with other projects or plans) on the integrity of the Natura 2000 site, with respect to the conservation objectives of the site and its ecological structure and function. A Natura Impact Statement containing a professional, scientific examination of the proposal is required and should include any mitigation measure to avoid, reduce or offset negative impacts.
- Stage 3: *Assessment of alternative solutions*. If the outcome of Stage 2 is negative i.e. adverse impacts to the sites cannot be scientifically ruled out, despite mitigation, the plan or project should proceed to Stage 3 or be abandoned. This stage examines alternative solutions to the proposal.
- 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.

1.4 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 Plan is necessary for the management of a Natura 2000 site;
- Description of the Plan;
- Identification of Natura 2000 sites potentially affected;
- Identification and description of individual and cumulative impacts likely to result from the plan;
- 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.

1.5 Stage 1 Screening Assessment Methodologies

1.5.1 Desk Study

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

- Draft Climate Change Adaptation Strategy – Limerick City and 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*.

1.5.2 Assessment of Impacts

Once the potential impacts that may arise from Limerick City and County Councils Draft Climate Change Adaptation Strategy are identified, 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.

In line with the EPA Guidelines (EPA, 2017), 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)

The criterion for confidence levels of the predicted likely impacts are given below in Table 2. The impact significance criteria follow EPA guidance (EPA, 2017).

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

2 STAGE 1 SCREENING

2.1 Management of Natura 2000 Site

Limerick City and County Council's Draft Climate Change Adaptation Strategy is not directly connected with or necessary for the management of Natura 2000 sites in County Limerick 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 Draft 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 Draft Climate Change Adaptation Strategy Objectives

The purpose of the Limerick City and County Council's Draft 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, Limerick City and County Council has set out a number of key objectives in their strategy, under six thematic principles. The six themes are listed below:

1. Extreme Weather Event Response
2. Land Use and Planning
3. Infrastructure, Built Environment and Service Provision
4. Environment

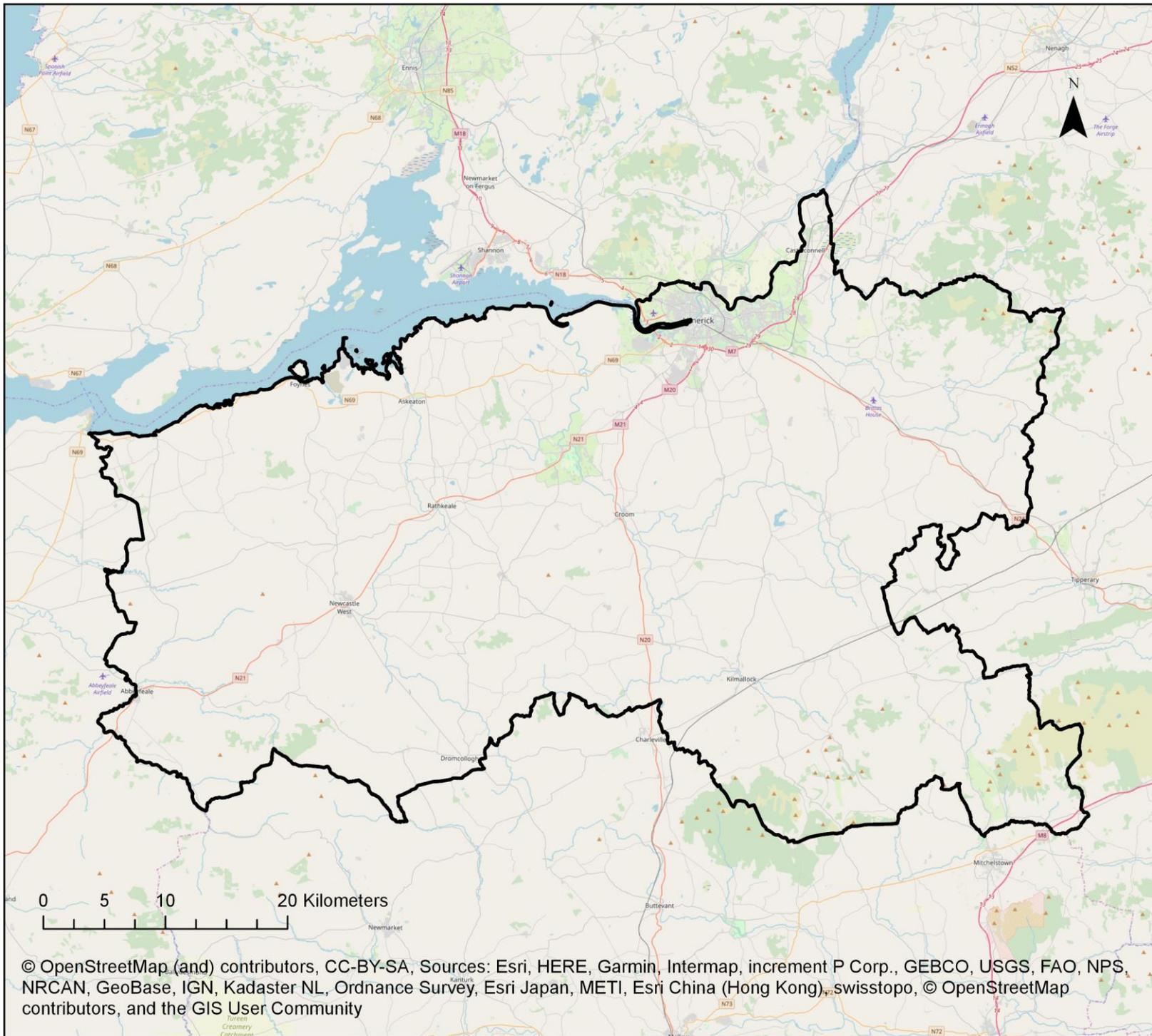
¹ Climate Action and Low Carbon Development Act 2015 (S.I. No. 25/2016).

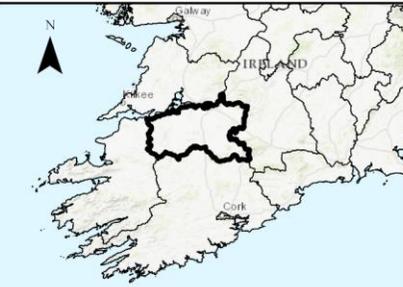
5. Economic Development Activities
6. Emerging Issues and Mitigation Actions

Table 3 below outlines Limerick City and County Councils Draft Climate Change Adaptation Strategy objectives per theme.

TABLE 3. LIMERICK CITY AND COUNTY COUNCIL DRAFT CLIMATE CHANGE ADAPTATION STRATEGY OBJECTIVES

Theme 1: Extreme Weather Event Response	
1	To ensure most efficient response to climate risk and climate events by Limerick City and County Council
2	To ensure that responses to climate events are properly informed and evolve over time to respond to changing circumstances
Theme 2: Land Use And Planning	
1	To ensure that the risk and impact of flooding is adequately integrated into Planning Policy
2	To ensure integration of climate adaptation and mitigation into Land Use and Planning Policy
3	To incorporate climate proofing of infrastructure into Planning Policy
Theme 3: Infrastructure, Built Environment And Service Provision	
1	To increase the climate resilience of Limerick City and County Council building and housing stock where appropriate
2	To increase resilience of infrastructure to climate change
Theme 4: Environment	
1	To work with other agencies, where feasible, to foster a broad response to climate change
2	To encourage the adoption of green solutions to climate change
Theme 5: Economic Development Activities	
1	To incorporate climate change concerns into Limerick's economic sector, where feasible
2	To identify and promote economic opportunities arising from climate change and adaptation
Theme 6: Emerging Issues and Mitigation Actions (MA)	
1	To encourage climate adaptation projects and disseminate lessons learned
2	Work with other Local Authorities and Agencies to ensure a regional response to Climate Change



Legend	
 County Limerick	
	
Project	
AA Screening Report for Climate Change Adaptation Strategy for Limerick City and County Council	
Client	
Climate Action Regional Office (CARO)	
Title	
Figure 2: Area encompassed by Strategy	
	
Drawn by: DW Checked: JD Date: 24/04/2019	Projection: IRENET95 Irish Transverse Mercator Scale: 1:420,000 @A4
Notes: Site boundaries shown are for illustration purposes only and do not represent legal or exact boundaries.	

© OpenStreetMap (and) contributors, CC-BY-SA, 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), swisstopo, © 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 28 SACs and 6 SPAs are found, each site name, corresponding code and qualifying interests are detailed in Table 4 below.

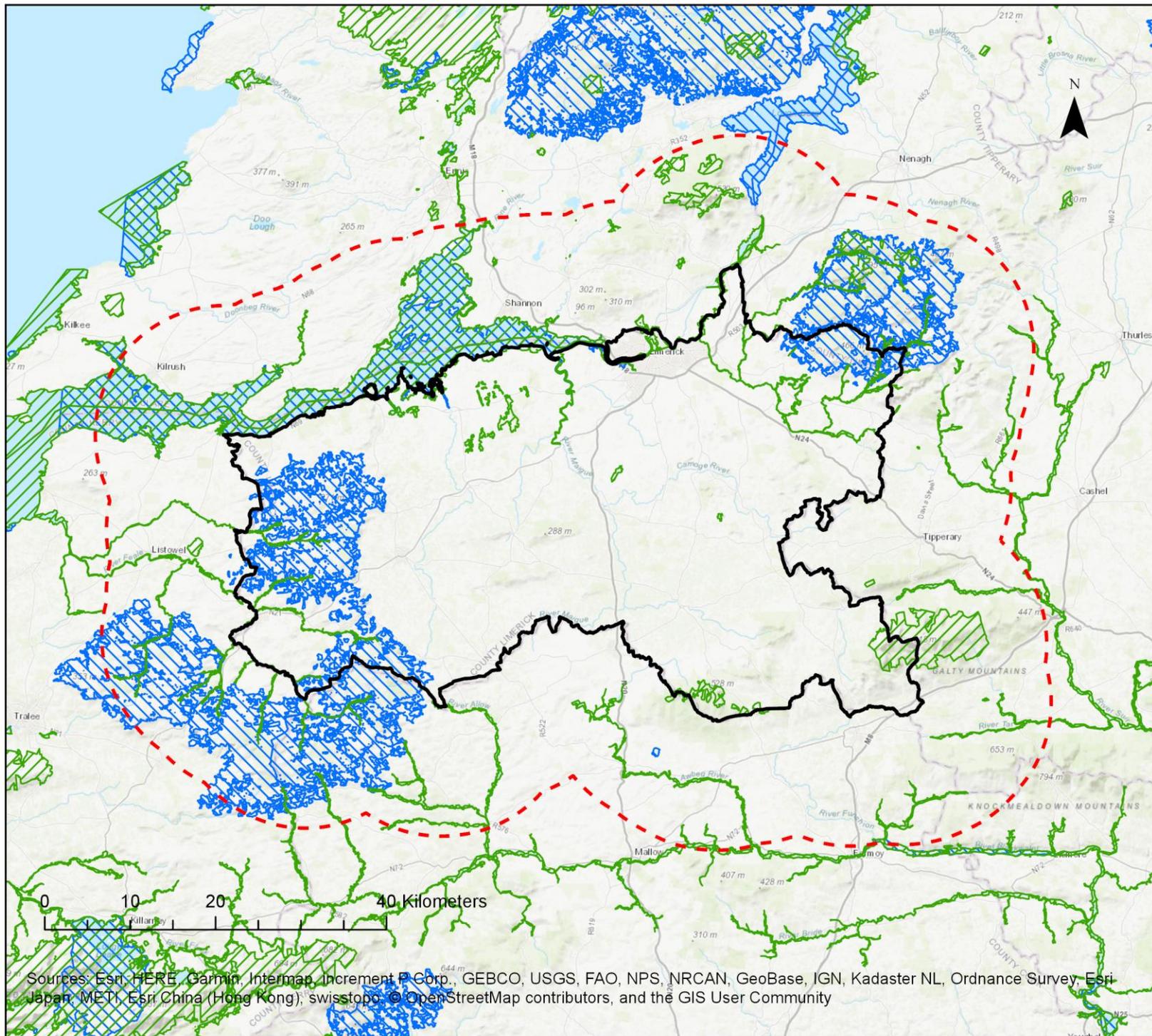
TABLE 4. NATURA 2000 SITES WITHIN A 15KM RADIUS OF THE STRATEGY AREA.
* = PRIORITY; NUMBERS IN BRACKETS ARE NATURA 2000 CODES

Site Code	Site Name	Qualifying Interests	Location
Special Areas of Conservation (SAC)			
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 Co. Limerick
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 Co. Limerick
000646	Galtee Mountains SAC	<ul style="list-style-type: none"> - [4010] Wet Heath - [4030] Dry Heath - [4060] Alpine and Subalpine Heaths - [6230] Species-rich <i>Nardus</i> Grassland* - [7130] Blanket Bogs (Active)* - [8110] Siliceous Scree - [8210] Calcareous Rocky Slopes - [8220] Siliceous Rocky Slopes 	Within Co. Limerick
002036	Ballyhoura Mountains SAC	<ul style="list-style-type: none"> - [4010] Wet Heath - [4030] Dry Heath - [7130] Blanket Bogs (Active)* 	Within Co. Limerick
002165	Lower River Shannon SAC	<ul style="list-style-type: none"> - [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 - [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>) 	Within Co. Limerick

		<ul style="list-style-type: none"> - [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>) 	
002170	Blackwater River (Cork/Waterford) SAC	<ul style="list-style-type: none"> - [1130] Estuaries - [1140] Tidal Mudflats and Sandflats - [1220] Perennial Vegetation of Stony Banks - [1310] <i>Salicornia</i> Mud - [1330] Atlantic Salt Meadows - [1410] Mediterranean Salt Meadows - [3260] Floating River Vegetation - [91A0] Old Oak Woodlands - [91E0] Alluvial Forests* - [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>) - [1099] River Lamprey (<i>Lampetra fluviatilis</i>) - [1103] Twaite Shad (<i>Alosa fallax</i>) - [1106] Atlantic Salmon (<i>Salmo salar</i>) - [1355] Otter (<i>Lutra lutra</i>) - [1421] Killarney Fern (<i>Trichomanes speciosum</i>) 	Within Co. Limerick
000439	Tory Hill SAC	<ul style="list-style-type: none"> - [6210] Orchid-rich Calcareous Grassland* - [7210] <i>Cladium</i> Fens* - [7230] Alkaline Fens 	Within Co. Limerick
000930	Clare Glen SAC	<ul style="list-style-type: none"> - [91A0] Old Oak Woodlands - [1421] Killarney Fern (<i>Trichomanes speciosum</i>) 	Within Co. Limerick
001430	Glen Bog SAC	<ul style="list-style-type: none"> - [91E0] Alluvial Forests* 	Within Co. Limerick
002037	Carrigeenamronety Hill SAC	<ul style="list-style-type: none"> - [1421] Killarney Fern (<i>Trichomanes speciosum</i>) - [4030] Dry Heath 	Within Co. Limerick
002279	Askeaton Fen Complex SAC	<ul style="list-style-type: none"> - [7210] <i>Cladium</i> Fens* - [7230] Alkaline Fens 	Within Co. Limerick
001432	Glenstal Wood SAC	<ul style="list-style-type: none"> - [1421] Killarney Fern (<i>Trichomanes speciosum</i>) 	Within Co. Limerick
001197	Keeper Hill SAC	<ul style="list-style-type: none"> - [4010] Wet Heath - [7130] Blanket Bogs (Active)* 	Within the 15km buffer
002137	Lower River Suir SAC	<ul style="list-style-type: none"> - [1330] Atlantic Salt Meadows - [1410] Mediterranean Salt Meadows - [3260] Floating River Vegetation - [6430] Hydrophilous Tall Herb Communities - [91A0] Old Oak Woodlands - [91E0] Alluvial Forests* - [91J0] Yew Woodlands* 	Within the 15km buffer

		<ul style="list-style-type: none"> - [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>) - [1099] River Lamprey (<i>Lampetra fluviatilis</i>) - [1103] Twaite Shad (<i>Alosa fallax</i>) - [1106] Atlantic Salmon (<i>Salmo salar</i>) - [1355] Otter (<i>Lutra lutra</i>) 	
002312	Slieve Bernagh Bog SAC	<ul style="list-style-type: none"> - [4010] Wet Heath - [4030] Dry Heath - [7130] Blanket Bogs (Active)* 	Within the 15km buffer
002351	Moanveanlagh Bog SAC	<ul style="list-style-type: none"> - [7110] Raised Bog (Active)* - [7120] Degraded Raised Bog - [7150] Rhynchosporion Vegetation 	Within the 15km buffer
002316	Ratty River Cave SAC	<ul style="list-style-type: none"> - [8310] Caves - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within the 15km buffer
002319	Kilkishen House SAC	<ul style="list-style-type: none"> - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within the 15km buffer
000030	Danes Hole, Poulnal-ecka SAC	<ul style="list-style-type: none"> - [8310] Caves - [91A0] Old Oak Woodlands - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) 	Within the 15km buffer
001847	Philipston Marsh SAC	<ul style="list-style-type: none"> - [7140] Transition Mires 	Within the 15km buffer
002125	Anglesey Road SAC	<ul style="list-style-type: none"> - [6230] Species-rich <i>Nardus</i> Grassland* 	Within the 15km buffer
002257	Moanour Mountain SAC	<ul style="list-style-type: none"> - [4010] Wet Heath - [4030] Dry Heath 	Within the 15km buffer
001013	Glenomra Wood SAC	<ul style="list-style-type: none"> - [91A0] Old Oak Woodlands 	Within the 15km buffer
002318	Knockanira House SAC	<ul style="list-style-type: none"> - [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</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
002124	Bolingbrook Hill SAC	<ul style="list-style-type: none"> - [4010] Wet Heath - [4030] Dry Heath - [6230] Species-rich <i>Nardus</i> Grassland* 	Within the 15km buffer
002258	Silvermines Mountains West SAC	<ul style="list-style-type: none"> - [4010] Wet Heath - [4030] Dry Heath - [6130] Calaminarian Grassland 	Within the 15km buffer

000051	Lough Gash Turlough SAC	<ul style="list-style-type: none"> - [3180] Turloughs* - [3270] <i>Chenopodium rubri</i> p.p. and <i>Bidenton</i> p.p. vegetation 	Within the 15km buffer
Special Protection Areas (SPA)			
004077	River Shannon and River Fergus Estuaries SPA	<ul style="list-style-type: none"> - Cormorant (<i>Phalacrocorax carbo</i>) [A017] - Whooper Swan (<i>Cygnus cygnus</i>) [A038] - Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] - Shelduck (<i>Tadorna tadorna</i>) [A048] - Wigeon (<i>Anas penelope</i>) [A050] - Teal (<i>Anas crecca</i>) [A052] - Pintail (<i>Anas acuta</i>) [A054] - Shoveler (<i>Anas clypeata</i>) [A056] - Scaup (<i>Aythya marila</i>) [A062] - Ringed Plover (<i>Charadrius hiaticula</i>) [A137] - Golden Plover (<i>Pluvialis apricaria</i>) [A140] - Grey Plover (<i>Pluvialis squatarola</i>) [A141] - Lapwing (<i>Vanellus vanellus</i>) [A142] - Knot (<i>Calidris canutus</i>) [A143] - Dunlin (<i>Calidris alpina</i>) [A149] - Black-tailed Godwit (<i>Limosa limosa</i>) [A156] - Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] - Curlew (<i>Numenius arquata</i>) [A160] - Redshank (<i>Tringa totanus</i>) [A162] - Greenshank (<i>Tringa nebularia</i>) [A164] - Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] - Wetland and Waterbirds [A999] 	Within Co. Limerick
004161	Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	<ul style="list-style-type: none"> - Hen Harrier (<i>Circus cyaneus</i>) [A082] 	Within Co. Limerick
004165	Slievefelim to Silvermines Mountains SPA	<ul style="list-style-type: none"> - Hen Harrier (<i>Circus cyaneus</i>) [A082] 	Within Co. Limerick
004058	Lough Derg (Shannon) SPA	<ul style="list-style-type: none"> - Cormorant (<i>Phalacrocorax carbo</i>) [A017] - Tufted Duck (<i>Aythya fuligula</i>) [A061] - Goldeneye (<i>Bucephala clangula</i>) [A067] - Common Tern (<i>Sterna hirundo</i>) [A193] - Wetland and Waterbirds [A999] 	Within the 15km buffer
004094	Blackwater Callows SPA	<ul style="list-style-type: none"> - Whooper Swan (<i>Cygnus cygnus</i>) [A038] - Wigeon (<i>Anas penelope</i>) [A050] - Teal (<i>Anas crecca</i>) [A052] - Black-tailed Godwit (<i>Limosa limosa</i>) [A156] - Wetland and Waterbirds [A999] 	Within the 15km buffer
004095	Kilcolman Bog SPA	<ul style="list-style-type: none"> - Whooper Swan (<i>Cygnus cygnus</i>) [A038] - Teal (<i>Anas crecca</i>) [A052] - Shoveler (<i>Anas clypeata</i>) [A056] - Wetland and Waterbirds [A999] 	Within the 15km buffer



Legend	
	County Limerick
	County Limerick 15km Buffer
	Special Protection Areas
	Special Area of Conservation
Project	
AA Screening Report for Climate Change Adaptation Strategy for Limerick City and County Council	
Client	
Climate Action Regional Office (CARO)	
Title	
Figure 3: Natura 2000 sites within 15km of the Strategy's area	
Drawn by: DW Checked: JD Date: 24/04/2019	Projection: IRENET95 Irish Transverse Mercator Scale: 1:600,000 @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), swisstopo, © OpenStreetMap contributors, and the GIS User Community

2.2.4 Screening Matrix

Brief description of the plan:
Preparation of the Limerick City and County Council Draft Climate Change Adaptation Strategy. This document is designed to inform the policy documents of Limerick City and County Council in adapting to the effects of climate change.
Brief description of the Natura 2000 sites Located in County Limerick. Table 4 above shows the qualifying interests of Natura 2000 sites inside and outside Limerick.
<p>The River Shannon and Fergus SPA (004077) is located downstream of Adare where the Mague is designated-see Figure 3 above. The Lower River Shannon SAC (002165- see Figure 3) is located just downstream of the main road bridge in Adare. The SAC site has been selected because of a range of riparian habitats and species such as wet woodlands, tidal mudflats, estuaries and for species such as otter, salmon and lamprey. Maintenance of high-water quality is an important factor in ensuring the preservation of these habitats.</p> <p>The River Shannon and Fergus SPA (Figure 3) site has been selected because of its importance for wintering and migratory wild fowl. The site comprises all of the estuarine habitat west from Limerick City and it is the mud flats with its invertebrate community which is of particular importance as a feeding area for migratory wildfowl.</p> <p>Askeaton Fen Complex SAC site (002279, see Figure 3) contains Calcareous fens and Alkaline fens is adjacent to the N69.</p> <p>Curraghchase woodlands SAC site (0000174-see Figure 3) a woodland site designated for the Lesser Horseshoe bat, is adjacent to the N69.</p> <p>Tory Hill SAC (000439- see Figure 3) is an isolated wooded limestone hill situated about 3 km north east of Croom and the N20, Co. Limerick. Lough Nagirra is located within the Tory Hill SAC and has a thick fringe of Common Reed (<i>Phragmites australis</i>) and, in association with it, areas of alkaline fen and calcareous fen vegetation referable to the Caricion davallianae alliance with Saw Sedge (<i>Cladium mariscus</i>). Both of these fen types are listed on Annex I of the E.U. Habitats Directive, the latter with priority status. Tory Hill is also designated for areas of orchid-rich calcareous grassland, a habitat that is listed with priority status on Annex I of the E.U. Habitats Directive; it is found on the eastern side of the hill and on its summit.</p> <p>The Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004161-see Figure 3) is a very large site centred on the borders between the counties of Cork, Kerry and Limerick.</p> <p>The site consists of a variety of upland habitats, though almost half is afforested. The coniferous forests include first and second rotation plantations, with both pre-thicket and post-thicket stands present.</p> <p>Substantial areas of clear-fell are also present at any one time. The site is a SPA under the E.U. Birds Directive, of special conservation interest for Hen Harrier.</p> <p>The Slieve Felim Hills SPA (004165) is an upland site with forestry, upland grassland and fragmented peat-land habitats (Figure 3). This is within 12km of the N24, lies to the northeast, and is designated for the Hen Harrier.</p>
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:
<p>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.</p> <p>Other Local Authority documents such as City and 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.</p>

<p>Should specific actions result from these plans these will be subjected to both AA and EIA when sufficient design details exist. The above will ensure that any possible environmental and ecological effects of any outcomes from the adaptation plans will be adequately assessed.</p>
<p>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:</p>
<p>• Size and scale;</p> <p>The adaptation strategy takes in all of Co. Limerick- 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, particularly those under Objective 9: To encourage the adoption of green solutions to climate change (Adaptation Strategy pp. 32-34).</p>
<p>• Land-take;</p> <p>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 both the AA and EIA processed as they arise.</p>
<p>• Distance from Natura 2000 site or key features of the site;</p> <p>See Brief Description of Natura 2000 sites above and also Table 4</p>
<p>• Resource requirements (water abstraction etc.);</p> <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>The adaptation plan 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>

Describe any likely changes to the site arising as a result of:
<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 and City Development Plans 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>
Describe any likely impacts on the Natura 2000 site as a whole in terms of:
<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>
Provide indicators of significance as a result of the identification of effects set out above in terms of:
<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 City and County Development Plan. It is here through mechanisms such as zoning and planning policy that the Adaptation strategy will be given effect. These plans will be subject to SEA and AA as they are prepared and as zoning and policy responses it will be easier to assess their impacts and allow them to be modified accordingly.</p>

2.2.5 Findings of No Significant Effects Matrix

Brief description of the plan:	Limerick City and County Council Climate Adaptation Strategy 2019-2024.
<p>Name and location of Natura 2000 sites within County Limerick, see also Figure 3 above:</p>	<p>The River Shannon and Fergus SPA (004077) is located downstream of Adare where the Mague is designated – (see Figure 3). The Lower River Shannon SAC (002165- see Figure 3) site is approximately 5km upstream of the Strategy area and to the northwest of the Croom. The SAC site has been selected because of a range of riparian habitats and species such as wet woodlands, tidal mudflats, estuaries and for species such as otter, salmon and lamprey. Maintenance of high-water quality is an important factor in ensuring the preservation of these habitats.</p> <p>The River Shannon and Fergus SPA (Figure 3) site has been selected because of its importance for wintering and migratory wild fowl. The site comprises all of the estuarine habitat west from Limerick City and it is the mud flats with its invertebrate community which is of particular importance as a feeding area for migratory wildfowl.</p> <p>Askeaton Fen Complex SAC site (002279- see Figure 3) contains Calcareous fens and Alkaline fens is adjacent to the N69.</p>

	<p>Curraghchase woodlands SAC site (0000174-see Figure 3) a woodland site designated for the Lesser Horse-shoe bat, is adjacent to the N69.</p> <p>Tory Hill SAC (000439- see Figure 3) is an isolated wooded limestone hill situated about 3 km north east of Croom and the N20, Co. Limerick. Lough Nagirra is located within the Tory Hill SAC and has a thick fringe of Common Reed (<i>Phragmites australis</i>) and, in association with it, areas of alkaline fen and calcareous fen vegetation referable to the Caricion davallianae alliance with Saw Sedge (<i>Cladium mariscus</i>). Both of these fen types are listed on Annex I of the E.U. Habitats Directive, the latter with priority status. Tory Hill is also designated for areas of orchid-rich calcareous grassland, a habitat that is listed with priority status on Annex I of the E.U. Habitats Directive; it is found on the eastern side of the hill and on its summit.</p> <p>The Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004161-see Figure 3) is a very large site centred on the borders between the counties of Cork, Kerry and Limerick.</p> <p>The site consists of a variety of upland habitats, though almost half is afforested. The coniferous forests include first and second rotation plantations, with both pre-thicket and post-thicket stands present. Substantial areas of clear-fell are also present at any one time. The site is a SPA under the E.U. Birds Directive, of special conservation interest for Hen Harrier.</p> <p>The Slieve Felim Hills SPA (004165) is an upland site with forestry, upland grassland and fragmented peatland habitats (see Figure 3). This is within 12km of the N24 and lies to the north east and is designated for the Hen Harrier.</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, particularly those under Objective 9: To encourage the adoption of green solutions to climate change (Adaptation Strategy pp. 32-34).	
List of Agencies Consulted: Provide contact name and telephone or email address:		AA Screening Reports are being sent to: <ul style="list-style-type: none"> • SEA Section, Environmental Protection Agency • Planning System and Spatial Policy Section • Development Applications Unit, Department of Culture Heritage and the Gaeltacht, 	
Summary of Responses received for previous draft.		Not applicable	
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. Site visits during plan preparation process.	Desktop study, site visits	With plan documentation on request.

2.3 Assessment of Significance of Potential Impacts

The potential for significant impacts resulting from the Limerick City and County Council Draft 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 headings, 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.

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

Limerick City and County Council Draft 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 Plan:

- Limerick County Development Plan 2010 - 2016
- Limerick City Development Plan 2010 - 2016
- Limerick's Heritage Plan 2017 - 2030
- Limerick Biodiversity Plan

3 CONCLUSION

In conclusion, upon the examination, analysis and evaluation of the relevant information including, in particular, the nature of the Draft Climate Change Adaptation Strategy and the likelihood of significant effects on any Natura 2000 site, in addition to considering possible in-combination effects, and applying the precautionary principles, it is concluded by the authors of this report that, on the basis of objective information, the possibility may be excluded that the Draft Strategy will have a significant effect on any of the Natura 2000 sites within the Limerick City and County Council area or precautionary buffer zone.

4 REFERENCES

- DEHLG. (2010). Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. Department of Environment, Heritage and Local Government.
- DHPLG. (2018). River Basin Management Plan for Ireland 2018-2021. Department of Housing, Planning and Local Government.
- Environmental Protection Agency. (2002). Guidelines on information to be contained in Environmental Impact Statements. Environmental Protection Agency, Ireland.
- Environmental Protection Agency. (2017). Guidelines on information to be contained in Environmental Impact Assessment Reports (Draft). Environmental Protection Agency, Ireland.
- European Commission. (2001). 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 Communities, Luxembourg.
- Fossitt, J. A. (2000). A Guide to Habitats in Ireland. Kilkenny: The Heritage Council.
- Franklin, A. N. (2002). What is Habitat Fragmentation? *Studies in Avian Biology*, 20-29.
- Kuikena, T., Bennetta, P., Allchinb, R., Kirkwood, J., Baker, J., Lockyer, C., Walton, M., Sheldrick, M. (1994). PCBs, cause of death and body condition in harbour porpoises (*Phocoena phocoena*) from British waters. *Aquatic Toxicology*, Vol: 28, Issue: 1, Page: 13-28.
- NBDC (2018). National Biodiversity Data Centre online mapping [ONLINE] Available at: <http://maps.biodiversityireland.ie/Map.aspx>. [Accessed April 2019].
- NPWS (2010). Circular NPW 1/10 & PSSP 2/10. Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Department of Environment, Heritage and Local Government.
- NPWS (2018). Generic Conservation Objectives. Version 6.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- Parnell, J; Curtis, T; and Cullen, E. (2012). *Webb's an Irish Flora*. Hardback, 8th Ed. (March 2012), Trinity College Dublin.
- Reid, N., Hayden, B., Lundy, M.G., Pietravalle, S., McDonald, R.A. & Montgomery, W.I. (2013) National Otter Survey of Ireland 2010/12. Irish Wildlife Manuals No. 76. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Smith, G.F., O'Donoghue, P, O'Hora K., and Delaney, E. (2010). Best Practice Guidance for Habitat Survey and Mapping. Published by the Heritage Council.