

SEA Environmental Report in relation to the
Draft Visitor Experience & Management Masterplan for Glendalough
and Wicklow Mountains National Park, Co. Wicklow

Prepared on behalf of Fáilte Ireland

November 2022



Doyle Kent Planning Partnership Ltd.
71 Carysfort Avenue
Blackrock, Co. Dublin
www.doylekent.com
info@doylekent.co

Table of Contents

1. INTRODUCTION.....	1
2. STRATEGIC ENVIRONMENTAL ASSESSMENT	2
2.2. EU DIRECTIVE 2001/42/EC	2
2.3. HABITATS DIRECTIVE 92/43/EEC	2
2.4. THE SEA PROCESS.....	3
2.5. THE ENVIRONMENTAL REPORT	4
3. WICKLOW MOUNTAINS NATIONAL PARK.....	6
4. DRAFT VISITOR EXPERIENCE AND MANAGEMENT MASTERPLAN (VEMMP)	8
4.2. AIMS OF THE DRAFT VEMMP	8
4.3. UNDERSTANDING	8
4.4. PROPOSALS OF DRAFT VEMMP	9
4.4.1. WICKLOW WIDE STRATEGY	9
4.4.2. DRAFT RECREATIONAL TRAILS MASTERPLAN.....	12
4.4.3. DRAFT GLENDALOUGH VALLEY PLAN.....	18
4.4.4. MANAGEMENT AND DELIVERY STRUCTURES.....	20
4.4.5. REVIEW	20
4.5. SEA GUIDANCE	21
4.6. CONSULTATIONS AND SURVEYS	23
5. KEY ISSUES.....	25
5.2. ENVIRONMENTAL SENSITIVITIES.....	25
5.3. INTERACTIONS WITH OTHER PLANS, PROGRAMMES AND LEGISLATION	26
5.4. NATIONAL PLANNING FRAMEWORK.....	28
5.5. THE REGIONAL SPATIAL AND ECONOMIC STRATEGY FOR THE EASTERN AND MIDLANDS REGION ..	29
5.6. THE WICKLOW COUNTY DEVELOPMENT PLAN 2022-2028	29
5.6.2. TOURISM.....	29
5.6.3. BUILT HERITAGE	32
5.6.4. WATER SERVICES	32
5.6.5. SETTLEMENT STRATEGY - LARAGH.....	34
5.7. THE LARAGH –GLENDALOUGH LAND USE AND TOURISM PLAN	35
5.7.2. SPECIFIC OBJECTIVES	36
5.7.3. LAND USE ZONING OBJECTIVES.....	38
5.7.4. FLOOD RISK ASSESSMENT.....	39
5.8. MANAGEMENT PLAN FOR WICKLOW MOUNTAINS NATIONAL PARK, 2005-2009.....	40
5.9. THE NATIONAL BIODIVERSITY ACTION PLAN, 2017-2021	40
5.10. NATIONAL PEATLANDS STRATEGY 2015-2025	40

5.11.	COUNTY WICKLOW BIODIVERSITY ACTION PLAN, 2010-2015.....	41
5.12.	COUNTY WICKLOW HERITAGE PLAN, 2017-2022	41
5.13.	IRELAND'S ANCIENT EAST.....	42
5.14.	DESTINATION EXPERIENCE DEVELOPMENT PLANS	42
5.15.	EXPERIENCING THE WILD HEART OF IRELAND – A TOURISM INTERPRETATIVE MASTER PLAN FOR IRELAND'S NATIONAL PARKS.....	42
6.	<u>ENVIRONMENTAL BASELINE DATA.....</u>	43
6.2.	BIODIVERSITY, FLORA AND FAUNA.....	43
6.2.2.	THE HABITATS DIRECTIVE AND THE BIRDS DIRECTIVE	43
6.2.3.	NATURAL HERITAGE AREAS.....	48
6.2.4.	NATURE RESERVES	48
6.2.5.	NATIONAL PARKS.....	49
6.2.6.	RAMSAR SITES.....	49
6.3.	POPULATION AND HUMAN HEALTH	50
6.4.	SOIL	52
6.4.2.	LAND STABILITY	52
6.4.3.	GEOLOGY.....	52
6.5.	WATER.....	53
6.5.2.	FLOODING.....	54
6.6.	AIR AND CLIMATE.....	55
6.6.2.	NOISE.....	55
6.6.3.	CLIMATIC FACTORS.....	56
6.7.	MATERIAL ASSETS	56
6.7.2.	TRANSPORTATION.....	57
6.7.3.	WATER AND WASTE.....	59
6.7.4.	TOURISM.....	59
6.8.	CULTURAL HERITAGE	61
6.8.1.	ARCHAEOLOGICAL HERITAGE.....	61
6.8.2.	ARCHITECTURAL HERITAGE.....	62
6.8.3.	WORLD HERITAGE SITES.....	63
6.8.4.	HISTORIC ENVIRONMENT VIEWER	63
6.9.	LANDSCAPE.....	64
6.9.2.	EUROPEAN LANDSCAPE CONVENTION.....	64
6.9.3.	LAND COVER.....	64
6.9.4.	WICKLOW COUNTY DEVELOPMENT PLAN.....	64
7.	<u>ALTERNATIVES.....</u>	65
8.	<u>POTENTIAL ENVIRONMENTAL EFFECTS OF THE DRAFT VEMMP</u>	66
8.2.	STRATEGIC ENVIRONMENTAL OBJECTIVES (SEOs).....	67
9.	<u>POTENTIAL ENVIRONMENTAL EFFECTS OF THE DRAFT VEMMP COMPARED WITH ALTERNATIVES</u>	68
9.1.2.	BUSINESS AS USUAL ALTERNATIVE.....	68
9.1.3.	VEMMP AS PROPOSED.....	69

9.1.4.	A PLAN FOR TOURISM WITHOUT ADDITIONAL ENVIRONMENTAL ELEMENTS.....	70
9.1.5.	SUMMARY COMPARISON OF DRAFT VEMMP AND ALTERNATIVES.....	70
9.1.6.	ALTERNATIVES CONSIDERED WITHIN THE VEMMP.....	71
9.2.	ASSESSMENT DRAFT VEMMP INDIVIDUAL ELEMENTS AGAINST SEOs.....	75
9.2.2.	VEMMP AIMS.....	75
9.2.3.	ASSESSMENT OF WICKLOW WIDE PROPOSALS.....	76
9.2.4.	ASSESSMENT OF RECREATIONAL TRAILS MASTERPLAN.....	77
9.2.5.	ASSESSMENT OF THE <i>DRAFT GLENDALOUGH VALLEY PLAN</i>	78
10.	<u>OVERALL PERFORMANCE OF DRAFT VEMMP.....</u>	81
10.1.2.	IN COMBINATION EFFECTS.....	82
10.1.3.	CUMULATIVE EFFECTS.....	83
10.2.	REASONS FOR CHOOSING PROPOSED VEMMP.....	83
10.3.	APPROPRIATE ASSESSMENT.....	84
11.	<u>MITIGATION.....</u>	85
12.	<u>MONITORING.....</u>	90
13.	<u>DIFFICULTIES IN COMPILATION OF THE ENVIRONMENTAL REPORT.....</u>	93
14.	<u>CONCLUSION.....</u>	94
 <u>APPENDIX 1 NON-TECHNICAL SUMMARY</u>		
 <u>APPENDIX 2 HERITAGE IMPACT ASSESSMENT ON GLENDALOUGH</u>		
 <u>APPENDIX 3 FLOOD RISK ASSESSMENT.</u>		
 <u>APPENDIX 4 SCREENING DETERMINATION.</u>		

1. Introduction

- 1.1.1. This is the Environmental Report for the *Draft Visitor Experience and Management Masterplan for Glendalough and Wicklow Mountains National Park (Draft VEMMP)*. The Report has been prepared by Doyle Kent Planning Partnership Ltd on behalf of Fáilte Ireland, The National Tourism Development Authority (the *competent authority*).
- 1.1.2. The *Draft Visitor Experience and Management Masterplan (VEMMP) for Wicklow Mountains National Park* has been compiled by a multi-disciplinary team, lead by Consarc Design Group, on behalf of the commissioning authorities, Fáilte Ireland in partnership with National Parks and Wildlife Service (NPWS), the Office of Public Works (OPW), the National Monuments Service (NMS), Wicklow County Council and Coillte.
- 1.1.3. The *Draft VEMMP* is a non-statutory, medium range plan (up to ten years) intended to provide for the visitor experience within the setting of Glendalough and the Wicklow Mountains National Park, whilst protecting the heritage of the area, built and natural. It includes establishment of key objectives to support local communities, against which future projects will be assessed. It is intended that the *Draft VEMMP* will set a roadmap for future constituent individual projects, which will be subject to the development consent procedures set down in law, principally the Planning and Development Act, 2000 (as amended) or any successor thereto. The development consent procedures for individual projects will require further assessment of the environmental effects of such future projects, including as may be required under the provisions of the Habitats Directive 92/43/EEC, the Birds Directive 2009/147/EC, the Floods Directive 2007/60/EC and the Environmental Impact Assessment Directive (2011/92/EU as amended by Directive 2014/52/EU).
- 1.1.4. Strategic Environmental Assessment (SEA) is the formal, systematic evaluation of the likely significant environmental effects of implementing a plan or programme, such as the *Draft VEMMP*, before a decision is made to adopt the plan or programme. This Environmental Report is a part of the process of Strategic Environmental Assessment of the *Draft VEMMP*, in accordance with the provisions of EU Directive 2001/42/EC: *On the assessment of the effects of certain plans and programmes on the environment*, as transposed by the corresponding Irish regulations: SI 435/2004 (as amended by SI 200/2011).
- 1.1.5. The draft *VEMMP* is also subject to a separate Appropriate Assessment process, under the provisions of the Habitats Directive 92/43/EEC and the associated Irish S.I. 477/2011: European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended).
- 1.1.6. The Environmental Report sets out the legislative and policy background to Strategic Environmental Assessment (SEA), outlines the methodology underlying compilation of the report and describes the *Draft VEMMP for Glendalough and Wicklow Mountains National Park*. The strategic environmental objectives for the SEA are described. The alternatives considered, including the 'business as usual' scenario, are described and the reasons for choosing the proposed *VEMMP* are set out. The existing environmental baseline is described under a number of topics, in particular those required by the SEA Directive, including biodiversity, population, human health, fauna, flora, soil, water, air and climate (to encompass climate change), material assets, cultural heritage, landscape and the interrelationship between these factors. Measures to offset any significant adverse effects on the environment, due to implementation of the *VEMMP*, are included. Monitoring measures are set out and a non-technical summary of the report is also provided.

2. Strategic Environmental Assessment

- 2.1.1. Strategic Environmental Assessment (SEA) is the formal, systematic evaluation of the likely significant environmental effects of implementing a plan or programme, such as the *Draft VEMMP*, before a decision is made to adopt the plan or programme.

2.2. EU Directive 2001/42/EC

- 2.2.1. EU Directive 2001/42/EC: *On the assessment of the effects of certain plans and programmes on the environment*, is the legal instrument whereby the concept of Strategic Environmental Assessment was brought into EU law. This has been subsequently transposed into Irish domestic law by way of regulations – SI 435/2004: *European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations, 2004*, as amended by SI 200/2011: *European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations, 2011*. {In addition, there are regulations applying the provisions of the Directive to the Planning and Development regime, namely the *Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. 436 of 2004)*, as amended by SI 201/2011}.
- 2.2.2. Having regard to the nature of the *Draft VEMMP for Glendalough and Wicklow Mountains National Park*, it has been determined that it comes within the scope of Directive 2001/42/EC, Article 3, par 2(b), as also SI 435/2004, Article 9(1)(b), as amended by SI 200/2011. The Strategic Environmental Assessment will be completed by Fáilte Ireland, in accordance with the requirements of the Directive and Regulations.

2.3. Habitats Directive 92/43/EEC

- 2.3.1. It has been determined that the *VEMMP for Glendalough and Wicklow Mountains National Park* requires an Appropriate Assessment under the Habitats Directive 92/43/EEC, which also has the effect of bringing it within the provisions of the SEA Directive 2001/42/EC, Article 3, par 2(b). The Appropriate Assessment will be carried out as a separate exercise, in accordance with the requirements of the *European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011)*, as amended by the *European Union (Birds and Natural Habitats) (Amendment) Regulations, 2021, (S.I. No.293 of 2021)*, in parallel with the Strategic Environmental Assessment. A Natura Impact Statement, in connection with the Appropriate Assessment, has been compiled.

2.4. The SEA Process

2.4.1. As set out in the SEA Directive and the Regulations, the SEA process includes:

- Preparing an Environmental Report where the likely significant environmental effects of the draft *VEMMP for Glendalough and Wicklow Mountains National Park* will be identified and evaluated and reasonable alternatives are identified, described and evaluated;
- Consulting the public, environmental authorities, and any EU Member State affected, on the environmental report and draft *VEMMP for Glendalough and Wicklow Mountains National Park*;
- Taking account of the findings of the report and the outcome of these consultations in deciding whether to adopt or modify the draft the *VEMMP for Glendalough and Wicklow Mountains National Park*;
- Making known the decision on adoption of the *VEMMP for Glendalough and Wicklow Mountains National Park* and how SEA influenced the outcome.

2.4.2. The steps in the SEA process, as described (in general) in the recently published Ministerial guidance: *Draft Strategic Environmental Assessment Guidelines for Regional Assemblies and Planning Authorities 2021* are:

Stages in SEA Process	
Screening	Screen plans to decide if SEA is necessary
Scoping	Scope the contents of the Environmental Report
Environmental Report - baseline	Collect baseline environmental data, consider strategic environmental objectives, planning alternatives, assess impacts, propose mitigation measures
Environmental Report	Preparation of Environmental Report
Consultations on the draft Plan and Environmental Report - will also include Natura Impact Statement in the case of Wicklow Mts. Nat. Park VEMMP	Consultations with relevant environmental authorities, the public and (if necessary) adjacent States
Adoption of the Plan SEA Statement	Provision of specified information on the Plan and the SEA process to the public and relevant environmental authorities, including any amendments to the Plan
Monitoring	Monitor the significant environmental effects of implementing the plan

Table 2.1: Stages in SEA Process

2.5. The Environmental Report

- 2.5.1. The Environmental Report identifies, describes and evaluates the likely significant effects on the environment of implementing the Draft *VEMMP for Glendalough and Wicklow Mountains National Park* and reasonable alternatives, taking into account the objectives and the geographical scope of the *VEMMP*. The information required to be included in the Environmental Report is set out in Schedule 2 to the *European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435/2004)*.
- 2.5.2. In 2004, the Government published guidance titled *Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment Guidelines for Regional Authorities and Planning Authorities*. In this document, the information to be contained in an Environmental Report is summarised:

Summary of Information to be contained in an Environmental Report	
A	Outline of the contents and main objectives of the plan, and of its relationship with other relevant plans and programmes
B	Description of relevant aspects of the current state of the environment and the evolution of that environment without implementation of the plan
C	Description of the environmental characteristics of areas likely to be significantly affected
D	Identification of any existing environmental problems which are relevant to the plan, particularly those relating to European protected sites
E	List environmental protection objectives, established at international, EU or national level, which are relevant to the plan and describe how those objectives and any environmental considerations have been taken into account when preparing the plan
F	Describe the likely significant effects on the environment (biodiversity, human health, fauna, etc.)
G	Describe any measures envisaged to prevent, reduce and as fully as possible offset any significant adverse environmental effects of implementing the plan
H	Give an outline of the reasons for selecting the alternatives considered, and a description of how the assessment was undertaken (including any difficulties)
I	A description of proposed monitoring measures
J	A non-technical summary of the above information

Table 2.2: Information in Environmental Report

- 2.5.3. The Environmental Report is structured to set out the legislative and policy background to Strategic Environmental Assessment, to outline the methodology underlying compilation of the report and to describe the draft *VE MMP for Glendalough and Wicklow Mountains National Park*. The strategic environmental objectives for the SEA are described. The alternatives considered, including the 'do-nothing' scenario, are described and the reasons for choosing the proposed *VE MMP* are set out. The existing environmental baseline is described under a number of topics, in particular those required by the SEA Directive, including biodiversity, population, human health, fauna, flora, soil, water, air and climate (to also encompass climate change), material assets, cultural heritage, landscape and the interrelationship between these factors. Measures to offset any significant adverse effects on the environment, due to implementation of the *VE MMP*, are included. Monitoring measures are set out and a non-technical summary of the report is also provided.
- 2.5.4. Submissions are sought in relation to the findings of the Environmental Report, the Natura Impact Statement and the Draft *VE MMP*. These submissions will be considered and taken into account by Fáilte Ireland in completion of the Strategic Environmental Assessment, the Appropriate Assessment (AA) and the finalisation of the *VE MMP*.
- 2.5.5. Following the above, and subject to the Appropriate Assessment (AA) under the Habitats Directive, it is intended that notice of the completion of the Strategic Environmental Assessment and of adoption of the *VE MMP for Glendalough and Wicklow Mountains National Park* will be given. An SEA Statement will also be made available, setting out how environmental considerations have been integrated into the *VE MMP*, how the Environmental Report and the submissions made in relation thereto have been taken into account, the reasons for choosing the *VE MMP*, as adopted, in the light of the reasonable alternatives considered and monitoring measures.

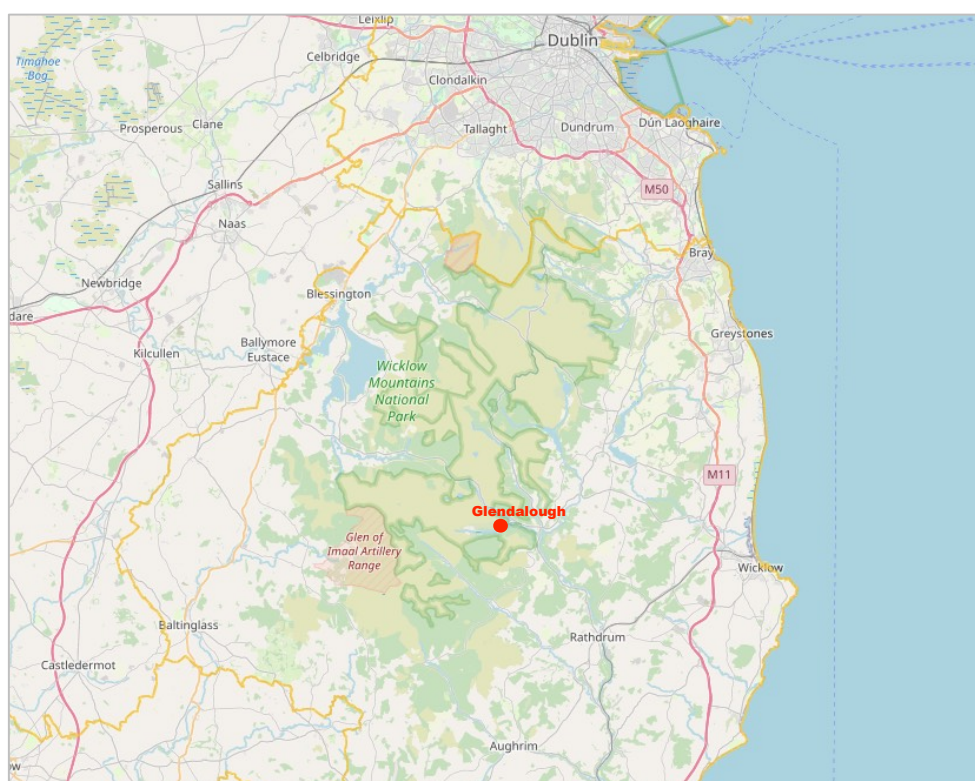
3. Wicklow Mountains National Park

3.1.1.1. There are six National Parks in Ireland which cover a total area of approximately 65,000 hectares, of which the Wicklow Mountains National Park is the largest at nearly 22,000 hectares. The National Parks are managed from a conservation perspective and, together with other heritage sites and nature reserves, attract in excess of four million visitors annually.

3.1.1.2. County Wicklow has an area of 2,027 km² or 202,700 hectares and the National Park covers more than one tenth of the County, stretching from Glenasmole in the Dublin Mountains southwards to the slopes of Lugnaquilla. The area was heavily glaciated and many of the Glens were carved by glaciers to create the distinctive u-shaped valleys of Glendalough, Glenmalure, Glenmacnass and Glencree.

3.1.1.3. Most of the National Park is designated as a special area of conservation (SAC) and special protection area (SPA) and it contains a range of archaeological, architectural, ecclesiastical and mining heritage sites. There are multiple access points to the National Park from the west, north, east and south and it is close to the largest city in the state, Dublin.

3.1.1.1. The Wicklow Mountains National Park is an IUCN Category II National Park. These are areas that are defined as *“large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities”*.¹



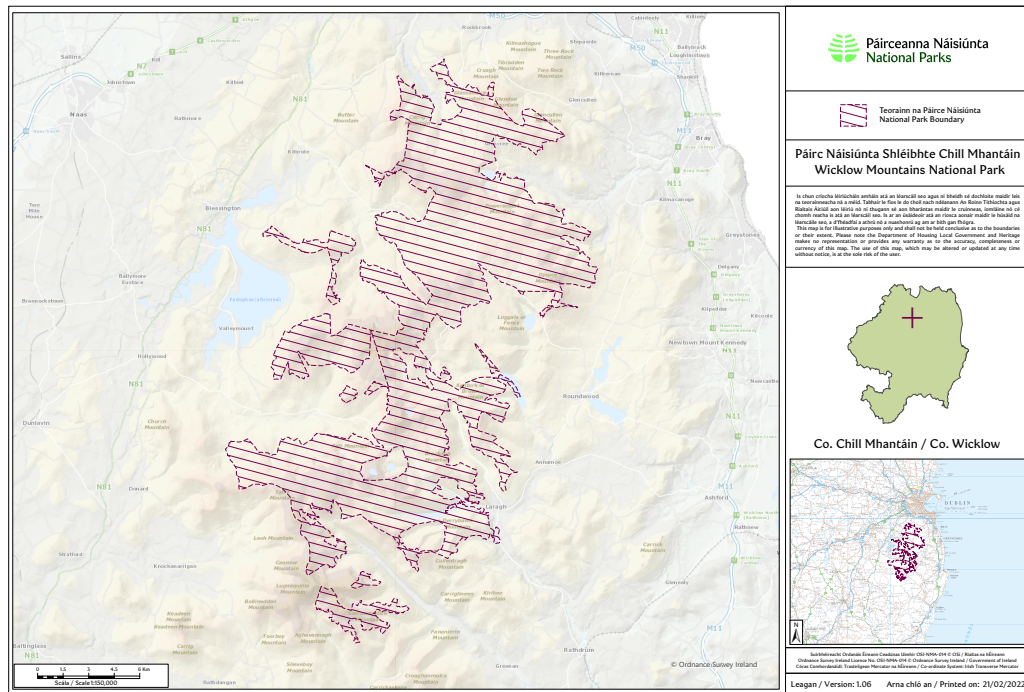
National Park in Context (EPA Maps)

¹ IUCN: International Union for Conservation of Nature

3.1.1.2. Wicklow Mountains National Park was established by Government decision in 1991, with an initial core area of over 3,700 ha and administered by the National Parks and Wildlife Service. It is Ireland's largest National Park and has expanded to nearly 22,000ha, stretching from Glensmole in the Dublin Mountains southwards to the slopes of Lugnaquilla. The area was heavily glaciated and many of the Glens were carved by glaciers to create the distinctive u-shaped valleys of Glendalough, Glenmalure, Glenmacnass and Glenree. Most of the National Park is designated as a special area of conservation (SAC) and special protection area (SPA) and it contains a range of archaeological, architectural, ecclesiastical and mining heritage sites. There are multiple access points to the National Park from the west, north, east and south and it is close to the largest city in the state, Dublin.

3.1.1.3. The National Park is managed in accordance with international criteria set down by the World Conservation Union (IUCN) and is included in the United Nations List of National Parks and Equivalent Reserves.

3.1.1.4. The popularity of the National Park and, in particular of Glendalough, poses significant challenges in respect of access, parking, congestion, orientation, interpretation and provision of both commercial facilities and amenities. There are currently approximately 1.5 million visitors per annum to the National Park, but almost half of these visits are concentrated on Glendalough, with 735,000 visitors per annum, of which approximately 80,000 attend the Glendalough Visitor Centre (numbers are reducing year by year). As the population of the State continues to grow, it is anticipated that pressures on the National Park are likely to intensify in future years.



Wicklow Mountains National Park

4. Draft Visitor Experience and Management Masterplan (VEMMP)

4.1.1.1. The *Draft VEMMP for Glendalough and Wicklow Mountains National Park* is a multi-layered, medium term strategic draft plan aimed at the sustainable development and management of tourism in the National Park and wider County Wicklow commensurate with the environmental capacity of the area. The *Draft VEMMP* is a non-statutory plan and is informed by the statutory plans for the area, including the *Wicklow County Development Plan, 2022-2028*, and the *Laragh – Glendalough Tourism and Settlement Plan*, incorporated into the *Wicklow County Development Plan, 2022-2028*. In practical terms, it could be considered to sit under the County Development Plan, including the *Laragh – Glendalough Tourism and Settlement Plan*, which has itself been subject to Strategic Environmental Assessment and Appropriate Assessment.

4.1.1.2. The primary purpose of the *Draft VEMMP for Glendalough and Wicklow Mountains National Park* is to improve the visitor experience and disperse the benefits and impacts of tourism. The brief for the VEMMP calls for a *Visitor Experience and Management Masterplan*, for Glendalough and the Wicklow Mountains National Park, and *Visitor Orientation* recommendations for County Wicklow. These are to balance core conservation and heritage values with increased tourism demand. In order to mitigate regional and seasonal congestion, the brief sets an ambition to persuade more tourists to visit areas outside of the main attractions and visit outside seasonal peaks. The brief requires greater accessibility for walkers and cyclists through the provision of alternative access points and improved facilities. How visitors access the main attractions and activities in County Wicklow is to be considered and all options should aid visitor flow and improve the visitor experience in Co. Wicklow.

4.2. Aims of the Draft VEMMP

4.2.1.1. The *Draft VEMMP for Glendalough and Wicklow Mountains National Park* has interpreted the brief by setting out three main aims, which are addressed in the proposals:

- Aim 1: *Enhance the natural, built and cultural heritage*
- Aim 2: *Disperse the benefits and impacts of tourism*
- Aim 3: *Improve the visitor experience*

4.2.1.2. The *Draft VEMMP* comprises a number of key elements which combine to create an integrated set of Aims, Objectives and Actions. A suite of technical reports details the appraisal of the existing context relevant to each aspect, and lays out the aims, objectives and actions to be addressed by any new proposals within the area. The structure of the *Draft VEMMP* can be divided into four broad sections:

- Understanding: Fact gathering of existing background information
- Proposals: Recommendations to address key emerging issues
- Delivery: Recommendations for implementing and managing proposals
- Review: Economic Appraisal

4.3. Understanding

4.3.1.1. The “understanding” section comprises a number of outputs, as described below.

4.3.1.2. *Visitor Analysis*: This is a technical background document, compiled by Outdoor Recreation Northern Ireland (ORNI), which brings together known information about previous and existing visitor patterns, trends and numbers to inform the *Draft VEMMP*. A particular factor it identifies is the large amount of visitor traffic to County Wicklow generated by day trips from Dublin and how this affects the visitor hospitality infrastructure and incomes in the County.

- 4.3.1.3. *Gazetteer of Existing Attractions, Trails and Activity Sites*: The *Gazetteer* was compiled by the Paul Hogarth Company for the *Draft VEMMP*. The team members visited and collected information on a wide range of attractions and activities. This was supplemented during an extensive public consultation process to produce a comprehensive record of visitor sites. It was concluded that generally there is not a shortage of visitor activity opportunities in Wicklow and new facilities continue to be developed. But some gaps in provision were found, such as the limited facilities for off road family cycling currently available.
- 4.3.1.4. *Traffic Surveys*: Control of traffic and parking in the Wicklow Mountains National Park, especially in the Glendalough-Laragh area, has been identified as a significant concern and is a particular focus of the *Draft VEMMP*. Early in the plan making process, it was established there was very limited detailed information in respect of the number of people per vehicle and parking dwell times visiting Glendalough. An extensive traffic and car parking survey was undertaken by Kevin McShane Ltd, Transport Planning Engineers, the weekend of 21st - 24th May 2021 (Whit weekend), in conjunction with Wicklow County Council. This weekend was selected as it is normally one of the busiest of the year and proved to be instructive in the extent of congestion, car queuing, car parking in obtrusive areas and other issues detrimental to the environment of Glendalough. The data obtained from these surveys, presented in a technical report, allows collation with the pedestrian visitor data as set out in the ORNI *Visitor Analysis*, and gives a factual basis for the calculation of car park demand in and around Laragh, and indicators of upland car parking requirements.
- 4.3.1.5. *Analysis and concept development*: The analysis of the initial surveys, consultations and site visits led to the formation, by The Paul Hogarth Company, of a concept development for the *Draft VEMMP*. This has been reviewed and developed through the consultation and detailed design process.
- 4.3.1.6. *Public Consultation*: A detailed report on the public consultation process has been prepared by the Paul Hogarth Company and widely circulated so consultees could see the results of the feedback and the team's interpretation of it. In general, there was wide support for the initial aims and objectives of the plan which have followed through into the proposals.

4.4. Proposals of Draft VEMMP

There are three main initiatives proposed in the *Draft VEMMP*:

- *Wicklow Wide*: High level dispersal strategy including visitor hubs through the County
- *Draft Recreational Trail Masterplan*: focused strategy for dispersal of outdoor recreation with detailed proposals for Discovery Trails
- *Draft Glendalough Valley Plan*: proposals for local Laragh-Glendalough area-wide strategies, informed by an *Interpretation Strategy*.

4.4.1. Wicklow Wide Strategy

- 4.4.1.1. An important part of the overall brief was County Wicklow wide '*Visitor Orientation*'. The main proposals of the *Draft VEMMP*, in this regard, are set out in (i) the *Draft Wicklow Wide Strategies* (The Paul Hogarth Company with Tandem Design), (ii) the *Draft Wider Wicklow Interpretation Vision* and the (iii) *Draft Wider Wicklow Interpretation Strategy* (Tandem Design). (In addition, there are detailed proposals for county-wide facilities for walking, cycling and car parking set out in the *Draft Recreational Trails Masterplan* - see below).
- 4.4.1.2. The ***Draft Wicklow Wide Strategies*** report notes that visitor activity in County Wicklow is primarily based on day trips to the county, that overnight and longer stays in the county are limited, that some popular locations for visitors are over-stretched, such as Glendalough, whilst other places have significant potential to cater for more visitors. Accordingly, central

to the strategy are the objectives to both encourage people to stay longer and to visit other places in the area. The aim is to build on the strengths of the many attractions, activities and sites throughout the County. The *Wicklow Wide Strategies* builds on the *Wicklow Outdoor Recreation Strategy 2020-25*, wherein five *Outdoor Recreation Hubs* were identified for future development.²

- 4.4.1.3. In the *Draft VEMMP (Wicklow Wide Strategies)*, particular roles are assigned to individual locations, such as Glendalough, Roundwood/Ballinastoe, Blessington, Baltinglass, Tinahely-Shillelagh, the Wicklow Uplands, the Wicklow Coast, the Garden County including great houses.
- 4.4.1.4. Emphasis is placed on connectivity and Investment in rail infrastructure is a priority, including provision of a regular service to Rathdrum in order to restore use of the town as a base for exploring the county and to provide a viable alternative for access to Glendalough by car and coach. For sustainable tourism, use the main roads (M11/N11) and rail links as points of connection, from where to explore the county at a slower pace. Walking and cycling connections, including strategic routes from Arklow to Rathdrum and onwards to Laragh, will aid a sustainable modal shift.
- 4.4.1.5. It is proposed to establish a '*Wicklow Mountains*' brand for the uplands and their fringes. To the east of the M/N11 would be '*Wicklow's Coast*'. Signage, online and promotional material will strengthen cohesion, encouraging people to see these as areas to explore, rather than being individual locations to visit.
- 4.4.1.6. ***Draft Wider Wicklow Interpretation Vision*** – This sets out to identify less visited county-wide attractions and to alleviate pressure points elsewhere, by facilitating greater appreciation of such sites through interpretation. Four “themes” are identified and a number of sites and activities are identified in respect of each of the themes (substantially expanded in the *draft Wider Wicklow Interpretation Strategy*).
- 4.4.1.7. ***Draft Wider Wicklow Interpretation Strategy*** - The *Draft Wider Wicklow Interpretation Strategy*, formulated by Tandem Design, follows on from the *Draft Wider Wicklow Interpretation Vision* and further refines the interpretation provision for the wider Wicklow region also including the general Glendalough area.
- 4.4.1.8. The *Draft Wider Wicklow Interpretation Strategy* outlines some of the key elements for visitor interpretation in the valleys and uplands near Glendalough and the Wicklow Mountains National Park. Selected sites are suggested for *interpretation journeys*. The elements of the *Draft Wider Wicklow Interpretation Vision* are also explored in more detail. There is a focus on the mining and military heritage in the areas surrounding Glendalough, landscape change in the uplands, the ecclesiastical heritage and ancient monuments/archaeology.
- 4.4.1.9. *Interpretation Journeys* – the *Draft Wider Wicklow Interpretation Strategy* outlines potential for theme related journeys of interpretation in Wicklow:
- Linked journeys starting from Glendalough exploring the religious and spiritual histories of Wicklow.
 - Industrial and mining histories of Glendalough, bringing in elements of mining, charcoal burning, links to England and Wales and the impact this has had on the landscapes of Wicklow.
 - Military Histories, guerrilla warfare and rebellion in 1798, linking the often desolate Military Road connecting north and south Wicklow to Dublin to the local stories of the 1798 rebellion.

² Glendalough, Rathdrum, Blessington-Baltinglass, East Coast Maritime and Tinahely-Shillelagh

- Natural history and biodiversity: fostering understanding of the range of habitats and species within the national park, as well as throughout the county.
- Ancient lives: understanding the range of Neolithic and Bronze Age monuments throughout Wicklow.
- Connections to existing trails and journeys, such as the Celtic Route project developed with EU funding, which links the coastal regions of Wales and Ireland together.

4.4.1.10. *Key Interpretative Locations:* In the general environs of Glendalough, proposed Key Interpretative Locations have been proposed:

- (a) *Laragh and Glendalough Arrival Point:* a gateway in Laragh leading to the monastic settlement of Glendalough and into the Glendalough and Glenealo valleys (see draft *Glendalough Valley Plan*).
- (b) *Glens of Lead – Engagement Point:* This is envisaged as a stand-alone engagement point at the Wicklow Gap, providing a focal point to the history of mining around Glendalough.
- (c) *The Military Road – Driving/Cycling Tour:* This road, particularly through the Sally Gap and through the Uplands, is to function as a driving or cycling route, with key information points at sites along the way, giving visitors a sense of the dramatic events that took place in Wicklow.

4.4.1.11. *Wider Wicklow Themes and Topics:* In addition to the themes and topics for the Glendalough area, the *Draft Wider Wicklow Interpretation Strategy* puts forward an expanded range of eight headings of themes and topics which have potential to direct interpretation and visitor journeys throughout the county. Suggested relevant sites and activities are included under each of eight heading:

- *Natural History & Biodiversity*
- *Ecclesiastical and Spiritual Heritage*
- *Military History*
- *Mining and Extractive Industry*
- *Ancient Monuments and Sites*
- *Big Houses, Castles and Formal Gardens*
- *Viking and Maritime Heritage*
- *Marine and Coastal Biodiversity*

4.4.2. Draft Recreational Trails Masterplan

4.4.2.1. The Wicklow Mountains National Park of approximately 20,000 hectares currently supports a range of recreation activities, predominantly hillwalking but also several easily accessed ‘signature sites’ and lower-level woodland and valley walks. There are upwards of 500km of waymarked trails equating to more than 150 walks spread across the county. Wicklow has the largest coverage of Coillte Forest Estate of any county in Ireland, extending throughout the county. These properties include 18 designated Coillte Outdoor Recreation sites and over 30,000 Ha of forest providing pedestrian access in line with Coillte’s ‘Open Forest Policy’. The Coillte property at Ballinastoe includes a 16 kilometre mountain bike trail system and the property at Avondale Forest Park, a 505 acres estate, has recently received a significant investment in its grounds and buildings.

4.4.2.2. However, there is severe congestion of visitors at certain locations, especially at Glendalough, as also at certain other key recreational sites and at key recreation access points in the north-eastern area of the Wicklow Mountains National Park. Negative environmental impacts include road congestion, lack of parking, path erosion and damage to the environment. It is considered that visitor numbers to the Wicklow Mountains National Park are likely to continue to grow and there is, therefore, a need for an effective strategy to disperse visitor traffic to other sustainable locations in Wicklow, although first time visitors to Wicklow will continue to wish to visit Glendalough.

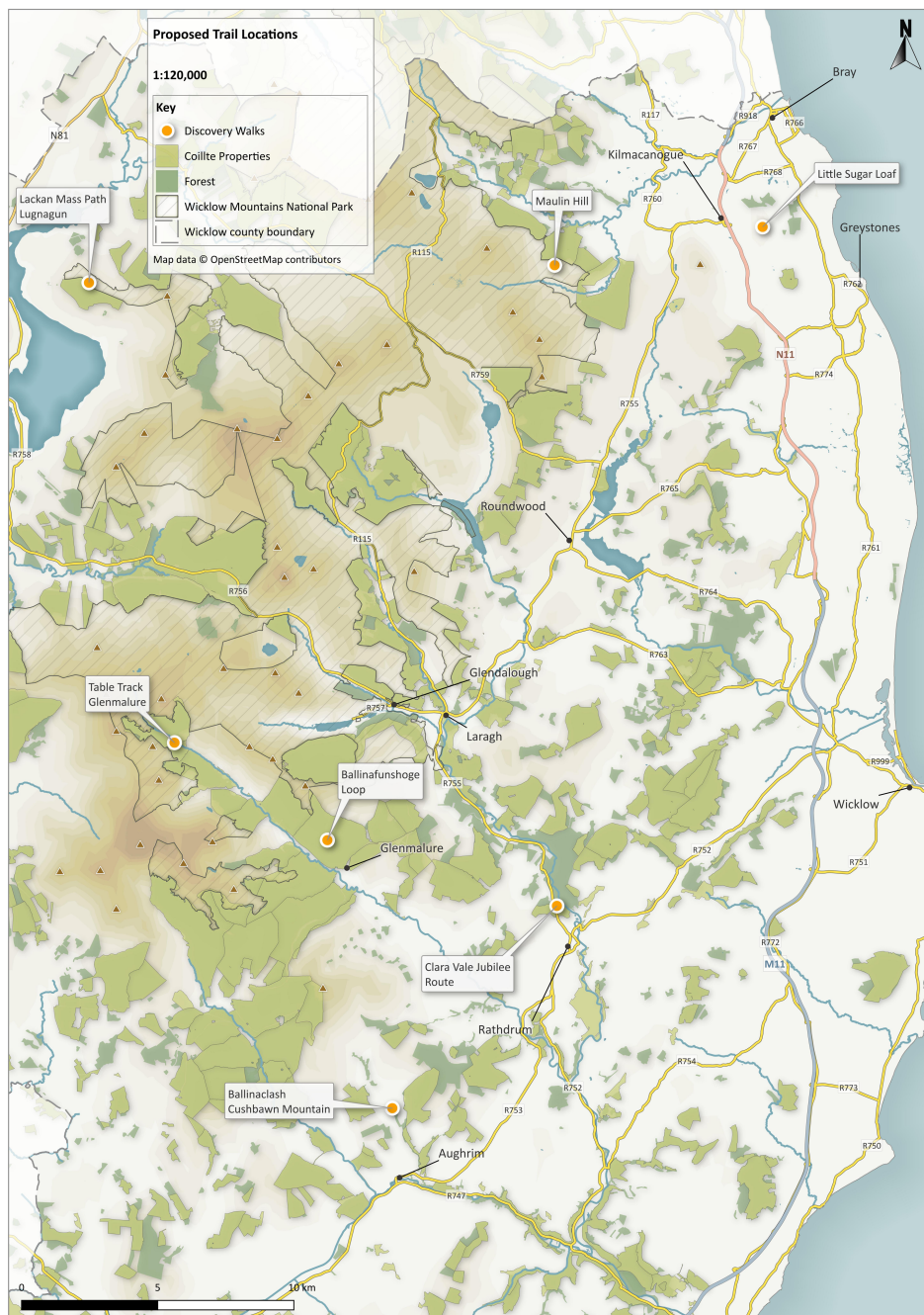
4.4.2.3. The *Draft Recreational Trails Masterplan* is a county wide set of proposals to aid the sustainable dispersal of visitors in County Wicklow, including by enhancement and extension of the existing trail network in the County. Based on achieving the three aims of the *Draft VEMMP* – Enhancement, Dispersal and Improvement - the *Draft Recreational Trails Masterplan* sets out an overall strategy, including a series of objectives and actions including:

- addressing the need for a central, online information hub,
- a co-ordinated approach to signage,
- improvements to car parks and facilities,
- designation of sustainable ‘Discovery Walks’ (to cater for large numbers of people seeking an introduction to the outdoor environment),
- recommendations for off road cycling, including addressing the limited provision of family cycling opportunities,
- recognising the potential for the five *Outdoor Recreation Hubs*, previously designated by the *Wicklow Outdoor Recreation Forum*.

4.4.2.4. The *Draft Recreational Trails Masterplan* sets out detailed proposals for the upgrading of a number of existing key recreational sites to make them robust and environmentally sustainable and improve the visitor experience. These very popular sites are showing signs of erosion exacerbated by walkers and recommendations for repair and protection are set out.

In particular, four such key recreational sites were identified with detailed proposals for improvement:

1. Great Sugar Loaf Mountain
2. Djouce Mountain
3. Spinc and Glenealo Valley
4. Lough Brays (Upper & Lower)



Discovery Walks

4.4.2.5. Additional walks, titled *Discovery Walks*, are put forward for development, generally along routes already in use. But these trails can be enhanced to accommodate an increased number of visitors and to be promoted through effective branding and social media channels, so that visitors can be encouraged to explore more widely. The criteria for selection of the *Discovery Walks* include:

- An appealing route through an attractive landscape setting
- Walk time circa 2 - 4 hrs
- A straightforward route, ideally waymarked
- A sustainable trail
- Availability of car parking at start of route
- Inclusion of some '*beginner mountain*' walks

4.4.2.6. Following examination of the alternatives, a recommendation for seven such *Discovery Walks* was made. The final list (with relevant car parking) includes:

1. Maulin (Crone Woods car park) Coillte / NPWS
2. Clara Vale Jubilee Route (Coillte car park)
3. Table Tract Glenmalure (WCC car park)
4. Little Sugar Loaf (Belmore Est. car park)
5. Lackan Mass Path (Lackan Village)
6. Ballinaclash Cushbawn Mt. (Macreddin)
7. Ballinafunshoge Loop (Ballinafunshoge Coillte car park)

4.4.2.7. The chosen sites are generally outside the National Park or, in three cases, on the periphery of the Park (*Lackan Mass Path, Table Track Glenmalure, Maulin*). Three (*Maulin, Clara Vale* and *Ballinafunshoge*) are partly within an SAC and one (*Table Track Glenmalure*) is within an SPA.

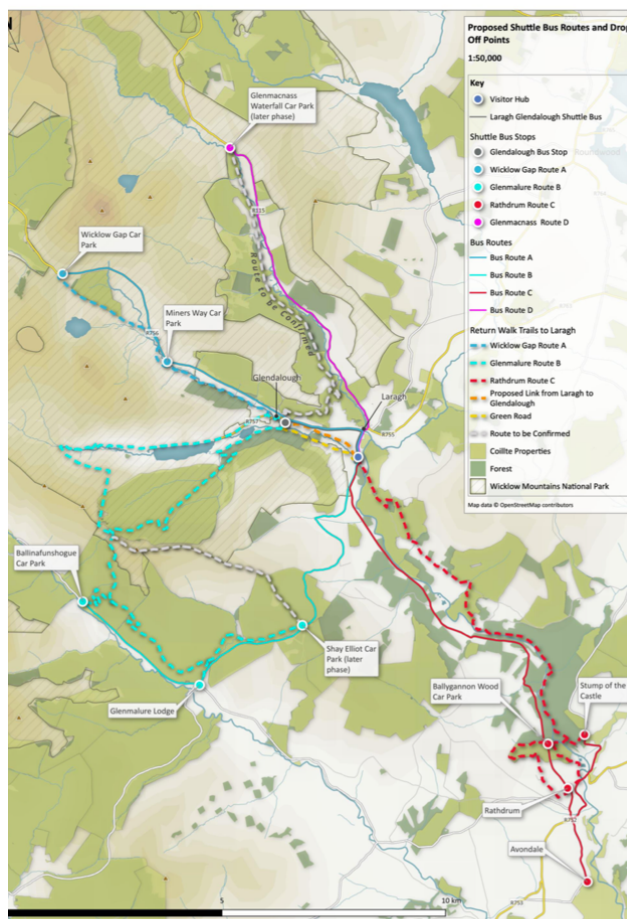
4.4.2.8. Four of the *Discovery Walks* include sections on private land (*Little Sugar Loaf, Lackan Mass Path, Ballinaclash/Cushbawn*). Permission to include these as *Discovery Walks* has not been sought at this stage. However most are already established as formal walks or are in regular use by the public. Mountain walks are defined as above 300m OD and, as per NPWS and Mountaineering Ireland policy, any sections of routes on open hillside will not be waymarked.

4.4.2.9. Once launched, *Discovery Walk* sites will require ongoing monitoring of visitor induced path erosion and related visitor management issues and be prioritised for path erosion works as required. Several of the proposed routes have been surveyed as part of the 2021 *Upland Path Survey* and some are already prioritised for funding.³ In time, further sites may be added as current issues around path erosion and car parking are addressed.

4.4.2.10. Car Park Upgrades: The existing parking provisions for walkers in County Wicklow show some significant deficiencies, including lack of capacity at peak times, relatively high rates of criminality and an absence of sanitary facilities. The *Draft VEMMP*, in the *Draft Recreational Trails Masterplan*, sets out particular recommendations for improvements to the parking facilities at nine locations:

- Great Sugar Loaf
- Djouce
- Lough Brays/Glenree
- Lough Dan/Old Bridge
- Glenmalure
- Shay Elliot
- Seskin
- Glenmacnass Waterfall Car Park
- Glendasan Valley Lead Mines (near Laragh)

³ Wicklow Uplands Council was responsible for the development of the Avonmore Way, Sugar Loaf Way and most recently the Bray Head Loop and Belmont Way. The combination of the Bray Head Loop, Belmont Way and Sugar Loaf Way provides walkers an opportunity to walk from Bray to the Sugar Loaf, a route of almost fifteen kilometres.



Shuttle bus routes

4.4.2.11. Shuttle Bus: Further dispersal will be achieved through the introduction of a shuttle bus service with promoted sustainable return walking routes. The shuttle bus service is an important dispersal mechanism, transporting visitors to other sustainable sites around the Park. For each route identified, visitors walk the return journey to Laragh. Four bus routes proposed:

- A. Wicklow Gap; B. Glenmalure; C. Rathdrum; D. Glenmacnass

ROUTE	BUS STOPS	Return walking routes	Key user group
A. Wicklow Gap	1. Miners Way Car Park 2. Wicklow Gap Car Park	St. Kevin's Way, Miners Way	Visitors/hillwalkers
B. Glenmalure	1. Shay Elliot Car Park (later phase following path works) 2. Glenmalure Lodge 3. Ballinafunshoge Car Par	Wicklow Way via Mullacor Route or Miners Path	Visitors/hillwalkers
C. Rathdrum	1. Ballygannon Car Park 2. Rathdrum 3. Stump of the Castle 4. Avondale	Avonmore Way/Jubilee Loop	Visitors
D. Glenmacnass	Waterfall car park	TBC	Visitors/hillwalkers

Table 4.1: Shuttle Bus Routes

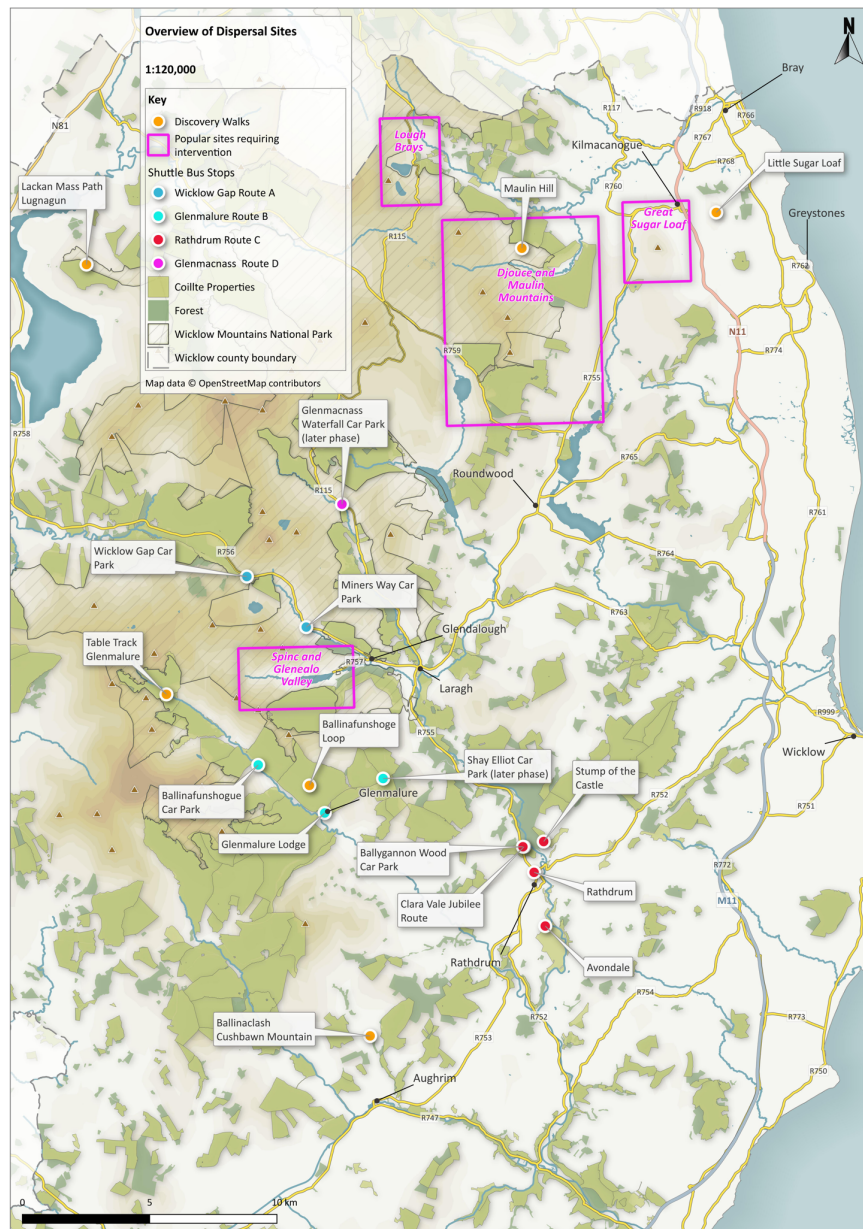
- 4.4.2.12. Cycling Facilities: Current gaps in provision for off-road leisure cycling will be largely met by delivery of several regionally significant greenway projects across the county over the next 5 years.⁴ It is recommended that consideration be given to developing multi use trails (over pedestrian only routes) to accommodate the growing leisure cycling market.
- 4.4.2.13. There is significant demand for off-road family cycling in flatter woodland sites or mature estates, to provide purpose-built easy/moderate level mountain bike trails (min >10km). But there are currently no such sites across Wicklow and no potential sites were identified during consultation /fieldwork. The offering at Belmont Demesne is similar but limited.
- 4.4.2.14. A number of privately owned estates have been identified with potential to complement the wider tourism and recreation offering. Of these, only Kippure Estate has active plans to develop a potentially complementary offer. Redevelopment is still in its very early stage. However the site offers clear potential to support the outdoor recreation offering in north / north-west Wicklow. Continued engagement by key stakeholders with the Estate owners/management is recommended to encourage development that complements the wider tourism offering in the area and aligns with the broader objectives of the National Park.
[Note: this is subject to appropriate/ statutory planning process and assessments.]
- 4.4.2.15. In addition to the foregoing proposals in the *Draft VEMMP*, the five *Outdoor Recreation Hubs*, identified in the *Wicklow Outdoor Recreation Strategy 2020-25*, are addressed in terms of walking and cycling:
- Glendalough/Laragh
 - Rathdrum
 - Tinahely-Shillelagh
 - East Coast Maritime
 - Blessington-Baltinglass
- 4.4.2.16. Laragh: The hub will be strengthened by the current project to enhance the Avonmore Way linking to Rathdrum and *Draft VEMMP* proposals to relocate Glendalough parking and visitor hub facilities to Laragh, linked via an off road, multi-use trail.
- 4.4.2.17. Rathdrum: Rathdrum is 15 minutes by road from Laragh and is well catered for in terms of walking provision. Improvements to the Avonmore Way will improve connectivity between Rathdrum town and Laragh and provide opportunities for recreation. The major redevelopment of Avondale Forest will further consolidate the town's status as an outdoor recreation hub, particularly suited for families.
- 4.4.2.18. Tinahely-Shillelagh: An impressive network of overlapping walking trails in the hills around Tinahely and several low-level woodland walks at Tomnafinnogue Woods, all connected by the Tinahely Railway Walk. This route will form part of the Arklow to Shillelagh Greenway, which will be highly significant for tourism and recreation. Tinahely is also a key stop off point on the Wicklow Way (Stage 5/6).
- 4.4.2.19. East Coast Maritime: Stretching from Bray to Arklow, maritime recreation is the main focus for development in this hub. This is well supported by current walking and

⁴ (i) Blessington Lakes - 6km section of greenway with plans to extend the E-Greenway around the lake creating a 40km circuit by 2024; (ii) Arklow to Shillelagh - under development, estimated delivery by 2024; (iii) Wicklow to Greystones – under development, full greenway status is uncertain with fall back option to develop a recreational trail; (iv) Southern cross to Kilmacanogue – under development, 3km section of greenway to ease road congestion and support active travel, estimated delivery 2025; (v) Various other greenways at concept level.

cycling provision and future plans to develop a greenway/recreational trail from Wicklow to Bray.

4.4.2.20. Blessington-Baltinglass: Provision is relatively limited along this western corridor and particularly at its southern end. The Blessington E-Greenway will be a significant boost to recreation and tourism in west Wicklow.

4.4.2.21. Baltinglass: There is need for increased outdoor recreation provision, but the area will soon benefit from the launch of a cycle trail network with three routes of 18km, 22km and 47km respectively, exploring the scenic quiet roads between Baltinglass, Rathdangan and Donard. The near absence of Coillte land in the area is a disadvantage, as developing new access and trails on private land is significantly more challenging. Wicklow County Council has commissioned a Statement of Archaeological Significance for the Baltinglass Hills to define the significance of the area.



Dispersal Sites Overview

4.4.3. Draft Glendalough Valley Plan

4.4.3.1. The *Draft VEMMP* contains a significant series of proposals for the Laragh-Glendalough area in the form of the *Draft Glendalough Valley Plan*. (This has been designed jointly by Consarc Design Group, The Paul Hogarth Company, Tandem Design and Kevin McShane Ltd). The *Draft Glendalough Valley Plan* is to be implemented in three broad phases, over a period of seven years. It is aimed at transforming the visitor experience and minimising any negative impacts on the local community. The rationale for the *Draft Glendalough Valley Plan* is contained in the '*Principles and Phases*' paper, illustrated in the Hogarth and Consarc maps and drawings and the Tandem *Draft Interpretation Strategy*.

4.4.3.2. The *Draft Interpretation Strategy* focuses on Glendalough and is a detailed examination and set of recommendations in relation to interpretation for visitors to Glendalough and environs. It draws attention to the primary objective for the Wicklow Mountains National Park, under the IUCN Category II National Park Status, "to protect natural biodiversity and promote education and sustainable recreation. Recreation and Tourism must be environmentally compatible with this objective." The *Draft Interpretation Strategy* also highlights the exceptional historical significance of the site, with potential to bid for World Heritage Site status. Current facilities for visitors, including the existing visitor centres and arrangements for the provision of information and wayfinding, are critically examined and recommendations for improvement are set out, including indicative proposals for signage.

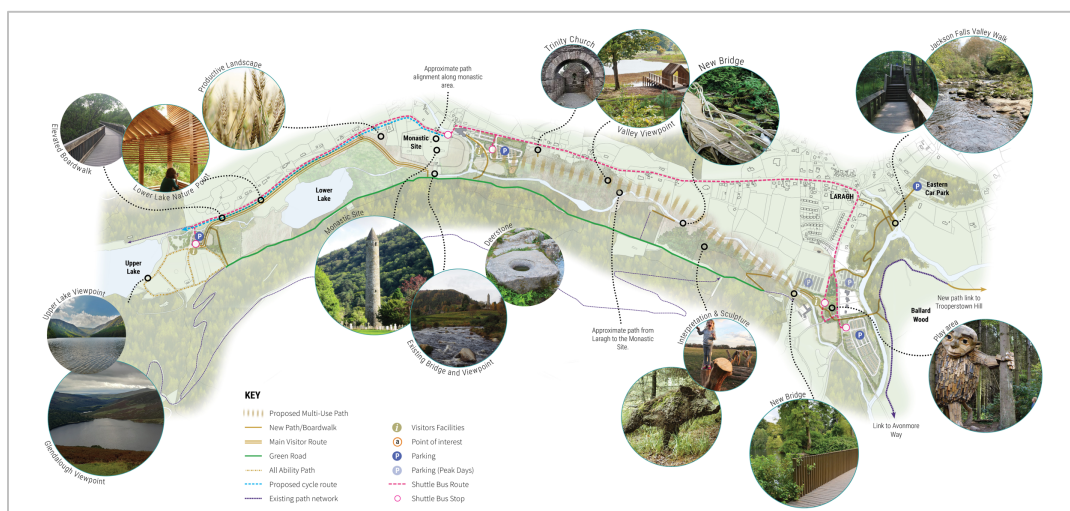
4.4.3.3. It is recognised that immediate change will be difficult to achieve and so the '*Principles and Phases*' paper sets out a phasing strategy by which incremental change builds up to the longer term transformation. The physical proposals go hand in hand with the management and delivery proposals set out separately, but the two issues are integral.

4.4.3.4. The main proposals of the *Draft Glendalough Valley Plan* are structured to address six main points:

- *Creating a New Visitor Flow*
- *Arriving at Laragh*
- *New All ability trail*
- *New Interpretation*
- *Arriving at Glendalough Visitor Centre*
- *Arriving at Upper Lake*

4.4.3.5. *Creating a New Visitor Flow*: The current convergence of visitors within the Glendalough valley, at the existing visitor centre in Glendalough and associated upper and lower car parks, creates significant congestion, overspill car parking, potentially negative impacts on the archaeologically and environmentally sensitive landscape and a detrimental visitor experience. On the busiest day recorded in 2021, there were over 300 cars queuing for entry into the Glendalough car parks. The *Draft Glendalough Valley Plan* proposes to geographically spread the visitor journey within the Glendalough valley, by developing the village of Laragh as a gateway to Glendalough.⁵ This is a phased strategy which will include new car parking within the village of Laragh and a new all ability visitor trail up the Glendalough valley. The strategy addresses a key concern raised in the *Laragh and Glendalough Settlement and Tourism Plan*; that the economic benefit from the nearly one million visitors per year to the Glendalough valley is not fully realised by local commerce.

⁵ This principle of moving visitor arrival from the main attraction point is a strategy which has been utilised in many sensitive sites, including Bru na Boinne and Stonehenge.



Access to/within Monastic Site - Preferred Solution

4.4.3.6. *Arriving at Laragh:* It is proposed in the *Draft Glendalough Valley Plan* that the gateway for the Glendalough valley is to be in Laragh and to provide improved physical connections between the village and Glendalough for pedestrians, cyclists and public transport. It is proposed to develop a new visitor arrival hub adjacent to the existing GAA club and Woollen Mill in Laragh. In this regard, it has been established that there is a need to provide c.400 parking spaces in Laragh. A number of potential sites on the outskirts of the village have been identified for use as primary and overflow car parking, with potential for coach parking, camper van parking and integration of electric powered shuttle bus services. A key advantage of relocating the Glendalough visitor orientation hub to the village of Laragh is the opportunity to establish the village as the main hub and trailhead for the wider walking and cycling network that radiates from here including the Wicklow Way, St Kevin’s Way, Avonmore Way and Miner’s Way.

4.4.3.7. *New All ability trail:* The *Draft Glendalough Valley Plan* proposes a concept design for a new proposed ‘all ability’ trail connecting Laragh to the Monastic site in Glendalough and beyond to the Upper Lake and the Miner’s Road. This trail will offer a level of accessibility within the valley, which currently is not availability within the existing Green Road trail. The proposed new trail will connect the main trail network to a new visitor orientation hub, aiding with the dispersal of visitors, and providing greater access to the natural and built heritage within the valley.

4.4.3.8. *New Interpretation:* Visitors to Wicklow need facilities for comfort and guidance before and after a visit and to provide a clear understanding of the county. The *Draft Glendalough Valley Plan* proposes that Laragh is the ideal location for these purposes, to function as a central gateway to Glendalough and the Glendalough/ Glenealo valleys, to enable people to appreciate the complex interaction between nature, geology and human experience as they traverse up the Glendalough Valley and to also encourage visitors to explore more widely throughout the county.

4.4.3.9. *Arriving at Glendalough Visitor Centre:* The existing visitor centre in Glendalough is outdated and visitor numbers attending the centre are in decline. There is considerable scope to better highlight the significance and history of the monastic site. Rather than forming the primary entrance point to the monastic city as currently, the *Draft Glendalough Valley Plan* proposes to refurbish the existing visitor centre as a repurposed, destination node within the overall valley trail, to provide an engaging orientation point, where visitors can stop before onward travel, and to provide an opportunity for interpretive information and

refreshment. The *Draft Glendalough Valley Plan* also proposes to reduce and rationalise the existing car park in front of the visitor centre to provide a more direct access from the car park area, through the visitor centre and onwards to the monastic city. It is also intended that this will address a current deficiency within the existing visitor centre car parking layout, whereby it will be possible to move coach parking and visitor drop off further away from the 'front door' of the visitor centre.

- 4.4.3.10. *Arriving at Upper Lake:* The Upper Lake car park is currently seen as the 'primary' car park for the Glendalough experience, a perception which results in overcrowding and congestion as visitors attempt to park as close to the Upper and Lower Lakes as possible. Private food vendors within the car park currently serve visitors, but the manner in which these temporary food vans are located within the car park has an adverse effect on the amenity of the area. The *Draft Glendalough Valley Plan* proposes to reduce and rationalise the Upper Lake car park, restrict its use to essential car parking requirements; i.e. accessibility requirements, and to provide the final drop off location for an electric shuttle bus. Provision of a specifically designed refreshment pavilion is proposed to avoid the 'temporary' feel of the current scenario.
- 4.4.3.11. *Shuttle Bus:* The development of Laragh as the gateway to Glendalough and environs will be aided by a shuttle bus which will be a significant component of the new access arrangements. A shuttle bus service was provided by Wicklow County Council between Laragh and Glendalough in summer 2022 on a trial basis and deemed a success.

4.4.4. Management and Delivery Structures

- 4.4.4.1. It was recognised in the brief for the *VEMMP* that co-ordinated working across a number of state bodies, Wicklow County Council, the local community, private owners and businesses was crucial to the delivery of a comprehensive and broadly acceptable Plan. This was reinforced during the public consultation process with strongly worded responses suggesting that support for the *VEMMP* was dependant on a credible and resourced delivery structure.
- 4.4.4.2. It is recognised that this is a complicated area, but it is crucial to overall success and so the *Management and Delivery Paper*, by Consarc Design Group, sets out a phased approach to the development of integrated management structures. Early collaborative projects between the stakeholders could include a mechanism for the collecting and collating of visitor counter data (traffic and pedestrian), a combined approach to signage and a one stop shop for visitor information – both for the paying attractions and the trail access details.
- 4.4.4.3. A separate '*Management Case Studies*' document, also by Consarc Design Group, gives examples of three current approaches to management of similar areas and issues – in the Mourne, the River Nore Catchment and Loch Lomond and the Trossachs National Park in Scotland.

4.4.5. Review

- 4.4.5.1. An economic appraisal of the proposals of the *Draft VEMMP* has been prepared by Cogent Consulting and the Consarc Design Group, with a review of the options and phases as set out in the detailed plans. This is supported by preparation of budget capital costs for the recommended physical infrastructure.
- 4.4.5.2. The completion of the SEA and AA will constitute the assessment of the environmental impacts of the *Draft VEMMP*.

4.5. SEA Guidance

4.5.1.1. Completion of the SEA process will be guided by the provisions of legislation:

- The SEA Directive (2001/42/EC);
- The European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI No. 435 of 2004), as amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (SI No. 200 of 2011);
- The Habitats Directive 92/43/EEC ;
- The Birds Directive [2009/147/EC] codifying previous Directives including Council Directive 79/409/EEC;
- The European Communities (Birds and Natural Habitats) Regulations, 2011, (S.I. No.477 of 2011), as amended.⁶

4.5.1.2. In addition to the legislation, the processes will be undertaken taking into account the following guidance and associated documents:

- SEA Spatial Information Sources Inventory (January 2022), Environmental Protection Agency
- EPA SEAGIS Tool: <https://gis.epa.ie/EPAMaps/SEA>
- Updated EPA SEAGIS tool link added to Appendix 1b. Air Quality in Ireland (EPA, 2021)
- SEA Scoping Guidance Document, 2015, Environmental Protection Agency
- Strategic Environmental Assessment (SEA) Pack, 2020, Environmental Protection Agency
- Strategic Environmental Assessment Guidelines for Regional Assemblies and Planning Authorities: Draft for Public Consultation Prepared by the Department of Housing, Local Government and Heritage, gov.ie/housing October 2021
- Good Practice Guidance on SEA Screening, Environmental Protection Agency, 2021
- Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes: Practitioner’s Manual. EPA Strive Programme 2007-2013. Strive Report Series No. 106
- Strategic Environmental Assessment (SEA) Process Checklist - Consultation Draft, January 2008, Environmental Protection Agency
- Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland. Synthesis Report. 2003. Environmental Protection Agency
- SEA of Local Authority Land Use Plans – EPA Recommendations and Resources
- Draft Strategic Environmental Assessment Guidelines for Regional Assemblies and Planning Authorities 2021

4.5.1.3. The EU Commission has published considerable information and guidance in relation to implementing the SEA Directive and has a section of its website dedicated to this topic:

<https://ec.europa.eu/environment/eia/sea-support.htm>

⁶ Amended per:

- S.I. 290/2013 *European Communities (Birds and Natural Habitats) (Sea Fisheries) Regulations, 2013*
- S.I. No. 499/2013 - *European Communities (Birds and Natural Habitats) (Amendment) Regulations 2013.*
- S.I. No. 355/2015 - *European Communities (Birds and Natural Habitats) (Amendment) Regulations 2015.*
- *Planning and Development, Heritage and Broadcasting (Amendment) Act 2021*
- **S.I. No. 293/2021 - *European Union (Birds and Natural Habitats) (Amendment) Regulations 2021***

4.5.1.4. The EPA has produced several guidance documents to aid the SEA process:

EPA: SEA and Sector Specific Guidance	
SEA of Local Authority Land-Use Plans - EPA Recommendations and Resources	2022 Version 1.15
Developing and Assessing Alternatives in SEA	Guidance on methodologies to develop and assess alternatives in SEA
Integrating Climatic Factors into SEA	How to integrate climatic factors into Plans and associated SEAs. (2019 Update)
GISEA Manual - Improving the Evidence Base in SEA	Guidance on how GIS can be used to improve environmental assessments.
Integrated Biodiversity Impact Assessment	Step-by-step guidance on integrating processes for biodiversity impact assessment.
Good practice note on SEA for the Forestry Sector	Guidance on how to carry out SEA of forestry strategies/plans.
Good practice note on SEA for the Waste Sector	Guidance on how to carry out SEA of waste strategies/plans.
Guidance on SEA Statements and Monitoring	Guidance on how to prepare SEA Statements and assist SEA Monitoring
Good practice guidance on Cumulative Effects Assessment in SEA	This is a guidance note on how cumulative assessment can be considered when preparing Strategic Environmental Assessment.
Second SEA Effectiveness Review Training Event	Review training event, held in Portlaoise in March 2020.
Guidance on SEA Statements and Monitoring	This report provides stand-alone guidance on SEA statements and monitoring to assist plan-makers with the SEA process.
Integrating Climatic Factors into Strategic Environmental Assessment in Ireland - A Guidance Note	A guidance note to assist integrating climatic factor into Plans/Programmes/Strategies - Updated in June 2019
Environmental Sensitivity Mapping (ESM) - User Manual	This manual purpose is to enable geographical exploration of environmental data
EIAR guidelines	Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR)
Developing and Assessing Alternatives in Strategic Environmental Assessment (SEA)	Guidance on Developing and Assessing Alternatives in SEA
SEA Effectiveness Review	Key findings and recommendations from the review of effectiveness of SEA in Ireland.
SEA Effectiveness Review Executive Summary	Executive summary of the findings of the Review of Effectiveness of SEA in Ireland report
SEA Effectiveness Review in Ireland - Action Plan 2012-2016	SEA Action Plan for implementation of SEA Effectiveness Review Recommendations
SEA Effectiveness Review - Regional Planning Guidelines (RPG)	Findings of the review of the effectiveness of SEA in Ireland in relation to the Regional Planning Guidelines
SEA Effectiveness Review RPG Executive Summary	Executive summary of the review of effectiveness of SEA in Ireland associated with the Regional Planning Guidelines
Strategic Environmental Assessment (SEA) And Climate Change: Guidance for Practitioners	How climate change issues can be considered in strategic environmental assessment (SEA)
Guidelines on information to be contained in Environmental Impact Statements (EIS)	Information and advice notes on completing an EIS.
Good Practice Guidance on SEA Screening	Information on best practices for SEA Screening

Table 4.2: SEA Specific Guidance (EPA)

4.6. Consultations and Surveys

4.6.1.1. In respect of the *VEMMP for Glendalough and Wicklow Mountains National Park*, the VEMMP team undertook a consultation process during 2020-2021 to discern key issues which affect the Wicklow Mountains National Park experience. The views of the public, stakeholders and certain public authorities were sought. In tandem with this consultation and information gathering, detailed site surveys were conducted to assess the existing ecological and archaeological sensitivities of the area. An innovative programme of online engagement was carried out. This included:

- Website – a series of consultation boards were prepared and made available to view/download on the wicklow.ie website. These were the focus for consultation discussions
- Online and Paper Copy Survey – the survey was extensively publicised, resulting in 185 responses
- Project Email – a dedicated project email address was set-up, through which there were 42 messages received, with comments
- Consultation Drop-In Sessions – on three days, 34 drop-in sessions were facilitated, which allowed over 191 people to engage in conversations about the area
- One-to-one Meetings – a range of meetings was facilitated

4.6.1.2. Extensive survey work was carried out including a review of current and historic visitor numbers and traffic numbers. A thorough research and cataloguing exercise was undertaken of existing attractions, trails and activity sites within the wider Wicklow area to ascertain the current visitor offer within the region.

4.6.1.3. A survey of the existing signage, way finding and interpretation strategy was undertaken to inform key narrative elements to be further explored through interpretation and how this is currently used to disperse visitors throughout the Wicklow Mountains National Park and wider Wicklow area.

Statutory Consultees per SI 435/2004	Renamed / Reorganised Departments
Environmental Protection Agency (EPA)	No change
Minister for the Environment, Heritage and Local Government	(i) Minister for Housing, Local Government and Heritage (ii) Minister for Tourism, Culture, Arts, Gaeltacht, Sport and Media
Minister for Communications, Marine and Natural Resources	(i) Minister for Environment, Climate and Communications (ii) Minister for Agriculture, Food and the Marine

Table 4.3: Prescribed Environmental Authorities

4.6.1.4. A statutory consultation with the prescribed authorities has been carried out in relation to the scoping of the SEA. The table above sets out the relevant authorities and changes in title or responsibilities pertaining to these bodies since the enactment of the SEA legislation in Ireland. Acknowledgements were received on behalf of the Minister for Agriculture, Food and the Marine and the Minister for Tourism, Culture, Arts, Gaeltacht, Sport and Media.

4.6.1.5. The EPA made a detailed response and recommended certain specific topics be included in the Environmental Report and some also in the Masterplan.

- Objectives and commitments in the National Planning Framework (2018) and the RSES for EMRA (2019)
- specific climate-related actions or objectives in a specific section of *VEMMP*
- resilience to climate change
- Carbon reduction measures to be included in *VEMMP*

- All mitigation measures arising from the SEA and AA to be included in *VEMMP*
- *VEMMP* to include a table of same
- Strong emphasis on environmental monitoring in terms of frequency and responsibility and to include visitor numbers and areas of usage
- Linkages to other relevant plans
- SEA to assess additional pressures (with seasonal variations) on critical infrastructure (drinking water, waste water, waste management, transport) associated with any increase in visitor numbers
- Transportation – reduce and mitigate environmental impacts
- Provision for cycling and electric vehicles
- Biodiversity – specific actions/commitments to protect designated habitats and species
- Adoption of an ecosystem services approach
- Habitat mapping and related ecosystem services mapping to be incorporated in *VEMMP*
- Minimisation of risk of spread of invasive species
- Alternatives emphasised
- Adoption of an environmental management system approach to include construction, operation, maintenance of key infrastructure and overall operation of the National Park
- Hydrological connections between Natura 2000 sites and *VEMMP*
- Community engagement emphasised

5. Key Issues

5.1.1.1. SEA entails assessment of the likely significant effects on the environment of a plan or programme, including in relation to the environmental topics listed at Schedule 2 of the SEA Regulations (Annex I to the Directive), namely biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between these factors. As stated in Ministerial guidance, the *Draft Strategic Environmental Assessment Guidelines for Regional Assemblies and Planning Authorities 2021*, scoping was carried out, including consultation with the statutory consultees, to identify which aspects of the environment and, particularly, which of the environmental topics require greater focus in the SEA process and reporting.

5.2. Environmental Sensitivities

5.2.1.1. In respect of the listed environmental topics, the following table sets out particularly relevant sensitivities:

Environmental Topic	Key Sensitivities
Biodiversity and flora and fauna	Natura 2000 Sites, Natural Heritage Areas, Ramsar Sites, Salmonid Waters, Freshwater Pearl Mussel Catchments and Wildlife Sites (including Nature Reserves, Natural Heritage Areas and proposed Natural Heritage Areas) and all protected habitats and species including those listed on Annex IV of the Habitats Directive and Schedule 5 of the Wildlife Act 1976 as amended. Ecological connectivity and ecological corridors, non-designated biodiversity
Population and human health	Resident population and visitor trends Interactions with other topics
Soil	Hydrogeological and ecological function of the soil resource
Water	Status and quality of rivers, lakes, and ground waters (including interactions with increased demands on water supply and increased loadings to existing waste water treatment facilities)
Air and climatic factors	Climate change, transportation
Material Assets	Archaeological and architectural heritage, resources of economic value and non-renewable resources, water supply resources, waste water services infrastructure
Cultural Heritage	Record of Monuments and Places RMP (based on Sites & Monuments Record – SMR- of the National Monuments Service), potential World Heritage Tentative List site, areas of archaeological potential, record of protected structures, National Inventory of Architectural Heritage
Landscape	Scenic views, mapped areas of landscape sensitivity including as identified in the Wicklow County Development Plan

Table 5.1: Key Sensitivities

5.3. Interactions with Other Plans, Programmes and Legislation

5.3.1.1. The Environmental Report is required to consider the environmental protection objectives established at European, national, regional and county levels which are relevant to the *Draft VEMMP for Glendalough and Wicklow Mountains National Park*, and how they have been taken into account during the preparation of the *Draft VEMMP*. A list of relevant environmental plans, programmes and legislation, likely to influence or be influenced by, the *VEMMP*, is set out below.

European

- Directive 2001/42/EC: Directive on the assessment of the effects of certain plans and programmes on the environment (SEA Directive)
- Directive (2008/50/EC): Ambient Air Quality and Cleaner Air for Europe (CAFE)
- EU Clean Air Policy Package (2018)
- Directive [2009/147/EC] : Birds Directive
- Directive [92/43/EEC] : Habitats Directive
- Directive [85/337/EEC] : Environmental Impact Assessment Directive, codified by Directive 97/11/EC and amended per Directive 2014/52/EU
- Directive 2004/35/EC: Environmental Liability Directive as amended by Directive 2006/21/EC, Directive 2009/31/EC and 2013/30/EU
- Environmental Quality Standards Directive [2008/105/EC]
- EU 2020 Growth Strategy [COM (2010) 2020]
- EU Biodiversity Strategy to 2020 [COM (2011)244]
- EU Floods Directive [2007/60/EC]
- EU 2030 Framework for Climate and Energy Framework
- EU Water Framework Directive (2000/60/EC)
- EU Strategy on Adaptation to Climate Change [EC, 2013]
- European Landscape Convention [ETS No. 176]
- Groundwater Directive (2006/118/EC)
- Invasive Species Regulation [EU/1143/2014]
- Soils Thematic Strategy [COM (2006) 231]
- The RAMSAR Strategic Plan (Ramsar Convention Secretariat, 2016)
- European Directive (EU) 2018/2001: On the promotion of the use of energy from renewable sources
- Convention Concerning the Protection of the World Cultural and Natural Heritage, UNESCO, Paris, November 1972, UNESCO
- The Convention on Biological Diversity, United Nations (1992)

ICOMOS Charters and Guidance

- International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter 1964), ICOMOS
- European Convention on the Protection of the Archaeological Heritage, ICOMOS, 1992
- Convention on the Protection of the Architectural Heritage of Europe (Granada 1995)
- Charter for the Protection and Management of the Archaeological Heritage (ICAHM), ICOMOS, 1990
- Guidance on Heritage Impact Assessments for Cultural World Heritage Properties, ICOMOS, 2011
- International Cultural Tourism Charter – Managing Tourism at Places of Heritage Significance, ICOMOS, 1999

National

- The European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI No. 435 of 2004), as amended by the European Communities

(Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (SI No. 200 of 2011)

- The European Communities (Birds and Natural Habitats) Regulations, 2011, (S.I. No.477 of 2011), as amended by the European Union (Birds and Natural Habitats) (Amendment) Regulations, 2021, (SI No. 293 of 2021)
- The Planning and Development Acts 2000 to 2022
- European Communities Environmental Objectives (FPM) Regulations 2009 (S.I 296 of 2009)
- European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I 9 of 2010), as amended (S.I. No. 366 of 2016)
- Wildlife Act 1976 as amended
- Climate Action Plan 2021 (Government of Ireland)
- Ensuring a Sustainable Transport Future: A New Approach to Regional transportation (Department for Regional Development, 2011)
- River Basin Management Plan for Ireland 2018-2021
- Groundwater Regulations 2010
- Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change – July 2017
- Ireland’s National Biodiversity Plan 2011-2016 (Dept. of Arts, Heritage and the Gaeltacht, 2011)
- Ireland’s Environment – An Integrated Assessment, EPA, 2020
- The Status of EU Protected Habitats and Species in Ireland, Department of Culture, Heritage and the Gaeltacht, 2019
- Irish Geological Heritage (IGH) Programme (GSI 1998)
- National Biodiversity Action Plan 2017-2021
- National Climate Change Policy 2013
- National Cycle Policy Framework (Dept. of Transport, Tourism and Sport)
- National Landscape Strategy for Ireland (Draft) 2014 – 2024 (DAHG, 2014)
- National Mitigation Plan, 2017Regional
- National Planning Framework 2040:
- Smarter Travel: A Sustainable Transport Future, 2009 – 2020
- The National Mitigation Plan, 2017
- The Wildlife Acts 1976 – 2020
- Strategy for the Future Development of National and Regional Greenways (2018)
- National Landscape Strategy for Ireland 2015-2025 and National Landscape Character Assessment (pending preparation)

Regional and sub-Regional

- Regional Spatial and Economic Strategy for the Eastern and Midlands Region (August 2019)
- River Basin Management Plan for Ireland 2018-2021
- Draft River Basin Management Plan for Ireland 2022-2027
- Freshwater Pearl Mussel Sub-Basin Management Plans

County Level

- Wicklow County Development Plan, 2022-2028, Volume 1
- Wicklow County Development Plan, 2022-2028, Volume 2:
 - Part 1 Self Sustaining Town Plans – Baltinglass, Newtownkennedy, Rathdrum
 - Part 2 Small Town Plans (Type 1) – Ashford, Aughrim, Carnew, Dunlavin, Tinahely
 - Part 3 Small Town Plans (Type 2) – Avoca, Donard, Newcastle, Roundwood, Shillelagh
 - Part 4 Laragh-Glendalough Land Use and Tourism Plan
- Wicklow County Development Plan, 2022-2028, Appendices:
 - Record of Protected Structures
 - Wicklow Wind Energy Strategy
 - Strategic Environmental Assessment
 - Appropriate Assessment

- Strategic Flood Risk Assessment
- Infrastructural Assessment Report
- National Inventory of Architectural Heritage: County Wicklow

Local Level

- Laragh – Glendalough Tourism and Settlement Plan (incorporated into Wicklow County Development Plan).
- Visitor Access Arrangements at Laragh-Glendalough (WCC, NTA, Brady Shipman Martin, 2012)

5.4. National Planning Framework

5.4.1.1. The National Planning Framework (NPF) of 2018 is the Government’s high-level strategic plan for shaping the future growth and development of the State up to 2040. The NPF is designed to set in train a process by which more detailed planning documents must follow, including spatial planning, infrastructure planning, social and economic planning. It also outlines certain principles that these plans will have to follow and a set of national planning objectives (NPOs) and key principles from which more detailed and refined plan will follow:

- NPO 14: Protect and promote the sense of place and culture and the quality, character and distinctiveness of the Irish rural landscape that makes Ireland’s rural areas authentic and attractive as places to live, work and visit etc. etc.
- NPO 22 National Policy Objective 22 in the NPF is to facilitate tourism development and in particular a National Greenways, Blueways and Peatways Strategy, which prioritises projects on the basis of achieving maximum impact and connectivity at a national and regional level.
- NPO 54: National Policy Objective 54 is to reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions.
- NPO 59: Enhance the conservation status and improve the management of protected areas and protected species by:
 - Implementing relevant EU Directives to protect Ireland’s environment and wildlife:
 - Integrating policies and objectives for the protection and restoration of biodiversity in statutory development plans;
 - Developing and utilising licensing and consent systems to facilitate sustainable activities within Natura 2000 sites:
 - Continued research, survey programmes and monitoring of habitats and species.
- NPO 60: Conserve and enhance the rich qualities of natural and cultural heritage of Ireland in a manner appropriate to their significance.
- NPO 61: Facilitate landscape protection, management and change through the preparation of a National Landscape Character Map and development of guidance on local landscape character assessments, (including historic landscape characterisation) to ensure a consistent approach to landscape character assessment, particularly across planning and administrative boundaries.
- NPO 64: Improve air quality and help prevent people being exposed to unacceptable levels of pollution in our urban and rural areas through integrated land use and spatial planning that supports public transport, walking and cycling as more favourable modes of transport to the private car, the promotion of energy efficient

buildings and homes, heating systems with zero local emissions, green infrastructure planning and innovative design solutions.

5.4.1.2. The NPF, at Section 5.4, states that tourism has the capacity to directly and indirectly sustain communities, create employment and deliver real social benefit for rural Ireland. The development of greenways, blueways and peatways offer a unique alternative means for tourists and visitors to access and enjoy rural Ireland. The development of a strategic national network of these trails is a priority and will support the development of rural communities and job creation in the rural economy, as well as the protection and promotion of natural assets and biodiversity. This ambition is expressed as NPO 14, which is set out below along with other relevant NPOs.

5.4.1.3. Section 9.2 of the NPF addresses Climate Action and Planning. It states that it is necessary to address the long term causes of climate change through reducing our greenhouse gas emissions, while adapting to its effects over the short, medium and longer terms.

5.5. The Regional Spatial and Economic Strategy for the Eastern and Midlands Region

5.5.1.1. The *Regional Spatial and Economic Strategy for the Eastern and Midlands Region (RSES)*, 2019, is one of three such regional strategies covering the entire State and sits below the NPF in the hierarchy of plans. The RSES is supportive of tourism development and contains several relevant policies:

5.5.1.2. RPO 6.8: To support the sustainable development of tourism in the Region in line with the strategic objectives of both Ireland's Ancient East and Ireland's Hidden Heartlands experience brand propositions.

5.5.1.3. RPO 6.15: Support the preparation and implementation of Visitor Experience Development Plans within the Region to underpin the overarching regional tourism brands and to deliver greater tourism benefits and to promote the natural and cultural assets of the Region.

5.5.1.4. RPO 6.17: Support the maintenance of, and enhanced access to state and semi-state lands such as National Parks, Forest Parks, Waterways, etc., together with Monuments and Historic Properties, for recreation and tourism purposes. Access should be planned and managed in a sustainable manner that protects environmental sensitivities, ecological corridors, and the ability of local infrastructure to support increased tourism.

5.6. The Wicklow County Development Plan 2022-2028

5.6.1.1. The Wicklow County Development Plan, 2022-2028, sits below the RSES in terms of hierarchy and overall strategy, but contains more site specific land use planning policy. The Development Plan contains up to date environmental information relevant to the draft *VEMMP*. Section 2.4.2 of the Development Plan states that its strategy is guided by three strategic principles: (i) Healthy Placemaking, (ii) Climate Action and (iii) Economic Opportunity.

5.6.2. Tourism

5.6.2.1. Development Plan policy SCO9 is to capitalise on Wicklow's location within Ireland's Ancient East and facilitate a year round tourism industry that harnesses Wicklow's natural amenities and vast recreational opportunities. Ensure that tourism development respects and protects the very assets it depends upon.

5.6.2.2. Chapter 11 of the Development Plan contains the main provisions in relation to tourism.

5.6.2.3. Section 11.1.4 of the Wicklow County Development Plan, 2022-2028, refers to the *Wicklow*

Tourism Strategy & Marketing Plan 2018 – 2023, which recommended that the tourism strategy should maximise off-peak visits, deliver business year round, be high value, attract international as well as domestic visitors and maximise the positive economic impact, achieving overnight stays as a priority. It also identified a need for a Masterplan for Glendalough.

5.6.2.4. Also at Section 11.1.4. of the Development Plan, the *County Wicklow Outdoor Recreation Strategy 2020 - 2025* is cited, which identifies five outdoor recreations hubs / clusters – Glendalough, Rathdrum, Blessington/Baltinglass, Tinahely/Shillelagh and East Coast maritime. Objectives identified include:

- Expansion of the trails network,
- preparation of an outdoor recreation transport plan and
- increase awareness of environmental and cultural responsibilities.

5.6.2.5. At Section 11.2 of the Development Plan, it is noted that Wicklow Mountains National Park covers 20,000 hectares making it the largest national park in Ireland. The Park is an invaluable recreational space for locals and tourists. The most visited area is Glendalough, which attracted 732,362 visitors in 2019 and was fourth on Ireland's top ten 'free to enter' attractions for 2019. Powerscourt House Gardens and Waterfall were eighth on the top ten fee-charging attractions during 2018 with 487,876 visitors.

5.6.2.6. It is further stated that the popularity of Glendalough as a tourism destination has created a number of challenges particularly in terms of access and visitor management. The County Council in partnership with Fáilte Ireland, NPWS and the OPW are in the process of creating a *Visitor Experience and Management Masterplan* for Glendalough and the Wicklow Mountains National Park. In terms of sustainable tourism development it is important to manage access to the landscape at key points and to distribute visitors in a more sustainable manner. There is potential to expand the network of walking routes connecting with the Wicklow Way and create a world-class network of trails. There is also potential to develop Wicklow as a destination for cycling and e-biking.

5.6.2.7. Section 11.3 of the Wicklow County Development Plan, 2022-2028, sets out a number of policy objectives for tourism and recreation in the County. Of particular relevance to the *Draft VEMMP* is CPO 11.48:

Support the preparation, delivery and implementation of a Visitor Experience Masterplan for Glendalough and Wicklow Mountains National Park and Visitor Orientation Plan for County Wicklow in partnership with Fáilte Ireland, NPWS and the OPW.

5.6.2.8. Other policy statements of relevance included the following:

- CPO 11.3: To generally require tourism and recreation related developments to locate within existing towns and villages, except where the nature of the activity proposed renders this unfeasible or undesirable etc. etc.
- CPO 11.8: To facilitate the provision of tourist information / interpretive centres and cultural venues at appropriate locations where they can be integrated with existing settlements or existing tourism facilities.
- CPO 11.29: To support tourist/visitor park and ride facilities at appropriate locations that will facilitate access to upland amenity areas as may be identified in the Glendalough and Wicklow Mountains National Park Masterplan, or by strategies / plans of the Wicklow Outdoor Recreation Committee, Wicklow Tourism or other tourism agencies.
- CPO 11.30: In conjunction with Fáilte Ireland, to support the development of Bray, Wicklow-Rathnew, Arklow, Greystones-Delgany, Blessington, Baltinglass,

Enniskerry, Kilcoole, Newtownmountkennedy, Rathdrum and Tinahely-Shillelagh-Carnew (South West Wicklow) as tourism hubs.

- CPO 11.35 To support the development of a strategic national network of walking, cycling, horse riding and water-based trails.
- CPO 11.36: Support and facilitate the delivery of the Blessington Greenway and the South Wicklow Greenway Arklow to Shillelagh including facilities ancillary to these routes (such as sign posting, car parks) and the development of linkages between these trails and other local routes.
- CPO 11.38: To protect and enhance existing and support the development of new, walking cycling routes / trails, including facilities ancillary to trails (such as sign posting and car parks) and the development of linkages between trails in Wicklow and adjoining counties. In particular, to encourage and facilitate:
 - on-road cycling routes across the Wicklow Mountains (in particular across the Sally Gap) and along coastal routes;
 - the development of a new trail from Bray Head, via the Sugarloaf Mountains, joining up with The Wicklow Way;
 - trails in West Wicklow;
 - the development of a lakeshore trail around the Vartry reservoir;
 - the development of a trail along the disused Great Southern and Western Railway line (Naas to Tullow branch) through Dunlavin and Baltinglass subject to consultation and agreement with landowners;
 - the development of a coastal route from Bray to Arklow as well as links between this potential route and the coast road;
 - The Wicklow Way and St. Kevin's Way (as permissive waymarked routes).
 - The Wicklow to Glendalough “pilgrim walk” incorporating ancient wells.
 - ‘Mountains to the Sea’ amenity route incorporating Glendalough, Laragh, Annamoe, Roundwood, Newtownmountkennedy and Kilcoole-Newcastle.
 - The development of an amenity and active travel route between the Bray Harbour area northwards to the Dun Laoghaire Rathdown administrative area to provide for future connection to the proposed Woodbrook DART station.
- CPO 11.40: To promote and facilitate new and high quality investment in the tourism industry in Wicklow, with particular reference to tourist and recreation activities that relate to one or more of the following themes: Ireland’s Ancient East, Christian and pre-Christian heritage, mining heritage, scenic beauty, houses and gardens, waterways.
- CPO 11.44: To support and facilitate the development of Glenree Centre for Peace and Reconciliation as a significant tourism asset.
- CPO 11.46: To support the development of the following outdoor recreation hubs/clusters – Glendalough, Rathdrum, Blessington/Baltinglass, Tinahely/Shillelagh and East Coast Maritime.
- CPO 11.47: To support the development of the Hillfort Complex at Baltinglass as a cultural and educational attraction.
- CPO 11.50: Where relevant, the Council and those receiving permission for development under the plan, shall manage any increase in visitor numbers and/or any change in visitor behaviour in order to avoid significant environmental effects, including loss of habitat and disturbance. Management measures may include ensuring that new projects and activities are a suitable distance from ecological sensitivities; visitor/habitat management plans will be required for proposed projects as relevant and appropriate.
- CPO 11.51: Ensure the potential environmental effects of a likely increase in tourists/tourism-related traffic volumes in particular locations/along particular routes shall be considered and mitigated as appropriate. Such a consideration should include potential impacts on existing infrastructure (including drinking water, wastewater, waste and transport) resulting from tourism proposals.

- CPO 11.52: Where projects for new tourism projects identified in this chapter are not already provided for by existing plans / programmes or are not already permitted, then the feasibility of progressing these projects shall be examined, taking into account planning need, environmental sensitivities as identified in the SEA Environmental Report and the objectives of the plan relating to sustainable development.

5.6.2.9. Also of note is the inclusion of specific land use zoning designations for *Integrated Tourism/Leisure/Recreational Complexes* at (a) Druid's Glen Golf Club, (b) Brook Lodge, Macreddin West, (c) Rathallagh House, Dunlavin, (d) Belmont Demesne, Greystones, (e) Jack White's, Brittas Bay.

5.6.3. Built Heritage

5.6.3.1. Chapter 8 of the Development Plan sets out policy in respect of the built heritage, both archaeological and architectural.

5.6.3.2. Section 8.2 states that Wicklow has a significant archaeological heritage, which provides a valuable cultural, educational and tourism resource. The Baltinglass hillfort complex in west Wicklow and Rathgall hillfort in south Wicklow are notable monuments of national importance, while Glendalough Monastic Settlement has been proposed for the tentative list as a UNESCO World Heritage Site due to its international significance.

5.6.3.3. Section 8.3.1. addresses the Record of Protected Structures and Section 8.3.3. lists the nine Architectural Conservation Areas in the County (Blessington, Enniskerry, Tinahely, Dunlavin, Rathdrum, Delgany, Greystones, Wicklow Town and Donard).

5.6.3.4. Map 08.01 *Built Heritage* shows *Areas of Archaeological Potential or Significance*. Of particular significance is the concentration of such areas in Glendalough and in the vicinity of Baltinglass.

5.6.4. Water Services

5.6.4.1. Chapter 13 of the Development Plan deals with Water Services and includes policy objectives (CPOs) of relevance to the *Draft VEMMP*.

- CPO 13.1: To ensure and support the implementation of the EU Groundwater Directive and the EU Water Framework Directive and associated River Basin and Sub-Basin Management Plans and Blue Dot Catchment Programme, to ensure the protection, improvement and sustainable use of all waters in the County, including rivers, lakes, ground water, coastal and estuarine waters, and to restrict development likely to lead to a deterioration in water quality. The Council will also have cognisance of, where relevant, the EU's Common Implementation Strategy Guidance Document No. 20 and 36 which provide guidance on exemptions to the environmental objectives of the Water Framework Directive.
- CPO 13.2: To prevent development that would pollute water bodies and in particular, to regulate the installation of effluent storage and disposal systems in the vicinity of natural water bodies or development that would exacerbate existing underlying water contamination.
- CPO 13.8: In order to fulfil the objectives of the Core Strategy and settlement strategy, Wicklow County Council will work alongside and facilitate the delivery of Irish Water's Water Services Investment Programme, to ensure the provision of sufficient storage, supply and pressure of potable water to serve all lands zoned for development and in particular, to endeavour to secure the delivery of regional and strategic water supply schemes and any other smaller, localised water

improvement schemes required during the lifetime of the plan, as well as programmes to consolidate, and improve supply and resilience under the National Water Resource Plan.⁷

- CPO 13.15: In order to fulfil the objectives of the Core Strategy, Wicklow County Council will work alongside and facilitate the delivery of Irish Water's Water Services Investment Programme, to ensure that all lands zoned or identified for development are serviced by an adequate wastewater collection and treatment system and in particular, to endeavour to secure the delivery of regional and strategic wastewater schemes. In particular, to support and facilitate the delivery of new / improved wastewater treatment plants in the following settlements:
 - Arklow
 - Blessington
 - Aughrim
 - Tinahely
 - Avoca
 - Laragh – Glendalough
 - Lakes area around Blessington
 - Large and Small Villages

- CPO 13.18: Private wastewater treatment plants for commercial / employment generating development will only be considered where:
 - Irish Water has confirmed the site is due to be connected to a future public system in the area or Irish Water has confirmed there are no plans for a public system in the area;
 - It can clearly demonstrated that the proposed system can meet all EPA / Local Authority environmental criteria;
 - An annually renewed contract for the management and maintenance of the system is contracted with a reputable company / person, details of which shall be provided to the Local Authority.

- CPO 13.21: Ensure the implementation of Sustainable Urban Drainage Systems (SUDS) in accordance with the Wicklow County Council SuDS Policy to ensure surface water runoff is managed for maximum benefit. In particular to require proposed developments to meet the design criteria of each of the four pillars of SuDS design; Water Quality, Water Quantity, Amenity and Biodiversity.

- CPO 13.22: To promote the use of green infrastructure, such as swales and wetlands, where feasible as landscape features in new development to provide storm / surface runoff storage and reduce pollutants, as well as habitat, recreation and aesthetic functions.

⁷ (Note: Irish Water – website - has stated that the Vartry Water Supply Scheme upgrade project ensures the secure supply of clean water for 200,000 people in North Wicklow and South Dublin. Plans are underway to extend the catchment area for the Vartry Water Supply Scheme to secure the water supply to areas of Mid Wicklow including Rathdrum, Aughrim, Annacurra, Avoca, Ballinaclash, Roundwood, Laragh, Annamoe, Redcross, Conary and Glenealy. These areas are currently served by vulnerable water sources. These sources have been identified by the Environmental Protection Agency as being at risk of failure to meet the current drinking water regulations for trihalomethanes (THMs) and cryptosporidium. This will be possible through various improvements within the Greater Dublin Water Supply area.)

5.6.5. Settlement Strategy - Laragh

5.6.5.1. As defined in the Development Plan Settlement Strategy, 2022-2028, at Volume 1, Chapter 4, Laragh is classed as a Level 7 Village (Type 1) which are settlements generally with less than 500 people. In 2016 Laragh had a population of 342 persons (County Wicklow 2016 population 142,425, 2022 population 155,485).

5.6.5.2. Level 7 villages have “Role and Function” described as”:

“These are rural villages that have a moderate level of existing infrastructural services, both physical and social, and that are of such a size as to accommodate a moderate amount of new housing. These settlements generally have a population of less than 500, with many considerably smaller.

These settlements provide a range of local community services and facilities including for example a church, primary school, shop, community hall, sports ground, pub and post office. These villages are an important focal point for rural communities. In order to safeguard their continued existence into the future, it is important that growth is managed in a sustainable manner.

These settlements should aim to target local investment in generally small scale non intensive industry that is based on local rural resources. There may be some scope for these villages to provide small scale tourism facilities based on rural pursuits having regard to the location of many villages deep within the rural area of the County.

Retail outlets should provide for the convenience needs of the local population. Social / recreational facilities should provide for the day to day needs of the local population.

In these settlements it is essential that growth is supported while also strictly managed so that development is undertaken in a manner that is respectful to the character of these villages, their infrastructural capacity and the environmental sensitivities of the rural area. It is of utmost importance to ensure that the design of development is appropriate to the rural setting within which these villages are situated.

The scale of new residential development should be in proportion to the scale, pattern and grain of the existing village. Expansion of the village should be commensurate within the existing village structure and should proceed on the basis of a number of well integrated sites including infill sites within and around the village centre rather than focusing on one very large site. In order to facilitate commensurate growth, any individual scheme for new housing should not be larger than 10 units.”

5.7. The Laragh –Glendalough Land Use and Tourism Plan

- 5.7.1.1. Volume 2 of the Wicklow County Development Plan, 2022-2028, sets out more detailed policy in respect of individual settlements. In particular, Volume 2, Part 4, contains the *Laragh-Glendalough Land Use and Tourism Plan*. This plan dates originally from 2016 (then titled the *Laragh-Glendalough Settlement and Tourism Plan*), but has since been updated and incorporated into the Wicklow County Development Plan, 2022-2028.
- 5.7.1.2. The *Laragh-Glendalough Land Use and Tourism Plan* states that the Laragh-Glendalough area performs two main functions - firstly, Glendalough acts as a prime tourist attraction, attracting both international and local visitors; and secondly, the village of Laragh provides a service function, providing for the day-to-day needs of the local population and some of the service needs of visitors.
- 5.7.1.3. The Plan states that, *“notwithstanding the fact that Glendalough is one of Ireland’s prime tourist attractions, it is considered that the economic benefit that should be resulting from the nearly one million visitors that come the area every year is not being fully realised. This is considered to be due to a number of factors, including the spatial disconnect between the village of Laragh and the attractions of the Lakes and Monastic City at Glendalough, the short duration of visitors’ stay, the lack of co- ordination amongst information providers / stakeholders, signage problems, and problems in tourist infrastructure including a lack of public transport, the physical limitations of the road serving the Upper Lake, and the lack of an adequate traffic management system to deal with periods of peak demand. Dealing with these issues, whilst ensuring that the integrity and value of the area’s natural, built and archaeological heritage is maintained, is key to realising the future success and viability of the Laragh and Glendalough tourist product”*.
- 5.7.1.4. Also referred to in the *Laragh-Glendalough Land Use and Tourism Plan* is the ‘Visitor Experience and Management Masterplan’ for Glendalough and the Wicklow Mountains National Park. It is stated in the *Laragh-Glendalough Land Use and Tourism Plan* that:
“A fundamental aim of this plan is therefore support the outcome of this project, and in particular to promote Laragh as a tourist hub, where visitors gather to stay the night, to dine, shop, and to organise visits to the main attractions of Glendalough and to take part in the other tourist activities that the area has to offer. Of equal importance is the promotion of a number of sustainable transportation options so that visitors can travel to the key attractions that Glendalough offers, in an enjoyable manner, whilst also ensuring that the quality of attractions is improved. Thus the Tourism Strategy of this plan will aim to manage the experience of existing visitor numbers in a different way so that the quality of the area’s heritage assets is protected, the quality of the visitor experience is enhanced and the economic benefits to the local population are maximised..... In order to ensure the successful development of these unique tourist products and themes, it is essential that the distinct heritage on which they depend, is strictly safeguarded for the enjoyment of existing and future generations.”
- 5.7.1.5. In relation to provision of waste water treatment facilities in Laragh, the *Laragh-Glendalough Land Use and Tourism Plan* states that Laragh is served by the Laragh Wastewater Treatment Plant, which is located at Brockagh, which provides preliminary, primary and secondary treatment:
“Treated effluent is of good quality and discharges to the Avonmore River. The plant is currently the subject of a Waste Water Discharge Licence that was granted in December 2009. The plant has a design capacity of 1,000pe and has a 2022 loading of 715pe. This plantmay come under pressure in the event of any significant new tourism or other commercial development occurring. No new development shall be permitted unless there is adequate capacity in the wastewater

collection and treatment system.”

5.7.1.6. The *Laragh-Glendalough Land Use and Tourism Plan* notes that, in the vicinity of Glendalough, developments are mainly served by private waste water treatment plants, including small scale treatment plants at the car park, the OPW interpretive centre and the Glendalough Hotel as well as a number of other private waste water treatment plants.

5.7.1.7. The *Laragh-Glendalough Land Use and Tourism Plan* states that water supply to the Laragh Water Supply Scheme is from a surface water source at Glenmacnass, which is fed to the Laragh Reservoir by gravity from the Glenmacnass Treatment Works. The Laragh distribution system extends to Glendalough in the west. At present, water supply is able to meet demand but in times of dry weather and high demand, such as the tourist season, supply can be limited. No new development shall be permitted unless there is adequate capacity in the water supply system.

5.7.1.8. It is stated in relation to roads and transportation that Laragh village and the Glendalough area suffer from traffic congestion during periods of peak demand, which has the effect of reducing the amenity and safety of the area. The strategy of the *Laragh-Glendalough Land Use and Tourism Plan* is to develop Laragh as a gateway and hub, from which visitors travel to the attractions at Glendalough by means such as walking, cycling or organised transport. An important component of realising this strategy is the implementation of traffic management measures for the overall area. A traffic management plan, prepared a number of years ago, is still of relevance and is undergoing phased implementation (WCC, NTA, Brady Shipman Martin, 2012).

5.7.1.9. While the heritage and amenity of Glendalough will be safeguarded through the management of future development at Glendalough, Laragh will be developed as the service centre for the area and will become an accessible ‘gateway’ to the attractions at Glendalough and the surrounding area.

5.7.2. Specific Objectives

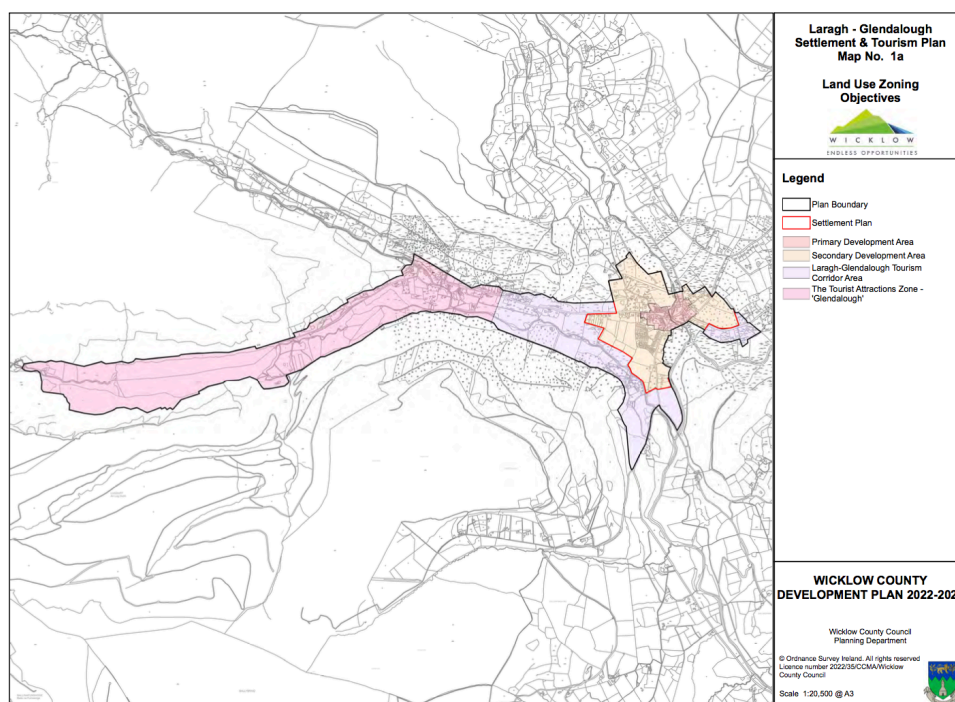
5.7.2.1. Specific Objectives include:

- LG3: Increase the length and quality of the stay of visitors to the area through promoting the development of new and improved tourist infrastructure (including for example tourist information, tourist accommodation, tourist shops ('tourist retail'), cafes, restaurants, public houses, tourist attractions and public infrastructure), facilities and attractions.
- LG4: Promote Laragh village as a tourism hub that is the first stop for visitors to Glendalough and the wider area, and that is the point from which visits to Glendalough and other attractions in the vicinity are organized. In order to ensure that Laragh village becomes the focus for the provision of the service needs of visitors, the planning authority will allow for the development of tourist-related developments on appropriate lands and which are of a high quality and an appropriate scale and design, etc. etc.
- LG5: Particularly promote tourist developments that are associated with the following tourism products or themes: (i) monastic, archaeological and historical heritage, (ii) outdoor recreational activities, (iii) retreats and spirituality, (iv) mining heritage, (v) the Military Road, (vi) traditional skills and crafts, and (vii) natural heritage and education.
- LG14: Promote the better management of tourist movements in the area so that visitors are encouraged to stop in Laragh village and travel to the attractions at Glendalough in a range of sustainable transportation options. The planning authority

will facilitate developments that reduce the amount of car dependent travel movements to the Tourist Attractions Area. The planning authority will particularly promote the following:

- The development of a 'park and ride' facility for tourists that is located at an appropriate location within the settlement boundary of Laragh village or on lands in close proximity to the settlement boundary. The 'park and ride' facility should have links to the Green Road, and any proposal should incorporate screening proposals, to consist of species of native provenance, to minimize visual impact and enhance local biodiversity.
 - The development of sustainable and high quality transportation links which improve connectivity throughout the area, and in particular, between Laragh village, Glendalough, and the area in the general vicinity of Derrybawn, including new walkways, cycleways, and other appropriate transportation options.
 - The development of pedestrian and cycle links on the Green Road.
 - Provide equal access for all, including people with disabilities, to the Glendalough site, Green road and general attractions in Glendalough.
- LG17: Promote the development of pedestrian links between Laragh village, Glendalough and all recreational facilities, where possible, including the Wicklow Way and St. Kevin's Way, and to support the development of longer range pedestrian and cycling routes in the area particular between Laragh and Rathdrum and Laragh and Roundwood.
 - LG19: Facilitate developments that contribute to the achievement of a UNESCO World Heritage site status for Glendalough, which forms part of the Early Medieval Monastic Sites series, in consultation with the Department of Arts, Heritage and the Gaeltacht.
 - LG20: To have regard to the 'Management Plan for Wicklow Mountains National Park' regarding any developments likely to impact upon the conservation objectives of the park, or on issues regarding visitor access.

5.7.3. Land Use Zoning Objectives



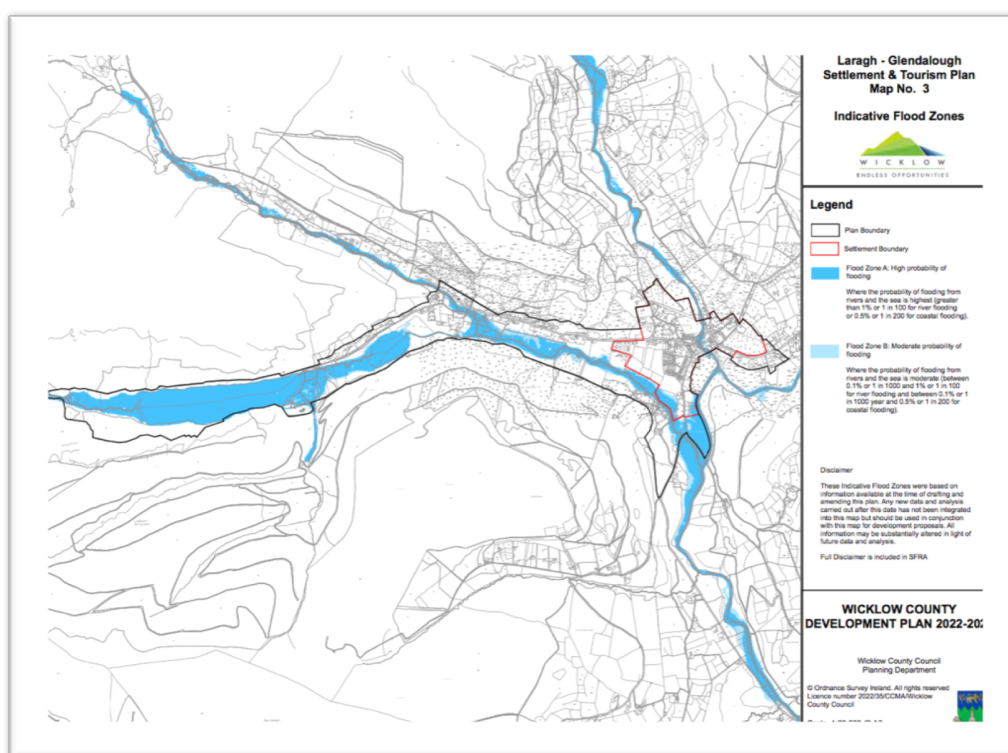
*Land use zoning map 1a
Laragh – Glendalough Land Use and Tourism Plan*

- 5.7.3.1. *Primary Development Area – Village Centre*: The focal point for the delivery of the retail, commercial, social service and activity needs of the local population and its hinterland; and to promote this settlement centre as a tourism hub which is the prime gathering place for visitors to stay the night, to dine, shop and to organise visits to Glendalough and the other attractions of the area. These lands should have some residential use and should have an animated and high quality streetscape, whilst ensuring the protection of the special character and heritage of this area.
- 5.7.3.2. *Secondary Development Area – Mixed Use Area*: To provide for the sustainable development of a mix of uses including residential, employment, community and recreational uses that provide for the needs of the existing settlement and that allows for the future growth of the settlement, and to promote this area as a location for the gathering of visitors to the area.
- 5.7.3.3. *Laragh Glendalough Tourism Corridor Area*: To provide facilities and infrastructure that contribute to the improvement of the visitor experience to Glendalough and to promote the movement of visitors from the area in the vicinity of Laragh towards the attractions at Glendalough through a range of sustainable transportation options so that visitors can travel to the key attractions of the Lakes and Monastic city, in an enjoyable manner.
- 5.7.3.4. *The Tourist Attractions Area – ‘Glendalough’*: To enhance the visitor experience at the Monastic City and Wicklow Mountains National Park, whilst also ensuring that the integrity of the heritage of the area is maintained and improved.

5.7.4. Flood Risk Assessment

5.7.4.1. Appendix 8 of the Wicklow County Development Plan, 2022-2028, contains the Strategic Flood Risk Assessment for the County. In relation to Laragh-Glendalough, it states at par. 5.2.3.1 Laragh – Glendalough, that the tourism corridor covers the area around Glendalough, including the lakes and river themselves, which are water compatible. A site specific FRA will be required for new development in this area, but considering the wider objectives constraining development within the area, the FRA will be used to determine an appropriate finished floor level and other mitigation measures as may be required.

5.7.4.2. In Laragh the sequential approach should be followed with new development to be located in Flood Zone C and avoided in Flood Zone A / B of the Secondary Development Area, which is currently water compatible sports use. In the Primary Development Area Flood Zone A / B is currently open space which is water compatible and should be retained.



Flood zones Laragh- Glendalough
Laragh – Glendalough Land Use and Tourism Plan

5.8. Management Plan for Wicklow Mountains National Park, 2005-2009

5.8.1.1. The Management Plan for Wicklow Mountains National Park was formulated under the auspices of the National Parks and Wildlife Service in 2005. Although now nearly two decades old, much of the Management Plan remains of relevance, including environmental issues identified in the Plan:

- Damage to Blanket Bog and Heath
- Damage to Woodlands
- Deer Trespass
- Litter, dumping, graffiti and fly posting
- Unregulated visitor numbers and damage from recreational use
- Water quality
- Lack of baseline data
- Ownership issues

5.8.1.2. The 2005 Management Plan for the National Park set out a number of objectives, which also remain of relevance:

- To maintain and where possible enhance the ecological value of all natural and semi-natural habitats and geological features within the National Park.
- To maintain and where possible increase the populations of rare and protected plant and animal species.
- To establish and continue effective liaison with all interested parties.
- To encourage sustainable recreational and educational use of the National Park, to provide information and facilities for visitors and to improve public awareness of the natural heritage of the area, taking into account the social and economic needs of the communities in the area.
- To maintain cultural features within the National Park, particularly those associated with the monastic settlement at Glendalough.

5.9. The National Biodiversity Action Plan, 2017-2021

5.9.1.1. The National Biodiversity Action Plan, 2017-2021, was published by the (then) Department of Culture, Heritage and the Gaeltacht, but is due to be superseded by a new Action Plan in 2023. The Action Plan of 2017 sets out a number of strategic objectives:-

1. Mainstream biodiversity into decision-making across all sectors,
2. Strengthen the knowledge base for conservation, management and sustainable use of biodiversity,
3. Increase awareness and appreciation of biodiversity and ecosystem services,
4. Conserve and restore biodiversity and ecosystem services in the wider countryside,
5. Conserve and restore biodiversity and ecosystem services in the marine environment,
6. Expand and improve management of protected areas and species,
7. Strengthen international governance for biodiversity and ecosystem services.

5.10. National Peatlands Strategy 2015-2025

5.10.1.1. The National Peatlands Strategy 2015-2025 has as its vision statement *'to provide a long-term framework within which all of the peatlands within the State can be managed responsibly in order to optimise their social, environmental and economic contribution to the well-being of this and future generations'*. It sets out a cross governmental approach to managing issues that relate to peatlands, including: compliance with relevant national and international environmental legislation, agreements, plans and policies; climate change; forestry; water quality; flood control; energy; nature conservation and restoration; land use

planning; and agriculture. The Strategy was developed in partnership between relevant Government Departments/State bodies and key stakeholders through the Peatlands Council. It is underlined by 25 key principles and commits to the undertaking of 32 actions across various sectors and themes, including, among others, Research, Tourism, Agriculture, Forestry, Conservation, Restoration, Peat Extraction, Energy, Water Quality and Climate Change.

5.11. County Wicklow Biodiversity Action Plan, 2010-2015

5.11.1.1. The most recently published Biodiversity Action Plan for County Wicklow dates from 2010. This identifies the following issues affecting biodiversity in the County:

- Fragmentation of habitats
- Degradation of habitats
- Loss of habitats
- Decline and extinction of species
- Invasive alien species

5.11.1.2. The Biodiversity Action Plan of 2010 proposed achieving five overarching objectives in relation to biodiversity:

1. Better understanding of biodiversity of Wicklow
2. Raising awareness of biodiversity
3. Conserving habitats and species
4. Fostering active participation to help biodiversity
5. Implementation

A series of 30 actions was proposed toward meeting these objectives.

5.12. County Wicklow Heritage Plan, 2017-2022

5.12.1.1. This Plan has five strategic objectives and a series of 43 actions to address these objectives. The strategic objectives are:

1. Raise awareness of, and enthusiasm for, Wicklow's heritage
2. Increase understanding of the value of Wicklow's heritage
3. Promote the conservation and management of Wicklow's Heritage
4. Facilitate partnership and active community participation in heritage plan actions.
5. Record the heritage of Wicklow and disseminate existing information.

Action 1.4:

Work with Wicklow County Tourism to expand the heritage content on www.visitwicklow.ie, to develop heritage themes on existing trails and to East brand.

Action 3.3:

Liaise with key stakeholders to support the preparation of conservation and visitor management plans for the following areas:

- *The former mining landscape at Avoca*
- *Glendalough Valley to include the monastic complex, historic grave-yard monuments, mining features and natural landscape*
- *The Murrough, Wicklow Town.*

Action 3.4:

Liaise with the Office of Public Works, National Monuments Service, landowners and key stakeholders to address the conservation, management and preservation of significant heritage sites in Wicklow including (but not limited to) Glendalough Monastic Complex, Baltinglass Abbey, Baltinglass Hillfort Complex, Rathgall Hillfort, Aghowle Church.

Action 4.8:
Support the work of the Glendalough Heritage Forum (GHF), a collaboration working to improve our understanding and awareness of the heritage of the Glendalough valley, and use the GHF as a template for other areas.

5.13. Ireland's Ancient East

5.13.1.1. *Ireland's Ancient East* is a non-statutory high level plan for tourism, developed by Fáilte Ireland. It is designed to foster a branded visitor experience encompassing the heritage and cultural assets of the South and East and part of the Midlands of Ireland. The new destination brand has been designed to appeal to the key customer segments – namely the *Culturally Curious* and the *Great Escapers*, and to present this large geographic area in a cohesive and unified manner.

5.13.1.2. Among the key strategic objectives of *Ireland's Ancient East* are:

- To develop a world class visitor experience.
- To increase international visitor numbers, tourism revenue and associated tourism employment in underperforming areas.
- To change Ireland's East and South from a transit and day tripping zone to a destination which attracts international overnight visitors.
- To distinguish Ireland's East and South destination on the basis of the quality of its heritage experiences with a clear narrative, which links all experiences.
- To disperse visitor traffic across the region by encouraging the exploration of both the well-known attractions (in some cases congested) and lesser known sites and experiences.
- To accord with the principles of sustainable tourism and ensure that economic, social and environmental benefits are delivered in a balanced way.

5.14. Destination Experience Development Plans

5.14.1.1. Fáilte Ireland has previously developed Destination Experience Development Plans (DEDPs) for Wicklow County to support tourism development focused on the County's ancient heritage. Wicklow has benefited previously through the *Tales of Two Worlds* plan which had a particular focus on the great houses and gardens of the region. Fáilte Ireland will continue to develop DEDPs to address development gaps across the region and provide the context for tourism operators and stakeholders to work in partnership.

5.15. Experiencing the Wild Heart of Ireland – A Tourism Interpretative Master Plan for Ireland's National Parks

5.15.1.1. The interpretative masterplan was jointly produced by the Department of Culture, Heritage and the Gaeltacht and Fáilte Ireland. It sets out a framework to guide the phased development of enhanced visitor centre experiences and improved facilities at Ireland's National Parks and Reserves, based on research into international best practice. The features of the plan include:

- Capturing the special and unique stories of each National Park and Nature Reserve and bringing them to life for visitors.
- Leveraging the collective value of the National Parks, particularly those along the Wild Atlantic Way, where five of the six parks are located, and increasing their appeal to visitors.
- Using international best practice to improve the visitor experience in the National Park Visitor Centres.

6. Environmental Baseline Data

6.1.1.1. This section provides a summary of the baseline data sources which are being used to inform the environmental assessment of the draft VEMMP. This includes information from relevant sources such as the EPA and the Wicklow County Development Plan, 2022-2028.

6.2. Biodiversity, Flora and Fauna

6.2.1.1. Biodiversity can be defined as the variability among living organisms, including terrestrial and aquatic ecosystems. The loss of biodiversity reduces the ability of an ecosystem to recover from natural or human impacts.

6.2.1.2. In Ireland there are a number of categories of protected areas for the conservation and protection of flora and fauna, in the interest of maintaining biodiversity. These include Natura 2000 Sites [i.e. Special Areas of Conservation – SACs - and Special Protection Areas - SPAs], Natural Heritage Areas (NHAs), Nature Reserves, UNESCO World Heritage and UNESCO Biosphere sites and other designations such as Ramsar Sites. The designation of an area as a National Park may also be considered a relevant factor in protection of biodiversity.

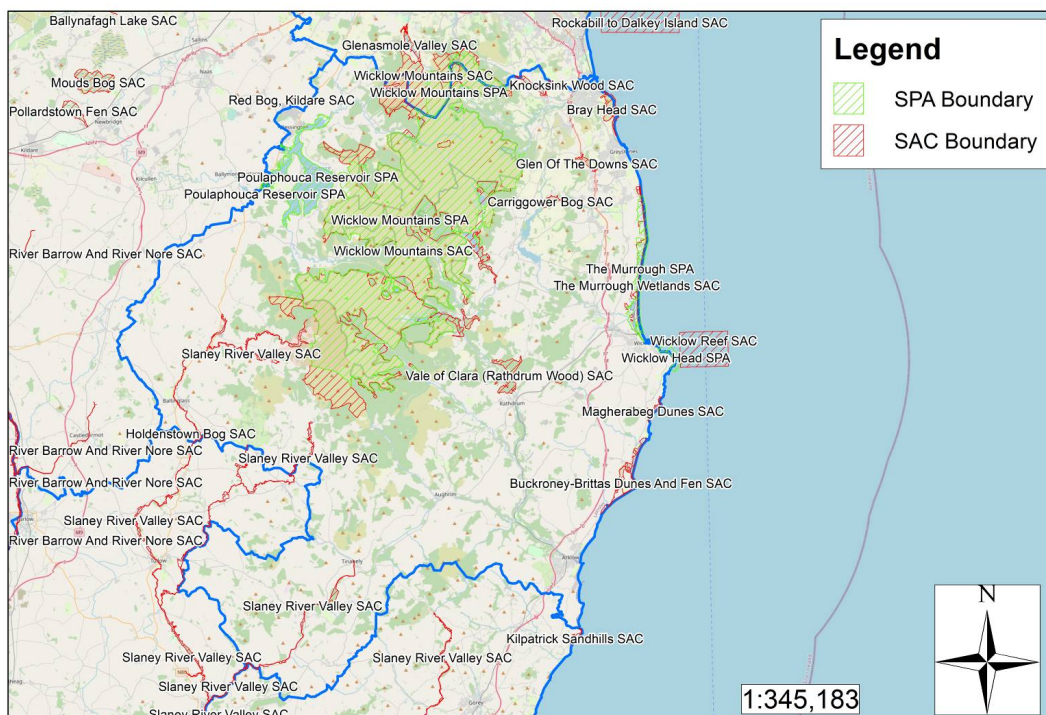
Data sources: National Parks and Wildlife Service (NPWS); Environmental Protection Authority; Irish Ramsar Wetlands Committee.

6.2.2. The Habitats Directive and the Birds Directive

6.2.2.1. The Habitats Directive - *Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and wild fauna and flora*, together with the *Birds Directive, 2009/147/EC*, forms the cornerstone of nature conservation policy in Europe. It is built around two pillars: the Natura 2000 network of protected sites and a strict system of species protection. The concept of an ecological network, which is that of linking core ecological areas by corridors, with buffer zones, to permit migration and dispersal of species, is reflected in the Habitats Directive. Article 3 (1) of the Habitats Directive states:

A coherent European ecological network of special areas of conservation shall be set up under the title Natura 2000. This network, composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range. The Natura 2000 network shall include the special protection areas classified by the Member States pursuant to Directive 79/409/EEC.

6.2.2.2. Annex I of the Habitats Directive designates natural habitat types of community interest, the conservation of which requires the designation of Special Areas of Conservation or SACs, with those of particular sensitivity being designated as *Priority Habitats*. Annex II designates certain animal and plant species of community interest conservation of which requires the designation of Special Areas of Conservation. Annex IV designates certain animal and plant species of community interest in need of strict protection. Member States are required to take the requisite measures to establish a system of protection of these species. Special Protection Areas or SPA's are designated under the *Birds Directive (Directive 2009/147/EC on the conservation of wild birds)*. Taken together, SPAs and SACs are classed as Natura 2000 Sites.



Natura 2000 sites within the likely zone of impact of the VEMMP for Glendalough and Wicklow Mountains National Park.

6.2.2.1. The foregoing provisions are transposed into Irish law by way of a number of legislative instruments, the most relevant of which in the case of the *(Draft) VEMMP* is SI 477/2011: *European Communities (Birds and Natural Habitats) Regulations, 2011* (as amended).

6.2.2.2. As indicated by the National Parks and Wildlife Service, the areas identified as SAC in Ireland cover an extent of approximately 13,500 sq. km, of which roughly 53% is land and the remainder is marine or large lakes. The national SPA Network encompasses over 597,000 hectares of marine and terrestrial habitats. In the Wicklow Mountains, there are two very extensive Natura 2000 Sites, the Wicklow Mountains SAC (002122), of 32,931ha, and the Wicklow Mountains SPA (004040) of 30,014ha. These two designations apply to almost the entire National Park (area c.22,000ha) and extend beyond its boundaries at a number of locations. Also of note, some of the sources of the Slaney River rise just outside the south-western edge of the National Park and the Slaney valley is an SAC (000781). The River Liffey rises in the west of the National Park and flows through the Poulaphouca Reservoir SPA (004063), which is a short distance to the west of the National Park.

6.2.2.3. Natura 2000 sites within the likely zone of impact of the *(draft) VEMMP* for Glendalough and Wicklow Mountains National Park are listed in Table 6.1 below.

Site Code	Site Name and Designation	Location relative to WMNP	Qualifying Interest	Conservation Objectives
000713	Ballyman Glen SAC	East, Wicklow lowlands	(7220) Petrifying springs with tufa formation (Cratoneurion) (7230) Alkaline fens	To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected: <ul style="list-style-type: none"> (7220) Petrifying springs with tufa formation (Cratoneurion) (7230) Alkaline fens
000714	Bray Head SAC	East, Wicklow coast	(1230) Vegetated sea cliffs of the Atlantic and Baltic coasts (4030) European dry heaths	To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected: <ul style="list-style-type: none"> (1230) Vegetated sea cliffs of the Atlantic and Baltic coasts (4030) European dry heaths
000729	Buckronev-Brittias Dunes And Fen SAC	East, Wicklow coast	Annual vegetation of drift lines [1210] Perennial vegetation of stony banks [1220] Mediterranean salt meadows (Juncetalia maritimi) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150] Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (Salicion arenariae) [2170] Humid dune slacks [2190] Alkaline fens [7230]	<ul style="list-style-type: none"> Annual vegetation of drift lines [1210] Perennial vegetation of stony banks [1220] Mediterranean salt meadows (Juncetalia maritimi) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150] Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (Salicion arenariae) [2170] Humid dune slacks [2190] Alkaline fens [7230]
000714	Carrigower Bog SAC	East, Wicklow uplands	Transition mires and quaking bogs [7140]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) for which the SAC has been selected: <ul style="list-style-type: none"> Transition mires and quaking bogs [7140]
000717	Deputy's Pass Nature Reserve SAC	East, Wicklow lowlands	(91A0) Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles	To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected: <ul style="list-style-type: none"> (91A0) Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles
000719	Glen Of The Downs SAC	East, Wicklow lowlands	(91A0) Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles	To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected: <ul style="list-style-type: none"> (91A0) Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles
001209	Glenasmole Valley SAC	North, Foothills of Dublin Mountains	(6210) Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (*important orchid sites) (6410) <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) (7220) Petrifying springs with tufa formation (Cratoneurion)	To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected: <ul style="list-style-type: none"> (6210) Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (*important orchid sites) (6410) <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) (7220) Petrifying springs with tufa formation (Cratoneurion)
001757	Holdenstown Bog SAC	South west, Wicklow lowlands	Transition mires and quaking bogs [7140]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) for which the SAC has been selected: <ul style="list-style-type: none"> Transition mires and quaking bogs [7140]
001742	Kilpatrick Sandhills SAC	South East, Wicklow/Wexford Coast	Annual vegetation of drift lines [1210] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) for which the SAC has been selected: <ul style="list-style-type: none"> Annual vegetation of drift lines [1210] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150]
000725	Knocksink Wood SAC	East, Wicklow lowlands	(7220) Petrifying springs with tufa formation (Cratoneurion) (910E0) Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)	To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected: <ul style="list-style-type: none"> (7220) Petrifying springs with tufa formation (Cratoneurion) (910E0) Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)
001766	Magherabeg Dunes SAC	East, Wicklow lowlands	Annual vegetation of drift lines [1210] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Petrifying springs with tufa formation (Cratoneurion) [7220]	To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected: <ul style="list-style-type: none"> Annual vegetation of drift lines [1210] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Petrifying springs with tufa formation (Cratoneurion) [7220]
004063	Poulaphouca Reservoir SPA	West, Foothills of Wicklow Mountains	Greylag Goose (<i>Anser anser</i>) Lesser Black-backed Gull (<i>Larus fuscus</i>)	To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: <ul style="list-style-type: none"> Greylag Goose (<i>Anser anser</i>) Lesser Black-backed Gull (<i>Larus fuscus</i>)
000781	Slaney River Valley SAC	Rises Within WMNP	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) [91E0] <i>Margaritifera margaritifera</i> (Freshwater)	To maintain or restore the favourable conservation condition of the Annex I habitats for which the SAC has been selected: <ul style="list-style-type: none"> Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) [91E0]

Site Code	Site Name and Designation	Location relative to WMNP	Qualifying Interest	Conservation Objectives
			Pearl Mussel [1029] <i>Petromyzon marinus</i> (Sea Lamprey) [1095] <i>Lampetra planeri</i> (Brook Lamprey) [1096] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Alosa fallax fallax</i> (Twaite Shad) [1103] <i>Salmo salar</i> (Salmon) [1106] <i>Lutra lutra</i> (Otter) [1355] <i>Phoca vitulina</i> (Harbour Seal) [1365]	<ul style="list-style-type: none"> <i>incanae</i>, <i>Salicoin albae</i>) [91E0] <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] <i>Petromyzon marinus</i> (Sea Lamprey) [1095] <i>Lampetra planeri</i> (Brook Lamprey) [1096] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Alosa fallax fallax</i> (Twaite Shad) [1103] <i>Salmo salar</i> (Salmon) [1106] <i>Lutra lutra</i> (Otter) [1355] <i>Phoca vitulina</i> (Harbour Seal) [1365]
002249	The Murrough Wetlands SAC	East, Wicklow lowlands	(1210) Annual vegetation of drift lines (1220) Perennial vegetation of stony banks (1330) Atlantic salt meadows (<i>Glauco Puccinellietalia maritima</i>) (1410) Mediterranean salt meadows (<i>Juncetalia maritimi</i>) (7210) * Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion <i>davallianae</i> (7230) Alkaline fens	To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected: <ul style="list-style-type: none"> (1210) Annual vegetation of drift lines (1220) Perennial vegetation of stony banks (1330) Atlantic salt meadows (<i>Glauco Puccinellietalia maritima</i>) (1410) Mediterranean salt meadows (<i>Juncetalia maritimi</i>) (7210) * Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion <i>davallianae</i> (7230) Alkaline fens
004186	The Murrough SPA	East, Wicklow lowlands	Red-throated Diver (<i>Gavia stellata</i>) Greylag Goose (<i>Anser anser</i>) Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) Wigeon (<i>Anas penelope</i>) Teal (<i>Anas crecca</i>) Black-headed Gull (<i>Chroicocephalus ridibundus</i>) Herring Gull (<i>Larus argentatus</i>) Little Tern (<i>Sterna albifrons</i>) Wetlands & Waterbirds	To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: <ul style="list-style-type: none"> Red-throated Diver (<i>Gavia stellata</i>) Greylag Goose (<i>Anser anser</i>) Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) Wigeon (<i>Anas penelope</i>) Teal (<i>Anas crecca</i>) Black-headed Gull (<i>Chroicocephalus ridibundus</i>) Herring Gull (<i>Larus argentatus</i>) Little Tern (<i>Sterna albifrons</i>) Wetlands & Waterbirds
000733	Wale Of Clara (Rathdrum Wood) SAC	East, Wicklow lowlands	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles [91A0]	To maintain or restore the favourable conservation condition of the Annex I habitat for which the SAC has been selected: <ul style="list-style-type: none"> Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles [91A0]
004127	Wicklow Head SPA	East, Wicklow coast	Kittiwake (<i>Rissa tridactyla</i>) [A188]	To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: <ul style="list-style-type: none"> Kittiwake (<i>Rissa tridactyla</i>) [A188]
002122	Wicklow Mountains SAC	Within WMNP	(3130) Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoeto-Nanojuncetea (3160) Natural dystrophic lakes and ponds, (4010) Northern Atlantic wet heaths with <i>Erica tetralix</i> , (4030) European dry heaths, (4060) Alpine and Boreal heaths, (6230) Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas, (7130) Blanket bog (*active only), (8110) Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>), (8210) Calcareous rocky slopes with chasmophytic vegetation, (8220) Siliceous rocky slopes with chasmophytic vegetation, (9990) Blanket bog (not active), (1355) Otter (<i>Lutra lutra</i>).	To maintain the favourable conservation condition of the Annex I habitats and Annex II species for which the SAC has been selected: <ul style="list-style-type: none"> (3130) Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoeto-Nanojuncetea (3160) Natural dystrophic lakes and ponds, (4010) Northern Atlantic wet heaths with <i>Erica tetralix</i>, (4030) European dry heaths, (4060) Alpine and Boreal heaths, (6230) Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas, (7130) Blanket bog (*active only), (8110) Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>), (8210) Calcareous rocky slopes with chasmophytic vegetation, (8220) Siliceous rocky slopes with chasmophytic vegetation, (9990) Blanket bog (not active), (1355) Otter (<i>Lutra lutra</i>).
004040	Wicklow Mountains SPA	Within WMNP	Peregrine falcon (<i>Falco peregrinus</i>), Merlin (<i>Falco columbarius</i>)	To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: <ul style="list-style-type: none"> Peregrine falcon (<i>Falco peregrinus</i>), Merlin (<i>Falco columbarius</i>)
002274	Wicklow Reef SAC	East, Wicklow coast - offshore	Reefs [1170]	To maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected: <ul style="list-style-type: none"> Reefs [1170]
003000	Rockabill to Dalkey Islands SAC	Hydrologically connected to the WMNP by the River Liffey	(1170) Reefs (1351) Harbour Porpoise (<i>Phocoena phocoena</i>)	To maintain the favourable conservation condition of the Annex I habitat and the Annex II species for which the SAC has been selected: <ul style="list-style-type: none"> (1170) Reefs (1351) Harbour Porpoise (<i>Phocoena phocoena</i>)
000210	South Dublin Bay SAC	Hydrologically connected to the WMNP by the River Liffey	(1140) Mudflats and sandflats not covered by seawater at low tide	To maintain or restore the favourable conservation condition of the Annex I habitat(s) for which the SAC has been selected: <ul style="list-style-type: none"> (1140) Mudflats and sandflats not covered by seawater at low tide
004024	South Dublin Bay and River Tolka Estuary SPA	Hydrologically connected to the WMNP by the River Liffey	Brent goose (<i>Branta bernicla hrota</i>), Sandwich Tern (<i>Sterna sandvicensis</i>), Roseate Tern (<i>Sterna dougallii</i>), Common Tern (<i>Sterna hirundo</i>), Arctic Tern (<i>Sterna paradisaea</i>), Oystercatcher (<i>Haematopus ostralegus</i>), Ringed Plover (<i>Charadrius hiaticula</i>), Knot (<i>Calidris canuta</i>), Sanderling (<i>Calidris alba</i>), Dunlin (<i>Calidris alpina</i>), Bar-tailed Godwit (<i>Limosa lapponica</i>).	To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: <ul style="list-style-type: none"> Brent goose (<i>Branta bernicla hrota</i>), Sandwich Tern (<i>Sterna sandvicensis</i>), Roseate Tern (<i>Sterna dougallii</i>), Common Tern (<i>Sterna hirundo</i>), Arctic Tern (<i>Sterna paradisaea</i>), Oystercatcher (<i>Haematopus ostralegus</i>), Ringed Plover (<i>Charadrius hiaticula</i>), Knot (<i>Calidris canuta</i>), Sanderling (<i>Calidris alba</i>), Dunlin (<i>Calidris alpina</i>), Bar-tailed Godwit (<i>Limosa lapponica</i>). <p>To maintain the favourable conservation condition of wetland habitat in South Dublin and the River Tolka Estuary SPA as a</p>

Site Code	Site Name and Designation	Location relative to WMNP	Qualifying Interest	Conservation Objectives
				resource for the regularly occurring migratory waterbirds that use it.
000206	North Dublin Bay SAC	Hydrologically connected to the WMNP by the River Liffey	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] <i>Salicornia</i> and other annuals colonizing mud and sand [1310] Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes") [2120] *Fixed coastal dunes with herbaceous vegetation ("grey dunes") [2130] Humid dune slacks [2190] <i>Petalophyllum ralfsii</i> (Petalwort) [1395]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected: <ul style="list-style-type: none"> Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] <i>Salicornia</i> and other annuals colonizing mud and sand [1310] Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes") [2120] *Fixed coastal dunes with herbaceous vegetation ("grey dunes") [2130] Humid dune slacks [2190] <i>Petalophyllum ralfsii</i> (Petalwort) [1395]
004006	North Bull Island SPA	Hydrologically connected to the WMNP by the River Liffey	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] [wintering] Shelduck (<i>Tadorna tadorna</i>) [A048] [wintering] Teal (<i>Anas crecca</i>) [A052] [wintering] Pintail (<i>Anas acuta</i>) [A054] [wintering] Shoveler (<i>Anas clypeata</i>) [A056] [wintering] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] [wintering] Golden Plover (<i>Pluvialis apricaria</i>) [A140] [wintering] Grey Plover (<i>Pluvialis squatarola</i>) [A141] [wintering] Knot (<i>Calidris canutus</i>) [A143] [wintering] Sanderling (<i>Calidris alba</i>) [A144] [wintering] Dunlin (<i>Calidris alpina</i>) [A149] [wintering] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] [wintering] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] [wintering] Curlew (<i>Numenius arquata</i>) [A160] [wintering] Redshank (<i>Tringa totanus</i>) [A162] [wintering] Turnstone (<i>Arenaria interpres</i>) [A169] [wintering] Black-headed Gull (<i>Croicocephalus ridibundus</i>) [A179] [wintering] Wetlands & Waterbirds [A999]	To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: <ul style="list-style-type: none"> Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] [wintering] Shelduck (<i>Tadorna tadorna</i>) [A048] [wintering] Teal (<i>Anas crecca</i>) [A052] [wintering] Pintail (<i>Anas acuta</i>) [A054] [wintering] Shoveler (<i>Anas clypeata</i>) [A056] [wintering] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] [wintering] Golden Plover (<i>Pluvialis apricaria</i>) [A140] [wintering] Grey Plover (<i>Pluvialis squatarola</i>) [A141] [wintering] Knot (<i>Calidris canutus</i>) [A143] [wintering] Sanderling (<i>Calidris alba</i>) [A144] [wintering] Dunlin (<i>Calidris alpina</i>) [A149] [wintering] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] [wintering] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] [wintering] Curlew (<i>Numenius arquata</i>) [A160] [wintering] Redshank (<i>Tringa totanus</i>) [A162] [wintering] Turnstone (<i>Arenaria interpres</i>) [A169] [wintering] Black-headed Gull (<i>Croicocephalus ridibundus</i>) [A179] [wintering] Wetlands & Waterbirds [A999]
004076	Wexford Harbour and Slobs SPA	Hydrologically connected to the WMNP by the River Slaney	Little Grebe (<i>Tachybaptus ruficollis</i>) [A004] Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Grey Heron (<i>Ardea cinerea</i>) [A028] Bewick's Swan (<i>Cygnus columbianus bewickii</i>) [A037] 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] Mallard (<i>Anas platyrhynchos</i>) [A053] Pintail (<i>Anas acuta</i>) [A054] Scaup (<i>Aythya marila</i>) [A062] Goldeneye (<i>Bucephala clangula</i>) [A067] Red-breasted Merganser (<i>Mergus serrator</i>) [A069] Hen Harrier (<i>Circus cyaneus</i>) [A082] Coot (<i>Fulica atra</i>) [A125] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] 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] Sanderling (<i>Calidris alba</i>) [A144] 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] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Little Tern (<i>Sterna albifrons</i>) [A195] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395] Wetland and Waterbirds [A999]	To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: <ul style="list-style-type: none"> Little Grebe (<i>Tachybaptus ruficollis</i>) [A004] Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Grey Heron (<i>Ardea cinerea</i>) [A028] Bewick's Swan (<i>Cygnus columbianus bewickii</i>) [A037] 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] Mallard (<i>Anas platyrhynchos</i>) [A053] Pintail (<i>Anas acuta</i>) [A054] Scaup (<i>Aythya marila</i>) [A062] Goldeneye (<i>Bucephala clangula</i>) [A067] Red-breasted Merganser (<i>Mergus serrator</i>) [A069] Hen Harrier (<i>Circus cyaneus</i>) [A082] Coot (<i>Fulica atra</i>) [A125] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] 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] Sanderling (<i>Calidris alba</i>) [A144] 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] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Little Tern (<i>Sterna albifrons</i>) [A195] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395] Wetland and Waterbirds [A999]

Table 6.1: Natura 2000 sites within the likely zone of impact of the (draft) VEMMP for Glendalough and Wicklow Mountains National Park

6.2.2.1. In addition, there are some SACs and SPAs which are relatively remote from the National Park, but which have a connection to the National Park. These include the Natura 2000 sites at the mouth of the Liffey, South Dublin Bay SAC (000210), North Dublin Bay SAC (000206), North Bull Island SPA 004006 and South Dublin Bay and River Tolka Estuary SPA (004024), as also those at the mouth of the Slaney River, the Wexford Harbour and Slobs SPA (004076).

6.2.2.2. A Natura Impact Statement has been prepared for the *draft VEMMP* in which attention is drawn to the generally unfavourable condition of upland habitats nationally, as stated in the last three reports by NPWS under Article 17 of the EU Habitats Directive in 2007, 2013 and 2019. The last of these shows a “bad” status attaching to some of the most common upland habitats found in Wicklow, including blanket bog and wet and dry heaths.

Habitats Directive Article 17 Conservation Status Assessment Reports

<http://www.npws.ie/publications/article17assessments/>

The Status of EU Protected Habitats and Species in Ireland, Vols. 1,2,3 NPWS, 2019

6.2.3. Natural Heritage Areas

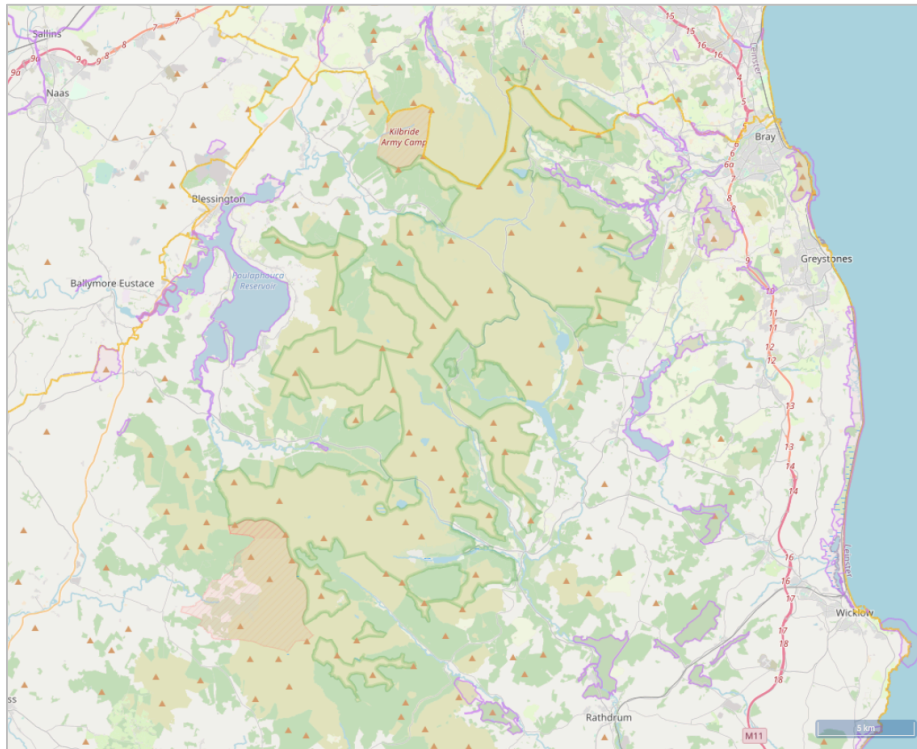
6.2.3.1. Natural Heritage Areas (NHAs) are designated by Statutory Instrument under the Wildlife (Amendment) Act, 2000, and are legally protected from the date on which they are formally proposed for designation. These are areas considered important for the habitats present or which hold species of plants and animals of which the habitat needs protection. There are no designated NHAs in the National Park, but there are several proposed NHAs in its environs, the nearest of which are:

- Poulaphouca Reservoir 000731
- Ballinagee Wood 001750
- Glenasmole Valley 001209
- Glencree Valley 001755
- Powerscourt Waterfall 001767
- Carriggower Bog 000716
- Vartry Reservoir 001771
- Vale of Clara (Rathdrum Wood) 000733
- Ballinacor Wood 001749

6.2.4. Nature Reserves

6.2.4.1. A Nature Reserve is an area of importance to wildlife, which is protected under Ministerial order. Most are owned by the State, although some are owned by organisations or private landowners. In Wicklow, there are six such, including two in the Glendalough area, the Glendalough Nature Reserve and the Glenealo Valley Nature Reserve. Glendalough Nature Reserve consists of a series of oak woods extending from the upper lake to the lower slopes of Derrybawn Mountain and has an area of 157ha. Glenealo Valley Nature Reserve has a larger area of 1,958ha and lies to the west of Glendalough. It is a broad open valley surrounded by mountains and generally consists of a large plateau of mixed heathland and peatland. The Nature Reserves in County Wicklow include:

- Glenealo Valley Nature Reserve
- Glendalough Nature Reserve
- Vale of Clara Nature Reserve
- Deputy's Pass Nature Reserve
- Glen of the Downs Nature Reserve
- Knocksink Wood Nature Reserve



Proposed Natural Heritage Areas (EPA Maps)

6.2.5. National Parks

6.2.5.1. There are six National Parks located in Ireland which were designated by the then Minister for Arts, Heritage and the Gaeltacht under the criteria and standards set up by the International Union for the Conservation of Nature (IUCN). The Wicklow Mountains National Park is the only one in the east of the country and amounts to c.22,000ha. The other National Parks are in the west of Ireland, at Glenveagh, Co. Donegal; Ballycroy, Co. Mayo; Letterfrack, Co. Galway; The Burren, Co. Clare and Killarney, Co. Kerry.

6.2.6. Ramsar Sites

6.2.6.1. The Convention on Wetlands of International Importance, called the Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. There are at present 45 sites in Ireland designated as Ramsar sites, but none in proximity to the Wicklow Mountains National Park.

6.3. Population and Human Health

Data Sources: CSO, Wicklow County Development Plan

6.3.1.1. County Wicklow has a land area of approximately 2024 square kilometres and a population of 155,485 (2022), which equates to a density of 77 persons per square kilometre. The population grew by approximately 9.16% since the previous census of 2016 (142,425 pop) and by 4% in the period 2011-2016. The population of County Wicklow was 142,425 in 2016, as recorded in the Census, an increase of 4% since the previous Census figure (136,640) of 2011.

6.3.1.2. In 2016, 35% of the population of the County were under the age of 25 years, while 11% were aged over 65 years. Between 1991 and 2011, the largest change in population occurred in the 45 to 64 age group, with an increase of 3% in this age cohort. In 2016, approximately 25% of the population were living in rural areas. Bray is the largest town, followed by Wicklow-Rathnew, Arklow, Greystones-Delgany and Blessington.

6.3.1.3. The current population targets for the County for 2026 and 2031 are 155,000 - 157,500 and 160,500 – 164,000 respectively, as set out in the Wicklow County Development Plan, 2022-2028. The north-east part of the County, including Bray and Greystones, is part of the Dublin Metropolitan Area, as identified in the EMRA RSES (*Eastern and Midland Regional Assembly: Regional Spatial and Economic Strategy, 2019-2031*).

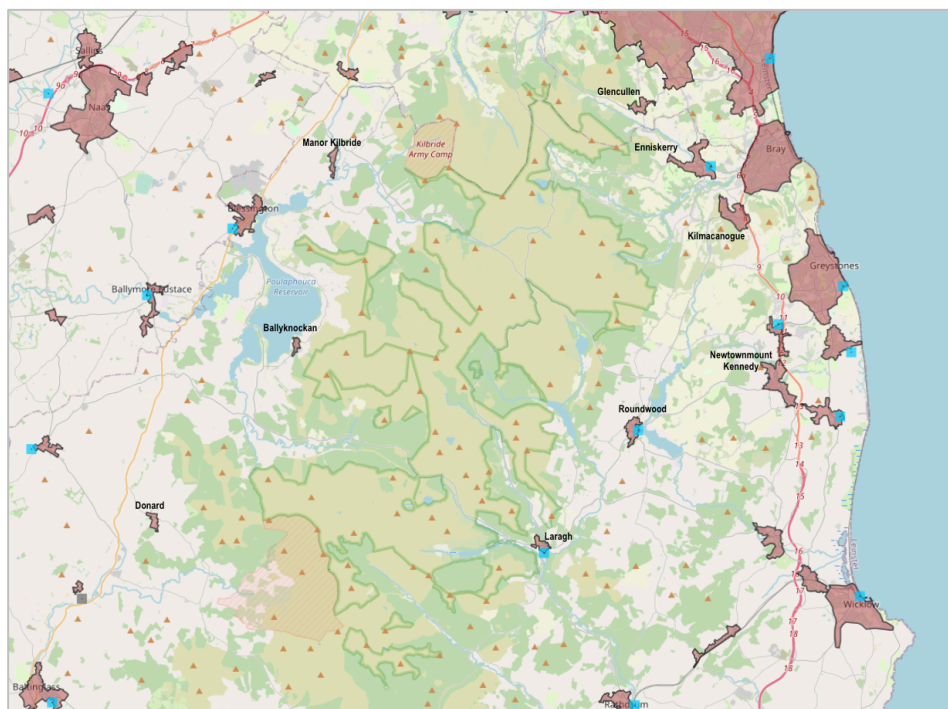
6.3.1.4. The Wicklow County Development Plan, 2022-2028, sets out a settlement hierarchy for County Wicklow as follows:

- Metropolitan Area Key Town (Bray);
- Core Region Key Town (Wicklow-Rathnew);
- Core Region Self-Sustaining Growth Towns (Arklow, Greystones-Delgany and Blessington);
- Core Region Self-sustaining Towns (Baltinglass, Enniskerry, Kilcoole, Newtownmountkennedy and Rathdrum);
- Towns and Villages:
 - Small Towns Type 1 (Ashford, Aughrim, Carnew, Dunlavin and Tinahely);
 - Small Towns Type 2 (Avoca, Donard, Kilmacanogue, Newcastle, Roundwood, Shillelagh);
 - Larger Villages/Type 1 Villages;
 - Smaller Villages/Type 2 Villages;
 - Rural clusters;
 - Open Countryside.

6.3.1.5. In the Census of 2016, the populations of the larger urban centres were:

- Bray - 32,600
- Greystones-Delgany - 18,140,
- Wicklow-Rathnew - 13,954
- Arklow - 13,163
- Blessington – 5,520
- Baltinglass – 2,137

6.3.1.1. The Wicklow Mountains National Park has an extremely low density of human population and there are no settlements of any significant scale within the boundaries of the National Park. Of particular relevance in relation to Glendalough is the settlement of Laragh, as defined by the CSO, which had a population of 342 in 2016. The CSO Statistical Small Area 257018002, *Wicklow*, which encompasses Glendalough and Glendassan, as well as the uplands adjoining, but excludes the settlement of Laragh, had a population of 291 persons in 2016.



Settlement pattern in vicinity of Wicklow Mountains National Park (EPA maps)

6.3.1.2. In addition, there are a number of other small settlements in relative proximity to the boundaries of the Wicklow Mountains National Park. These include:

SETTLEMENT	POPULATION 2016
Glencullen (Dun Laoghaire Rathdown)	238
Enniskerry to the north-east	1,889
Kilmacanogue to the north-east	1,042
Roundwood to the east	948
Rathdrum to the south-east	1,663
Donard to the south-west	196
Ballyknockan to the west	227
Blessington to the north-west	5,520
Manor Kilbride to the north-west	272

Table 6.2: Settlements in relative proximity to the Wicklow Mountains National Park

6.3.1.1. Human health may be affected by interaction with air, water, or soil through which harmful contaminants or pollutants can be transported so that they come into contact with human beings. Flooding may also adversely affect the human population in terms of safety and well being. Hazards to human health can arise as a result, for example, of exposure to contaminants arising from insufficient treatment of fresh water supplies or inadequate waste water treatment capacity or from incompatible adjacent land uses. Variable loading on such systems may be particularly marked in areas with high volumes of seasonal tourists, such as Glendalough, which is a well-established tourist hub within the National Park and attracts around three quarters of a million visitors annually.

6.3.1.1. The impact of tourism on the local population may be positive, in terms of generating business and employment opportunities. But in the case of Glendalough-Laragh, infrastructure capacity constraints are giving rise to significant negative impacts particularly in terms of traffic congestion and uncontrolled parking.

6.4. Soil

6.4.1.1. Soil is the top layer of the earth's surface and is used to grow crops for food, shelter and clothing. Soil is biologically active, being formed by mineral particles, organic matter, water, air and living organisms. The formation of soil takes a long time and it can take more than 500 years to form two centimetres of topsoil. In Ireland a variety of soils, with different characteristics in texture, structure and fertility, have been formed over the last 12,000 years. Soils are classified into categories based on distinguishing qualities that have developed during soil formation. Agricultural land makes up about two thirds of the national land cover in Ireland, most of which is in grassland. Peatlands (raised bogs, blanket bogs and fens) and wetlands constitute slightly less than one fifth of the national land cover and forests cover about a tenth.

6.4.1.2. In Wicklow, blanket peat and peaty soils (mainly in the central and north-western upland parts of the County) and brown earths (occupying most of the southern, eastern and western parts of the County) are the two most dominant soil types in the County. Outcropping rock is identified in a number of upland and coastal locations. The National Park is characterised by a concentration of upland peat bog and shallow lithosols, (e.g. the *Carrigvahanagh* soil association: described by Teagasc as *peat over lithoskeletal acid igneous rock*). There are also areas of substantial rock outcrops. Glendalough has a relatively complex soil composition, with areas of alluvium directly along the river valleys, adjoined by some areas of loamy soils, as well as lithosols, peats and rock outcrop.

6.4.2. Land Stability

6.4.2.1. Most of County Wicklow has relatively low levels of landslide susceptibility, but the Geological Survey of Ireland (GSI) has identified that there are areas of moderate and high susceptibility in upland areas of the National Park, with the potential to adversely affect water courses, habitats and species. The uplands around Glendalough constitute one such area, with an established record of landslide events.

6.4.3. Geology

6.4.3.1. Ireland has a complex geology, laid down over hundreds of millions of years. In broad terms, the island is a saucer shape, with a low lying central plain, bordered by coastal uplands, including the Wicklow Mountains. The uplands are composed of a range of rock types, which predominantly include granites in Wicklow. To the east and west of the granites are generally areas of metamorphic rock. The lands of Glendalough from the Upper Lake eastwards, are generally underlain by such metamorphic rocks classed by the Geological Service of Ireland (GSI) as the *Maulin Formation*, which is composed of dark blue-grey slate, phyllite and schist.

6.4.3.2. The GSI coordinates the *Irish Geological Heritage Programme*, which seeks to identify and select sites of geological interest within each county. The audit of County Geological Sites in County Wicklow was completed in 2014 and identifies 62 County Geological Sites. Concentrations of these designations can be found in the upland areas and along the coast.

6.4.3.3. In particular, Glendalough and its environs are of significant geological heritage value. Glendalough is described by the GSI: *A superb example of a glacial valley; the many, accessible mine features add considerable interest.*

6.4.3.4. On the slopes to the north of the Glendalough Upper Lake are outcrops of appinite rock on Camaderry Mountain (*Camaderry Appinite*). GSI state that this site provides excellent exposure in the most significant appinite intrusion in southeast Ireland. Also to the north of Glendalough are the heritage mining sites of Glendasan, with four sites identified by GSI.

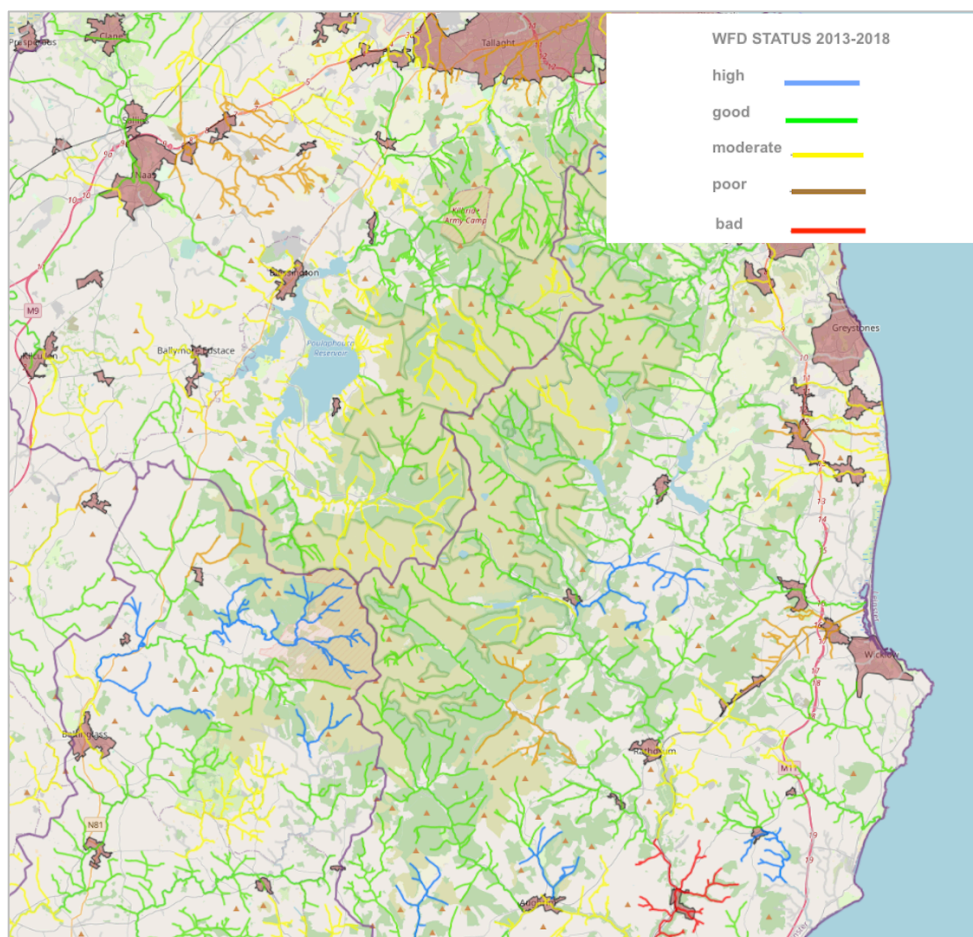
6.4.3.1. Roughly 2km northwards of Glendalough, the Glenmacnass Valley is also of geological heritage value and is stated by GSI to be a stunning example of a glaciated U-shaped valley, with steep sides, a flat floor and a waterfall. Approximately 6km south-west of Glendalough is one of the longest glacial valleys in the country, the Glenmalure Valley, with its mines, stated by GSI to be the oldest of the lead mines along the edge of the granite.

Geological Survey of Ireland (2014) *The Geological Heritage of Wicklow: An Audit of County Geological Sites in Wicklow*

6.5. Water

6.5.1.1. The Water Framework Directive: 2000/60/EC is a key initiative aimed at improving water quality throughout the EU. It applies to rivers, lakes, groundwater, estuaries and coastal waters. The Directive requires an integrated approach to managing water quality on a river basin basis with the aim of maintaining improving and restoring water quality to achieve good status of all surface, ground, estuarine and coastal waters.

6.5.1.2. Under the provisions of the Water Framework Directive, monitoring is carried out of rivers, lakes, groundwater and transitional and coastal waters under the auspices of the Environmental Protection Agency (*Ireland's National Water Framework Directive Monitoring Programme 2019–2021*).



Water Framework Directive Status of Surface Waters in National Park and Environs (EPA)

- 6.5.1.3. The Wicklow Mountains National Park falls into two hydrometric areas equivalent to the respective Water Framework Directive river catchments – (*Ovoca-Vartry* to the east and the *Liffey and Dublin Bay* to the west). Also of note is the *Slaney and Wexford Harbour* hydrometric area/catchment immediately to the south-west of the National Park.
- 6.5.1.4. Under the WFD classification, surface water status is categorised in a range descending in quality from *high, good, moderate, poor, bad*. In the National Park and environs, the majority of river water bodies in the *Ovoca-Vartry* catchments are *good*. In Glendalough, the Glenealo / Glendasan River is classed as *moderate*.
- 6.5.1.1. Water courses to the west, in the Liffey catchment, tend to be *moderate* for the most part and in the Glen of Imaal to the south-west, just outside the boundary of the National Park, in the upper reaches of the Slaney the majority are *high*. The status of lake waterbodies varies so that of the larger lakes in the eastern *Ovoca-Vartry* catchment the Lower Lough Bray is *good*, Lough Tay is *moderate*, Lough Dan is *moderate* and Upper Glendalough is *high*. In the Liffey catchment, to the west of the National Park, the reservoir at Poulaphouca is classed as *good*.
- 6.5.1.2. Groundwater status throughout the National Park and environs is *good* with the exception of the old mining areas to the west of Glendalough and in Glenmalure, which areas have *poor* status.

Data sources: EPA, GSI.

6.5.2. Flooding

- 6.5.2.1. Flooding is an environmental phenomenon that can pose a risk to human health and safety, as well as causing adverse economic and social effects. The Floods Directive on the assessment and management of flood risks (2007/60/EC) is aimed at avoiding and reducing the adverse impacts of floods. It requires, inter alia, that Member States formulate flood risk management plans. In Ireland, the Office of Public Works has primary responsibility for this, together with the respective local authorities.
- 6.5.2.1. Parts of County Wicklow are vulnerable to flooding from a variety of sources, including fluvial (rivers), coastal, pluvial (surface water), groundwater and from the failure of drainage system and other man-made infrastructure. These areas are mapped in the *Strategic Flood Risk Assessment* appendix to the Wicklow County Development Plan, 2022-2028 and identified as Flood Zone A or Flood Zone B. The maps are 'predictive' flood maps showing indicative areas predicted to be inundated during a theoretical fluvial flood event with an estimated probability of occurrence. Flood Zone A is represented by the 1% AEP extent and Flood Zone B by the 0.1% AEP event.
- 6.5.2.2. The *Dispersal Sites*, as identified by ORNI in the *Draft Recreational Trails Masterplan*, are for the most part in relatively elevated locations, considered to be in Flood Zone C, i.e. where the probability of flooding from rivers and the sea is low (less than 0.1% AEP or 1 in 1000). There are some exceptions, such as the Baravore car park which has potential to be affected by flooding from the Avonbeg River. Such areas will be made subject to a site specific flood risk assessment in the event of development works being proposed. Outdoor recreation is considered acceptable in areas within Flood Zones A and B.
- 6.5.2.3. A significant width of the Glendalough valley, along the Glenealo / Glendasan River from the Upper Lake down to Laragh, is primarily in Flood Zone A with some in Flood Zone B. The flood zones are shown on the relevant maps of both the County Development Plan, 2022-2028, and of the *Laragh-Glendalough Land Use and Tourism Plan* (see above).
- 6.5.2.4. A preliminary *Flood Risk Assessment* has been carried out by Kevin McShane Ltd, Consulting

Engineers, in respect of the elements of the *Draft VEMMP* in the environs of Glendalough-Laragh, in accordance with the provisions of *The Planning System and Flood Risk Management: Guidelines for Planning Authorities*, published by the then Department of the Environment, Heritage and Local Government in 2009. The *Flood Risk Assessment* is contained in Appendix 3 to this report.

6.5.2.5. The Flood Risk Assessment has indicated that the site of the proposed visitor centre in Laragh is not subject to historic flooding or present day fluvial or sea flooding. The existing building and part of the proposed car parking are located within the existing present-day surface water flooding adjacent to the river as indicated on the online flood maps. This can be mitigated by provision of additional surface water attenuation and retaining the existing ground level so that existing volume is not lost during a 1:100 event. A rainwater management plan would incorporate foregoing. The risk of life due to flooding is considered low.

6.6. Air and Climate

6.6.1.1. Directive 2008/50/EC *On ambient air quality and cleaner air for Europe* (CAFE) replaced a number of previous directives. The directive deals with each EU Member State in terms of Zones and Agglomerations for the purpose of assessing air quality. The provisions of the Directive have been transposed into Irish law by the Air Quality Standards Regulations 2011 (SI No 180 of 2011). For Ireland, the four designated zones, as amended in 2013, are:

- Zone A: Dublin Conurbation
- Zone B: Cork Conurbation
- Zone C: 24 other cities and large towns including Bray and Greystones
- Zone D: Rural Ireland, i.e. the remainder of the State excluding Zones A, B and C.

6.6.1.2. The recent report regarding air quality in Ireland (*EPA: Air Quality in Ireland 2021*) states that ambient air in Ireland met all the legal requirements under the CAFE Directive by being within legal limit values. But the EPA monitoring highlighted the need for action on two key issues that have a negative impact on air quality in Ireland: emissions from the burning of solid fuels in homes and transport emissions from vehicles in urban areas. Current air quality in County Wicklow is rated as *good*.

6.6.2. Noise

6.6.2.1. The Environmental Noise Directive 2002/49/EC relates to the assessment and management of environmental noise and focuses on three action areas:

- a) The determination of exposure to environmental noise;
- b) Ensuring that information on environmental noise and its effects is made available to the public;
- c) Preventing and reducing environmental noise where necessary and preserving environmental noise quality where it is good.

6.6.2.2. The Directive requires Member States to prepare and publish, every 5 years, noise maps and noise management action plans for:

- agglomerations with more than 100,000 inhabitants
- major roads (more than 3 million vehicles a year)
- major railways (more than 30,000 trains a year)
- major airports (more than 50,000 movements a year, including small aircrafts and helicopters)

6.6.2.3. The Environmental Noise Regulations (SI No. 140 of 2006) transpose into Irish law EU Directive 2002/49/EC (the Environmental Noise Directive) relating to the assessment and management of environmental noise. The Directive does not set any limit value and Ireland does not have any statutory noise limit values, save in respect of noise transmission

between buildings, as set out in the Building Regulations.

6.6.2.4. Wicklow County Council has prepared a Noise Action Plan 2018-2023 in accordance with the requirements of the Environmental Noise Regulations 2006. The purpose of the Noise Action Plan is to avoid, prevent and reduce, on a prioritised basis the harmful effects, including annoyance due to the long-term exposure to environmental noise.

6.6.3. Climatic Factors

6.6.3.1. The *National Adaptation Framework, 2018*, of the Department of Communications, Climate Action and Environment (now *Department of Environment, Climate and Communications*) sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. The Wicklow County Council Climate Change Adaptation Strategy 2019-2024 seeks to:

- Make Wicklow a stronger county by reducing impacts of future climate change related events.
- Fully consider and mainstream climate adaptation in the day-to-day delivery of services by Wicklow County Council
- Actively engage with and inform citizens and communities in Wicklow about the impacts of climate change

6.6.3.2. Ireland's statutory national climate objective and 2030 targets are aligned with the State's obligations under the Paris Agreement and with the European Union's objective to reduce greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels and to achieve climate neutrality in the European Union by 2050. The *Climate Action and Low Carbon Development (Amendment) Act 2021* commits Ireland to reach a legally binding target of net-zero emissions no later than 2050, and a cut of 51% by 2030 (compared to 2018 levels). Under the 2021 Act, Ireland's national climate objective requires the state to pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy. The Climate Action Plan, 2021, was an update of the first Climate Action Plan, 2019, to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and to reach net-zero emissions by no later than 2050.

6.6.3.3. The EPA has determined that Ireland can meet its (non-ETS) EU targets over the period 2021 to 2030 assuming full implementation of the 2019 Climate Action Plan and the use of the flexibilities available. Future, more ambitious targets will require many (as yet unidentified) additional measures. Three key sectors consistently have the largest share of emissions: Agriculture, Transport and Energy Industries (EPA: *Ireland's Greenhouse Gas Emissions Projections 2020-2040*).

6.6.3.4. One of the key issue involving the assessment of the effects of implementing the VEMMP on climatic factors relates to greenhouse gas emissions arising from transport. By providing more sustainable modes and levels of mobility, noise and other emissions to air and energy use can be minimised.

6.7. Material Assets

6.7.1.1. Assets of significance for the environmental assessment of the VEMMP include tourism infrastructure, transport infrastructure, agricultural and forestry land and water and drainage infrastructure including waste water treatment. In respect of Glendalough, water supply and waste water infrastructure are also of particular relevance. Other material assets include communication infrastructure, electric grid infrastructure, commercial and residential property. A particular form of material asset of relevance in relation to the VEMMP is the heritage of archaeological and architectural monuments, especially those in Glendalough (this is addressed under the heading of *Cultural Heritage* below).

6.7.2. Transportation

- 6.7.2.1. The two principal roads traversing County Wicklow from north to south are the N11/M11, located between the mountains and the Irish Sea, and the N81 National Secondary Road located on the western side of the mountains.
- 6.7.2.2. The village of Laragh is located approximately to the east of the Glendalough monastic site, at a key intersection on the regional road network. Regional Road R755 runs generally in a north-easterly direction from Laragh to meet the N11 at Kilmacanogue, thereby providing the main access route for travellers to Laragh/Glendalough from the Dublin direction. The R755 continues southwards through Laragh to Rathdrum, providing the main access to Laragh/Glendalough from the south. Northwards from Laragh, the Military Road, R115, runs through mountainous areas of the National Park to eventually connect to the Dublin suburbs in the Rathfarnham area.
- 6.7.2.3. The village of Laragh is located approximately 2km to the east of the Glendalough monastic site, at a key intersection on the regional road network. Regional Road R755 runs generally in a north-easterly direction from Laragh to meet the N11 at Kilmacanogue, thereby providing the main access route for travellers to Laragh/Glendalough from the Dublin direction. The R755 continues southwards through Laragh to Rathdrum, providing the main access to Laragh/Glendalough from the south. Northwards from Laragh, the Military Road, R115, runs through mountainous areas of the National Park to eventually connect to the Dublin suburbs in the Rathfarnham area.
- 6.7.2.4. From Laragh westwards, the R756 Regional Road provides a route across the mountains, through the Wicklow Gap, to connect with the N81 National Secondary Road at Hollywood. Approximately 1.7km west of Laragh, the R757 branches off the R756 to serve the Glendalough Visitor Centre, the Glendalough Hotel and the two main Glendalough Car Parks at the Visitor Centre and at the Upper Lake. The capacity of the Visitor Centre car park is 221 cars, the Upper Lake car park is 230 cars and the hotel car park is 75 cars.
- 6.7.2.5. Also of note is a temporary car park off the R755 immediately south of Laragh, operated by the County Council, adjacent to the eastern end of the Green Road, on a site beside the Glendasan River opposite *Derrybawn House*. It is understood that this is a short term facility only and its use as a car park will cease in the near future.
- 6.7.2.6. Public transport services in the Laragh-Glendalough area are limited. Glendalough is served by a regular bus service connection from Dublin via Laragh, but only twice per day with extra services in July and August. There are also some tour bus services from Dublin. TFI Local Link buses also serve the Laragh area, with limited frequency services to other parts of Wicklow. The nearest rail station is at Rathdrum, 12km from Laragh, with five services to Dublin or to Rosslare per day during weekdays.
- 6.7.2.7. Laragh village and the Glendalough area suffer from traffic congestion during periods of peak demand, as stated in the *Laragh-Glendalough Land Use and Tourism Plan*, which has the effect of reducing the amenity and safety of the area.
- 6.7.2.8. The report titled *Glendalough Transportation Surveys* compiled by Kevin McShane Ltd., Consulting Engineers, examines the transportation base line and proposed movements at Laragh and Glendalough, based on surveys carried out on a typical bank holiday weekend (6th and 7th June) in 2021. This weekend followed shortly on the lifting of Covid restrictions in Ireland. The results showed serious capacity issues in terms of traffic and parking, particularly in Glendalough.



Glendalough Road Network (Open Street Map)

- 6.7.2.9. During the week before the parking survey, traffic flows on the approaches to Laragh and Glendalough were recorded for each day. In brief, there were 16,949 vehicles recorded on Sunday 6th June and 14,662 on Monday 7th June. The previous Wednesday, there were only 6,276 vehicles recorded over the 24-hour period. Accordingly, the results show over 10,000 additional vehicle movements on a bank holiday Sunday and over 8,000 vehicles on the bank holiday Monday.
- 6.7.2.10. The parking survey on the 6th and 7th June 2021 included 31 car parks throughout the National Park, particularly including those in and around Glendalough. On Sunday the 6th June, spot checks were carried out at the main parking areas in Laragh and along some of the mountain roads. In the immediate vicinity of Glendalough the car parks filled from 11.00am and remained full for most of the day. In the mountain areas the car parks at the viewing points also remained full over the afternoon period. Taking the Glendalough Visitor Centre car park, the Upper Lake car park, the hotel and grass overflow areas at the hotel, there were a total of 833 cars parked in mid-afternoon with a further 60 cars queued on the roads to get into the car parks. At this time, the Gardai were directing drivers over the mountain roads rather than onto Glendalough.
- 6.7.2.11. Detailed survey of cars using the two main Glendalough car parks on the 6th June 2021 showed an average occupancy of 2.5 persons per vehicle and an average turnover rate of 1.7 per parking space over the day. Based on this information, it was calculated that in the region of 6,375 persons were parked in Glendalough that day.
- 6.7.2.12. It is noted that the strategy of the *Laragh-Glendalough Land Use and Tourism Plan* is to develop Laragh as a gateway and hub, from which visitors travel to the attractions at Glendalough by means such as walking, cycling or organised transport. A traffic management plan, prepared a number of years ago, is still of relevance and is undergoing phased implementation (WCC, NTA, Brady Shipman Martin, 2012). A shuttle bus service has

been in operation over the summer months of 2022.

6.7.3. Water and Waste

- 6.7.3.1. Laragh is served by the Laragh Wastewater Treatment Plant, which is located at Brockagh, which provides preliminary, primary and secondary treatment. As set out in the *Laragh-Glendalough Land Use and Tourism Plan*, treated effluent is of good quality and discharges to the Avonmore River. The plant has a design capacity of 1,000pe, has a current loading of 715pe (2019) and has sufficient to serve the proposed tourist arrival facility in the village.
- 6.7.3.2. The *Laragh-Glendalough Land Use and Tourism Plan* notes that, in the vicinity of Glendalough, developments are mainly served by private waste water treatment plants, including small scale treatment plants at the Upper Lake car park, the OPW interpretive centre and the Glendalough Hotel as well as a number of other private waste water treatment plants. The existing OPW waste water treatment works in Glendalough will require upgrading in next few years.
- 6.7.3.3. The water supply to the Laragh Water Supply Scheme is from a surface water source at Glenmacnass, which is fed to the Laragh Reservoir by gravity from the Glenmacnass Treatment Works. The Laragh distribution system extends to Glendalough in the west. At present, water supply is able to meet demand.
- 6.7.3.4. Irish Water plans to extend the catchment area of the *Vartry Water Supply Scheme* to serve areas of mid-Wicklow including Laragh (also Rathdrum, Aughrim, Annacurra, Avoca, Ballinacash, Roundwood, Annamoe, Redcross, Conary and Glenealy). These areas are currently served by vulnerable water sources and are at risk of failure to meet the current drinking water regulations for trihalomethanes (THMs) and cryptosporidium.

6.7.4. Tourism

- 6.7.4.1. The *Draft VEMMP* has been informed by the *Visitor Analysis* (by ORNI). As noted in the *Visitor Analysis*, pre-Covid the number of overseas visitors to Ireland had shown steady growth in the years 2015-2019, at an average of 5% per annum. But tourist visits to Ireland were greatly reduced by the Covid emergency in 2020-2021, although domestic tourism activity spiked during this period. As a result, statistics in respect of visitors from overseas for the period 2020-2021 cannot be regarded as representative of longer term trends. It is expected that in the medium to long term international tourism will recover and grow.
- 6.7.4.2. In a national context, Wicklow accounts for 3% of both domestic trips and 3% of overseas visitors. Wicklow has a low market share of international tourism and domestic and local casual day visitors make up a significant proportion of visitors in the county including Glendalough, especially in the context of outdoor recreation. Dublin-based visitors and residents consider Wicklow as a venue for day trips with a short journey time, rather than for overnight stays. It is estimated that in 2017, there were 275,000 overseas tourists visiting County Wicklow and spending €73 million in the county, while 319,000 domestic tourism trips generated €49 million.⁸
- 6.7.4.3. Consultation and site observations indicate that hiking and walking are the most popular and accessible recreation activities in Wicklow, with the broadest appeal to a wide range of visitor types. But increased participation in such activities has revealed a capacity issue in the county:
- High volumes of walkers causing environmental erosion on poorly maintained trails or on desire lines in open mountain areas
 - High volumes of private vehicles causing congestion at popular car parks

⁸ *Visitor Analysis*, sec.2.3.1. by ORNI

- High volumes of walkers impacting on the upland and countryside trail walking experience

6.7.4.4. Based on pre-Covid figures, typically there are approximately 1.5 million visitors per annum to the National Park. But half of these visits are concentrated on Glendalough, with c.730,000 visitors per annum⁹, of which up to 80,000 attend the Glendalough Visitor Centre. Pedestrian numbers in the valley have been trending upwards over the past few years. There is a high concentration of visitors recorded at the monastic site and the Green Road, and most visitors tend to remain on the valley floor.

ATTRACTION	2017	2018	2019
Glendalough Monument and Site	639,826	732,824	732,362
Powerscourt House, Gardens and Waterfall	501,601	472,523	487,876
Russborough House and Parklands		130,000	200,000

Table 6.3: Visitor numbers to Wicklow top visitor attractions 2017-2019

⁹ A limitation on accurate prediction is the insufficiency of historical data on which to base reliable conclusions on future visitor volumes to Glendalough and Wicklow Mountains National Park. Overall visitor figures for Glendalough are not fully definitive, as they are based on two pedestrian counters at the site, which may not count all visitors, as pedestrian access to the valley is unrestricted and there are numerous access and egress points.

6.8. Cultural Heritage

6.8.1. Archaeological Heritage

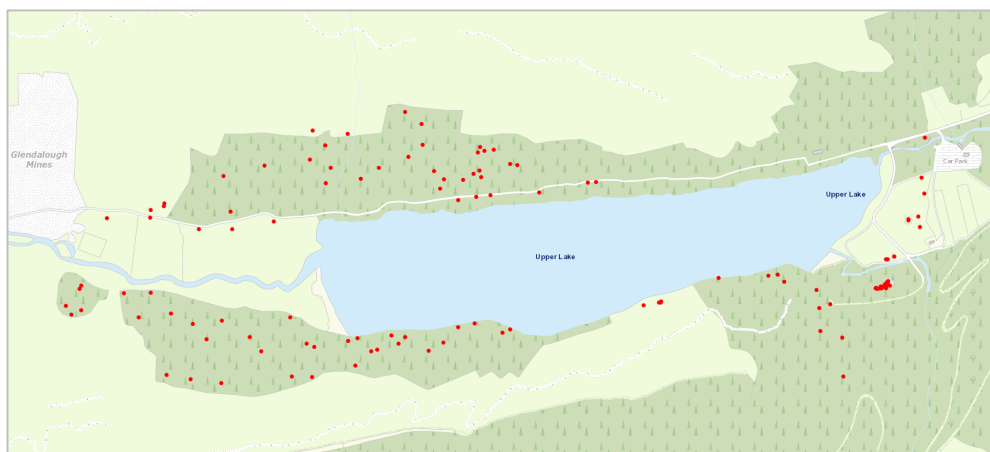
6.8.1.1. The National Monuments Service is responsible for compilation of the inventory of known archaeological monuments in the State. The inventory is stored on both a database and in a series of paper files that collectively form the Sites and Monuments Record (SMR). The SMR contains 150,800 records in the database and over 138,800 of these relate to archaeological monuments and places (sites) pre-dating AD 1700 with a selection from the post-AD 1700 period. The SMR formed the basis for issuing the Record of Monuments and Places (RMP) - the statutory list of recorded monuments established under Section 12 of the National Monuments (Amendment) Act 1994.

6.8.1.2. Wicklow has a significant heritage of archaeological sites and monuments, which provide a valuable cultural, educational and tourism resource. Notable archaeological monuments in County Wicklow include the Baltinglass hillfort complex in west Wicklow and Rathgall hillfort in south Wicklow. There is a dispersed scattering of other monuments through the Wicklow Mountains National Park, but a great concentration at Glendalough.

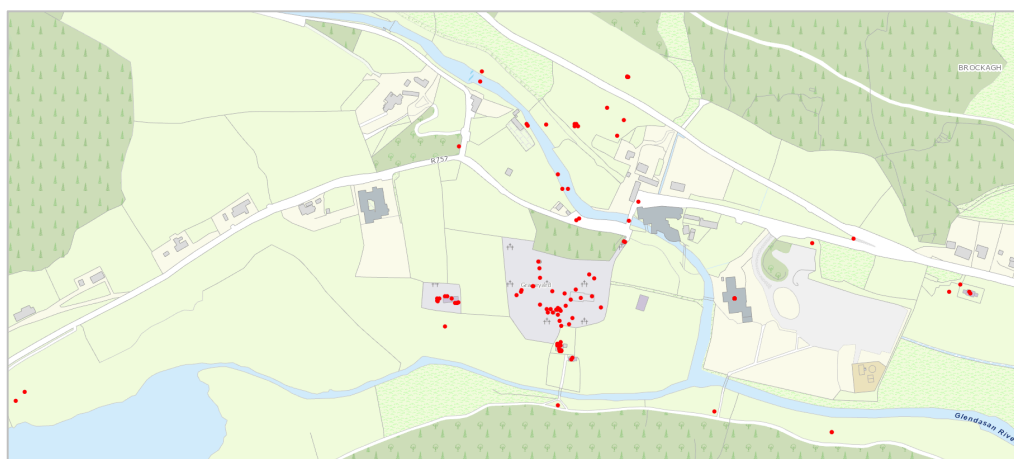
6.8.1.3. Glendalough is primarily associated with St. Kevin, who founded his monastery in the late sixth century. But there is a rich and varied history in the subsequent centuries, with much new building at the end of the eleventh century sponsored by Muirchertach O'Brien king of Munster. The numerous monuments in Glendalough are described in the National Monuments Service *Statement of Significance: The National Monuments at Glendalough are very numerous and spread over a large area throughout the valley here. In order to present these here in a coherent way, they are grouped into three main complexes, namely the Upper Lake, the monastery and the satellite churches.*

The main features near the Upper Lake include St Kevin's Cave, Templenaskellig, Reefert Church, a stone fort and a series of stone crosses.

6.8.1.4. As described in the *Statement of Significance*, the area around the Upper Lake at Glendalough is traditionally seen as the place where St Kevin spent his early religious years in isolation from the world. St Kevin's Bed, on the southern side of the lake, was traditionally seen as the place where he slept during these years and is only accessible by boat. The more important church at the Upper Lake was Reefert Church.



Archaeological Heritage Sites at Upper Lake – Red Dots (Historic Environment Viewer)



Archaeological Heritage Sites at Monastery - Red Dots (Historic Environment Viewer)

- 6.8.1.5. The main monastery at Glendalough is located on a low ridge, to the east of the Lower Lake, out of which flows the Glenealo River around the southern side of the monastery. The monastery area contains a dense concentration of National Monuments and archaeological features, including a gatehouse, the Cathedral, the round tower, St Kevin's Cross and a small building known as the Priest's House. During the 11th century the monastery expanded to the south, with the construction of St Kevin's Church and St Ciaran's Church. The 12th century gatehouse, to the northern side, continues to be the main point of access for many visitors and is the only example of a monastic gatehouse known in Ireland.
- 6.8.1.6. The National Monuments Service *Statement of Significance* states: *The main monastery is situated near the entrance to the lower valley of Glendalough. Here can be found the gate house to the monastery, the Cathedral, St Kevin's Church, St Ciaran's Church, the Priest's House, the round tower and St Kevin's Cross, as well as the Deer Stone and the Market Cross. In the vicinity of the main monastery are three satellite churches; St Mary's Church, Trinity Church and St Saviour's Church.*
- 6.8.1.7. The report by Consarc titled *Heritage Impact Assessment on Glendalough* forms part of the background documentation to this SEA Environmental Report. The report points out that the *draft VEMMP* does not contain proposals directly affecting any of the monuments. But the various proposals to rationalise access, parking and circulation will have a very positive effect.

6.8.2. Architectural Heritage

- 6.8.2.1. Wicklow has a considerable built heritage, from classical country residences, such as Powerscourt, Russborough and Killruddery, to modest vernacular houses which evolved in the landscape over centuries and reflect locally available materials and skills. There is also a strong industrial heritage, which is reflected in surviving buildings and structures associated with mining, as well as shipbuilding, milling, weaving and railway transportation. Mining for lead, zinc and silver was carried on in the environs of Glendalough at various times from the end of the 18th century until 1947. The remains of some of the old mining sites can still be seen today up by the Miners Road and in the Glendassan Valley.
- 6.8.2.2. Another unique part of the heritage is the early 19th century Military Road, running southwards from Rathfarnham to Aughavannagh, with its associated purpose built barracks.
- 6.8.2.3. Each planning authority is obliged to maintain a Record of Protected Structures, under the provisions of the Planning and Development Acts, for its own administrative area. In

Wicklow, the Record of Protected Structures is an appendix to the County Development Plan.

- 6.8.2.4. Planning authorities are also obliged to include objectives to preserve the character of a place, area or group of structures or townscape' of special interest or contributing to the appreciation of protected structures, referred to as Architectural Conservation Areas (ACAs). In some cases ACAs may be in rural areas, but there are none within the National Park.
- 6.8.2.5. The National Inventory of Architectural Heritage (NIAH) is compiled by the Department of Housing, Local Government and Heritage, is accessible at www.buildingsofireland.ie. It contains a representative sample of buildings of architectural heritage value for each county, with many entered from County Wicklow. The NIAH has also published, on its website, a Survey of Historic Gardens and Designed Landscapes, based on the Ordnance Survey First Edition mapping from the first half of the 19th century.
- 6.8.2.6. Guidelines in respect of architectural heritage were published by the then Department of Arts, Heritage and the Gaeltacht as *Architectural Heritage Protection Guidelines for Planning Authorities* (2004/reissued 2011).

6.8.3. World Heritage Sites

- 6.8.3.1. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) World Heritage List comprises sites of outstanding universal value: cultural, natural or mixed. At present, there are two such sites located in Ireland: Skellig Michael, Co. Kerry and Brú na Bóinne in Co. Meath, and one located in Northern Ireland: the Giants Causeway in Co. Antrim. To date, there is no World Heritage Site in County Wicklow. However, there is an intention to advance Glendalough, at some point in the future, as a candidate for the tentative list for World Heritage status to be submitted to UNESCO.

Data Sources: National Monument Service, National Inventory of Archaeological Heritage, Record of Protected Structures

6.8.4. Historic Environment Viewer

- 6.8.4.1. The [Historic Environment Viewer](#) is an on-line digital service provided by the Department of Housing, Local Government and Heritage. It provides access to the databases of both the National Monuments Service - Sites and Monuments Record (SMR) - and the National Inventory of Architectural Heritage (NIAH).

6.9. Landscape

6.9.1.1. Ireland has a rich and diverse landscape which is vital to sectors such as tourism. The *Inventory of Outstanding Landscapes in Ireland*, published in 1977 by An Foras Forbartha, remains an authoritative source of information, although now more than four decades old. *Data sources: CORINE, Local Authority Landscape Assessment.*

6.9.2. European Landscape Convention

6.9.2.1. The *European Landscape Convention*, drawn up under the auspices of the Council of Europe in 2000, came into effect in 2004 and has been ratified by Ireland. It seeks to address all landscapes on a common European basis and focusses on the protection, management and planning of these.

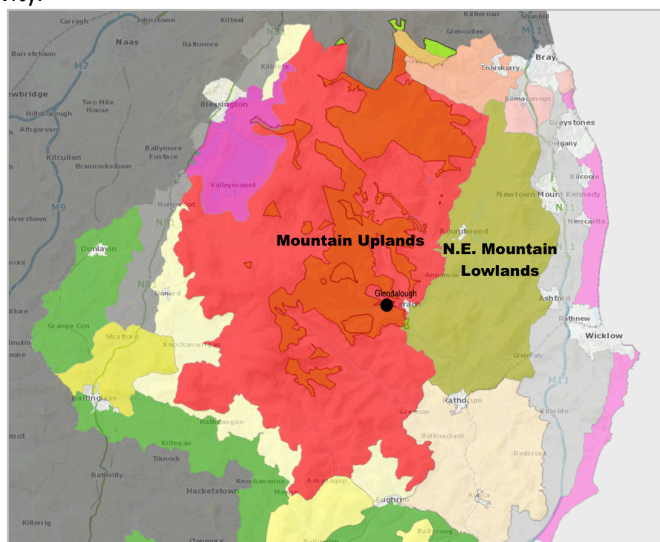
6.9.3. Land Cover

6.9.3.1. The CORINE Land Cover (CLC) is a mapping of the European environmental landscape based on interpretation of satellite images. CORINE stands for Coordination of Information on the Environment and it should be noted that the CORINE data series describes physically observed land cover as opposed to land use. The Corine maps have some limitations, as the mapping unit is 25ha and the maps are to a scale of 1:100,000.

6.9.3.2. Most of the upland areas of County Wicklow are wetland/peat bog/moor or have been afforested, primarily with conifer trees, as shown on the Corine land coverage map. Such areas are classed as forest and semi-natural areas. There are also areas of deciduous forest and small areas of agricultural land in the National Park, including along the river valleys in and around Glendalough.

6.9.4. Wicklow County Development Plan

6.9.4.1. Landscape assessment has been incorporated into the Wicklow County Development Plan, 2022-2028. The Wicklow Mountains National Park comes within one of 13 Landscape Categories – *Mountain Uplands*. This upland area is designated as an Area of Outstanding Natural Beauty. Scenic views throughout the county have been identified for protection. Environmental sensitivity mapping has been used by the County Council to determine levels of sensitivity.



Landscape Categories Wicklow County Development Plan (WCC map) overlaid Nat. Park

7. Alternatives

- 7.1.1.1. It is a requirement of the SEA Directive that reasonable alternatives to the chosen plan or programme, in this case the *Draft VEMMP for Glendalough and Wicklow Mountains National Park*, are identified, described and evaluated in the Environmental Report, taking into account the objectives and the geographical scope of the plan or programme.
- 7.1.1.2. The primary objective of the *Draft VEMMP*, as set out in the brief, is to improve the visitor experience and disperse the benefits and impacts of tourism. The requirements for the *Draft VEMMP* are prescribed in the brief, with consequent impact on the range of reasonable alternatives to the chosen *Draft VEMMP*.
- 7.1.1.3. The brief requires a *Visitor Experience and Management Masterplan* for Glendalough and the Wicklow Mountains National Park and *Visitor Orientation* recommendations for County Wicklow. In order to mitigate regional and seasonal congestion, the brief sets an ambition to persuade more tourists to visit areas outside of the main attractions and outside seasonal peaks. The brief also requires greater accessibility for walkers and cyclists through the provision of alternative access points and improved facilities. How visitors access the main attractions and activities in County Wicklow is to be considered and all options should aid visitor flow and improve the visitor experience in Co. Wicklow.
- 7.1.1.4. Within this overall brief, there is a requirement to balance increased tourism demand with core conservation and heritage values. Accordingly, environmental protection and improvement has been incorporated into the *Draft VEMMP* as reflected in the first of its three main aims:
- Aim 1: *Enhance the natural, built and cultural heritage*
 - Aim 2: *Disperse the benefits and impacts of tourism*
 - Aim 3: *Improve the visitor experience*
- 7.1.1.5. A reasonable alternative to the formulation of the *VEMMP* would be to decide not to undertake a new plan for tourism but to continue to rely on existing plans and programmes, such as *Ireland's Ancient East*, the *Regional Spatial and Economic Strategy* for the Eastern and Midlands Region, the *Wicklow County Development Plan* or the *Laragh-Glendalough Land Use and Tourism Plan*. This "business as usual" scenario is that referred to in the SEA Directive, at Annex I, (b), which requires that the SEA Environmental Report contains a description of *the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme*.
- 7.1.1.6. A further reasonable possibility would be to undertake a plan for tourism, responding to the requirements of the brief, but without any particular environmental elements or controls. Such approach could correspond to a plan based on the second and third of the three *Draft VEMMP* aims above. Reliance would be placed entirely on the environmental controls of the existing regulatory system of development consent and licensing, which would apply to any projects arising from the *VEMMP*.
- 7.1.1.7. The likely environmental effects of the *draft VEMMP* as also those of the alternative scenarios, are considered in chapters 8 and 9 below, having regard to the environmental baseline described in chapter 6 of this report.

8. Potential Environmental Effects of the draft VEMMP

8.1.1.1. Having regard to the nature and geographical extent of the area affected by the *draft VEMMP*, to the scale and location of the actions and projects arising from the *draft VEMMP* and to the environmental factors set out in the baseline analysis, the potential significant environmental effects, before mitigation, of implementation of the *VEMMP* are outlined below. It is not considered that the *draft VEMMP* would have any significant transboundary effects, having regard to its nature and the area affected by it.

8.1.1.2. Potential significant issues in relation to biodiversity are also considered in detail in the Natura Impact Statement (Faith Wilson, Ecological Consultant).

Environmental Topic	Positive effect	Negative effect (before mitigation)
Biodiversity and flora and fauna	Restoration of damaged pathways and habitats along existing trails within uplands of Co. Wicklow Reduction in pressure on Glendalough and environs and other prime attractors	Potential injury to biodiversity, including habitats and species disturbance, arising from development of new/enhanced trails, new pedestrian route from Laragh to Glendalough and new car parks
Population and human health	Development of new infrastructure including additional parking in Laragh and in association with Discovery Walks Reduction in pressure on Glendalough and environs and other prime attractors	Potential for excessive loading on critical infrastructure with insufficient capacity (drinking water, waste water)
Soil	Restoration of damaged pathways along trails in upland Co. Wicklow	Trampling leading to new 'braiding' or erosion of pathways at existing and proposed outdoor recreation locations
Water	Proposed habitat restoration in Glendalough will aid flood risk resilience	Deterioration of water quality due to run-off from construction works associated with VEMMP projects Flood risk to critical infrastructure in Glendalough
Air and climatic factors	Proposed habitat restoration in Glendalough will aid climate resilience Shuttle bus service will help reduce noise and greenhouse gases emissions from motor traffic	Increased tourism related transportation causing increased emissions to air including noise and greenhouse gases
Material Assets	Positive impacts from revised access and parking in Glendalough/Laragh and proposed Discovery Walks and associated car parking improvements	Need for improved waste water treatment in Glendalough and at selected upland car parks. Additional waste generation at Discovery Walk locations
Cultural Heritage	Improved setting of Monastic site Glendalough and its possible World Heritage designation Improved interpretation and education	Potential adverse effect on archaeological deposits at Glendalough and along route to Laragh
Landscape	Proposed habitat restoration in Glendalough Improved setting of Monastic site	Potential adverse impacts of additional parking facilities in Laragh and Discovery Walk locations.
Interrelationships	See diagram over showing interrelationships	

Table 8.1: Potential significant impacts before mitigation of draft VEMMP

8.2. Strategic Environmental Objectives (SEOs)

8.2.1.1. Strategic Environmental Objectives (SEOs) are goals to be met by the *draft VEMMP* in relation to the environmental topics cited in the SEA Directive (2001/42/EC) and the Irish Regulations (S.I. No. 435/2004 - *European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004* (as amended)). The SEOs are formulated with regard both to the aims of the *draft VEMMP* and to relevant Directives and Regulations and are focused on the potentially significant effects set out in Table 8.1. The SEOs are set out under the environmental topics and are used as measures against which the provisions of the *draft VEMMP* and alternatives are evaluated.

Topic	No.	Strategic Environmental Objective	Target
Biodiversity, Flora & Fauna	B1	Contribute toward compliance with EU Habitats and Birds Directives	Implementation of the <i>VEMMP</i> not to adversely affect the integrity of any Natura 2000 Sites
	B2	Contribute toward environmental reinstatement and protection of Nature Conservation Sites ¹⁰	Maintenance or restoration of favourable conservation status of habitats and species
	B3	Contribute toward conservation and enhancement of biodiversity	Protection of flora and fauna from disturbance and restoration of selected habitats
Population and Human Health	P1	Contribute toward minimisation of adverse impacts on local communities arising from excessive concentration of tourism related activity	Reduction of congestion and wider distribution of tourism in the Wicklow area
	P2	Contribute toward provision of a positive experience for visitors	Provision of improved information, interpretation and infrastructure
Soils	S1	Contribute toward maintenance of the integrity and functioning of soils	Minimisation of soil sealing Protection of soil stability
Water	W1	Contribute toward maintenance and improvement of water quality	Maintenance or achievement of good status for surface waters and ground waters in terms of Water Framework Directive (2000/60/EC) Incorporation of nature based water management measures
	W2	Contribute toward maintenance of bathing water quality	Compliance with the provisions of the Bathing Water Directive (2006/7/EC)
	W3	Contribute toward minimisation of flood risk	Compliance with Flood Risk Management Guidelines
Air & Climate	C1	Contribute toward mitigation of climate change	Incorporation of climate mitigation measures in <i>VEMMP</i>
Material Assets	M1	Contribute toward provision of appropriately located and designed tourism infrastructure	Provision of improved and additional tourism related infrastructure at key locations
	M2	Support adequate provision for and control of tourism related traffic	Provision of transportation related infrastructure at key locations
Cultural Heritage	H1	Contribute toward protection of archaeology and conservation of built heritage assets	No adverse effects on archaeological or architectural heritage arising from implementation of <i>VEMMP</i>
	H2	Support the potential of Glendalough for inscription as a World Heritage Property	Protection and enhancement of cultural heritage of Glendalough and its setting
	H3	Support awareness of cultural heritage of Wicklow, including Glendalough	Provision of improved information and interpretation for the public
Landscape	L1	Avoid conflicts with protection of landscapes designated for protection in the Development Plan	Avoidance or mitigation of impacts on designated landscapes

Table 8.2 Strategic Environmental Objectives

¹⁰ A Nature Conservation Site, as defined at sec.212 of the Planning and Development Act, 2000 (as amended) to include a European Site, a proposed Natural Heritage Area, a designated Natural Heritage Area, an established or a recognised Nature Reserve under the Wildlife Act, 1976 (as amended), a refuge for fauna or flora designated under the Wildlife Act, 1976, as amended.

9. Potential Environmental Effects of the *draft VEMMP* compared with Alternatives

9.1.1.1. The likely environmental effects of the *draft VEMMP* as also those of the alternative scenarios, are considered below, having regard to the SEOs and to the environmental baseline described in chapter 6 of this report.

9.1.2. Business as Usual Alternative

9.1.2.1. The SEA Directive, at Annex I, (b), requires that the Environmental Report contains a description of *the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme*. Effectively, this is the “business as usual” alternative, which entails a continuation of existing policies and plans, subject to normal periodic review and is equivalent to existing baseline trends without the *Draft VEMMP*.

9.1.2.2. The existing state of the environment is described in foregoing sections of this report. In the absence of the *Draft VEMMP* there will be a continuation of current trends of over concentration of tourism/visitor activity on Glendalough. The adverse effects arising from unmanaged access to upland areas of County Wicklow, such as habitat degradation and erosion of soils, will continue. The established trend of increasing population numbers, both nationally and locally, will intensify such pressures. The principal likely environmental effects would be:

- *Biodiversity*: Current trends point to an intensification of adverse effects on the natural environment including habitats and species. Potential conflict with EU Habitats and Birds Directives by adverse effects on the integrity of Natura 2000 Sites i.e. the Wicklow Mountains SAC.¹¹
- *Population*: Continuing environmental nuisance to local community from traffic/parking by visitors, especially in Glendalough, continuing over-concentration of economic benefits of tourism and a poor quality experience for visitors.
- *Soils*: Existing problems of erosion in certain upland locations likely to continue.
- *Water*: Potential adverse effects on water quality due to overload of existing infrastructure in Glendalough.
- *Air and Climate*: No interventions to reduce reliance on car usage and related emissions.
- *Material Assets*: Potential overload of critical infrastructure, including roads, parking and waste water treatment serving the existing visitor centre at Glendalough. Continuing overload of upland car parks and trails.
- *Cultural Heritage*: Continuing unsatisfactory situation at Glendalough with respect to protecting the integrity of the monastic site (with a possible World Heritage application in the future) and provision of interpretative facilities.
- *Landscape*: Landscape impacts would be relatively limited and subject to mitigation at project design stage.

¹¹ These trends have been well documented in respect of Wicklow (e.g. *The Montane Flora of County Wicklow* by Faith Wilson and Dr. Tom Curtis, The Heritage Council and Wicklow County Council, 2018; *Sustainable Uplands Agri-environment Scheme* (SUAS)) by the Wicklow Uplands Council in partnership with Teagasc).

9.1.3. VEMMP as Proposed

9.1.3.1. Successful implementation of the *Draft VEMMP* would relieve the overconcentration of tourism/visitor activity on Glendalough and disperse visitors more widely. Adverse effects from unmanaged access to certain upland areas of County Wicklow, such as habitat degradation and erosion of soils, would be mitigated. The principal likely environmental effects would be:

- *Biodiversity*: Implementation of the *Draft VEMMP* would likely result in increasing the number of visitors to additional parts of County Wicklow. Potentially this could increase adverse effects on the natural environment including habitats and species. However, in relevant areas these impacts would be mitigated by improved management of visitors, by repair works to damaged footpaths and by improved facilities at public car parks. Reinstatement of certain areas of natural habitat in Glendalough would have a further positive effect on biodiversity.
- *Population*: Nuisance to the local community in Glendalough, from traffic/parking by visitors, would be relieved. Visitor management would contribute toward an improved experience.
- *Soils*: Problems of erosion in certain upland trails would be addressed. Some existing areas of managed grassland in Laragh would be given over to provide parking.
- *Water*: Potential adverse effects on water quality due to overload of existing infrastructure in Glendalough would be addressed.
- *Air and Climate*: Dispersal of tourism likely to increase reliance on car usage and related emissions, but countervailing measures in *VEMMP* including shuttle bus services would reduce adverse effects.
- *Material Assets*: Existing overload of critical infrastructure, including roads, parking and waste water treatment serving the existing Glendalough visitor centre would be addressed. Provision of new facilities in Laragh would potentially contribute toward the economy of the village.
- *Cultural Heritage*: The protection of the integrity and setting of the monastic site at Glendalough, with a possible future World Heritage application, would be enhanced. Educational and interpretative facilities for the public would be improved.
- *Landscape*: Landscape impacts would be relatively limited and subject to mitigation at project design stage.

9.1.4. A Plan for Tourism without additional Environmental Elements

9.1.4.1. A decision to undertake a plan for tourism, responding to the requirements of the brief, but without particular environmental elements or controls within the plan, would rely on the existing regulatory framework of planning and other environmental laws and licensing for mitigation or prevention of adverse effects on the environment. The plan would respond to two of the aims set out in the Draft VEMMP, namely dispersal of the benefits and impacts of tourism and improvement of the visitor experience, but not including the first aim of the *Draft VEMMP*, concerning enhancement of the environment. In this scenario, funding from Fáilte Ireland for related projects would not be made contingent on compliance with environmental provisions of the plan.

9.1.4.2. The principal likely environmental effects would be:

- **Biodiversity:** Implementation of the plan would likely result in increasing the number of visitors to additional parts of County Wicklow. This would increase adverse effects on the natural environment including habitats and species. Any mitigation would be dependent on the existing regulatory regime.
- **Population:** Nuisance to the local community in Glendalough, from traffic/parking by visitors, would possibly be reduced, but in a less structured fashion.
- **Soils:** Problems of erosion in certain upland locations would not be addressed as part of the plan.
- **Water:** Potential adverse effects on water quality due to overload of existing infrastructure in Glendalough would not be subject to any provisions of the plan, although subject to other environmental controls.
- **Air and Climate:** Dispersal of tourism likely to increase reliance on car usage and related emissions.
- **Material Assets:** Existing overload of critical infrastructure, including roads and parking serving Glendalough visitor centre would be ameliorated by provisions of the plan relating to dispersal of tourism.
- **Cultural Heritage:** The protection of the monastic site at Glendalough, with a possible future World Heritage application, would not be subject to provisions of the plan. Educational and interpretative facilities for the public might be improved.
- **Landscape:** Landscape impacts would likely be relatively limited and subject to mitigation at project design stage.

9.1.5. Summary Comparison of Draft VEMMP and Alternatives

9.1.5.1. The results of the comparisons are summarised in tabular form at Table 9.1 below and show that the *draft VEMMP* performs best of the alternatives examined. Overall, it has notably more positive effects and fewer negative than the comparators, although different elements within the *draft VEMMP* will have differing potential for environmental effects (see below Section 9.2).

Alternatives considered	Strongly Positive for SEOs	Somewhat positive for SEOs	Somewhat Negative for SEOs	Strongly Negative for SEOs
<i>Business as Usual</i>			P1, P2, H1, H2, H3, W1, W2, W3, L1	B1, B2, B3, S1, C1, M1, M2
<i>Draft VEMMP as proposed</i>	P1, P2, M1, M2, H2, H3	B2, B3, S1, W1, W3	B1, B3, H1, C1, S1, W2, L1	
<i>A plan for tourism without specific environmental measures</i>		P1, P2, M1, M2, H3	B1, B2, B3, H1, H2, W1, W2, W3, L1	S1, C1

Table 9.1: Comparative Performance of Alternatives against SEOs

9.1.6. Alternatives Considered within the VEMMP

9.1.6.1. Certain reasonable alternatives within the framework of the chosen plan (*Draft VEMMP*) were also considered in relation to particular elements, including in respect of transportation/access, walking routes and future developments in the Glendalough/Laragh valley.

9.1.6.2. *Transportation*: In respect of access, it was established that consideration will need to be given to longer term, more sustainable ways of transport to the area, including connections from Dublin to Laragh-Glendalough, in order to reduce dependence on private car transport.

¹² Existing public transport alternatives are limited, including the St Kevin’s bus service between Dublin and Glendalough, the Local Link bus service between Laragh and Arklow and Wicklow and private hire buses by some Dublin based Rambling Clubs with variable drop-off and pick-up points. Other possibilities include:

- Travel by train and bus (Dublin to Rathdrum by rail and then local bus link) – this is possible, but not well used.
- Park and Ride car parks in the vicinity of Kilmacanogue on the N11 and Blessington on the N81. These are unlikely to be viable options unless overall restrictions were introduced on traffic volumes on the minor road network in the uplands. This would need to be part of a longer term debate to be managed by the proposed co-ordinated visitor management structures.

9.1.6.3. It was concluded, in relation to transportation, that the proposals set out in the ORNI, Hogarth and Consarc sections of the *Draft VEMMP* for car park development and management are the best way, in the short term, to manage the pressures. This would contribute positively toward SEO M1.

9.1.6.4. *Discovery Walks*: The brief requires dispersal of visitor activity in order to reduce pressure on established locations, such as the existing attractors of the Great Sugarloaf, Djouce Mountain, Loughs Bray and the Spinc (Glendalough). Criteria were set in respect of the suitability of potential additional walks, titled *Discovery Walks*.¹³ Designation of seven *Discovery Walks*, as part of the *Draft VEMMP*, followed assessment of several possible routes. As described in the *Recreational Trails Masterplan*, by ORNI, the following alternative locations were rejected with the reasons set out below. The most common reason for rejection relates to sustainability of the pathway, which would be strongly negative in relation to SEO B3 and S1.

	SITE	Start/finish point	Reason for Rejection
1	Cariglineen	Shay Elliot	Path not sustainable
2	Keadeen Mountain	East side, Rathdangan	Navigational challenge
3	Sugar Loaf West	Near Donard	Path heavily damaged, not sustainable
4	Kirikee	Shay Elliot	Limited appeal
5	Braigue/Cullentragh	Shay Elliot	Limited appeal- Cullentragh summit on private land
6	Fauna	Ballyvraghan	Limited appeal, community trail
7	Dwyer’s Chair	Drumgoff	Short, eroded, safety & wildlife issues
8	Church Mountain	Near Hollywood	Path erosion works and heritage assessment required before inclusion. Could form part of wider Baltinglass Heritage Sites Project
9	Table Track Loop in Glen of Imaal	Seskin Defence Forces Information Centre	Requirement to consult firing range timetable unsuitable for visitors

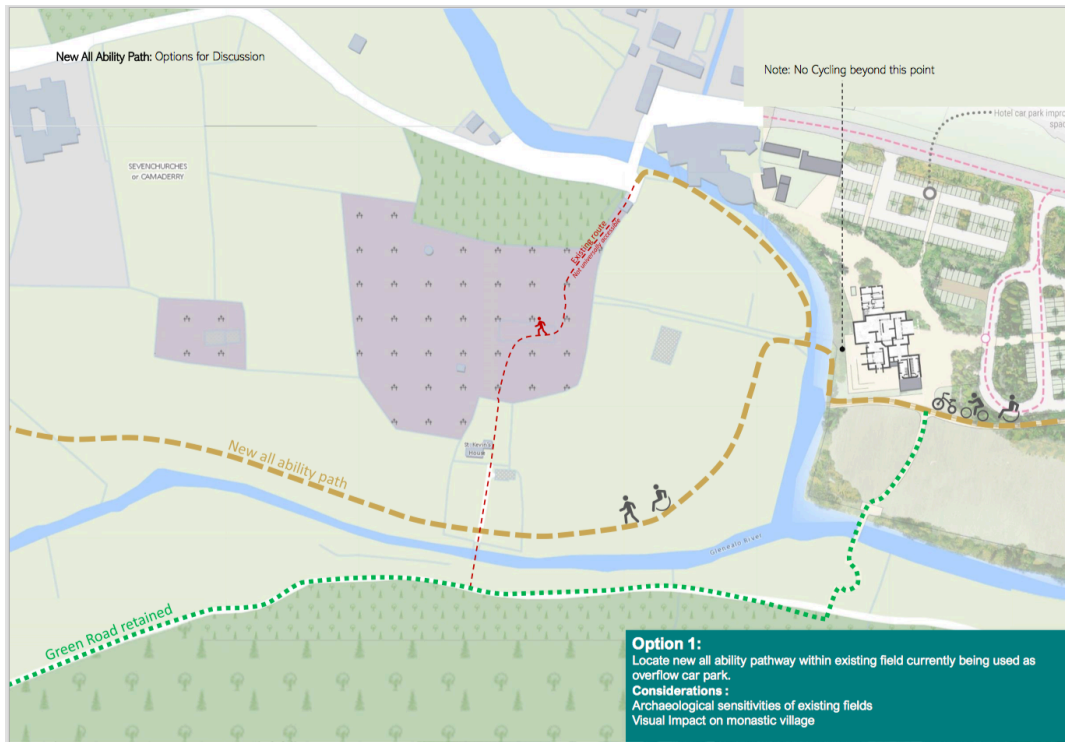
Table 9.2: Rejected Discovery Walks

¹² *Glendalough Transport Surveys* - Kevin McShane Ltd: (p.144 of draft *VEMMP*)

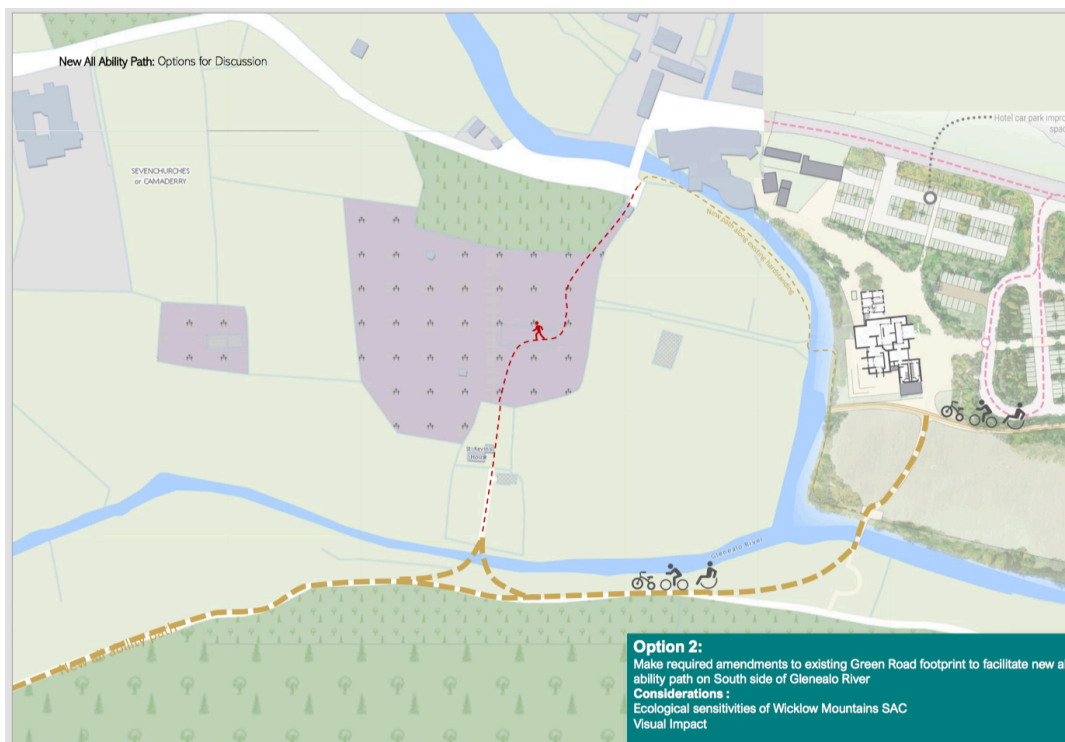
¹³ An attractive landscape setting

- Walk time circa 2 - 4 hrs
- Straightforward route, ideally waymarked
- Sustainable trail
- Availability of car parking at start of route
- Inclusion of some ‘beginner mountain’ walks

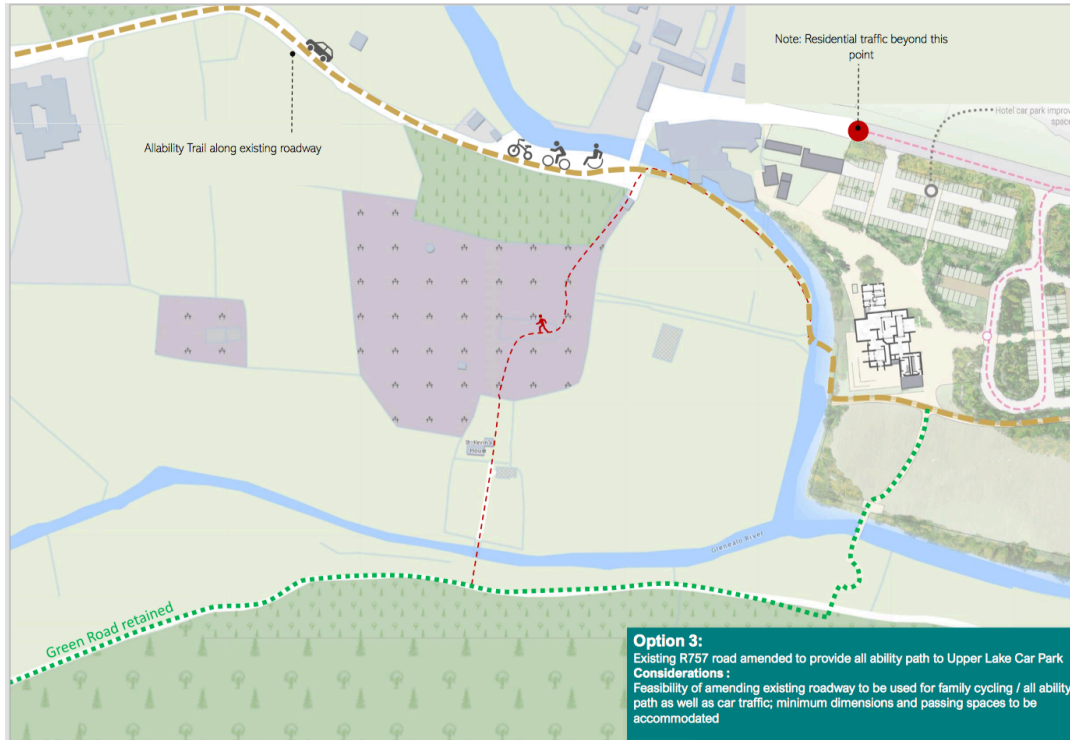
- 9.1.6.1. Glendalough - Laragh Valley: The *Laragh-Glendalough Land Use and Tourism Plan* contains a number of objectives concerning improvement of linkages between Laragh and Glendalough. The said plan identifies a *Laragh-Glendalough Tourism Corridor Area*, in which it is proposed to provide facilities and infrastructure that promote the movement of visitors from the area in the vicinity of Laragh towards the attractions at Glendalough through a range of sustainable transportation options.
- 9.1.6.2. Approximately 1.7km west of Laragh, Regional Road R757 branches off the R756 to serve the Glendalough Visitor Centre, the Glendalough Hotel and the two main Glendalough Car Parks at the Visitor Centre and at the Upper Lake. The access from Laragh to Glendalough via these public roads is unsatisfactory, especially for cyclists, but also for pedestrians and for motorists, with significant traffic congestion at peak periods.
- 9.1.6.3. To address the situation, the potential for improvements to the existing public road connection was considered. However, following examination, it was determined that this would not achieve an acceptable standard without substantial interventions to enlarge the land take. Such interventions would have significant environmental effects on amenity and landscape and would be negative in relation to SEOs P1 and M1. Accordingly, this alternative was rejected.
- 9.1.6.4. As described elsewhere in this report, the chosen solution is to develop a new all ability route to Glendalough from Laragh through the valley from a new arrival centre and car park, near the Laragh GAA club, supplemented by a shuttle bus service.
- 9.1.6.1. Local Access to and within Glendalough Monastic Site: To improve pedestrian access to and beyond the Monastic Site from the direction of the existing Glendalough Visitor Centre, a number of possible solutions were considered. Following examination in consultation with the relevant State authorities (NPWS, OPW, National Monuments Service), some of these were rejected on environmental grounds because the impacts on cultural heritage or on biodiversity were potentially adverse, which would be negative in relation to SEOs B1, B2 and H1.
- 9.1.6.2. Three of the options are shown over together with the preferred design solution. This will be subject to further assessment at project stage as part of the development consent process, particularly in respect of any impacts on archaeological heritage.



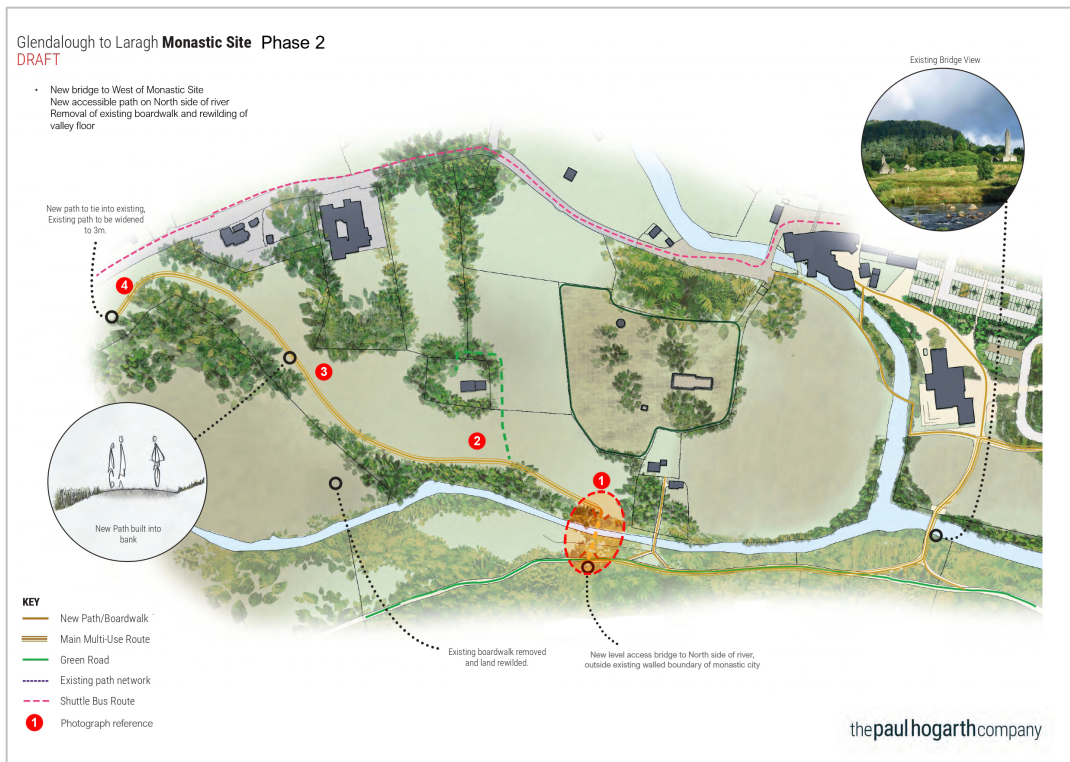
Access to/within Monastic Site – Option 1



Access to/within Monastic Site – Option 2



Access to/within Monastic Site – Option 3



Access to/within Monastic Site - Preferred Solution

9.2. Assessment draft VEMMP Individual Elements against SEOs

9.2.1.1. The VEMMP sits within a framework of plans and programmes, which have been subject to strategic environmental assessment, including statutory plans such as the National Planning Framework, the Regional Spatial and Economic Strategy and, in particular, the Wicklow County Development Plan, 2022-2028, which itself is subject of strategic environmental assessment. The *Laragh-Glendalough Land Use and Tourism Plan* forms part of the Wicklow County Development Plan, 2022-2028.

9.2.1.2. The draft VEMMP proposals have been assessed against the SEOs set out above. In some instances the *draft VEMMP* may both accord with an SEO but also potentially conflict with same. For example, the measures proposed to address transportation issues at Glendalough are likely to have a net positive effect on air and climate, but the dispersal of visitors to other sites around the County may generate additional greenhouse gas emissions. The main component parts of the draft VEMMP are examined individually and this informs the overall assessment. Of necessity, any assessment of environmental effects is high level and based on the information available at this time. Implementation of the specific projects in the draft VEMMP will be subject to the legal regulatory and consent mechanisms, which include further more detailed project level assessments of effects.

9.2.1.3. The draft VEMMP is composed of three main elements:

- *Wicklow Wide*: High level dispersal strategy including visitor hubs through the County
- *Draft Recreational Trail Masterplan*: focused strategy for dispersal of outdoor recreation with detailed proposals for Discovery Trails
- *Draft Glendalough Valley Plan*: proposals for local Laragh-Glendalough area-wide strategies, informed by an *Interpretation Strategy*.

9.2.2. VEMMP Aims

9.2.2.1. The *Draft VEMMP for Glendalough and Wicklow Mountains National Park* sets out three main aims:

- *Enhance the natural, built and cultural heritage*
- *Disperse the benefits and impacts of tourism*
- *Improve the visitor experience*

Consideration of the aims in relation to the SEOs shows a positive balance overall with relatively few negative impacts. These principally arise from the dispersal of tourism across the County with consequent potential to adversely affect natural heritage and water.

VEMMP Aim	Positive for SEOs	Negative for SEOs but can be mitigated	Negative for SEOs and not readily mitigated	SEOs not affected
<i>Enhance the natural, built and cultural heritage</i>	B1, B2, B3, S1, W1, W2, H1, H2, H3, L1			P1, P2, W3, C1, M1, M2,
<i>Disperse the benefits and impacts of tourism</i>	P1, P2, M1, M2, H2	B1, B2, B3, S1, W1, W2, C1, L1		W3, H1, H3
<i>Improve the visitor experience</i>	P1, P2, M1, M2, H1, H2, H3,			B1, B2, B3, S1, W1, W2, W3, C1, L1

Table 9.3: Performance of VEMMP Aims in relation to SEOs

9.2.3. Assessment of Wicklow Wide Proposals

9.2.3.1. The *Wicklow Wide* proposals are primarily a dispersal strategy and accord generally with the provisions of the Wicklow County Development Plan, 2022-2028, including the identification of certain visitor hubs. The central objectives include to encourage visitors to Wicklow to stay longer and to visit places in the County other than Glendalough. A marketing proposal includes a new '*Wicklow Mountains*' brand for the uplands and their fringes and to the east of the M/N11, a '*Wicklow's Coast*' brand. Signage, online and promotional material will encourage people to explore these areas.

9.2.3.2. A significant element of the *Wicklow Wide* proposals is the *Interpretation Strategy*, which outlines some of the key elements for visitor interpretation in the valleys and uplands near Glendalough and the Wicklow Mountains National Park. Selected sites are suggested for *interpretation journeys*. There is a focus on the mining and military heritage in the areas surrounding Glendalough, landscape change in the uplands, the ecclesiastical heritage and ancient monuments/archaeology.

9.2.3.3. The *Wicklow Wide* proposals emphasise the importance of connectivity and the need for investment in rail infrastructure, including provision of a regular service to Rathdrum which would help to restore use of the town as a base for exploring the county and provide a viable alternative for access to Glendalough by car and coach. Particular roles are assigned to individual locations in the County, such as Glendalough, Roundwood/Ballinastoe, Blessington, Baltinglass, Tinahely-Shillelagh, the Wicklow Uplands, the Wicklow Coast, the Garden County including great houses. In part, the *Wicklow Wide Strategies* builds on the *Wicklow Outdoor Recreation Strategy 2020-25*, wherein five *Outdoor Recreation Hubs* were identified for future development.¹⁴ The hubs should become the focus for a diversity of types of accommodation, with assured quality standards and associated hospitality and cultural provision that will be central to the visitor experience.

9.2.3.4. The proposals of of the *Draft Wicklow Wide* component of the *VEMMP* are high level and essentially aim at dispersal of tourism activity. Assessment of the proposals against the SEOs is necessarily at this high level. The nature, scale and location of associated projects relevant to implementation of the *Wicklow Wide* proposals (other than as set out in the other parts of the draft *VEMMP*) will be clarified in the future. The proposals have been assessed at this level in relation to the SEOs. The main identifiable negative impact is in relation to air and climate, where the *Wicklow Wide* proposals for dispersal will encourage wider car-borne tourism, with consequent emissions to the atmosphere, notwithstanding the identification of a need to improve public transport.

Wicklow Wide Proposals	Positive for SEOs	Negative for SEOs but can be mitigated	Negative for SEOs and not readily mitigated	SEOs not affected
	P1, P2, M1, M2, H3	B1, B2, B3, S1, W1, H1, L1	C1	W2, W3, H2

Table 9.4: Performance of Wicklow Wide proposals in relation to SEOs

¹⁴ Glendalough, Rathdrum, Blessington-Baltinglass, East Coast Maritime and Tinahely-Shillelagh

9.2.4. Assessment of Recreational Trails Masterplan

9.2.4.1. The *Draft Recreational Trails Masterplan* is a county wide set of proposals to aid the sustainable dispersal of visitors in County Wicklow, focused particularly on enhancement and extension of the existing trail network in the County. Based on achieving the three aims of the *Draft VEMMP* – Enhancement, Dispersal and Improvement - the *Draft Recreational Trails Masterplan* sets out an overall strategy, including a series of objectives and actions:-

9.2.4.2. Upgrading and repair of existing key recreational sites, which are showing signs of erosion by walkers:

- Great Sugar Loaf Mountain
- Djouce Mountain
- Spinc and Glenealo Valley
- Lough Brays (Upper & Lower)

9.2.4.3. Seven *Discovery Walks* including (with relevant car parking):

- Maulin (Crone Woods car park) Coillte / NPWS
- Clara Vale Jubilee Route (Coillte car park)
- Table Tract Glenmalure (WCC car park)
- Little Sugar Loaf (Belmore Est. car park)
- Lackan Mass Path (Lackan Village)
- Ballinaclash Cushbawn Mt. (Macreddin)
- Ballinafunshoge Loop (Ballinafunshoge Coillte car park)

9.2.4.4. Improvements to parking facilities at a number of locations including in particular:

- Great Sugar Loaf
- Djouce
- Lough Brays/Glenree
- Lough Dan/Old Bridge
- Glenmalure
- Shay Elliot
- Seskin
- Glenmacnass Waterfall Car Park
- Glendasan Valley Lead Mines (near Laragh)

9.2.4.5. Further dispersal will be achieved through the introduction of a shuttle bus service with promoted sustainable return walking routes. Four bus routes proposed:

- Wicklow Gap
- Glenmalure
- Rathdrum
- Glenmacnass

9.2.4.6. Five *Outdoor Recreation Hubs*, identified in the *Wicklow Outdoor Recreation Strategy 2020-25*, are addressed in terms of walking and cycling:

- Glendalough/Laragh
- Rathdrum
- Tinahely-Shillelagh
- East Coast Maritime
- Blessington-Baltinglass

9.2.4.7. The draft VEMMP sits within a framework of plans (National Planning Framework, Regional Spatial and Economic Strategy, Wicklow County Development Plan etc.). In the case of the *Draft Recreational Trails Masterplan* there is close alignment with the *Wicklow County Development Plan 2022-2028*, which itself is subject of strategic environmental assessment. At Section 11.1.4. of the *Development Plan*, the *County Wicklow Outdoor Recreation Strategy 2020 - 2025* is cited, which identifies the same five outdoor recreations hubs /

clusters – Glendalough, Rathdrum, Blessington/Baltinglass, Tinahely/Shillelagh and East Coast maritime. Objectives identified include:

- Expansion of the trails network,
- preparation of an outdoor recreation transport plan and
- increase awareness of environmental and cultural responsibilities.

9.2.4.8. The provisions of the *Draft Recreational Trails Masterplan* have been assessed against the SEOs set out above. In summary, the assessment points to a positive balance, with some requirements for mitigation at project development stage. The main identifiable negative impact is in relation to air and climate, where the *Draft Recreational Trails Masterplan* proposals for dispersal will likely encourage some additional journeys by car to avail of the various walks and trails proposed, with consequent emissions to the atmosphere, notwithstanding the identification of a need to improve public transport.

Recreational Trails Masterplan	Positive for SEOs	Negative for SEOs but can be mitigated	Negative for SEOs and not readily mitigated	SEOs not affected
	B2, B3, P1, P2, S1, W1, M1, M2, H3	B1, B2, B3, W1, W3, C1, H1, L1		W2, H2

Table 9.5: Performance of Recreational Trails Masterplan in relation to SEOs

9.2.5. Assessment of the Draft Glendalough Valley Plan

9.2.5.1. The main provisions of the *Draft Glendalough Valley Plan* are outlined in Section 4.4. of this report above. The *Draft Glendalough Valley Plan*, is influenced by the primary objective for the Wicklow Mountains National Park “to protect natural biodiversity and promote education and sustainable recreation. Recreation and Tourism must be environmentally compatible with this objective”, in accordance with its IUCN Category II National Park Status. The exceptional historical significance of Glendalough is emphasised, with the potential to bid for World Heritage Site status. The *Draft Glendalough Valley Plan* identifies likely areas for new infrastructure and for routes between Laragh and Glendalough and within Glendalough. The plan includes provision for habitat reinstatement, with the details to be determined at project stage. The main proposals of the *Draft Glendalough Valley Plan* come within six main headings:

- *Creating a New Visitor Flow*
- *Arriving at Laragh*
- *New All ability trail*
- *New Interpretation*
- *Arriving at Glendalough Visitor Centre*
- *Arriving at Upper Lake*

9.2.5.2. Creating a New Visitor Flow is intended to relieve existing congestion at Glendalough, queuing of cars on the public road, overspill parking by providing an alternative framework to cater for visitors to Glendalough, particularly employing new connections from Laragh to Glendalough. The concept is to geographically spread the visitor journey within the Glendalough valley, by developing the village of Laragh as a gateway to Glendalough. This would also help to establish Laragh as the main hub and trailhead for the wider walking and cycling network that radiates from here including the Wicklow Way and other routes.

- 9.2.5.3. Arriving at Laragh, visitors will encounter new parking facilities, a new visitor hub in the vicinity of the GAA club and alternative means to continue on to Glendalough either via a new All Ability Trail up the Glendalough valley or via an electrically powered shuttle bus. The proposed All Ability Trail will connect Laragh to the Monastic site in Glendalough and beyond to the Upper Lake and the Miner’s Road.
- 9.2.5.4. At Glendalough it is proposed to refurbish and repurpose the existing visitor centre as a destination, to provide an engaging orientation point, where visitors can stop before onward travel, and to provide an opportunity for interpretive information and refreshment. The *Draft Glendalough Valley Plan* also proposes to reduce and rationalise the existing car park in front of the visitor centre.
- 9.2.5.5. At the Upper Lake, it is proposed to reduce and rationalise the Upper Lake car park, restrict its use to essential car parking requirements; i.e. accessibility requirements, and provide the final drop off location for an electric shuttle bus. Provision of a specifically designed refreshment pavilion is proposed to avoid the ‘temporary’ feel of the current situation, with parking of food vendors’ vehicles.
- 9.2.5.6. The existing Irish Water waste water treatment system in Laragh is currently performing adequately, but a significant increase in loading may bring it up to or beyond capacity. Existing waste water treatment facilities serving the existing visitor centre at Glendalough require upgrading. It is understood that the smaller waste water treatment plant at the Upper Lake is currently performing adequately.
- 9.2.5.7. A key element of the *Draft Glendalough Valley Plan* is the provision of interpretation and education facilities to enable people to appreciate the complex interaction between nature, geology and human experience as they traverse up the Glendalough Valley and to encourage visitors to explore more widely throughout the county.
- 9.2.5.8. The draft VEMMP sits within a suite of other relevant plans (National Planning Framework, Regional Spatial and Economic Strategy, Wicklow County Development Plan etc.). In the case of the *Draft Glendalough Valley Plan* there is very close alignment with the *Laragh-Glendalough Land Use and Tourism Plan*. This latter dates originally from 2016, but is now incorporated into the Wicklow County Development Plan, 2022-2028, which itself is subject of strategic environmental assessment.
- 9.2.5.9. The *Laragh-Glendalough Land Use and Tourism Plan* includes a similar concept to promote the better management of tourist movements in the area so that visitors are encouraged to stop in Laragh village and travel on to the attractions at Glendalough in a range of sustainable transportation options. A park and ride facility in Laragh and improved links for pedestrians to Glendalough through a *Tourism Corridor Area* are proposed.
- 9.2.5.10. The provisions of the *Draft Glendalough Valley Plan* have been assessed against the SEOs set out above. In summary, the assessment points to a positive balance, with some requirements for mitigation at project development stage. It is anticipated that the provisions of the plan will have a net positive effect in relation to air and climate in the Glendalough area, by the introduction of a more efficient transportation structure for Laragh-Glendalough, including improved walking and public transport facilities. In addition, there will be a significant element of habitat restoration in the Glendalough valley and removal of some parking areas in Glendalough. On the other hand, there will be some loss of existing managed amenity grassland to provide parking at the Laragh hub.

Glendalough Valley Plan	Positive for SEOs	Negative for SEOs but can be	Negative for SEOs and not readily	SEOs not affected
--------------------------------	--------------------------	-------------------------------------	--	--------------------------

		mitigated	mitigated	
	B2, B3, P1, P2, W1, C1, M1, M2, H2, H3	B1, B3, S1, W1, W3, H1, L1		W2

Table 9.6: Performance of Glendalough Valley Plan in relation to SEOs

10. Overall performance of draft VEMMP

10.1.1.1. The draft VEMMP would generally accord positively in terms of likely environmental effects, subject to mitigation. The main potentials for conflict with the SEOs are identified in summary below, together with the need for mitigation.

NO.	Strategic Environmental Objective	Likely to accord with SEO	Potential conflict with SEO
B1	Contribute toward compliance with EU Habitats and Birds Directives		Requires mitigation per NIS
B2	Contribute toward environmental reinstatement and protection of Nature Conservation Sites ¹⁵	Habitat restoration at Glendalough	Requires monitoring at key locations
B3	Contribute toward conservation and enhancement of biodiversity	Includes habitat restoration at Glendalough and at Recreational Trail sites	Requires mitigation and monitoring
P1	Contribute toward minimisation of adverse impacts on local communities arising from excessive concentration of tourism related activity	Yes	
P2	Contribute toward provision of a positive experience for visitors	Yes	
S1	Contribute toward maintenance of the integrity and functioning of soils	VEMMP supports reinstatement works at certain key recreational Recreational sites	Requires monitoring
W1	Contribute toward maintenance and improvement of water quality	Habitat reinstatement in Glendalough and SuDs measures for new works will contribute to this	Likely to require mitigation in respect of Glendalough Upper Lake WWTS
W2	Contribute toward maintenance of bathing water quality		Requires monitoring
W3	Contribute toward minimisation of flood risk	Habitat reinstatement in Glendalough	Potential for flood risk car park and pedestrian route Laragh - Glendalough
C1	Contribute toward mitigation of climate change	VEMMP will support shuttle bus and cycle infrastructure	May generate increased emissions due to dispersal plan
M1	Contribute toward provision of appropriately located and designed tourism infrastructure	Yes	
M2	Support adequate provision for and control of tourism related traffic	Yes	Will require investment in new / improved Recreational Trails
H1	Contribute toward protection of archaeology and conservation of built heritage assets	Yes	Potential to affect archaeological deposits without mitigation
H2	Support the potential of Glendalough for inscription as a World Heritage Property	Yes	
H3	Support awareness of cultural heritage of Wicklow, including Glendalough	Yes	
L1	Avoid conflicts with protection of landscapes designated for protection in the Development Plan		May require mitigation in relation to certain installations

Table 10.1 – Overall Performance of VEMMP with SEOs

¹⁵ A Nature Conservation Site, as defined at sec.212 of the Planning and Development Act, 2000 (as amended) to include a European Site, a proposed Natural Heritage Area, a designated Natural Heritage Area, an established or a recognised Nature Reserve under the Wildlife Act, 1976 (as amended), a refuge for fauna or flora designated under the Wildlife Act, 1976, as amended.

10.1.2. In Combination Effects

10.1.2.1.

The draft VEMMP has the potential for interactions between the individual environmental elements, as set out below.

Interaction	Biodiversity and flora and fauna	Population and human health	Soil	Water	Air and Climatic factors	Material Assets	Cultural Heritage	Landscape
Biodiversity and flora and fauna			✓	✓	✓	✓		✓
Population and human health			✓	✓	✓	✓		
Soil				✓		✓		
Water						✓		
Air and climatic factors						✓		
Material Assets							✓	✓
Cultural Heritage								✓
Landscape								

Table 10.2: Interactions between Environmental Factors

10.1.3. Cumulative Effects

- 10.1.3.1. The draft VEMMP sits within a suite of other relevant plans and programmes including statutory plans, such as the National Planning Framework, the Regional Spatial and Economic Strategy and the Wicklow County Development Plan. Other plans and programmes with potential for cumulative effects with the *draft VEMMP* include those with significant overall environmental impacts, such as the *Climate Action Plan*, a strong biodiversity component, such as the *National Peatlands Strategy, 2015-2025*, the *National Biodiversity Action Plan, 2017-2021*, those with a heritage theme, such as the *County Wicklow Heritage Plan, 2017-2022*, those with a tourism theme, such as *Ireland's Ancient East* or those related to infrastructure development, such as *Eastern-Midlands Region Waste Management Plan, 2015 – 2021* or *The Water Services Strategic Plan (2015)* of Irish Water. Cumulative impacts in relation to these and similar plans and programmes has been taken into account.
- 10.1.3.2. The *draft VEMMP* is in general accordance with the policies of the National Planning Framework and the RSES for the Eastern and Midlands Region. There is very close alignment between the *draft VEMMP* and the provisions of the Wicklow County Development Plan, 2022-2028, including the detailed provisions of the *Laragh-Glendalough Land Use and Tourism Plan*. Where relevant, these statutory plans have been subject of Strategic Environmental Assessment, Appropriate Assessment under the Habitats Directive and other required assessments such as in relation to flood risk, thereby ensuring proper consideration of environmental impacts and protections, including cumulatively.
- 10.1.3.3. Similarly, implementation of the specific projects in the *draft VEMMP* will be subject to the legal regulatory and consent mechanisms, which include further more detailed project level assessments of effects, including those arising during any construction works. These processes ensure proper cognisance of cumulative impacts and their mitigation.

10.2. Reasons for Choosing Proposed VEMMP

- 10.2.1.1. The *draft VEMMP* meets the detailed requirements set out in the brief for the plan. Assessment of the environmental effects of the *draft VEMMP*, including in respect of the Habitats Directive, indicates that with appropriate mitigation, there will be no significant effects on the environment arising from the chosen plan. As noted previously, projects associated with the *draft VEMMP* will require, where relevant, development consent and consideration in relation to the requirements of the Habitats Directive (92/43/EEC), the Floods Directive (2007/60/EC) and the EIA Directive (2011/92/EU, as amended by Directive 2014/52/EU).
- 10.2.1.2. The *draft VEMMP* is in general accordance with the policies of the National Planning Framework and the RSES for the Eastern and Midlands Region. There is very close alignment between the *draft VEMMP* and the provisions of the Wicklow County Development Plan, 2022-2028, including the detailed provisions of the *Laragh-Glendalough Land Use and Tourism Plan*. These statutory plans are all subject of Strategic Environmental Assessment.
- 10.2.1.3. Comparison of the *draft VEMMP* with the described alternatives above clearly shows that the chosen plan outperforms the alternatives when assessed against the SEOs. Implementation of the *draft VEMMP* is likely to bring about positive environmental effects by addressing the excessive concentration of visitors in certain locations, notably

Glendalough and at the main attractors for walkers within the National Park. Its implementation is also likely to bring material benefit to parts of Wicklow other than Glendalough by dispersing tourism more widely.

10.3. Appropriate Assessment

10.3.1.1. A Natura Impact Statement (NIS) has been prepared in respect of the draft *VEMMP*. The NIS findings have informed this Environmental Report in respect of the SEA.

10.3.1.2. The NIS has concluded that, having incorporated mitigation measures, the Draft *VEMMP for Glendalough and Wicklow Mountains National Park* is not foreseen to give rise to any adverse effects on the integrity of Natura 2000 Sites, alone or in combination with other plans or projects. This evaluation is made in view of the conservation objectives of the habitats or species, for which these sites have been designated. The AA process is ongoing and will inform and be concluded prior to adoption of the *VEMMP*.

11. Mitigation

- 11.1.1.1. The *Draft VEMMP for Glendalough and Wicklow Mountains National Park* is a multi-layered, medium term strategic plan aimed at the sustainable development and management of tourism in the National Park and wider County Wicklow commensurate with the environmental capacity of the area. The *Draft VEMMP* is a non-statutory plan and is informed by the statutory plans for the area, with which it is closely aligned. Its implementation will be phased and will entail development of a number of projects over several years.
- 11.1.1.2. Implementation of the *Draft VEMMP* will lead to the development of related individual projects, which will be subject to the development consent procedures set down in law, principally the Planning and Development Act, 2000 (as amended). These procedures, where relevant, will include detailed assessment of the environmental effects of such future projects, including under the provisions of the Habitats Directive 92/43/EEC, the Birds Directive 2009/147/EC, the Floods Directive 2007/60/EC and the Environmental Impact Assessment Directive (2011/92/EU as amended by 2014/52/EU).
- 11.1.1.3. The SEA and Ecology team, in consultation with the *VEMMP* team, have put forward measures to mitigate any negative effects resulting from the draft *VEMMP*. These are designed to influence the manner in which projects resulting from the plan are developed and executed. The overriding principle in respect of such projects is that they be sustainable in environmental terms. This will include, *inter alia*, requiring demonstration of full compliance of future projects with consent processes, paying due regard to relevant guidance documents and procedures and adherence to guiding principles for environmental protection and environmental management.
- 11.1.1.4. Demonstration that mitigation measures have been considered and incorporated at project level will be required before funding of any *VEMMP* related project is approved. In order to achieve funding (including promotion) for land use or infrastructural development or land use activities from the *VEMMP* partners, stakeholders shall be required to demonstrate compliance with measures relating to sustainable development, environmental protection and environmental management, including the production of visitor management strategies (where required) or a construction environmental management Plan (CEMP) and further relevant guidance documents as listed below.
- 11.1.1.5. In relation to outcomes under the *VEMMP*, partners and stakeholders will be required to manage any increase in visitor numbers and/or any change in visitor behaviour in order to avoid significant effects, including loss of habitat and disturbance, ensuring that new projects are a suitable distance from ecological sensitivities. Visitor management strategies will be required for proposed *VEMMP* related programmes and projects that are to receive funding as relevant and appropriate.
- 11.1.1.6. In bringing forward projects related to the draft *VEMMP*, public participation will be required in decision making, as provided for ultimately in the Åarhus Convention [UNECE: *Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters*].
- 11.1.1.7. Guiding principles in relation to environmental protection and management are set out below in Table 11.1. Proposed mitigation measures are set out in Table 11.2.

Guiding Principles for Environmental Protection and Environmental Management	Actions
<p>Environmental protection</p>	<ul style="list-style-type: none"> • The sustainability principle to be followed in all VEMMP related projects. • Net biodiversity gain to be incorporated into VEMMP related projects where possible • Development consent procedures to be strictly followed, as relevant, in respect of VEMMP related projects. • VEMMP related projects to be tested for environmental effects in relation to environmental topics, as relevant. • VEMMP related projects proponents to have regard to appropriate guidance contained in: <ul style="list-style-type: none"> ○ <i>Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC</i> (EU updated 2019). ○ <i>Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC</i>, EU Commission 2021. ○ <i>Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities</i>. (Department of Environment, Heritage and Local Government, 2010 revision). ○ <i>Office of the Planning Regulator Practice Note PN01 - Appropriate Assessment Screening for Development Management</i> (OPR, 2021). ○ <i>Office of the Planning Regulator Practice Note PN02 – Environmental Impact Assessment Screening</i> (OPR 2021). ○ <i>Interpretation of definitions of project categories of annex I and II of the EIA Directive</i> - EU Commission 2015 ○ <i>Guidelines on the information to be contained in Environmental Impact Assessment Reports</i> – EPA, 2022. ○ <i>The Planning System and Flood Risk Management</i>- (Department of Environment, Heritage and Local Government, 2009). ○ <i>Framework And Principles for the Protection of the Archaeological Heritage</i> - Department of Arts, Heritage, Gaeltacht and the Islands, 1999. ○ <i>Wicklow County Development Plan 2022-2028</i>
<p>Environmental management</p>	<ul style="list-style-type: none"> • Mitigation measures will be implemented at plan level and at project level, as appropriate. • Monitoring will be carried out as provided for in the VEMMP and will be required in respect of VEMMP related projects. • Fáilte Ireland guidance • Environmental considerations to be integrated into promotional processes and environmentally responsible tourism campaigns associated with this Plan. Fáilte Ireland is in the process of developing an approach to awareness, guidance and support in integrating such considerations.
<p>Funding</p>	<ul style="list-style-type: none"> • Funding of VEMMP related projects will be conditional on adherence to the provisions for good practice set out in guidance such as the Fáilte Ireland '<i>Environmental Management for Local Authorities and Others</i>' (part of the Wild Atlantic Way suite of documents)
<p>Public participation</p>	<ul style="list-style-type: none"> • In respect of all VEMMP projects the Aarhus Convention in respect of public participation in decision making to be adhered to (UNECE <i>Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters</i>).

Table 11.1: Principles in relation to Environmental Protection and Management

TOPIC	Potential adverse impact	Mitigation
<p>Biodiversity, flora, fauna</p>	<p>Excessive concentration of visitor activity at certain locations and the construction and operation of VEMMP projects causing:</p> <ol style="list-style-type: none"> Loss or damage to habitats and species in European Sites, Natural Heritage Areas and Wildlife Sites Habitat fragmentation Habitat loss in non-designated areas Disturbance or displacement of species Time related impacts such as disturbance during breeding season 	<p>Facilitate dispersal of visitors from Glendalough and key recreational sites (e.g. Sugarloaf/Loughs Bray/Djouce) to alternative destinations and fostering a wider range of activities.</p> <p>Monitoring visitor behaviour and interaction with the natural environment enables site managers and owners to identify and develop appropriate interventions and management plans where required, including the protection and enhancement of Natura 2000 sites.</p> <p>At a plan level, the outputs and lessons from Fáilte Ireland’s Wild Atlantic Way Environmental Programme 2015-2019 and its recent National Environmental Monitoring Programme 2021-2025 have been consulted. These include monitoring a range of typical tourism sites - the results and recommendation for mitigation can be taken and will be applied to VEMMP sites as appropriate. Typical types of monitoring, at project level, may include monitoring of ground nesting birds, sensitive indicators of disturbance, at Discovery Walk sites.</p> <p>Support implementation of the policies of Wicklow County Development Plan in respect of natural heritage and biodiversity.</p> <p>Support the programme of footpath repair and maintenance for upland trails.</p> <p>Require visitor/habitat management plans for VEMMP projects as relevant and appropriate.</p> <p>Ensure the potential environmental effects of a likely increase in tourists/tourism-related volumes in particular locations/along particular trails shall be considered at route selection/project design stage and mitigated as appropriate.</p> <p>Support restoration of habitats including:</p> <ul style="list-style-type: none"> Habitat restoration in the valley in Laragh/ Glendalough Upland trail restoration to mitigate trampling etc. <p>Where it is established by monitoring that habitats or species within the WMNP or other designated/protected sites are being adversely affected by visitor activity, consideration to be given to further mitigation measures will be adapted or reprogrammed or additional mitigation measures employed, as appropriate. Fáilte Irelands Environmental Damage Resolution procedure provides for a consistent approach in responding to such issues.</p> <p>Fáilte Ireland funding of VEMMP projects shall be dependent on detailed assessment of impact on environmental sensitivities and the objectives of the VEMMP relating to sustainable development. In particular, all such projects shall have appropriate regard to:</p> <ul style="list-style-type: none"> EU Directives, including the Habitats Directive (92/43/EEC, as amended) , the Birds Directive (2009/147/EC) , the Environmental Liability Directive (2004/35/EC) , the Environmental Impact Assessment Directive (2011/92/EU, as amended by 2014/52/EU), the Floods Directive (2007/60/EC), the Water Framework Directive (2000/60/EC), the Groundwater Directive (2006/118/EC) and the Strategic Environmental Assessment Directive (2001/42/EC); EU ‘Guidance on integrating ecosystems and their services into decision-making’ (European Commission 2019) National legislation, including the Planning and Development Act 2000 (as amended), the Wildlife Act 1976 (as amended) , European Union (Planning and

		<p>Development) (Environmental Impact Assessment) Regulations 2018, the European Communities (Birds and Natural Habitats) Regulations 2011 (SI No. 477 of 2011) as amended, the European Union (Water Policy) Regulations 2003 (as amended), the European Communities (Environmental Liability) Regulations 2008 (as amended) and the Flora Protection Order 2022.</p> <ul style="list-style-type: none"> Screening VEMMP projects for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. Relevant ecological impact assessment of any VEMMP project likely to have a significant impact on biodiversity, including on designated nature conservation sites. Incorporation of appropriate avoidance and mitigation measures into development proposals as part of any ecological impact assessment. Provision of a Construction Environment Management Plan (CEMP) for VEMMP projects where relevant.
Population and Human Health	<p>Potential for adverse impacts from congestion of visitors and vehicles in terms of air, water pollution</p> <p>Potential adverse impacts from flooding</p>	<p>Management of visitors to have regard to Fáilte Ireland <i>Visitor Management Guidelines for the Wild Atlantic Way, 2020</i>.</p> <p>Facilitate dispersal of visitors from Glendalough to alternative destinations and fostering a wider range of activities.</p> <p>Design of VEMMP projects to accord with Flood Risk Management Guidelines for Planning Authorities.</p> <p>Work with statutory partners to achieve enhanced coordination of management resources in key destinations, including Glendalough.</p>
Soil	<p>Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of over concentration of visitor numbers at particularly vulnerable locations.</p>	<p>Manage visitor numbers and behaviour to avoid significant environmental effects and support restoration of pathways.</p> <p>Where relevant, detailed design to have regard to Fáilte Ireland guidance <i>Greenway: Experience and Interpretation Toolkit</i>.</p>
Water	<p>Potential adverse effects upon the status of water bodies, arising from changes in quality, flow and/or morphology.</p> <p>Increased risk of flooding with climate change</p>	<p>Check outputs of monitoring activity by others (EPA/Wicklow County Council) to confirm no adverse impacts from VEMMP projects.</p> <p>Design of VEMMP projects to accord with Flood Risk Management Guidelines for Planning Authorities.</p> <p>In relevant VEMMP projects, including in particular in Glendalough-Laragh, inclusion of rainwater management planning at project design stage, incorporating nature based Sustainable Urban Drainage Systems (SuDS), in accordance with Wicklow County Council SuDS Policy and the guidance in '<i>Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas – Best Practice Interim Guidance Document, 2022</i>' (Dept. Housing, Local Government and Heritage), to ensure surface water runoff is managed for maximum benefit including mitigation of flood risk.</p> <p>Any new or improved waste water treatment will comply with all EPA / Local Authority environmental criteria.</p>
Air and Climatic Factors	<p>Potential conflict between development under the Plan and policy to reduce carbon emissions in line with local, national and European objectives.</p> <p>Potential conflict between transport emissions, including those from cars, and air quality.</p> <p>Potential conflict with climate adaptation measures including flood risk management.</p>	<p>Support restoration of habitats as above.</p> <p>Support use of electric shuttle bus and the gradual removal of cars from Glendalough Valley area.</p> <p>Combined with subsidised shuttle bus to upland areas.</p> <p>Support mitigation measures in the Climate Action Plan 2021 and its successors.</p>
Material Assets	<p>Inadequate provision of facilities at car parks serving Discovery Walks etc.</p>	<p>Work with partners to bring forward design proposals for upland car parks, in accordance with <i>Fáilte Ireland Site Maintenance Guidelines</i>.</p> <p>Support the programme of upland footpath repair and maintenance.</p>

<p>Cultural Heritage</p>	<p>Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities</p>	<ul style="list-style-type: none"> • Where relevant, VEMMP projects shall be designed and constructed to ensure protection and enhancement of heritage assets, including Glendalough monastic site and other archaeological sites, historic buildings. • Relevant VEMMP projects shall take full account of the need to protect the potential UNESCO World Heritage candidate status of Glendalough monastic site. • Archaeological impact assessment to be required for VEMMP projects in Glendalough and other relevant locations, including archaeological monuments in vicinity of VEMMP projects, including those entered on the Record of Monuments and Places as established under Section 12 of the National Monuments (Amendment) Act, 1994, and of sites, features and objects of archaeological interest generally. • Ensure that no VEMMP project detracts from the setting of any feature or site of cultural heritage significance or which is seriously injurious to its cultural or educational value. • Facilitate access to and appreciation of the Glendalough monastic site, through the development of appropriate signage and heritage interpretation.
<p>Landscape</p>	<p>Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.</p>	<p>Where relevant, VEMMP related projects to include Landscape / Visual Impact Assessment,</p>

Table 11.2: Mitigation Measures

12. Monitoring

- 12.1.1.1. Successful implementation of the *VEMMP* is predicated on mitigating any significant negative environmental effects likely to arise from the plan or the projects in the *VEMMP*. In order to ensure such outcome, monitoring will be needed. This can take the form of both on site inspection and review of relevant indicators compiled by others e.g. EPA or Wicklow County Council. Notably, the Wicklow County Development Plan, 2022-2028, contains extensive provision for environmental monitoring as set out in the Environmental Report for the SEA.
- 12.1.1.2. In relation to tourism, a co-ordinated effort to record and monitor visitor traffic across selected attractions and outdoor recreation areas will be required. Monitoring will include both pedestrians and vehicles at key tourism/visitor locations, including Glendalough, and record any adverse effects, such as trail erosion or littering. The results will help build a detailed understanding of visitor behaviour and ongoing trends and ensure that unintended adverse effects can be identified and avoided.
- 12.1.1.3. With respect to monitoring the effects on biodiversity and cultural heritage, monitoring will likely be concentrated on environmentally sensitive locations. This will establish a detailed baseline of the existing situation and thereby identify any increased or changed effects arising during implementation of the *VEMMP*. Monitoring can determine categories of damage, erosion, vegetation trampling, vegetation loss, soil erosion and identify likely causes of such damage. Of particular importance will be monitoring of local wildlife to be incorporated into project level design. The classification employed in the monitoring of the *Wild Atlantic Way* provides a useful example.¹⁶
- 12.1.1.4. Where it is established, by monitoring, that the carrying capacity of the receiving environment in environmentally sensitive sites is being exceeded in terms of visitor numbers or visitor impacts, measures may be implemented to address this matter, including temporary removal from the list of advertised attractions to allow for recovery.
- 12.1.1.5. Monitoring will be on a structured basis and will require establishment of a Monitoring Committee or similar, which will include the parties to the *VEMMP* and other stakeholders. The Monitoring Committee will agree a detailed monitoring programme and oversee focused monitoring activity. The monitoring programme will be drawn up in detail by the Committee.
- 12.1.1.6. The table below sets out an initial framework for monitoring but will be subject to further refinement or modification over time by the Monitoring Committee.

¹⁶ Low Impact - No impact or a discernible impact i.e. no significant, lasting damage is identified.
Medium Impact - short term, reversible effect that is intermittent but will have no significant, long term impact.
High/Severe Impact - Severe effect that has potential to have a significant, long-term, irreversible or permanent impact.

Environmental Topic	Strategic Environmental Objective	Target	Monitoring Source
Biodiversity, Flora & Fauna	B1: Contribute toward compliance with EU Habitats and Birds Directives	Implementation of the VEMMP not to adversely affect the integrity of any Natura 2000 Sites	<ul style="list-style-type: none"> • SEA monitoring reports (frequency to be determined) • Evidence submitted with Fáilte Ireland funding applications • Evidence from partner organisations including NPWS and others e.g. Wicklow Uplands Council. • Lower tier assessments associated with regulatory system including planning application decisions • Article 17 (Habitats Directive) reports at national level by NPWS – 6 year intervals • Article 12 (Birds Directive) monitoring reports at national level by NPWS – 6 year intervals
	B2: Contribute toward environmental reinstatement and protection of Nature Conservation Sites (as defined in the Planning and Development Act)	Maintenance or restoration of favourable conservation status of habitats and species	
	B3: Contribute toward conservation and enhancement of biodiversity	Protection of flora and fauna from disturbance and restoration of selected habitats	
Population and Human Health	P1: Contribute toward minimisation of adverse impacts on local communities arising from excessive concentration of tourism related activity P2: Contribute toward provision of a positive experience for visitors	Reduction of congestion and wider distribution of tourism in the Wicklow area Provision of improved information, interpretation and infrastructure	<ul style="list-style-type: none"> • SEA monitoring reports (frequency to be determined) • Evidence from partner organisations including Wicklow County Council
Soils	S1: Contribute toward maintenance of the integrity and functioning of soils	Minimisation of soil sealing Protection of soil stability	<ul style="list-style-type: none"> • SEA monitoring reports (frequency to be determined) • Article 17 (Habitats Directive) reports by NPWS – 6 year intervals • Lower tier assessments associated with regulatory system including planning application decisions • Evidence from partner organisations including Wicklow County Council

Water	W1: Contribute toward maintenance and improvement of water quality	Maintenance or achievement of good status for surface waters and ground waters in terms of Water Framework Directive (2000/60/EC) Incorporation of nature based water management measures	<ul style="list-style-type: none"> EPA Catchments, ie Water Framework Programme Monitoring reports Other EPA reports including Quality of Bathing Waters Evidence from partner organisations including Wicklow County Council Lower tier assessments associated with regulatory system including planning application decisions OPW reports on flooding
	W2: Contribute toward maintenance of bathing water quality	Compliance with the provisions of the Bathing Water Directive (2006/7/EC)	
	W3: Contribute toward minimisation of flood risk	Compliance with Flood Risk Management Guidelines	
Air and Climate	S1: Contribute toward mitigation of climate change	Incorporation of climate mitigation measures in VEMMP	<ul style="list-style-type: none"> EPA emissions data EPA air quality monitoring reports Lower tier assessments associated with regulatory system including planning application decisions
Material Assets	M1: Contribute toward provision of appropriately located and designed tourism infrastructure	Provision of improved and additional tourism related infrastructure at key locations	<ul style="list-style-type: none"> SEA monitoring reports (frequency to be determined) Evidence from partner organisations including Wicklow County Council Lower tier assessments associated with regulatory system including planning application decisions
	M2: Support adequate provision for and control of tourism related traffic	Provision of transportation related infrastructure at key locations	
Cultural Heritage	H1: Contribute toward protection of archaeology and conservation of built heritage assets	No adverse effects on archaeological or architectural heritage arising from implementation of VEMMP	<ul style="list-style-type: none"> SEA monitoring reports (frequency to be determined) Evidence from partner organisations including National Monuments, OPW and Wicklow County Council
	H2: Support the potential of Glendalough for Inscription as a World Heritage Property	Protection and enhancement of cultural heritage of Glendalough and its setting	<ul style="list-style-type: none"> Lower tier assessments associated with regulatory system including planning application decisions
	H3: Support awareness of cultural heritage of Wicklow, including Glendalough	Provision of improved information and interpretation for the public	
Landscape	L1: Avoid conflicts with protection of landscapes designated for protection in the Development Plan	Avoidance or mitigation of impacts on designated landscapes	<ul style="list-style-type: none"> SEA monitoring reports (frequency to be determined) Evidence from partner organisations including National Monuments, OPW and Wicklow County Council Lower tier assessments associated with planning application decisions

Table 12.1: Monitoring Measures

13. Difficulties in compilation of the Environmental Report

- 13.1.1.1. The coincidence of the Covid emergency with the formulation of the *Draft VEMMP for Glendalough and Wicklow Mountains National Park* has been a challenge both with respect to efficiency but also data collection, including in respect of determining visitor activity and associated traffic patterns.
- 13.1.1.2. The ORNI analysis has been limited to available datasets, and findings must be treated with a certain amount of caution as it was carried out during 2020 and 2021, when tourism and travel has been severely restricted.
- As the tourism industry was essentially not operating as normal during the study period, there was extremely limited opportunities for meaningful primary research
 - The high level of global uncertainty with regards to travel and tourism in the coming years means that drawing conclusions about the future tourism volumes and visitor types based on historical data is problematic
 - There is insufficient historical data to draw very reliable conclusions on future visitor volumes to Glendalough and Wicklow Mountains National Park.
- 13.1.1.3. The presence of uncertainties is reflected in the overall Masterplan, which is not a prescriptive document, but rather gives a series of options that are to be refined as further information becomes available through a co-ordinated programme of ongoing research and monitoring.
- 13.1.1.4. As such, this document is an important first step, informing the research priorities and actions to be delivered as part of the ongoing master planning process over the coming years.
- 13.1.1.5. A limitation on accurate prediction is the insufficiency of historical data on which to base reliable conclusions on future visitor volumes to Glendalough and Wicklow Mountains National Park. Overall visitor figures for Glendalough are not fully definitive, as they are based on two pedestrian counters at the site, which may not count all visitors, as pedestrian access to the valley is unrestricted and there are numerous access and egress points.
- 13.1.1.6. The available data in respect of natural habitats and species is also limited.

14. Conclusion

- 14.1.1.1. The *draft VEMMP* is in general accordance with the policies of the National Planning Framework and the RSES for the Eastern and Midlands Region. There is very close alignment between the *draft VEMMP* and the provisions of the Wicklow County Development Plan, 2022-2028, including the detailed provisions of the *Laragh-Glendalough Land Use and Tourism Plan*.
- 14.1.1.2. Implementation of the *draft VEMMP* will bring about positive environmental effects by addressing the excessive concentration of visitors in certain locations, notably Glendalough and at the main attractors for walkers within the National Park. It will also bring material benefit to parts of Wicklow other than Glendalough.
- 14.1.1.3. The *draft VEMMP* has potential to also cause negative environmental impacts, but with appropriate mitigation, any negative impacts will not be significant.
- 14.1.1.4. Submissions are sought in relation to the Draft *VEMMP*, the findings of the Environmental Report and of the Natura Impact Statement. These submissions will be considered and taken into account in completion of the Strategic Environmental Assessment, the Appropriate Assessment (AA) and the finalisation of the *VEMMP*.
- 14.1.1.5. Following the above, and subject to the Appropriate Assessment (AA) under the Habitats Directive, it is intended that notice of the completion of the Strategic Environmental Assessment and of adoption of the *VEMMP for Glendalough and Wicklow Mountains National Park* will be given. An SEA Statement will also be made available, setting out how environmental considerations have been integrated into the *VEMMP*, how the Environmental Report and the submissions made in relation thereto have been taken into account, the reasons for choosing the *VEMMP*, as adopted, in the light of the reasonable alternatives considered and monitoring measures.