

**SEA Environmental Report in relation to the**

***Draft Visitor Experience & Management Masterplan for Glendalough***

***and Wicklow Mountains National Park, Co. Wicklow***



## **APPENDIX 1 – NON TECHNICAL SUMMARY**

**SEA Environmental Report  
Appendix 1  
Non-Technical Summary**

***Draft Visitor Experience & Management Masterplan for Glendalough  
and Wicklow Mountains National Park, Co. Wicklow***

**Prepared on behalf of Fáilte Ireland**

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**Table of Contents**

<b><u>1. INTRODUCTION.....</u></b>	<b><u>2</u></b>
<b><u>2. WICKLOW MOUNTAINS NATIONAL PARK.....</u></b>	<b><u>2</u></b>
<b><u>3. STRATEGIC ENVIRONMENTAL ASSESSMENT .....</u></b>	<b><u>4</u></b>
<b><u>4. ENVIRONMENTAL REPORT .....</u></b>	<b><u>5</u></b>
<b><u>5. DRAFT VISITOR EXPERIENCE AND MANAGEMENT MASTERPLAN.....</u></b>	<b><u>6</u></b>
5.1. WICKLOW WIDE.....	6
5.2. RECREATIONAL TRAILS MASTERPLAN .....	6
5.3. GLENDALOUGH VALLEY PLAN .....	7
<b><u>6. ENVIRONMENTAL SENSITIVITIES .....</u></b>	<b><u>8</u></b>
6.1. INTERACTIONS WITH OTHER PLANS, PROGRAMMES AND LEGISLATION .....	9
<b><u>7. ENVIRONMENTAL BASELINE DATA.....</u></b>	<b><u>10</u></b>
7.1. BIODIVERSITY, FLORA AND FAUNA.....	10
7.2. POPULATION AND HUMAN HEALTH .....	11
7.3. SOIL .....	12
7.4. WATER.....	13
7.5. AIR AND CLIMATE.....	13
7.6. MATERIAL ASSETS .....	13
7.6.1. TRANSPORTATION .....	14
7.6.2. WATER AND WASTE .....	14
7.6.3. TOURISM .....	14
7.7. CULTURAL HERITAGE .....	14
7.8. LANDSCAPE .....	16
<b><u>8. ALTERNATIVES.....</u></b>	<b><u>17</u></b>
<b><u>9. POTENTIAL ENVIRONMENTAL EFFECTS OF THE DRAFT VEMMP .....</u></b>	<b><u>18</u></b>
9.1. STRATEGIC ENVIRONMENTAL OBJECTIVES (SEOs).....	19

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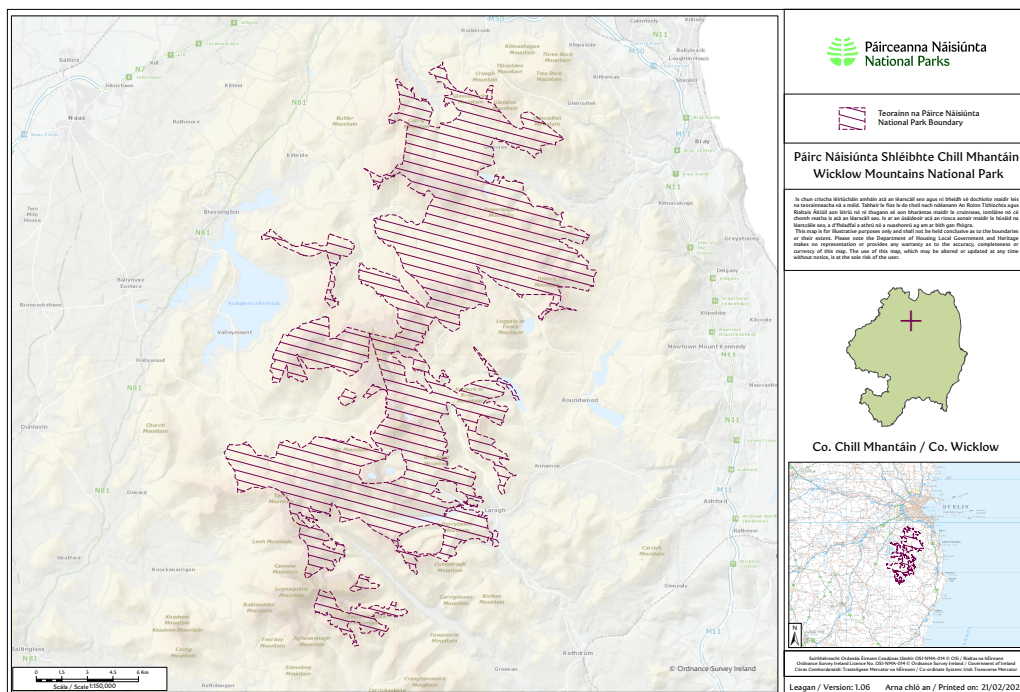
<b><u>10. POTENTIAL ENVIRONMENTAL EFFECTS OF THE DRAFT VEMMP COMPARED WITH ALTERNATIVES .....</u></b>	<b><u>20</u></b>
10.1.1. BUSINESS AS USUAL ALTERNATIVE.....	20
10.1.2. VEMMP AS PROPOSED.....	20
10.1.3. A PLAN FOR TOURISM WITHOUT ADDITIONAL ENVIRONMENTAL ELEMENTS .....	21
10.1.4. SUMMARY COMPARISON OF DRAFT VEMMP AND ALTERNATIVES.....	22
10.1.5. ALTERNATIVES CONSIDERED WITHIN THE VEMMP .....	23
<b><u>10.2. ASSESSMENT DRAFT VEMMP INDIVIDUAL ELEMENTS AGAINST SEOs .....</u></b>	<b><u>24</u></b>
10.2.1. ASSESSMENT OF WICKLOW WIDE PROPOSALS .....	24
10.2.2. ASSESSMENT OF RECREATIONAL TRAILS MASTERPLAN.....	24
10.2.3. ASSESSMENT OF THE <i>DRAFT GLENDALOUGH VALLEY PLAN</i> .....	25
<b><u>11. OVERALL PERFORMANCE OF DRAFT VEMMP .....</u></b>	<b><u>26</u></b>
11.1. REASONS FOR CHOOSING PROPOSED VEMMP .....	27
11.2. APPROPRIATE ASSESSMENT.....	27
<b><u>12. MITIGATION .....</u></b>	<b><u>28</u></b>
<b><u>13. MONITORING .....</u></b>	<b><u>29</u></b>
<b><u>14. CONCLUSION .....</u></b>	<b><u>32</u></b>



## 1. Introduction

This report is the Non-Technical Summary of the Environmental Report for the Strategic Environmental Assessment (SEA) of the *Draft Visitor Experience and Management Masterplan for Glendalough and Wicklow Mountains National Park (Draft VEMMP)*.

The *Draft VEMMP* has been compiled by a multi-disciplinary team, led 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. The work included significant levels of consultation with interested persons, organisations and communities. The Environmental Report and Non-Technical Summary have been prepared by Doyle Kent Planning Partnership Ltd on behalf of Fáilte Ireland, The National Tourism Development Authority.



Wicklow Mountains National Park

## 2. Wicklow Mountains National Park

There are six National Parks in Ireland of which the Wicklow Mountains National Park is the largest at nearly 22,000 hectares. The National Park covers more than one tenth of County Wicklow, from Glenasmole in the Dublin Mountains southwards to the slopes of Lugnaquilla.

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. 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”.*<sup>1</sup>

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.

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.

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<sup>1</sup> IUCN: International Union for Conservation of Nature



### 3. Strategic Environmental Assessment

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.

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:

<b>Stages in SEA Process</b>	
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

#### 4. Environmental Report

The Environmental Report is a part of the process of Strategic Environmental Assessment and it 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 strategic environmental objectives for the SEA are described. The reasonable alternatives considered are described and the reasons for choosing the proposed *VEMMP* are set out. The existing environmental baseline is described. Measures to offset any significant adverse effects on the environment, due to implementation of the *VEMMP*, are included. Monitoring measures are set out.

The information to be contained in an Environmental Report in summary:

<b>Summary of Information to be contained in an Environmental Report</b>	
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

*Information to be contained in Environmental Report*

## 5. Draft Visitor Experience and Management Masterplan

The *Draft VEMMP for Glendalough and Wicklow Mountains National Park (VEMMP)* is a non-statutory, medium range plan (up to ten years) intended to provide a phased roadmap 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. The primary purpose of the *Draft* is to improve the visitor experience and disperse the benefits and impacts of tourism. It 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 Land Use and Tourism Plan* (incorporated into the County Development Plan, 2022-2028).

In respect of the *Draft VEMMP for Glendalough and Wicklow Mountains National Park*, the VEMMP team undertook a consultation process to discern key issues which affect the Wicklow Mountains National Park experience. The views of the public, stakeholders and certain public authorities were sought. Detailed site surveys were conducted to assess the existing ecological and archaeological sensitivities of the area, as well as to establish baseline visitor and traffic data. An innovative programme of online engagement was carried out.

The *Draft VEMMP for Glendalough and Wicklow Mountains National Park (VEMMP)* has 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*

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*.

### 5.1. Wicklow Wide

The *Wicklow Wide* strategy is 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*.

### 5.2. Recreational Trails Masterplan

The *Draft Recreational Trails Masterplan* is a county wide set of proposals to include:

- designation of sustainable '*Discovery Walks*' (to cater for large numbers of people seeking an introduction to the outdoor environment),
- improvements to car parks and facilities,
- 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*,
- a co-ordinated approach to signage,
- addressing the need for a central, online information hub.

The *Draft Recreational Trails Masterplan* sets out proposals for seven *Discovery Walks*, generally along routes already in use.<sup>2</sup> The *Draft Recreational Trails Masterplan* also contains proposals for the upgrading of a number of existing popular sites to make them environmentally sustainable with detailed improvement at four of these [Great Sugar Loaf Mountain; Djouce Mountain; Spinc and Glenealo Valley; Lough Brays (Upper & Lower)] and sets out recommendations for improvements to parking facilities at a number of locations.<sup>3</sup> Further dispersal will be achieved through the introduction of a shuttle bus service with promoted sustainable return walking routes. 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.<sup>4</sup> The five *Outdoor Recreation Hubs*, identified in the *Wicklow Outdoor Recreation Strategy 2020-25*, and in the Wicklow County Development Plan, 2022-2028, are addressed in terms of walking and cycling (Glendalough/Laragh; Rathdrum; Tinahely-Shillelagh; East Coast Maritime; Blessington-Baltinglass).

### 5.3. Glendalough Valley Plan

The *Draft VEMMP* contains a significant series of proposals for the Laragh-Glendalough area in the form of the *Draft Glendalough Valley Plan*. The *Glendalough Valley Plan* is to be implemented in phases and is aimed at transforming the visitor experience and minimising any negative impacts on the local community. The principal features include:

- *Creating a New Visitor Flow*: To geographically spread the visitor journey within the Glendalough valley, by developing the village of Laragh as a gateway to Glendalough.
- *Arriving at Laragh*: To provide improved physical connections between the village and Glendalough for pedestrians, cyclists and public transport. This will include new car parking within the village of Laragh and a shuttle bus to Glendalough.
- *New All ability trail*: The *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.
- *New Interpretation*: The *Glendalough Valley Plan* proposes that Laragh is the ideal location for visitor facilities before and after a visit and to provide a clear understanding of the county.
- *Glendalough Visitor Centre*: To refurbish the existing Glendalough Visitor Centre as a destination and rationalise the existing car park in front of the visitor centre to provide a more direct access through the visitor centre and onwards to the monastic city.
- *Upper Lake*: To reduce and rationalise the Upper Lake car park, restrict its use to essential car parking requirements, provide the final drop off location for a shuttle bus. Provision of a specifically designed refreshment pavilion is proposed.

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<sup>2</sup> Maulin; Clara Vale Jubilee Route; Table Tract Glenmalure; Little Sugar Loaf; Lackan Mass Path; Ballinaclash Cushbawn Mt.; Ballinafunshoge Loop.

<sup>3</sup> Great Sugar Loaf; Djouce; Lough Brays/Glenree; Lough Dan/Old Bridge; Glenmalure; Shay Elliot; Seskin; Glenmacnass Waterfall; Glendasan Lead Mines

<sup>4</sup> (i) Blessington Lakes; (ii) Arklow to Shillelagh; (iii) Wicklow to Greystones; (iv) Southern cross to Kilmacanogue; (v) Various other greenways at concept level.

## 6. Environmental Sensitivities

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. Scoping was carried out, including consultation with 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. 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

## 6.1. Interactions with Other Plans, Programmes and Legislation

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*. There is a hierarchy of legislation, plans and programmes setting a policy framework for tourism, infrastructure, environmental protection and land use planning. A more detailed consideration of these is set out in the Environmental Report and the most relevant are referred to below.

The *Draft VEMMP* sits within an overall national, regional and local planning framework the relevant elements of which have already been subject to environmental assessment. The National Planning Framework (NPF) of 2018 is the Government's high-level strategic plan for 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. 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.

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 of the Development Plan sets out three strategic themes: (i) Healthy Placemaking, (ii) Economic Opportunity and (iii) Climate Action. Chapter 11 of the Development Plan contains the main provisions in relation to tourism. Volume 2 of the Wicklow County Development Plan, 2022-2028, sets out detailed policy in respect of individual settlements and contains the *Laragh – Glendalough Land Use and Tourism Plan*. This dates originally from 2016 but has been updated and incorporated into the Development Plan.

Policy CPO 11.48 of the Wicklow County Development Plan: *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.*



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 several proposed NHAs in the environs of the National Park.

A Natura Impact Statement (NIS) has been prepared for the *Draft VEMMP*, which has informed the Environmental Report.

## **7.2. Population and Human Health**

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 census of 2016 (142,425 pop) and by 4% in the period 2011-2016. The current population (155,485) already exceeds the lowest level target for the County for 2026 (155,000 - 157,500), as set out at Table 3.1 in the Wicklow County Development Plan, 2022-2028.

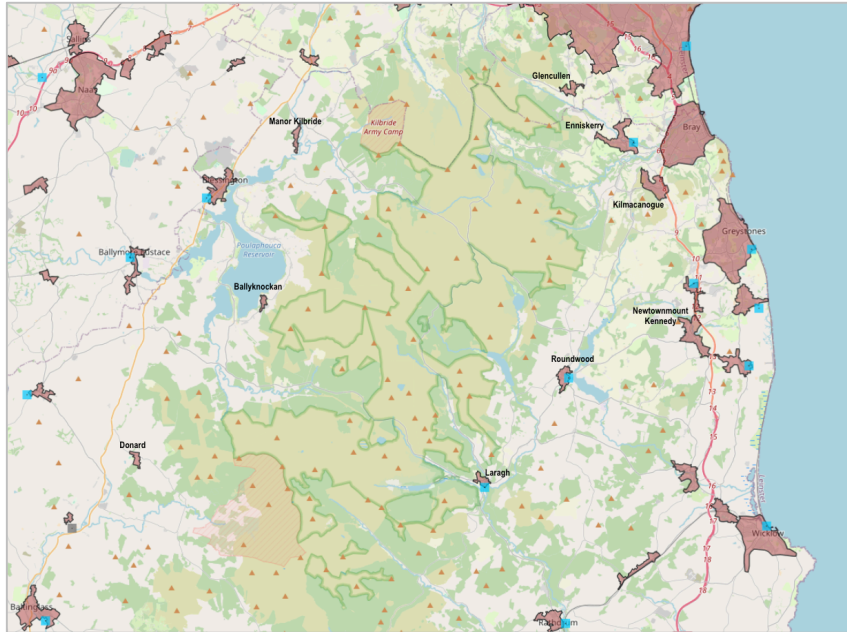
The Wicklow County Development Plan, 2022-2028, sets out a settlement hierarchy for County Wicklow as follows:

- 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.

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.

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.





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

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. 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.

### 7.3. Soil

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. 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.

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. The National Park is characterised by a concentration of upland peat bog and shallow lithosols. 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.

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.

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 granite 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.

#### 7.4. Water

Under the Water Framework Directive 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*. 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 of *high* quality. 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*.

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.

Parts of County Wicklow are vulnerable to flooding from a variety of sources. The *Dispersal Sites* in the *Draft Recreational Trails Masterplan*, are for the most part in relatively elevated locations, where the probability of flooding is low, with a few exceptions. A significant width of the Glendalough valley, along the Glenealo / Glendasan River from the Upper Lake down to Laragh, is susceptible to flood risk. A preliminary *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. Risk to the existing Glendalough visitor centre building and the proposed car parking can be mitigated by provision of some additional underground surface water attenuation and retention of the existing ground level. Outdoor recreation is considered acceptable in areas susceptible to flooding and the risk to life due to flooding is low.

#### 7.5. Air and Climate

The recent report regarding air quality in Ireland (*EPA: Air Quality in Ireland 2021*) states that ambient air in Ireland in 2021 met all the legal requirements under the CAFE Directive (Clean Air for Europe) by being within legal limit values. Current air quality in County Wicklow is rated as *good*. 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. One of the key issues involving the assessment of the effects of implementing the *VE MMP* 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.

#### 7.6. Material Assets

Assets of significance for the environmental assessment of the *VE MMP* 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.

#### 7.6.1. Transportation

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. The village of Laragh is located at a key intersection on the regional road network. Public transport services in the Laragh-Glendalough area are limited. 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 results of the *Glendalough Transportation Surveys*, including parking survey, carried out in 2021 as part of the Draft VEMMP work, confirmed there are serious capacity issues in terms of traffic and parking, particularly in Glendalough, where it was calculated that in the region of 6,375 persons were parked in Glendalough on 6<sup>th</sup> June 2021.

A traffic management plan for Laragh, prepared a number of years ago, is undergoing phased implementation. A shuttle bus service has been in operation between Laragh and Glendalough over the summer months of 2022.

#### 7.6.2. Water and Waste

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 sufficient capacity to serve the proposed tourist arrival facility in the village. The existing OPW waste water treatment works in Glendalough will require upgrading in next few years.

Irish Water plans to extend the catchment area of the *Vartry Water Supply Scheme* to serve areas of mid-Wicklow including Laragh (also Rathdrum, Aughtim, Annacurra, Avoca, Ballinaclesh, Roundwood, Annamoe, Redcross, Conary and Glenealy). These areas are currently served by vulnerable water sources.

#### 7.6.3. Tourism

In a national context, Wicklow accounts for 3% of both domestic trips and 3% of overseas visitors. Domestic and local casual day visitors make up a significant proportion of visitors in the county including Glendalough. It has been estimated that in 2017 there were 275,000 overseas tourists visiting County Wicklow and 319,000 domestic tourism trips. Increased participation in hiking and walking has revealed a capacity issue in the county, with environmental degradation of popular locations and excessive congestion at car parks.

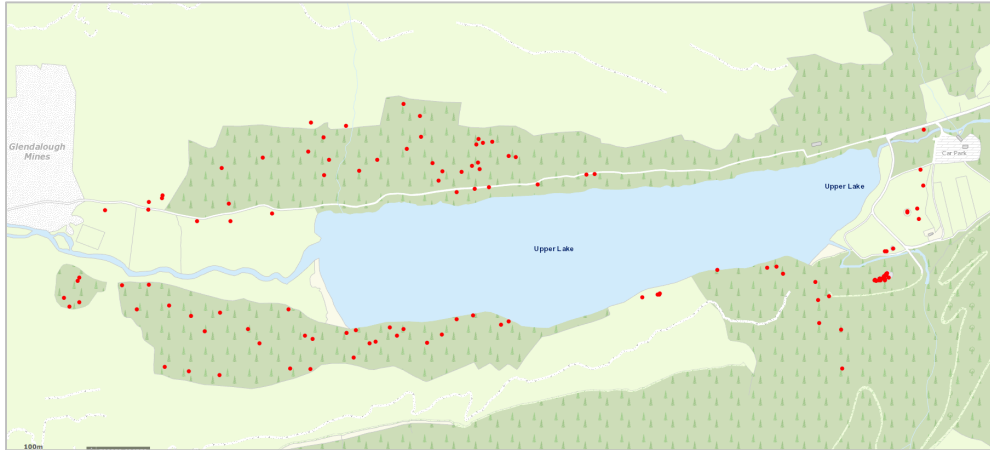
There are approximately 1.5 million visitors per annum to the National Park. But half of these visits are concentrated on Glendalough, with c.730,000 visitors per annum of which up to 80,000 attend the Glendalough Visitor Centre. Pedestrian numbers in the valley have been trending upwards over the past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

### 7.7. Cultural Heritage

The *Heritage Impact Assessment on Glendalough* (Consarc) forms part of the background documentation to the SEA Environmental Report. The report points out that the *draft VEMMP*

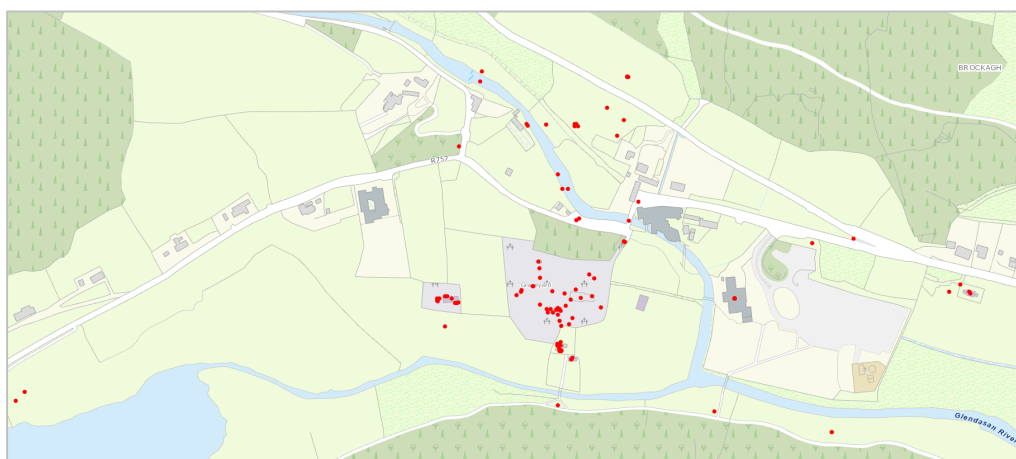
does not contain proposals directly affecting any of the many monuments at Glendalough. But the various proposals to rationalise access, parking and circulation will have a very positive effect.

There is a great concentration of archaeological monuments at Glendalough, spread over a large area throughout the valley. 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.



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

The main Monastery at Glendalough, to the east of the Lower Lake, 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.



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

Wicklow has a considerable architectural 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 18<sup>th</sup> 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. Another unique part of the heritage is the early 19<sup>th</sup> century Military Road, running southwards from Rathfarnham to Aughavannagh, with its associated purpose built barracks.

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.

## **7.8. Landscape**

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. Ireland has a rich and diverse landscape which is vital to sectors such as tourism.

The CORINE Land Cover (CLC) is a mapping of the European environmental landscape based on interpretation of satellite images. 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.

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.

## 8. Alternatives

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 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. Within the 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*

It is a requirement of the SEA Directive that reasonable alternatives to the chosen plan (the *Draft VEMMP for Glendalough and Wicklow Mountains National Park* in this instance) are identified, described and evaluated in the Environmental Report, taking into account the objectives and the geographical scope of the plan or programme.

A reasonable alternative to the formulation of the *VEMMP* would be to decide not to undertake a new plan for tourism but to continue a “*business as usual*” scenario, that is the current state of the environment and the likely evolution thereof without implementation of the plan.

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*.

The likely environmental effects of the *draft VEMMP* as also those of the alternative scenarios, are outlined below.

## 9. Potential Environmental Effects of the draft VEMMP

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. Potential significant issues in relation to biodiversity are also considered in detail in the Natura Impact Statement.

Environmental Topic	Positive effect	Negative effect (before mitigation)
<b>Biodiversity and flora and fauna</b>	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
<b>Population and human health</b>	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)
<b>Soil</b>	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
<b>Water</b>	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
<b>Air and climatic factors</b>	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
<b>Material Assets</b>	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
<b>Cultural Heritage</b>	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
<b>Landscape</b>	Proposed habitat restoration in Glendalough Improved setting of Monastic site	Potential adverse impacts of additional parking facilities in Laragh and Discovery Walk locations.
<b>Interrelationships</b>	See diagram over showing interrelationships	

*Potential significant effects before mitigation of draft VEMMP*

### 9.1. Strategic Environmental Objectives (SEOs)

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 below. 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
<b>Biodiversity, Flora &amp; Fauna</b>	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 <sup>5</sup>	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
<b>Population and Human Health</b>	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
<b>Soils</b>	S1	Contribute toward maintenance of the integrity and functioning of soils	Minimisation of soil sealing Protection of soil stability
<b>Water</b>	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
<b>Air &amp; Climate</b>	C1	Contribute toward mitigation of climate change	Incorporation of climate mitigation measures in <i>VEMMP</i>
<b>Material Assets</b>	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
<b>Cultural Heritage</b>	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
<b>Landscape</b>	L1	Avoid conflicts with protection of landscapes designated for protection in the Development Plan	Avoidance or mitigation of impacts on designated landscapes

#### Strategic Environmental Objectives

<sup>5</sup> 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. Potential Environmental Effects of the *draft VEMMP* compared with Alternatives

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 above.

### 10.1.1. Business as Usual Alternative

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 principal likely environmental effects would be:

- **Biodiversity:** Current trends point to an intensification of adverse effects on the natural environment including habitats and species.
- **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.
- **Cultural Heritage:** Continuing unsatisfactory situation at Glendalough with respect to protecting the integrity of the monastic site.
- **Landscape:** Landscape impacts would be relatively limited and subject to mitigation at project design stage.

### 10.1.2. VEMMP as Proposed

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:** likely increase in the number of visitors to additional parts of County Wicklow with potential for increased adverse effects on the natural environment. But, 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 and improved visitor management would be positive.
- **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 would be addressed. 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.

### 10.1.3. A Plan for Tourism without additional Environmental Elements

A plan for tourism, responding to 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 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.

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.

**10.1.4. Summary Comparison of Draft VEMMP and Alternatives**

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.

<b>Alternatives considered</b>	<b>Strongly Positive for SEOs</b>	<b>Somewhat positive for SEOs</b>	<b>Somewhat Negative for SEOs</b>	<b>Strongly Negative for SEOs</b>
<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

*Comparative Performance of Alternatives against SEOs*

10.1.5. Alternatives Considered within the VEMMP

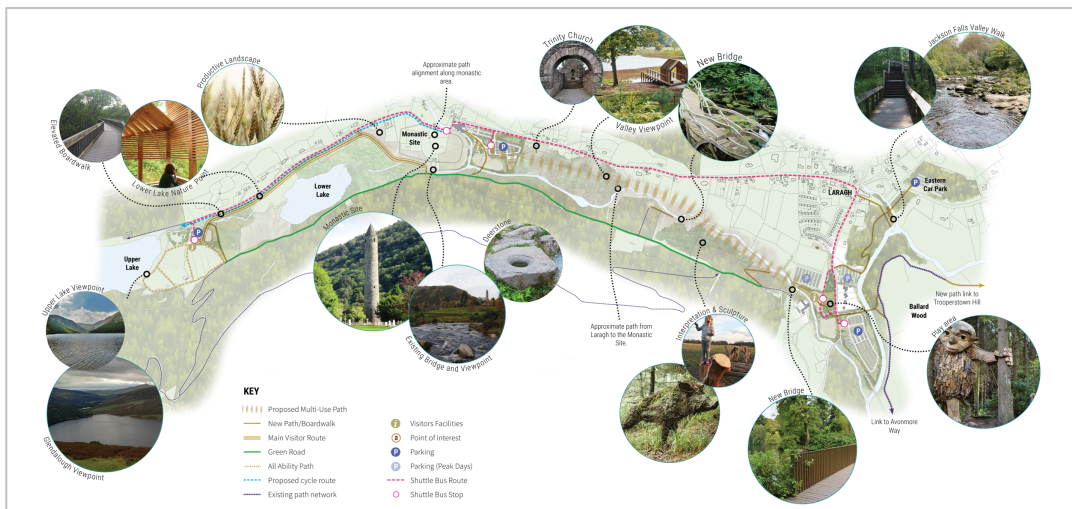
Certain reasonable alternatives within the framework of the chosen plan (*Draft VEMMP*) were also considered, including in respect of transportation/access, walking routes and future developments in the Glendalough/Laragh valley.

**Transportation:** In respect of access, consideration will need to be given to longer term, more sustainable ways of transport to the area, in order to reduce dependence on private car transport. It was concluded that, in the short term, the proposals set out in the *Draft VEMMP* for car park development and management are the optimum way to manage the pressures. This would contribute positively toward SEO M1.

**Discovery Walks:** The brief requires dispersal of visitor activity in order to reduce pressure on established locations e.g. the Great Sugarloaf, etc. Following assessment of 18 potential routes, seven *Discovery Walks* were selected as part of the *Draft VEMMP*. The most common reason for rejection related to sustainability of the pathways, which would be strongly negative in relation to SEO B3 and S1.

**Glendalough - Laragh Valley:** Access from Laragh to Glendalough via the public road network is unsatisfactory, especially for cyclists, but also for pedestrians and for motorists, with significant traffic congestion at peak periods. Improvements to the existing public road connection were considered. However, it was determined that this would not achieve an acceptable standard without significant environmental effects on amenity and landscape which would be negative in relation to SEOs P1 and M1. 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, generally as set out in the *Laragh – Glendalough Land Use and Tourism Plan*.

**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 consultation with the relevant State authorities (NPWS, OPW, National Monuments Service), some of these were rejected on environmental grounds because of adverse impacts on cultural heritage or on biodiversity, negative in relation to SEOs B1, B2 and H1.



Access to/within Monastic Site - Preferred Solution

## 10.2. Assessment draft VEMMP Individual Elements against SEOs

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*.

The above component elements of the draft VEMMP were individually assessed against the SEOs, to inform the overall assessment.

### 10.2.1. Assessment of Wicklow Wide Proposals

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 proposals 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 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.

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

*Performance of Wicklow Wide proposals in relation to SEOs*

### 10.2.2. Assessment of Recreational Trails Masterplan

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. There is close alignment with the *Wicklow County Development Plan 2022-2028*, which itself was subject of strategic environmental assessment. The provisions of the *Draft Recreational Trails Masterplan* have been assessed against the SEOs. 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, with consequent emissions to the atmosphere.

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

*Performance of Recreational Trails Masterplan in relation to SEOs*

**10.2.3. Assessment of the Draft Glendalough Valley Plan**

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. The exceptional historical significance of Glendalough is emphasised, with the potential to bid for World Heritage Site status. The provisions of the *Draft Glendalough Valley Plan* have been assessed against the SEOs. The assessment points to a positive balance, with some requirements for mitigation at project development stage.

<b>Glendalough Valley Plan</b>	<b>Positive for SEOs</b>	<b>Negative for SEOs but can be mitigated</b>	<b>Negative for SEOs and not readily mitigated</b>	<b>SEOs not affected</b>
	B2, B3, P1, P2, W1, C1, M1, M2, H2, H3	B1, B3, S1, W1, W3, H1, L1		W2

*Performance of Glendalough Valley Plan in relation to SEOs*

## 11. Overall performance of draft VEMMP

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 <sup>6</sup>	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 Trail 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

### Overall Performance of VEMMP with SEOs

<sup>6</sup> 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.

### 11.1. Reasons for Choosing Proposed VEMMP

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.

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.

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.

### 11.2. Appropriate Assessment

A Natura Impact Statement (NIS) has been prepared in respect of the *draft VEMMP*. This 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 at the adoption of the Plan.

The NIS findings have also informed this Environmental Report in respect of the SEA.



## 12. Mitigation

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.

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 various relevant European Directives [e.g. 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)].

The Environmental Report contains 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.

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.

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.

In bringing forward projects related to the draft *VEMMP*, public participation will be required in decision making, as provided for ultimately in the Århus Convention [UNECE: *Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters*].

Guiding principles in relation to environmental protection and management are set out in the Environmental Report, as are proposed mitigation measures.

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.

### 13. Monitoring

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 Development Plan SEA.

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.

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.<sup>7</sup>

Where it is established, by monitoring, that the carrying capacity of the receiving environment in certain sites is being exceeded in terms of visitor numbers, especially in respect of European Sites, measures may be implemented to address this matter, including temporary removal from the list of advertised attractions to allow for recovery.

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 table below sets out an initial framework for monitoring but will be subject to further refinement or modification over time.

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<sup>7</sup> 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
<b>Biodiversity, Flora &amp; Fauna</b>	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	<ul style="list-style-type: none"> <li>SEA monitoring reports (frequency to be determined)</li> <li>Evidence submitted with Fáilte Ireland funding applications</li> <li>Evidence from partner organisations including NPWS and others e.g. Wicklow Uplands Council.</li> <li>Lower tier assessments associated with regulatory system including planning application decisions</li> <li>Article 17 (Habitats Directive) reports at national level by NPWS – 6 year intervals</li> <li>Article 12 (Birds Directive) monitoring reports at national level by NPWS – 6 year intervals</li> </ul>
	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	
<b>Population and Human Health</b>	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	<ul style="list-style-type: none"> <li>SEA monitoring reports (frequency to be determined)</li> <li>Evidence from partner organisations including Wicklow County Council</li> </ul>
	P2: Contribute toward provision of a positive experience for visitors	Provision of improved information, interpretation and infrastructure	
<b>Soils</b>	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"> <li>SEA monitoring reports (frequency to be determined)</li> <li>Article 17 (Habitats Directive) reports by NPWS – 6 year intervals</li> <li>Lower tier assessments associated with regulatory system including planning application decisions</li> <li>Evidence from partner organisations including Wicklow County Council</li> </ul>
<b>Water</b>	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"> <li>EPA Catchments.ie</li> <li>Water Framework Programme Monitoring reports</li> <li>Other EPA reports including Quality of Bathing Waters</li> <li>Evidence from partner organisations</li> </ul>
	W2: Contribute toward maintenance of bathing	Compliance with the provisions of the Bathing	

	water quality W3: Contribute toward minimisation of flood risk	Water Directive (2006/7/EC) Compliance with Flood Risk Management Guidelines	including Wicklow County Council <ul style="list-style-type: none"> <li>• Lower tier assessments associated with regulatory system including planning application decisions</li> <li>• OPW reports on flooding</li> </ul>
<b>Air and Climate</b>	S1: Contribute toward mitigation of climate change	Incorporation of climate mitigation measures in VEMMP	<ul style="list-style-type: none"> <li>• EPA emissions data</li> <li>• EPA air quality monitoring reports</li> <li>• Lower tier assessments associated with regulatory system including planning application decisions</li> </ul>
<b>Material Assets</b>	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"> <li>• SEA monitoring reports (frequency to be determined)</li> <li>• Evidence from partner organisations including Wicklow County Council</li> <li>• Lower tier assessments associated with regulatory system including planning application decisions</li> </ul>
	M2: Support adequate provision for and control of tourism related traffic	Provision of transportation related infrastructure at key locations	
<b>Cultural Heritage</b>	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"> <li>• SEA monitoring reports (frequency to be determined)</li> <li>• Evidence from partner organisations including National Monuments, OPW and Wicklow County Council</li> <li>• Lower tier assessments associated with regulatory system including planning application decisions</li> </ul>
	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	
<b>Landscape</b>	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"> <li>• SEA monitoring reports (frequency to be determined)</li> <li>• Evidence from partner organisations including National Monuments, OPW and Wicklow County Council</li> <li>• Lower tier assessments associated with planning application decisions</li> </ul>

*Monitoring Measures*

## 14. Conclusion

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. The analysis has been limited to available datasets, and findings must be treated with a certain amount of caution as research was carried out during 2020 and 2021, when tourism and travel had been severely restricted. 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.

Notwithstanding the foregoing, 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*.

The *draft VEMMP* has potential to also cause negative environmental effects, but with appropriate mitigation, any negative impacts will not be significant. 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.

Submissions are sought in relation to the findings of the Environmental Report, the Natura Impact Statement and the Draft *VEMMP*. 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 *VEMMP*.

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.

**SEA Environmental Report in relation to the**

***Draft Visitor Experience & Management Masterplan for Glendalough***

***and Wicklow Mountains National Park, Co. Wicklow***



## **APPENDIX 2 – HERITAGE IMPACT ASSESSMENT**

## Heritage Impact Assessment on Glendalough



### **VISITOR EXPERIENCE AND MANAGEMENT MASTERPLAN FOR GLENDALOUGH AND THE WICKLOW MOUNTAINS NATIONAL PARK**

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June 2022

## CONTENTS

- 1.0 INTRODUCTION
- 2.0 THE SIGNIFICANCE OF GLENDALOUGH
- 3.0 ISSUES AND IMPACTS
- 4.0 MANAGEMENT OF CHANGE
- 5.0 CONSULTATION AND IMPLEMENTATION

## APPENDICES

- I The National Monuments Service Statement of Significance
- II Map of protected sites in Glendalough
- III WHS Tentative List Submission
- IV Path options between Visitor centre and Monastic Site
- V Proposed path works around the Monastic Site

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## **1.0 INTRODUCTION**

### **1.1 PURPOSE OF THIS STATEMENT**

This Heritage Impact Statement is part of a Strategic Environmental Assessment (SEA) of the Visitor Experience and Management Masterplan for Glendalough and the Wicklow mountains National Park. It has been written by Dawson Stelfox, accredited conservation architect with Consarc Design Group. The focus of this Statement is on potential impacts of the Plan on the built heritage of Glendalough and to identify areas where further study or research are required in advance of finalisation of options or implementation of proposals.

### **1.2 BACKGROUND**

A multi-disciplinary team led by Consarc Design Group was appointed by Fáilte Ireland in August 2020 to deliver a Visitor Experience and Management Masterplan for Glendalough and the Wicklow Mountains National Park and Visitor Orientation recommendations for County Wicklow. The original project timescale was 6 months but Covid 19 restrictions have led to this to being extended. The project is overseen by a Steering Group made up of the main state and local government bodies – NPWS, OPW, NMS, Coilte and Wicklow County Council, co-ordinated by Fáilte Ireland.

### **1.3 AIM OF THE PLAN**

The aim of the Plan is to improve the visitor experience in Co. Wicklow, in recognition that some areas of the county are already exceeding their optimum carrying capacity causing congestion, damage to the natural environment and disruption to the local community, whilst other areas are under performing based on the potential of their assets and the benefits of tourism are not evenly spread or are unrealised.

The Plan is not about increasing visitor numbers as such but recognises that visitor numbers are growing and likely to grow and so sets out to put in place measures that will:

- Ensure a positive visitor experience
- Protect the natural built and cultural heritage of the area
- Prevent unacceptable disruption to the local community
- Increase and more evenly spread the economic benefits of tourism

We are looking at the full range of visitor attractions and activities but to date we have been concentrating on active outdoor activities – primarily walking and cycling, and the visitor experience in the Glendalough valley, mainly because it is in these areas that the majority of issues have arisen in relation to congestion, environmental impact and disruption to local communities. There is strong evidence that the marked increase in participation in outdoor activities triggered by the Covid19 restrictions will be a permanent feature and it is going a long way to replace the (temporary) loss in international visitors as a result of the pandemic. It is forecasted that this international market will return from 2022 onwards and this, coupled with the significant rise in domestic visitors, provides a strong incentive to plan for the future, especially in those areas already at capacity.

## **1.4 ISSUES**

An extensive public consultation process was carried out in 2021 and it identified a number of issues in relation to outdoor activities which are mirrored across all types of visitor experience

- Congestion at key sites
- Quality of visitor experience below that of other main tourist areas
- Concerns over security, capacity and quality of car parking and visitor services
- Erosion and degradation of the environment
- Lack of awareness of opportunities over the whole county – south west Wicklow in particular under-served and under visited.
- Negative impacts on the receiving community – anti-social behaviour, cars blocking farm access etc.

## **1.5 DRAFT PLAN**

The Draft Plan was prepared in late 2021 and signed off by the Steering Group in early 2022  
The proposed solutions to the issues include

- Dispersal of visitor pressures to more sustainable sites
- Improving the capacity and sustainability of the 'honey-pot' sites
- Improving car parking and visitor services provision across the area
- Investment in repairs to erosion of trails and landscape degradation
- Enhancing the special significance of Glendalough

## 2.0 THE SIGNIFICANCE OF GLENDALOUGH

**2.1** *“The overall complex comprises a unique and unprecedented number of early medieval ecclesiastical buildings and other features. Virtually all of these predate the close of the 12<sup>th</sup> century, making it the largest and best preserved early medieval ecclesiastical landscape in the country and beyond”*

National Monuments Service Statement of Significance

**2.2** Glendalough is a picturesque valley that forms the core of the Wicklow Mountains National Park. The monastery founded in Glendalough by St Kevin at the end of the 6<sup>th</sup> century gradually developed into one of the eminent ecclesiastical sites in Ireland, famed as a place of pilgrimage and favoured by the local royalty as their final resting place. By the beginning of the 12<sup>th</sup> Century, Glendalough was at the height of its power and vested political interests tried to establish an ecclesiastical city there to rival others in the race to adopt the church reforms that swept across the country. Today, the remains of this 12<sup>th</sup> Century settlement are scattered throughout the picturesque valley.

In addition to the ecclesiastical complex, the valley is also host to a wide range of industrial heritage features including platforms for burning charcoal, critical to iron manufacture in the late 17<sup>th</sup> and early 18<sup>th</sup> centuries, and extensive industrial remains related to lead mining activity carried out throughout the 19<sup>th</sup> century and into the 20<sup>th</sup> century.

The National Monuments Service Statement of Significance providing greater detail about the site is in Annex I.



Glendalough in the 19<sup>th</sup> century with the then Royal Hotel, now Glendalough Hotel, in the foreground

Despite this long acknowledged significance, however, it is recognised that there is still much that is unknown about Glendalough. Christiaan Corlett, in his 2017 book 'Glendalough' points out that 'everything that was documented about St. Kevin was written centuries after he died' and 'when it comes to firm history, facts are thin on the ground'.

Nevertheless, the importance and significance of the site is immense and universally acknowledged and as Corlett asks

*"is there anywhere else in the Christian world that can boast so many churches and related buildings dating from before the year 1200 that have remained so intact?"*

### 2.3 Management of the Site

The Monastic Site is a national monument in the ownership of the Minister for Housing, Local Government and Heritage. It is protected by national legislation, the National Monuments Acts, 1930-2014. The national monument is managed by the Office of Public Works (OPW) on behalf of the Minister. The OPW is run by a Commission but ultimately overseen by a Minister of State at the Department of Public Expenditure and Reform. Wicklow Mountains National Park is also in the ownership of the Minister for Housing, Local Government and Heritage and is managed directly by the National Parks and Wildlife Service of that Department.

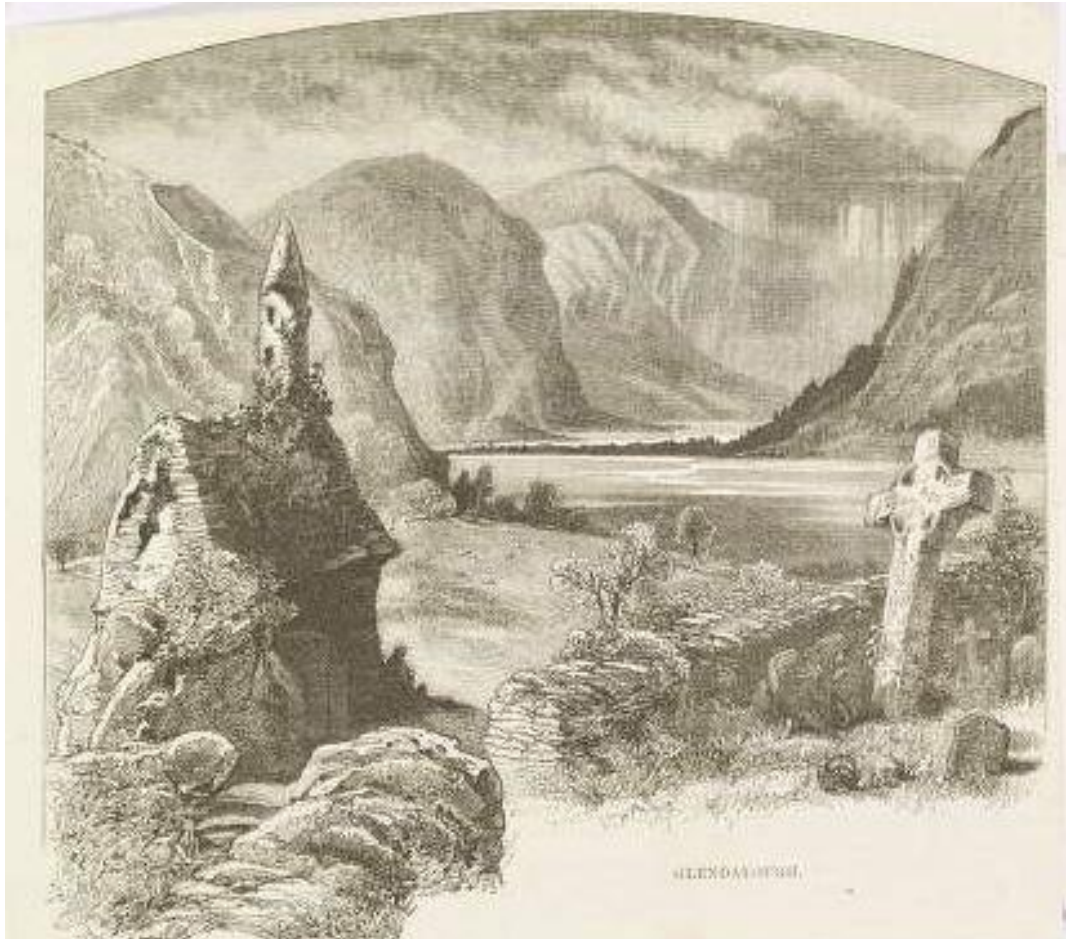
See Map at Annex II



## 2.4 WORLD HERITAGE TENTATIVE LIST

In 2010, Glendalough was included in Ireland's Tentative List of World Heritage sites as part of a serial nomination project, entitled the Early Medieval Monastic Sites. In conjunction with Clonmacnoise, Durrow, Inis Cealtra, Kells and Monasterboice, Glendalough was considered to demonstrate Outstanding Universal Value (OUV) on the basis of criteria (iii), (iv), and (vi) of the World Heritage Convention. The 'Tentative List Submission Format', submitted to the World Heritage Centre in 2010, is included as Annex III.

In 2021 it was decided not to pursue designation of Glendalough as a World Heritage Site at this stage but it remains a potential designation in the future.



### 3.0 ISSUES AND IMPACTS

**3.1** The Plan has the aims of enhancing the visitor experience and the positive economic and social impacts of tourism and at the same time minimising and mitigating the potential negative impacts. This Statement is primarily focussed on the latter of these objectives – identifying potential negative impacts and seeking to avoid, minimise or mitigate them.

**3.2** There is obviously a very long history of visitors coming to Glendalough, initially, and still to this day, as religious pilgrims. The arrival of mass tourism in the 19th century and the more recent attraction of the natural environment for physical and mental health benefits, especially for those living in urban environments has greatly increased the number of visitors. Glendalough offers an easily accessible entry point to both the natural environment of the National Park and the built and cultural heritage attractions so it is understandable that it has become a 'honeypot', with the single biggest visitor number in Wicklow and one of the largest in Ireland, with circa 750,000 visitors per year.

**3.3** The narrow valley, the layers of protection given to the national monuments and other sites, and long established human occupation patterns create limitations of visitor capacity beyond which there are issues of congestion and overcrowding, diminishing the visitor experience and creating significant negative impacts. This has been recognised for many years and the various issues can be summarised as follows.

- Car parking and vehicle access  
There is insufficient car parking capacity in the upper valley for the numbers of visitors at peak times leading to queuing, congestion and increased pollution.
- Visitor impact  
The congestion caused by visitors has a negative impact on the lives of local residents and many do not contribute to the local economy. Areas of the site around the monastery feel congested and over commercialised.
- Visitor routes to the monuments – accessibility  
Much of the monastic sites are inaccessible to those with movement restrictions and the site interpretation and wayfinding is regarded as inadequate
- The Visitor Centre  
Only about 10% of the visitors to Glendalough use the Visitor Centre and it is criticised as having a sole focus on the monastic site rather than the wider built, natural and cultural heritage of the valley

The current statutory Wicklow County Development Plan includes the policy intention to move the entry point for most visitors from Glendalough itself, down the valley to Laragh village. This policy has multiple benefits in that it avoids the need for further car park developments in the protected and special landscapes, keeps the traffic volumes on the 'through' roads rather than a 'dead end' road, increases dwell time and so the potential for visitor spending in the local economy', creates a more immersive visitor experience, reduces pollution in the upper valley and supports the commercial development of Laragh. The Plan supports this policy intent and sets out a number of detailed measures to put it into effect.



Queuing at the upper lake car park, June 2021



Cars in overflow car park field between Visitor Centre and Monastic City, June 2021



Monastic city entrance at bridge is heavily congested and commercialised



Gatehouse access is not accessible and marred by the commercial activity

## 4.0 MANAGEMENT OF CHANGE

### 4.1 ENHANCING THE SPECIAL SIGNIFICANCE OF GLENDALOUGH

As set out above, there is general consensus that the significance and character of Glendalough is eroded by commerce, cars and clamour and so the Draft Plan includes proposals to address this and improve the visitor experience.

The proposals are phased and intended to be introduced incrementally, allowing works to be tailored to developing demands and pressures. They involve the enhancement of the monastic site and its landscape setting, fusing together the built and natural heritage values and facilitating visitors to understand the powerful relationship with the natural environment that attracted St Kevin and generations of his followers to the valley in the first place.

The Plan **does not** contain any comment on or proposals for the detailed conservation and management of the monuments themselves within the specific boundaries of each protected structure as that is the responsibility of the National Monument Service and OPW.

The broad scope of the proposals can be summarised as follows :-

- |         |  |
|---------|--|
| Phase 1 | An enhanced version of the current situation with the temporary overflow car park provision in Laragh made permanent, a new off road walking and cycling trail between Laragh and Glendalough and the existing Visitor Centre expanded to include the interpretation of the natural environment. Seasonal restrictions for private cars on the road between the Glendalough Hotel and the Upper Lake car park with a VMS (variable messaging system) to guide traffic. A pilot scheme for a shuttle bus between the Laragh car park and the Visitor Centre is taking place over the summer months of 2022. |
| Phase 2 | Increasing seasonal restrictions on private car access to the Upper Lake car park and the Visitor Centre car park with a shuttle bus to supplement walking and cycling options, with development of larger and permanent car parks and visitor facilities in Laragh.   |
| Phase 3 | Ongoing development of arrival facilities in Laragh as demand merits with the aim of enhancing the overall visitor experience, reducing traffic and pollution in and around the monastic site and lakes and encouraging longer visitor stays. Residents and hotel guest traffic to Glendalough remain as existing.   |

Taken collectively, these proposals are designed to significantly reduce the impact of car access and parking on the monuments, drawing back the commercial activities from the monastic enclosure, increasing the site wide interpretation and preparing the way for future site surveys, research, excavations and interpretations of the wider monastic city and setting.

The exact alignment of the new walking and cycling trail from Laragh to Glendalough is not determined at this stage but will be subject to detailed environmental and archaeological surveys as required and negotiations with landowners. The trail also has the potential to better connect the outlying Trinity Church and St. Saviours Church to the main visitor access routes and so enhance the visitors understanding of the valley and its monuments.

Our assessment is that they will have an overwhelmingly positive impact on the significance and setting of the built heritage of Glendalough. Consultation with OPW, NMS and NPWS indicates support for the principles and approach set out in the Plan.



## 4.2 APPROACHES TO THE MONASTIC SITE AND ACCESSIBILITY

Currently, the route for visitors to approach the monastic site from the main car park at the Visitor centre is confused with conflicting directions given by signage and little site interpretation. Most visitors are self guided with usually only booked bus tour groups having the benefit of an OPW guide. Visitors can either follow a path out of the car park, across a bridge and up a short steep track to the 'green road', along it and then into the site at St Kevin's church, or, through the hotel grounds to the Glendalough bridge areas and the 12th Century gatehouse.

The Plan sets out to improve both physical and interpretative accessibility to the monastic site, acknowledging the limitations created by the sensitivity of the monument and potential undiscovered archaeology in the surrounding lands, bearing in mind that much of the site has not been thoroughly surveyed or excavated.

The Gatehouse is approached by stone steps and indeed most of the grounds within the monastic enclosure cannot be made 'accessible' without unacceptable impacts on the protected monuments, but at St Kevin's church the gradients and spaces are compatible with creating an accessible access to a point where the character and significance of the monument is apparent.

The Plan proposals aim to create an accessible route from the Visitor Centre car park to the monastic site, as part of a general aim to have an accessible route from the Visitor centre to the Upper Valley.

The initial proposal was to create a new accessible path through the lands between the visitor centre and the monastic site, the land currently used for overflow car parking. This was part of the overall strategy to discontinue car parking here with the longer term potential of creating what was likely to have been an agricultural landscape as part of the monastic settlement, subject to future research and excavations. This route was seen as preferable to remodelling the existing path through the protected woodlands on the south side of the river by NPWS. However, given the lack of detailed knowledge of potential archaeology in this area and concern by NMS and OPW over introducing a permanent hard path which could have an impact on the setting of the monument, there was a process of detailed consideration of the options during the Plan process.

Annex IV shows the accessible path options considered and the final proposals now agreed between OPW, NMS and NPWS.

Following a number of site meetings by the consultant team with OPW, NMS and NPWS, it was agreed that the proposals would include the sensitive enhancement of the existing trail out to the 'green road' and then into the existing approach to St Kevin's church, with carefully designed path regrading works that minimise impact on the natural environment.

Further research is to be undertaken into the archaeological significance of the lands between the visitor centre and the monastic enclosure is to be undertaken as part of the longer term plan for this area once the car parking is removed from it.

### 4.3 ROUTE TO UPPER LAKE

Beyond the entrance to St. Kevin's church there is an existing boardwalk path through sensitive wet habitat areas. This boardwalk is in poor condition and narrow for the volume of use. After careful consideration of the options, NMS, OW and NPWS conclude that creation of a new path on state owned land north of the river would be preferable to the existing boardwalk route. This new path is out of the sensitive wetland habitat and once completed it would allow the boardwalk to be removed giving a net biodiversity gain.

As the path continues to the upper lake there is also the option of creating an access route to St. Mary's church, outside the monastic enclosure and without normal visitor access at the moment. The Plan proposes a low impact trail to St. Mary's to allow interested visitors to access this significant monument. Further survey work and detailed consideration is required over the form of this access.

Further up the valley the existing boardwalk trail is recommended for replacement with a wider design to avoid congestion. To avoid any harmful impacts of this wider boardwalk it is proposed to lift it higher off the ground/water level as shown in the sketch drawing in Annex V.

Overall, it is felt this phased approach to this sensitive area will have a positive impact and will greatly assist in improving the accessibility of the site and the visitor experience.

### 4.4 ACCESS TO GRAVEYARD

During the public consultation there was a request from local families for improved access to the graveyard at Glendalough, still used for burials, given the accessibility challenges in approaching from the east. It is proposed to provide a small hardstanding car parking area in the NW corner of the field to the west of the monastic site, served by an existing entrance from the road between Glendalough village and the Upper Lake. This is state owned land across which there is relatively easy and level access to the NW corner of the monastic enclosure and the modern graveyard. This is a modest intervention which will be infrequently used and not advertised for visitor access to the monastic site, so the impact is considered to be low.

## **5.0 CONSULTATION AND IMPLEMENTATION**

- 5.1** The Plan will contain detailed proposals for the future management of Glendalough and the Wicklow Mountains National Park. It recognises that a collaborative approach between the central government statutory agencies, local government officials and elected members and the local community including the private sector is crucial for a successful implementation. The Draft Plan has received significant public support through an intensive consultation process and there is a further round of this planned for September 2022, prior to the final Plan being produced.
- 5.2** The main statutory bodies that have been an integral part of the Plan development process have been the National Monuments Service, OPW, NPWS and Failte Ireland. Within Wicklow County Council there has been significant staff input including the Heritage Officer, community and rural recreation officers, roads and transport staff and the Chief Executive. Presentations have been made to the elected Council and to many individual councillors. Many local, community and environmental bodies have been involved including the Wicklow Uplands Council, the Laragh and Glendalough community group, and private landowners including the Glendalough Hotel.
- 5.3** This is a strategic Plan containing a large number of specific proposals which will need developed in detail before implementation. That project design level phase will include site specific surveys and research to inform the detail of the proposals. This will include appropriate archaeological research or investigations in order to inform optimum trail route choices for improving access and visitor capacity. The monuments themselves remain under the state care protocols so the considerations for the project level will be focussed on impacts on setting and associated lands around the monuments. We welcome the commitment from the state bodies to continue with the co-operation they have displayed in the preparation of the Draft Plan as the way to avoid, minimise or mitigate impacts on the built and cultural heritage as the proposals move towards implementation.
- 5.4** Known archaeological heritage, in the form of recorded monuments or sites, is entered in the Sites and Monuments Record, compiled by the National Monuments Service (Archaeological Survey of Ireland) . In the case of the Glendalough valley, there is a very rich heritage of monuments and sites, of international significance, with considerable potential for additional sites yet to be identified. This richness of known archaeological heritage is not generally recorded in other areas subject of VEMMP proposals, particularly upland areas identified for car park improvements or Discovery Walks in the wider Wicklow Mountains National Park, where recorded archaeological heritage is generally sparsely distributed. Nevertheless, as in every part of Ireland, there is potential for new sites and monuments to be identified in such locations.

The VEMMP has been designed, using best current knowledge, to minimise any risk to the integrity or setting of known monuments and of areas of archaeological potential. Before any project in the plan is brought forward for detailed design and development consent, on a site by site basis an assessment will be made of its potential impact on the archaeological heritage. In particular, in the case of any project in the more fine grained plan for Glendalough, the detailed assessment will include non-invasive geophysical surveying (e.g. ground penetrating radar) to map the lands concerned and thereby identify areas of archaeological potential and protect heritage sites by avoidance where possible. Any development works subsequently permitted will be carried out under the supervision of a licensed archaeologist or appropriately qualified archaeologist of the State authorities.

**APPENDIX I**

The National Monuments Service Statement of Significance



## National Monuments Service

# STATEMENT OF SIGNIFICANCE

Glendalough, County Wicklow



Designation:	Ownership (Irish Church Temporalities, vested 1875).
National Monument No:	134
Townlands:	Brockagh, Derrybawn, Lugduff, Seven Churches or Camaderry
Date of document:	July 2020

*This Statement of Significance is a summary document intended to inform the reader of the key reasons why a monument or place is special or significant. It is not intended to be a Conservation Plan or a definitive archaeological or conservation assessment. It will be periodically reviewed and updated.*

## Summary Description

Glendalough takes its name from the Irish *gleann dá locha*, which translates as the ‘glen of the two lakes’. Glendalough’s most famous resident was St Cómegen (d. c. 620), who is better known today by the English version of his name, Kevin, who founded a small monastery here at the end of the 6<sup>th</sup> century and is documented in one Latin Life (late 12<sup>th</sup> century) and two later medieval Irish lives. In time St Kevin’s monastery would become one of the greatest monasteries of early Christian Ireland.

While Glendalough is frequently referred to as a monastery, church sites such as Glendalough had multiple ecclesiastical functions. From an early stage the religious community at Glendalough were keen to elevate monastery by comparing it with Rome. One of the lives of St Kevin compared Glendalough to *A gracious Rome, city of the angels, western Europe's Rome*. This was legitimised in one of the lives of St Kevin where we are told that he visited Rome and brought some of its ‘wondrous earth’ back to Glendalough. This association with Rome had the dual effect of raising Glendalough’s popularity as a place of burial and pilgrimage.

In 836 Glendalough was one of a number of prominent churches plundered by the Vikings, presumably in search of the treasures of the monastery. In 1020 it is recorded that Glendalough *was burned with its oratories*, implying that several of the churches in the valley were severely damaged by fire. In all probability, the churches at Glendalough at this time were all wooden buildings. This major fire may have been the motivation for the construction of the first stone churches at Glendalough.

At the end of the 11<sup>th</sup> century there was an explosion of church building at Glendalough. It has been suggested that many of the churches and other buildings were constructed at this time by Muirchertach Ua Briain, king of Munster, in order to establish Glendalough as a fully equipped ecclesiastical rival to Dublin, which had ambitions to be at the head of a new diocesan church system in Ireland. Muirchertach Ua Briain had pretensions of becoming high-king of all Ireland and did not wish to see Dublin fulfil its ambitions. So he set about trying to undermine the Dublin church by building a new ecclesiastical rival in the heart of the Wicklow Mountains.

Muirchertach Ua Briain’s strategy was successful. At the 1111 Synod of Rathbreasail, Dublin was subsumed into a newly formed diocese of Glendalough. During the 12<sup>th</sup> century, when Glendalough was at the height of its power, the abbacy of the monastery was held by the O’Toole family. The most famous of these was Laurence O’Toole, who was abbot at Glendalough between 1153 and 1162. In 1162 Laurence O’Toole became archbishop of Dublin (which now included Glendalough), a post that he held until his death in 1180 at Eu in Normandy. *A Life of Laurence O’Toole* was written after his death, in which it was claimed that he spent great riches, given to him by his father, feeding the poor and building churches. In 1225 he was canonised, making him the second Saint directly associated with Glendalough.

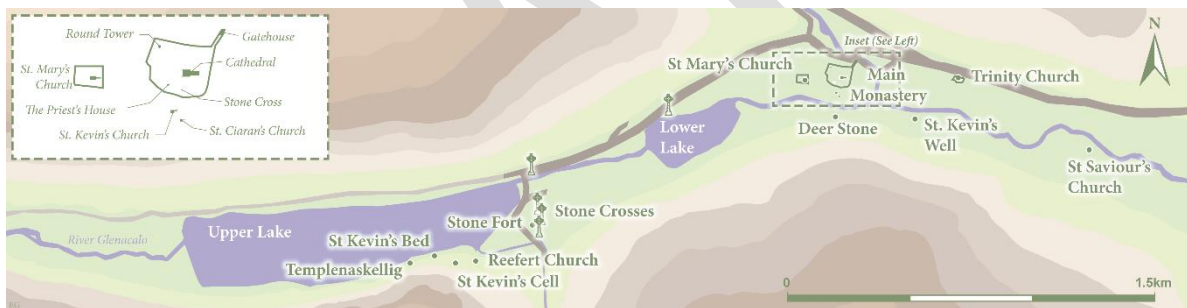
However, Glendalough’s status as the seat of a diocese was short-lived. In 1152 Glendalough became a suffragan of Dublin, and in 1216 was fully subsumed into the diocese of Dublin.

Since the turn of the 13<sup>th</sup> century, the significance of Glendalough rapidly fell into decline. By the end of the 17<sup>th</sup> century the churches at Glendalough had fallen into ruins.

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.
- 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.

In addition, there is an OPW visitor centre (open year-round) that is situated near the main monastery. The exhibition includes many cross slabs from the site as well as a 12<sup>th</sup> century high cross known as the Market Cross. In addition, there is a stone store here that houses a number of architectural fragments, cross slabs and other stone objects from across the valley.



### *The Upper Lake*

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 was traditionally seen as the place where he slept during these years. Both St Kevin's Bed and Templenaskellig, under the cliffs on the southern side of the lake (Fig. 1), are only accessible by boat. The more important church at the Upper Lake was Reefert Church. Also in this area are a series of stone crosses and the remains of a small stone fort.

St Kevin's Bed (WI023-021----) is mentioned in the *Life of Laurence O'Toole*, where it is described as being carved out of the rock by St Kevin with his own hands. The *Life* also claims that Laurence O'Toole stayed in the bed for forty-day periods, even after he left Glendalough to become archbishop of Dublin, and that in his time a fixed wooden ladder gave access to St Kevin's Bed from the lake below. Though sometimes referred to as a cave, St Kevin's Bed is entirely artificial.

Templenaskellig (WI023-020----) is situated near St Kevin's Bed on the southern shore of the Upper Lake. It was probably designed as a hermitage for anchorites emulating St Kevin's alleged early years of isolation at the Upper Lake. This church consists of a small rectangular building. At the east end is a twin light window, with a double rounded headed lintel. To the east of the church is a decorated stone cross. To the west of the church are several terraces that probably served as gardens for growing vegetables and herbs.

Reefert Church (WI023-028001-) is tucked away in a wooded area on the southern side of the valley near the Upper Lake (Fig. 2). It takes its name from the Irish *ríogh fheart*, meaning royal cemetery. This was traditionally believed to have been the burial place of local kings. The stone church consists of a nave and chancel building. The small chancel arch is constructed from undecorated granite blocks. The tiny chancel is lit by a small round headed east window. The west doorway has a flat lintel and inclining jambs. At either end of the nave and at the east end of the chancel are projecting corbels or brackets to carry the roof beyond the gable ends of the church. The church was probably built around 1100 and represents one of the first nave and chancel churches built in Ireland. Surrounding the church is an ancient burial ground. There are also several plain stone crosses in the graveyard around the church, which may have been designed as stations for pilgrims performing rounds.

Some 100m west of Reefert Church are the foundations of a small circular hut site (WI023-029----) known as St Kevin's Cell, and about 50m north of Reefert Church, beside the Poulanass Brook, is a stone cross and the foundations of a possible church (WI023-027).

Near the eastern shores of the Upper Lake, and forming a line roughly north-south, are a series of stone crosses. The largest and most northerly cross (WI023-022----) is near where the Glenealo River exits the Upper Lake. Further south are three stone crosses (WI023-024----; 025001-; 026----) situated quite close together. These crosses are likely to have served as stations for pilgrims visiting the Upper Lake. They also appear to mark an early pilgrim road from the main monastery in the Lower Valley, which passed along the northern shores of the Lower Lake where it is marked by a small decorative cross (WI023-030----).

The circular stone fort (WI023-025----) that stands on the low ground near three of the stone crosses is somewhat of an enigma. In its present form the fort consists of a circular drystone wall that encloses an area 16m across, and is entirely a modern reconstruction, rebuilt from the material that was found at the site. The site appears to represent the remains of a ringfort, a defended farmstead from the Early Christian period.

### *The Main Monastery*

The main monastery at Glendalough is located on a low ridge at the entrance to the valley (Fig. 3). To the west of this ridge is the Lower Lake, out of which flows the Glenealo River around the southern side of the monastery. Here the Glenealo River meets the Glendasan River, which arcs around the northern and eastern sides of the monastery. Much like the ancient pilgrim to Glendalough, the modern visitor must also cross either the Glendasan or Glenealo Rivers to access the main monastery, which features 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 11<sup>th</sup> century the monastery expanded to the south, with the construction of St Kevin's Church and St Ciaran's Church.

In the 12<sup>th</sup> century visitors to Glendalough entered the main monastery through a gatehouse (WI023-008001-). Even today this continues to be the main point of access for most visitors to the site (Fig. 4). This is the only example of a monastic gatehouse known in Ireland. It features antae or projections of the gable ends, and immediately inside the gate is a massive upright stone slab featuring an incised cross.

Once within the gatehouse and the interior of the monastery, the largest building is the church known as the Cathedral (WI023-008003-). This is the largest church in Glendalough (Fig. 5). It features antae or projections of the side walls beyond both the east and west gables. The west doorway has a flat lintel and externally there is a raised architrave. The Cathedral appears to have been constructed at the end of the 11<sup>th</sup> century, but preserves the remains of an older stone church that stood on the same site. Sometime before 1200 a chancel was added to the east end of the nave, thereby increasing the size of the church and conforming it to the liturgical norm of the period.

The Priest's House (WI023-008004-) takes its name from the fact that it was used for the burial of Catholic priests during the 18<sup>th</sup> century. By the middle of the 19<sup>th</sup> century the building had almost entirely collapsed, and what can be seen today is a reconstruction carried-out in the 1870s from the stones that survived amongst the rubble (Fig. 6). Over the door is a carved stone featuring a central seated figure holding an open book on his lap. On one side is an ecclesiastic holding a bell and on the other side is an ecclesiastic holding a crozier. At the east end is the decorative arch and columns forming a window. The arch has all the appearance of a window reversed, in that the decorated portion would normally be found on the inside rather than the outside. It is possible that this little building was designed as mortuary chapels built over the grave of St Kevin. Notably, the grave of St Kevin at Glendalough is not recorded. Alternatively, perhaps the building was intended as a reliquary chapel to house a number of the relics associated with St Kevin

St. Kevin's Cross (WI023-008013-) stands a little over 3.6m high and is set into a flat stone that is level with the ground. It is carved from a single piece of granite, though the bottom is carved to give the impression of a separate base. The arms are have been carved to give the impression of a perforated ring. The cross has been very finely carved, but notably there is no decoration or ornament of any kind.

Perhaps the most iconic building at Glendalough is the round tower (WI023-008002-), which was probably built around the year 1100 (Fig. 7). The tower stands over 30m tall and the round headed granite doorway faces southeast, in the direction of the Cathedral. Internally there are a series of joist holes that indicate that there were six stages of wooden floors above the doorway. Windows spiral around the circumference of the tower, one to each floor, while the

top floor has four windows. The roof was reconstructed in 1876 using the stones from the original roof that had collapsed.

St Kevin's Church (WI023-009----), with its little belfry, is one of the most distinctive and impressive buildings at Glendalough (Fig. 8). It is also the most complex building here. At the west end of the church is a tall, flat-lintelled doorway. Several stones of this doorway, including the lintel, have been recycled from an older doorway, perhaps belonging to an earlier stone church that stood at this site. High above the doorway is a small round belfry tower. In the National Museum of Ireland is a bronze bell that was found near the church and is likely to have been the original bell that hung in this tower. At the east end of the building is the upper portion of the original east window of the church. The building has a steep, stone-built roof, and high above the interior of the building is a barrel vault. Originally the space under the vault formed a separate level with a wooden floor, perhaps intended as a space to accommodate an anchorite. Above the vault is another chamber within the roof space that can only be accessed by a very tall ladder and a small hole in the vaulted ceiling. The purpose of this space is unclear, though it was probably intended as a safe storage space for precious manuscripts and relics. It is thought that St Kevin's Church was constructed at the very end of the 11<sup>th</sup> century or the early years of the 12<sup>th</sup> century. Not long after it was built, a small chancel was added to the east end of the church. Unfortunately, this chancel has disappeared, but still surviving is a stone-roofed building that was annexed to the north side of the chancel. This annex was probably designed to accommodate an anchorite or hermit who would have resided in this space in secluded prayer for a period of time, possibly in emulation of St Kevin himself.

St Ciaran's Church (WI023-010----) is the least well-preserved of all the churches in Glendalough. All that survives are the lower portions of the walls that had been concealed under heaps of stones. When this rubble was cleared in the 1870s it revealed the foundations of a small church with a west doorway and a tiny chancel at the east end. The dedication of a church at Glendalough to this well-known saint of the Irish midlands reflects a union between Clonmacnoise and Glendalough that existed before the 12<sup>th</sup> century.

#### *The satellite churches*

There are also three more churches in the Lower Valley at Glendalough, namely St Mary's Church, Trinity Church and St Saviour's Church.

St Mary's Church (WI023-003001-) may have been constructed during the lifetime, or perhaps in memory of, a woman called Derborgaill who died at Glendalough in 1098 (Fig. 9). Derborgaill was the mother of Muirchertach Ua Briain, King of Munster. It is situated less than 100m to the west of the main monastery and is clearly visible from the Cathedral. The church was constructed around the year 1100. Originally this consisted of a simple rectangular church. The west doorway is the original entrance into the church. Externally the doorway has a raised architrave, similar to the west doorway of the Cathedral. On the underside of the lintel over the door is a saltire cross. Towards the close of the 12<sup>th</sup> century a chancel was added to the east end of the former church. The east window suggests that the chancel was added at the end of

the 12<sup>th</sup> century, and is carved from dundry stone, imported from Bristol. Externally the window has a hood featuring a Greek key motif, terminating in animal heads.

Trinity Church (WI023-014001-) is situated on the eastern approach to Glendalough, a little over 400m before arriving at the main monastery and is one of the most attractively situated churches in Glendalough (Fig. 10). The church was constructed at the turn of the 12<sup>th</sup> century and originally consisted of a nave and chancel church. At the west end of the nave is a flat headed doorway, which formed the original entrance into the church. Shortly after it was constructed, the church was transformed with the addition of a small extension to its west end. A late 18<sup>th</sup> century painting shows that this extension had a stone roof supporting a small round belfry, somewhat like the example at St Kevin's Church. Unfortunately, the tower fell during a storm in 1818. If it had survived this would have meant that there were three round belfries at Glendalough. It is quite possible that the church served as a mortuary chapel. Situated between Trinity Church and the main monastery is a stone cross (WI023-013----). Now located at a modern road junction, it may mark the earlier approach to the main monastery.

St Saviours Church (WI023-031----) was the last church constructed in Glendalough and was probably built sometime between 1153 and 1162, during Laurence O'Toole's time as abbot of Glendalough, and founded for canons regular of St Augustine. It is situated beside the Glendasan River, about 1km to the southeast of the main monastery (Fig. 11). In the 13<sup>th</sup> century the church was called by its Latin name *Insula Sancti Salvatoris*, suggesting that the church was originally situated on an island (*insula*). St Saviours Church was in very poor condition and severely collapsed before it was almost entirely reconstructed in the 1870s. Though this is a relatively modest church for the period, it contains some of the most elaborate carvings found in any Romanesque church in Ireland. The decorative arch is entirely reconstructed in 1875 from the stones that were found on the site. The east window of the chancel was also entirely rebuilt in the 1870s using the original stones that were found at the site. Internally the window is decorated with various motifs, including a lion biting its tail, two affronted birds, a knotted cross, a six petalled marigold design and a beautiful petalled flower. Adjoining the north side of the nave is a building that has also been entirely reconstructed. The purpose of this portion of the church is unclear. Perhaps it served as a dormitory and refectory for the Augustinian canons. It is also possible that there was a scriptorium at St Saviours, and the Augustinians during this period were known to have been actively compiling various books, possibly including the *Latin Life of St Kevin*.

### *Visitor Centre*

The OPW Visitor's Centre is open year-round and provides a broad presentation of the monuments at Glendalough. There are also a number of cross slabs on display as well as a 12<sup>th</sup> century stone cross known as the Market Cross (Fig. 12). The front of the cross features the crucified Christ, set against a pattern of interlace. His crowned head leans to the left and is clothed in a knee-length loincloth. Below Christ is a carved figure of an ecclesiastic. Perhaps this figure was intended to represent St Kevin himself, but there is a strong possibility that it represents a mid-12<sup>th</sup> century ecclesiastic at Glendalough, such as Abbot Laurence O'Toole. On the base of the cross are two human figures that are very weathered and may represent the

donors of the cross, perhaps the parents of Laurence O'Toole. The cross features a number of drilled holes that may have been intended for removable elements. In addition to the features on display, there is a storeroom which houses a large collection of cross slabs, architectural fragments and other stone pieces from the site.

#### *Other archaeological features*

There are a large number of additional archaeological sites at Glendalough. Within the main monastic site itself are the remains of the ecclesiastical enclosure along the south west and west perimeter of the site and a significant number of cross slabs scattered throughout the graveyard, which, in many cases, have been reused as headstones in more recent centuries. There are also several small stone cross, architectural fragments and mill stone fragments. The archaeological sites in the wider area that are most relevant to the monastic site are St Kevin's Road (WI023-047----) and a large collection of bullaun stones, known as the Seven Fonts. In addition, the bullaun or stone mortar known as the Deer Stone (WI023-011----), located on the southern side of the Glenealo River, near St Kevin's Church' is traditionally linked with one of the most famous stories preserved in the various Lives of St Kevin.

*There was a shortness of milk in Glendalough at that time. Kevin saw a doe and her fawn, and commanded her to half her milk and lactage to his foster-child ... But a wolf came to the doe, and killed her fawn. Then Kevin wrought a great miracle. He commanded the wild wolf to take the place of the fawn with the doe. In the hollow stone ... the doe would leave every day enough of her milk and lactage to satisfy the child.*

This story resembles somewhat the ancient foundation myth of Rome in which Romulus and Remus as babies were suckled by a wolf, and it may be no coincidence that Glendalough saw itself as an Irish Rome.

Over 80 charcoal platform sites are known in the valley, primarily at the western end of the Upper Lake. In 2009, UCD School of Archaeology carried-out an archaeological excavation of one of these (WI023-029004-; 09E0380). The charcoal comprised primarily oak, birch and holly, and the C14 samples returned dates that suggest they were used during the late 17<sup>th</sup> and early 18<sup>th</sup> centuries.

- Warren, G., McDermott, C, O'Donnell, L. and Sands, R., 2012, 'Recent excavations of charcoal production platforms in the Glendalough valley, Co. Wicklow' *Journal of Irish Archaeology* **21**, 85-112.

In addition, there are extensive industrial remains related to lead mining activity carried-out near the Upper Lake throughout the 19<sup>th</sup> century and into the 20<sup>th</sup> century. These have been studied in some detail:

- Schwartz S.P. & Critchley M.F., 2012, 'The lead ore dressing floors at Glendalough and Glendasan, county Wicklow 1825-1923: a history, survey and interpretation of extant remains.' *Journal of the Mining Heritage Trust of Ireland* **12**, 5-52.

#### **Summary Statement of significance**

The monastery founded by St Kevin at the end of the 6<sup>th</sup> century gradually developed into one of the eminent ecclesiastical sites in Ireland, famed as a place of pilgrimage and favoured by the local royalty as their final resting place. By the beginning of the 12<sup>th</sup> century Glendalough

was at the height of its power and vested political interests tried to establish an ecclesiastical city here to rival others in the race to adopt the church reforms that swept across the country. Today, the remains of this ‘city of God’, as it was called in the 12<sup>th</sup> century, are scattered throughout the picturesque valley of the two lakes and constitute one of the best preserved early medieval ecclesiastical landscapes anywhere in the world.

### **Assessment of significance**

- The monument has a strong amenity value because of its archaeological, architectural, artistic, folkloric and historical importance.
- The ecclesiastical complex is associated with St Kevin, one of the most important figures in the early Irish church, and the dominant saint in the early ecclesiastical history of Leinster. The site also has strong historical associations with St Lawrence O’Toole, abbot of Glendalough and later archbishop of Dublin.
- Throughout much of its early medieval history the abbey here had connections with many ecclesiastical sites throughout Leinster, and also Clonmacnoise (National Monument No. 81), which is reflected in the dedication of one of the churches at Glendalough.
- During the 12<sup>th</sup> century, Glendalough was the seat of a bishop that had direct control over substantial diocesan estates throughout the region.
- Glendalough was a popular place of burial for the early medieval kings of Leinster and had strong links with secular politics throughout that period.
- The overall complex comprises a unique and unprecedented number of early medieval ecclesiastical buildings and other features. Virtually all of these predate the close of the 12<sup>th</sup> century, making it the best-preserved early medieval ecclesiastical landscape in the country and beyond.
- From early in its history, Glendalough has been (and continues to be) the focus of religious pilgrimage. The area around the Upper Lake was most likely redesigned as a pilgrimage landscape during the 10<sup>th</sup> and 11<sup>th</sup> centuries, and retains many original features, including:
  - a pilgrimage chapel and royal burial ground (Reefert Church)
  - an eremitical chapel (Templenaskellig)
  - St Kevin’s Bed
  - stone crosses marking the pilgrim route from the main monastery
- The main monastery was redesigned as an ecclesiastical city during the first half of the 12<sup>th</sup> century and today retains a wide range of architectural features. These include:
  - a gate house,
  - two of the earliest nave and chancel churches in the country (Reefert Church and Trinity Church),
  - a cathedral that was one of the largest churches of its kind when it was built,
  - a reliquary chapel (the Priest’s House),
  - one of the best-preserved round towers in the country,
  - a church with a built-in belfry and anchorite cell (St Kevin’s Church)
  - and a church dedicated to St Ciarán.
- Also in the earlier part of the 12<sup>th</sup> century the ecclesiastical city was expanded to include suburban or satellite churches, namely;

- a nunnery (St Mary's Church),
- Trinity Church, with a built-in belfry (now missing), that may have served as a mortuary chapel (Trinity Church),
- and St Saviour's Church, an Augustinian church that may have hosted a scriptorium, where the Latin *Life of St Kevin* was compiled.
- There are numerous important artistic works at Glendalough, including:
  - one of the largest collections of cross slabs in the country,
  - a highly ornate 12<sup>th</sup> century high cross,
  - two decorated stone altar fronts dating to the turn of the 12<sup>th</sup> century (less than ten examples are known throughout the country),
  - and high-quality Romanesque carvings at St Saviour's Church and the Priests House.
- The subsurface archaeological remains at the various monuments have a significant potential to contribute to our understanding of early medieval Ireland.
- Glendalough is today one of Ireland's most popular tourist attractions, with visitor numbers estimated in the region of 1,000,000 annually.
- In recognition of the importance of this ecclesiastical complex, Glendalough is included in the Tentative List for UNESCO World Heritage status, which is currently under review.

### **Conservation**

The monuments at Glendalough that came into care in the mid-1870s were immediately subject to a prolonged phase of conservation works, which included reconstruction of the roof of the round tower, rebuilding of the Priest's House and the reconstruction the chancel arch and east window of St Saviour's Church.

### **Research**

Publications relating to various aspects of the architecture and history of the monuments at Glendalough include:

- Cochrane, R., 1912, *Historical and descriptive notes with ground plans, elevations, sections and details, of the ecclesiastical remains at Glendalough, Co. Wicklow.*
- Leask, H.G., 1925, *Historical and descriptive notes with illustrations of the ecclesiastical remains at Glendalough, Co. Wicklow.*
- Price, L., 1940, 'Glendalough: St Kevin's Road'. In John Ryan (ed.) *Féil-sgríbhinn Eóin Mhic Néill: essays and studies presented to Professor Eoin MacNeill, DLitt, on the occasion of his seventieth birthday, May 15<sup>th</sup>, 1938*, 244-71.
- Healy, P., 1972, *Supplementary survey of ancient monuments at Glendalough, Co. Wicklow.* Unpublished OPW report.
- MacShamhráin, A.S., 1996, *Church and polity in pre-Norman Ireland: the case of Glendalough.*
- Doherty, C., Doran, L. & Kelly, M. (eds), 2011, *Glendalough: City of God.*
- Ó Carragáin, T., 2010, *Churches in early medieval Ireland.*
- Corlett, C., 2018, *Glendalough.*

There have been a number of archaeological excavations in the area. In the 1950s Françoise Henry carried-out archaeological excavations at Templnaskellig. These have not been published, but a recent UCD School of Archaeology project re-evaluating these excavations is currently underway. Excavations were carried-out at the current OPW visitor centre and car parking revealed evidence for small-scale century iron working in the 13<sup>th</sup> / 14<sup>th</sup> centuries.

- Manning, C., 1938-4, 'Excavations at Glendalough'. *Journal of the Kildare Archaeological Society* **16**, 342-7.

A small-scale excavation was carried-out in 1989 at the base of St Kevin's Cross.

- Lynch, A., 2018, 'Excavations at the base of St Kevin's Cross, Glendalough, Co. Wicklow'. *Ulster Journal of Archaeology* **74**, 100-6.

Several seasons of small-scale excavations were carried-out by Conor McDermott and Graeme Warren (UCD School of Archaeology) at the stone fort near the Upper Lake and in a green-field area west of the main monastery (C536). In conjunction with these excavations, extensive geophysical survey has been conducted by Ian Elliott (11R103).

#### **Access**

There is public access at the various monuments throughout Glendalough, though there is no universal access. Also, Templenaskellig is only accessible by boat (there is no organised boat access) and nearby St Kevin's Bed, for safety reasons, has very limited access.

#### **Interpretation**

There is no on-site interpretation at any of the monuments in Glendalough, however there is an OPW visitor centre open year round, which has an exhibition and display that includes several cross slabs and the 12<sup>th</sup> century high cross known as the Market cross. The centre also operates guided tours of the main monastery.

#### **Amenity/community value**

The graveyard at Glendalough is still highly regarded by the local community. In conjunction with the Wicklow Mountains National Park, the National Monuments here form part of one of the most popular tourist attractions in the country.

#### **Further information**

For further information on the work of NMS please see [www.archaeology.ie](http://www.archaeology.ie)



*Fig. 1 The Upper Lake at Glendalough, with St Kevin's Bed in the cliffs (left) and Templenaskellig on a terrace above the lake edge.*



*Fig. 2 Reefert church near the Upper Lake.*





*Fig. 3 General view of the main monastery at Glendalough.*



*Fig. 4 12<sup>th</sup> century gatehouse to the main monastery.*



*Fig. 5 The cathedral at the main monastery.*



*Fig. 6 Possible reliquary chapel known as the Priest's House, in the main monastery.*



*Fig. 7 The round tower at the main monastery.*



*Fig. 8 St Kevin's Church, constructed within a suburb extension on the south side of the main monastery.*



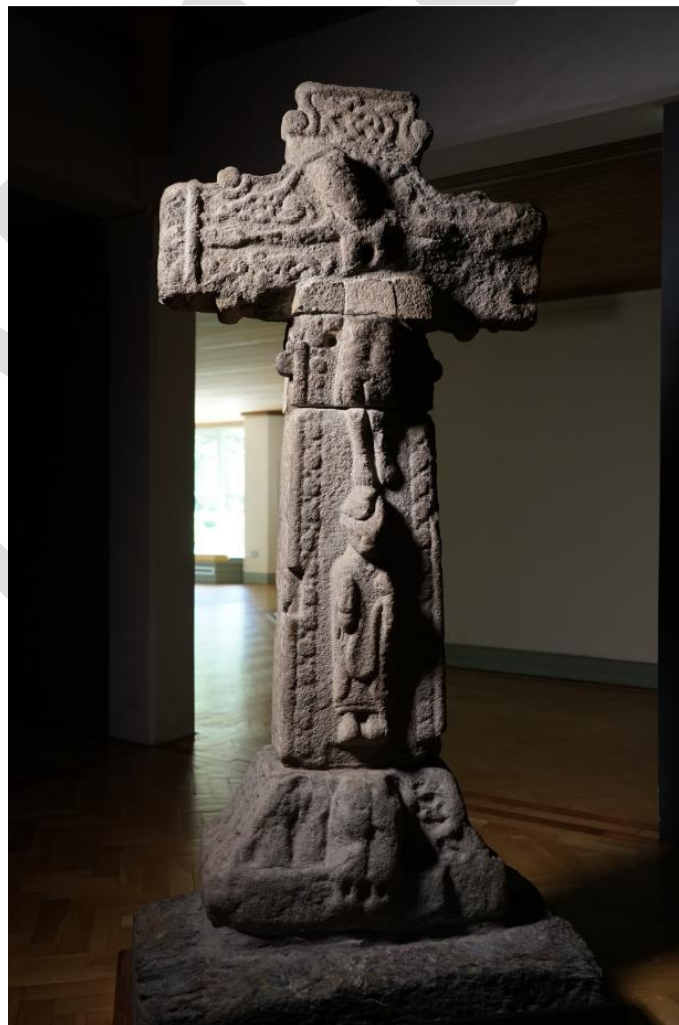
*Fig. 9 St Mary's Church, a nunnery outside the main monastery.*



*Fig. 10 Trinity Church, to the east of the main monastery.*



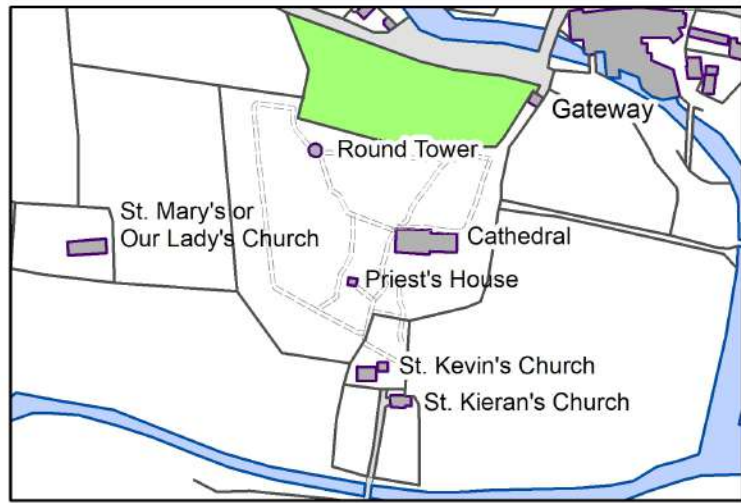
*Fig. 11 St Saviour's Church, to the east of the main monastery.*



*Fig. 12 The 12<sup>th</sup> century cross known as the Market Cross, on display at the Visitor Centre.*

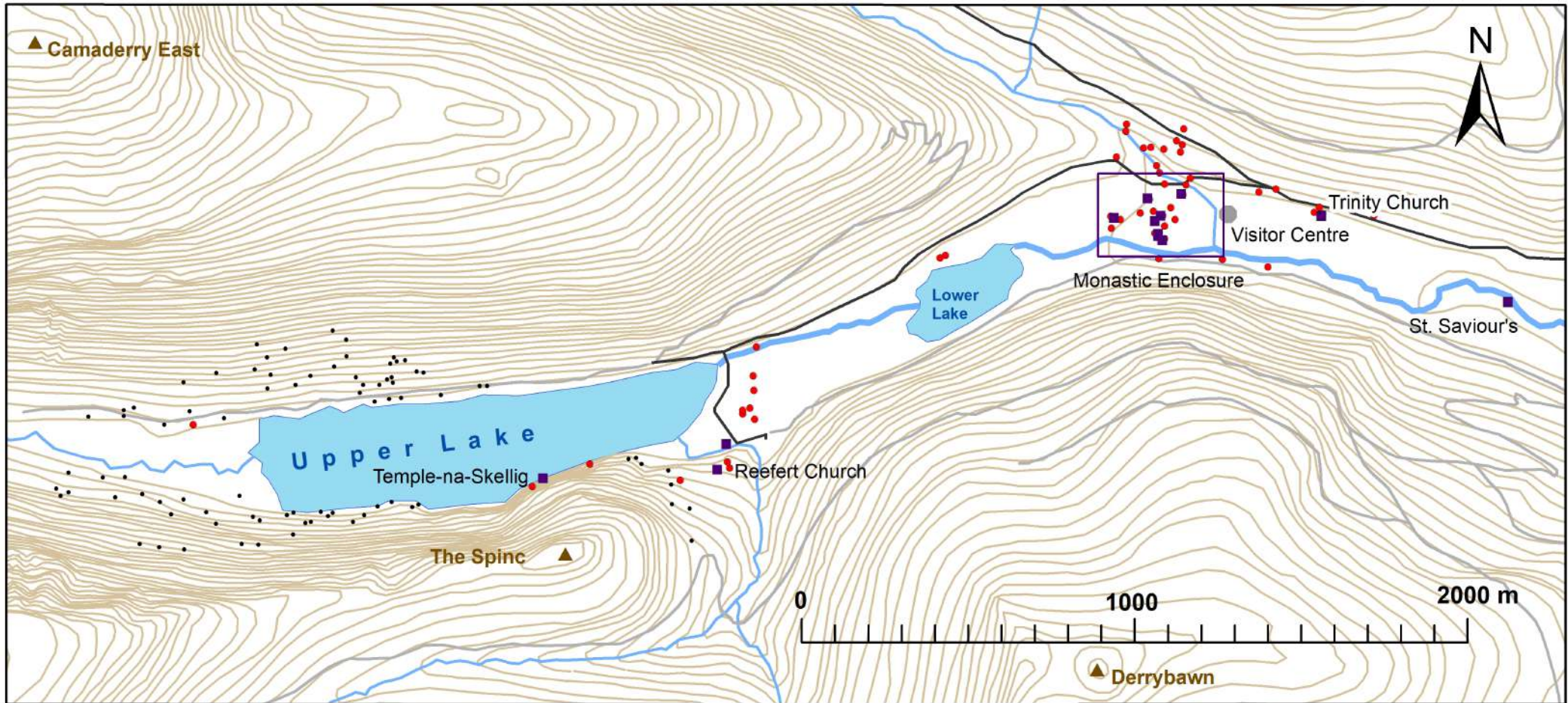
## **APPENDIX II**

Map of protected sites in Glendalough



### Legend

Lake	Building (enclosure map)
Forestry	Building (main map)
Contour 10m	SMR site
River / Stream	Charcoal making site
Road	Pathway (enclosure map)
Forest track	



**APPENDIX III**

WHS Tentative List Submission





TENTATIVE LIST SUBMISSION FORMAT



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**STATE PARTY: Ireland**

**Submission prepared by:**

**DATE OF SUBMISSION: 31 March 2010**

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Newtown Road, Wexford

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**NAME OF PROPERTY:** Early Medieval Monastic Sites:

**State, Province or Region:** County Offaly (Clonmacnoise and Durrow), County Wicklow (Glendalough), County Clare (Inis Cealtra), County Meath (Kells), County Louth (Monasterboice)

Latitude and Longitude:

53° 19' 40.0008" North; 7° 58' 42.999" West (Clonmacnoise),

53° 16' 22.0794" North; 7° 48' 0.72" West (Durrow),

53° 0' 37.4394" North; 6° 17' 25.4394" West (Glendalough),

52° 48' 46.08" North; 8° 26' 34.7994" West (Inis Cealtra),

53° 43' 32.8794" North; 6° 52' 45.1194" West (Kells),

53° 46' 48.3594" North; 6° 24' 11.52" West (Monasterboice).

**DESCRIPTION:**

The sites chosen are a representative sample of Early Medieval Monastic sites in Ireland, which embody the Celtic Church's rich cultural and historical past, playing a crucial role in Europe's educational and artistic development.

---

**Justification of Outstanding Universal Value:**

(Preliminary identification of the values of the property which merit inscription on the World Heritage List)

The six Early Medieval Monastic Sites chosen are the epitome of the Early Medieval Monastic Cities which derived their unique settlement patterns from the major sites of pre-Christian Celtic Ireland which themselves developed over the several centuries of the Iron Age. During these first centuries of the first millennium AD Britain and Western Europe fell into the orbit of the Roman Empire and

the Christian Church, influences which Ireland largely escaped until the 5th century. The properties nominated are amongst the principal examples of centres of Celtic learning, teaching and enlightenment.

**Criteria met** [see Paragraph 77 of the *Operational Guidelines*]:

(Please tick the box corresponding to the proposed criteria and justify the use of each below)

***Criterion (iii): Bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;***

The cultural tradition was unique. The enclosure form of the monastic settlements is a direct development of pagan antecedents deriving from the Iron Age, without the influence of the Roman Empire, suggesting a unique planning system lasting for over a millennium. The ritual centres of the enclosures have sculptural and architectural artifacts which are the manifestations in stone of earlier art forms in timber, metalwork, and illuminated manuscripts, which themselves have influences from early Christian and pagan sources singular to Ireland.

The settlements were proto-urban monastic cities with large religious and secular populations of teachers, scholars and artists, industrial and agricultural inhabitants. For a time the Irish monks were the only educators in Early Medieval Europe, and voluntary exile was the chosen path of many of the early missionaries. St. Columba, a prince of the powerful Ui Neill dynasty, left Ireland to found over sixty monasteries in Scotland, northern England and France. These clerics fanned out over Europe, as far as Kiev in the Ukraine, founding monasteries, which developed into cities such as Auxerre, Laon, Liege, Trier, Wurzburg, Salzburg, Vienna, and Regensburg.

***Criterion (iv): Be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;***

The layout and architecture of the monasteries and the artefacts within them are distinctive to Early Christian Ireland. The sites illustrate the transition from Irish Paganism to Christianity and were centres of education in early Medieval Europe following the fall of the Western Roman Empire.

The concept of the enclosure was fundamental to these monastic institutions. They follow a recognizable pattern of considerable area, usually between 15 and 20 hectares for the greater foundations such as Clonmacnoise or Durrow, and are similar to the ring forts for the period, but the true extent of the land holdings and the outlying buildings is much greater and is part of the monastic city. These outer remains can now be located with improved technology (which will itself undoubtedly improve further with time) and the importance of the areas outside the nucleus is being accepted. The majority of architectural remains are within the nucleus of the enclosure, which has the form of a ritual sanctuary.

The iconic symbols of Irish Christianity are the High Cross and the Round Tower. The sculptured High Crosses form a body of stone-based art unsurpassed in Europe. Examples of the most acclaimed group, which may have been the work of one master sculptor, are present at Clonmacnoise, Durrow and Monasterboice. The Round Towers are freestanding stone symbols, averaging 30m high, which are without an equivalent in Europe. Of the six properties, only Durrow has no evident tower. While the artefacts fall into distinct groups, like the enclosures, they follow the same genetic trend across the entire Early Monastic genre.

These built works have been described as the forgotten Golden Age of European Architecture.

***Criterion (vi): The site should be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.***

(The WH Committee considers that this criterion should preferably be used in conjunction with other criteria);

The monasteries were centres of artistic endeavor, which produced idiosyncratic forms of metalwork, illustrated manuscripts and sculpture. These were rooted in the pre-Christian pagan tradition and are accepted as supreme examples of Western European Art. While many examples of the illuminated manuscripts were lost during the centuries of Viking raiding an exemplar, which is associated with the nominated site of Durrow, is the Book of Durrow, which is in the library of Trinity College, Dublin.

**Statements of authenticity and/or integrity** [see Paragraphs 78-95 of the *Operational Guidelines*]:

*Authenticity:*

The authenticity of these 6 properties as monastic cities founded in the 6th and 7th centuries AD is attested in form and design, material and substance, location and setting and spirit and feeling. Their histories have been researched by eminent scholars back to their foundations in the 6th century.

*Integrity:*

The integrity of all 6 properties can be examined visually and physically and experienced with the senses as suggested in paragraph 88 of the Revised Operational Guidelines, and expressed in the Criteria of Outstanding Universal Value. They are of adequate size and five are situated in pastoral settings without significant immediate development.

**Comparison with other similar properties:**

(The comparison should outline similarities with other properties on the World Heritage List or not, and the reasons that make the property stand out)

The Early Celtic Monastic Society evolved from the mingling of the indigenous pagan cultural, social and legal systems with those of Western European Christianity. This latter system declined while the Celtic system developed and prospered leading to a reversal of learning before and during the Carolingian Empire. This theme of the cross fertilization of scholarship is in the process of continual study and development, and its expression in the relationships between Ireland and Western Europe seems uniquely expressed by the two social cultures. This legacy is experienced in the physical presence of the monastic centers of learning, which remain in Europe and in Ireland as presented in this proposal.

***Skellig Michael: Ireland***

An isolated monastic complex, perched on an island in the Atlantic, difficult to ascend, and at times cut off from all human contact for weeks on end by weather conditions, this site embodies the most extreme characteristics of early Christian eremitical asceticism.

*Principal differences to Early Medieval Monastic Sites:*

- It demonstrates eremitic monasticism
- It is non-congregational
- It had no national symbolic value in the medieval period
- It is situated on an island
- It is nominated as a group of buildings rather than as a cultural landscape
- It lacks the architectural and artistic wealth evidenced at the other properties

***Saint Catherine, Sinai: Egypt***

This site is inscribed for its landscape setting, sacred to three religions, and for the significance of the buildings, and their collections, to the study of Byzantine art and architecture. It is one of the earliest examples of an ascetic monastic site to survive in a state of preservation to the current day.

*Principal differences to Early Medieval Monastic Sites:*

- The chronological time frame is different
- Its societal role as an enclosed community difficult to access depicts ascetic monasticism
- It has an Eastern architectural tradition

### ***Early Christian Necropolis of Pécs: Hungary***

This is a remarkable complex of early Christian tombs, dating to the 4<sup>th</sup> century. Originally the cemetery of the provincial Roman town of Sopianae, the modern town of Pécs developed not around the ancient city, but around its cemetery. This is indicative of the importance of the cult of the dead in early Christian Europe. The architecture and ornament of these tombs make them a significant example of commemorative art of the early Christian period.

### *Principal differences to Early Medieval Monastic Sites:*

- Its chronology is 4<sup>th</sup> century.
- There is a uniformity of purpose: confined to burial and commemoration.
- It depicts part of a mutating tradition of architecture and art which nevertheless was still uniformly based on Roman precedents.

The Tentative List submission format is available from the UNESCO World Heritage Centre and at the following Web address: <http://whc.unesco.org/en/tentativelists>

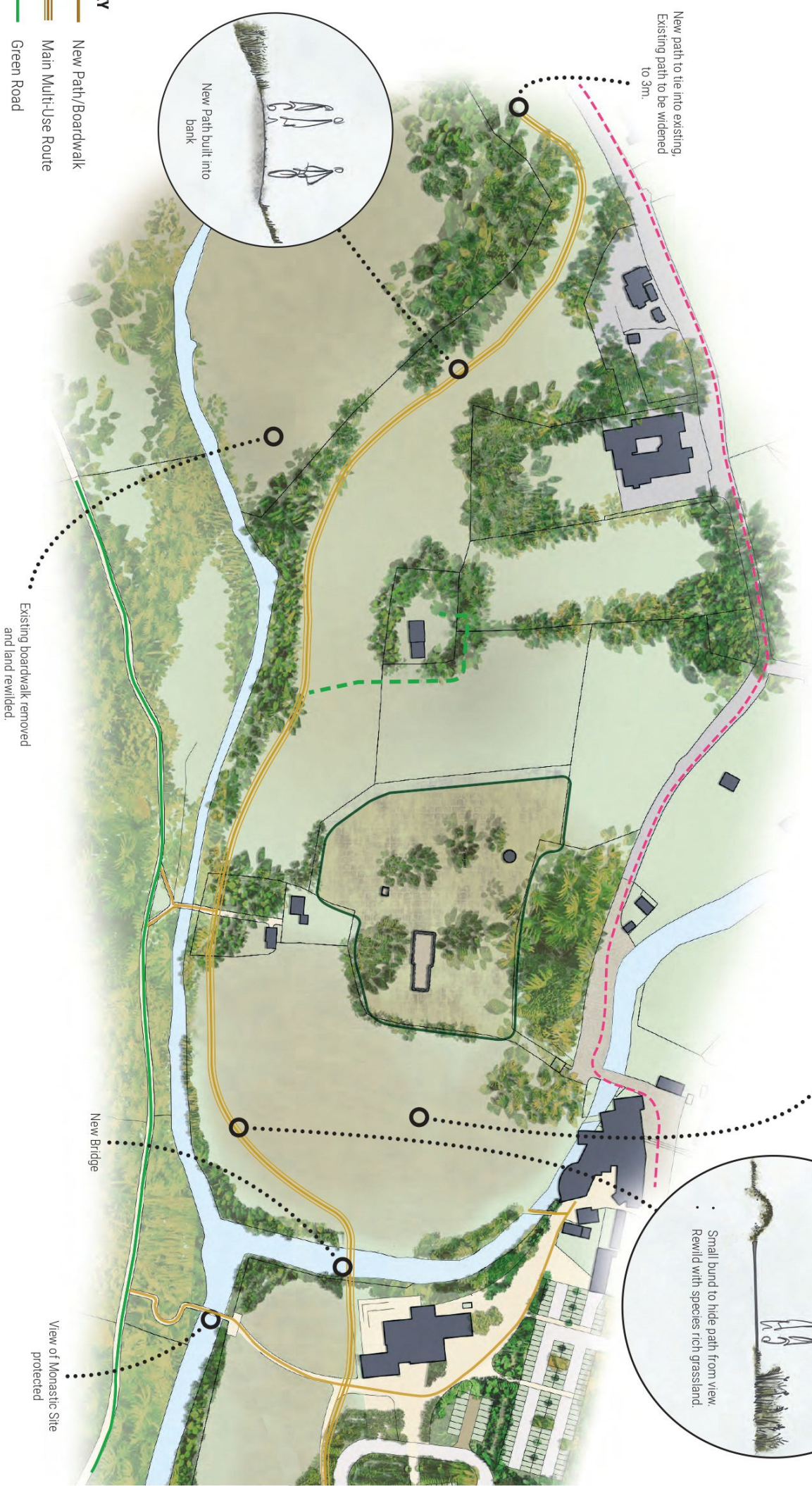
- Further guidance on the preparation of Tentative Lists can be found in Paragraphs 62-67 of the *Operational Guidelines*.
- An example of a completed Tentative List submission format can be found at the following Web address: <http://whc.unesco.org/en/tentativelists>
- All Tentative Lists submitted by States Parties are available at the following Web address: <http://whc.unesco.org/en/tentativelists>
- The original signed version of the completed Tentative List submission format should be sent in English or French to: UNESCO World Heritage Centre, 7 place de Fontenoy, 75352 Paris 07 SP, France
- States Parties are encouraged to also submit this information in electronic format (diskette or CD-Rom) or by e-mail to [wh-tentativelists@unesco.org](mailto:wh-tentativelists@unesco.org)

## **APPENDIX IV**

Path options between Visitor centre and Monastic Site

Glendalough to Laragh **Monastic Site Option 1**  
**DRAFT**

- Multi-use path skirts around monastic site
- Existing boardwalk removed

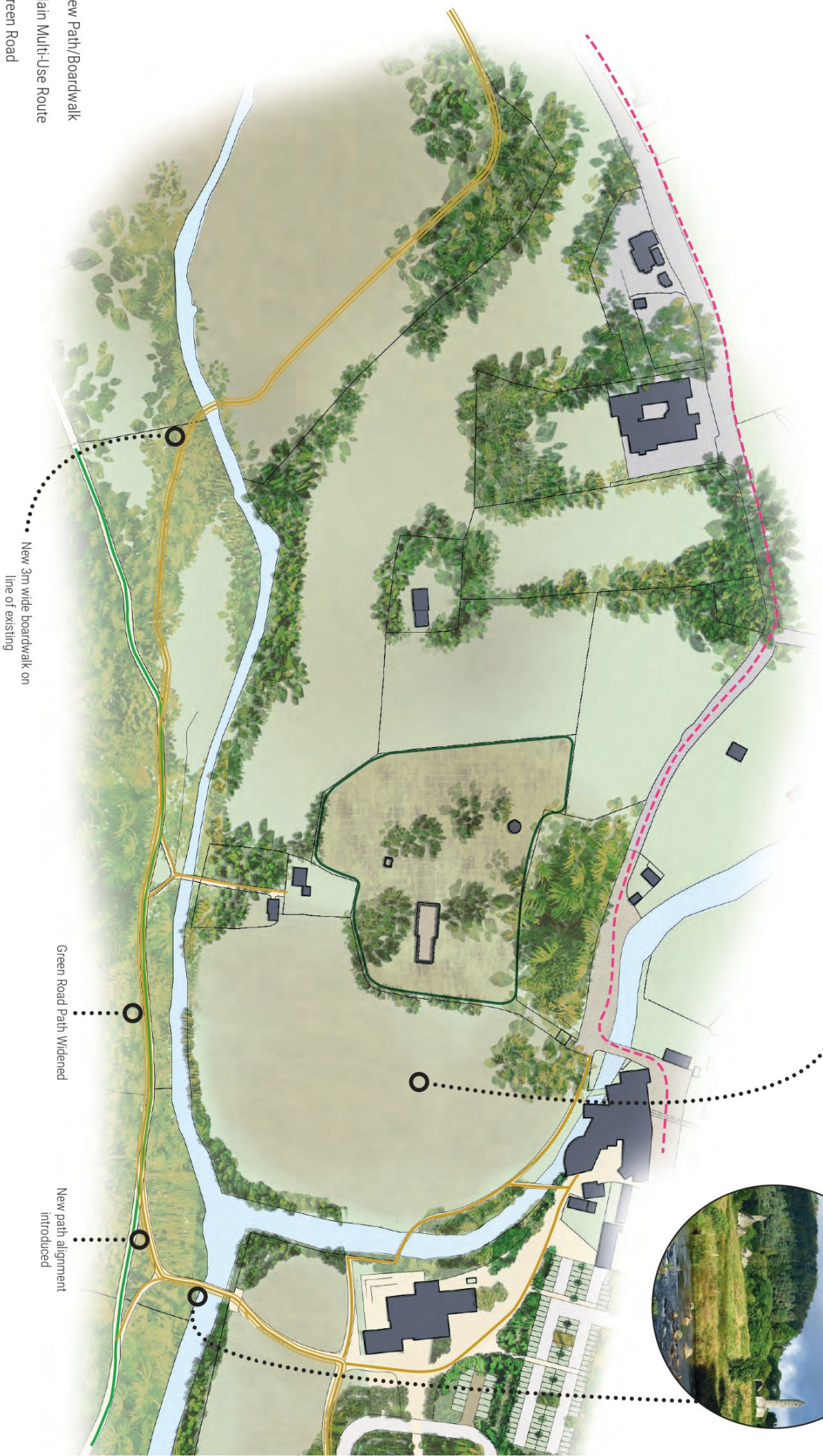


**KEY**

- New Path/Boardwalk
- Main Multi-Use Route
- Green Road
- Mown Path
- - - Shuttle Bus Route

Glendalough to Laragh **Monastic Site Option 2**  
**DRAFT**

- Multi-use route follows existing routes, widening where required.



Car Park removed and ground rewidened

Existing Bridge View

New 3m wide boardwalk on line of existing

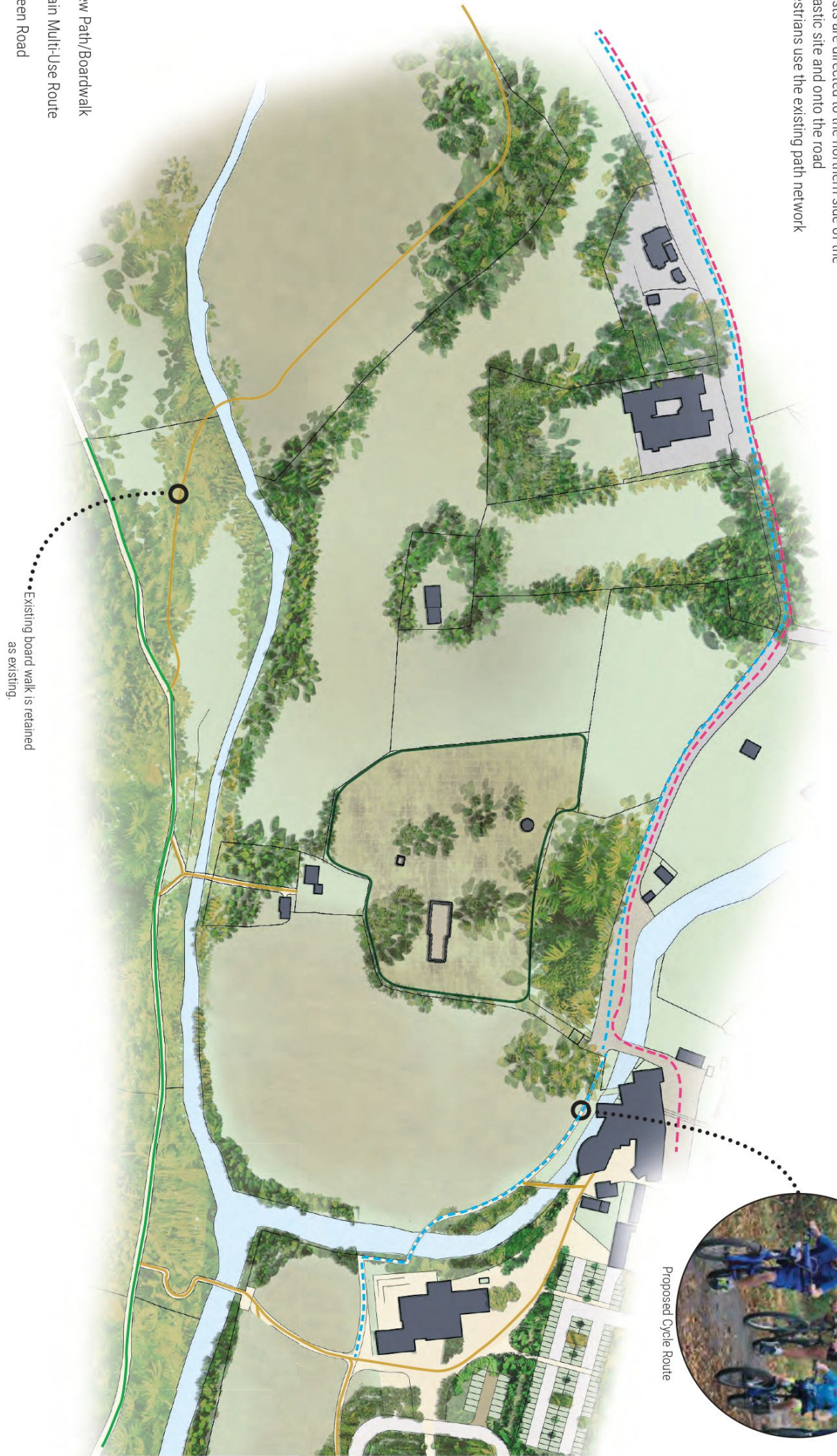
Green Road Path Widened

New path alignment introduced

- KEY**
- New Path/Boardwalk
  - Main Multi-Use Route
  - Green Road
  - ⋯ Existing path network
  - - - Shuttle Bus Route

Glendalough to Laragh **Monastic Site Option 3**  
**DRAFT**

- Main Multi-use route terminates at the Visitors Centre.
- Cyclists are directed to the northern side of the monastic site and onto the road
- Pedestrians use the existing path network



Existing board walk is retained as existing.



Proposed Cycle Route

- KEY**
- New Path/Boardwalk
  - Main Multi-Use Route
  - Green Road
  - - - Proposed cycle route
  - ..... Existing path network
  - - - Shuttle Bus Route



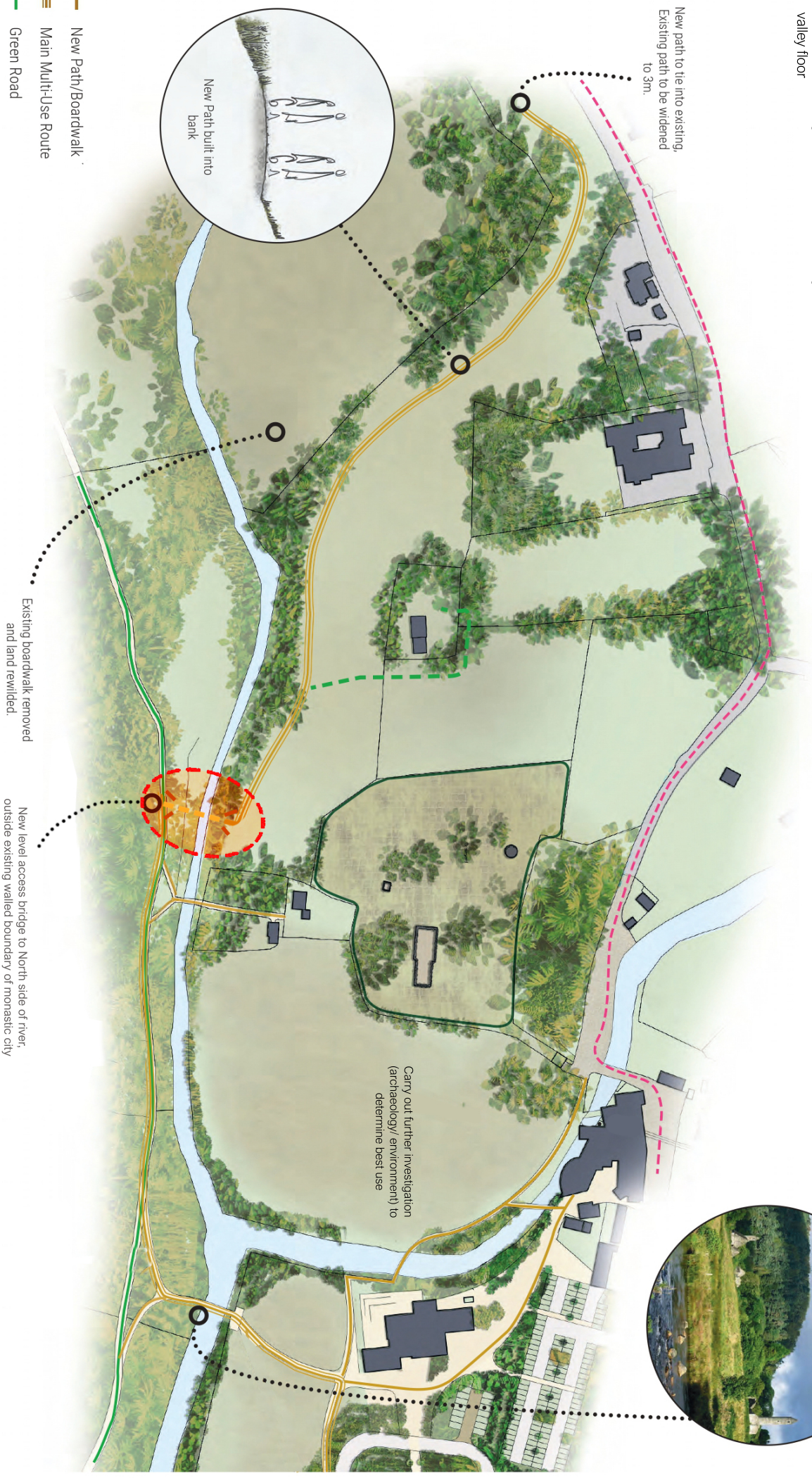
**APPENDIX V**

Proposed path works around the Monastic Site

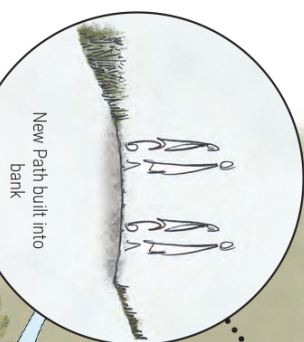
# Glendalough to Larragh **Monastic Site** OPTION

Existing Bridge View

- New bridge to West of Monastic Site
- New accessible path on North side of river
- Removal of existing boardwalk and rewilding of valley floor



New path to tie into existing,  
Existing path to be widened  
to 3m.

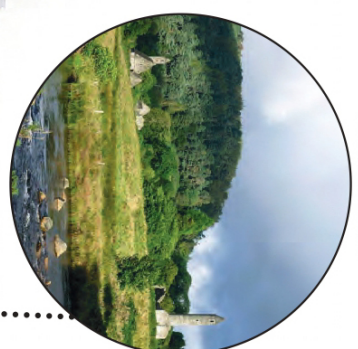


New Path built into  
bank

Existing boardwalk removed  
and land rewilded.

New level access bridge to North side of river,  
outside existing walled boundary of monastic city

Carry out further investigation  
(archaeology/ environment) to  
determine best use



- KEY**
- New Path/Boardwalk
  - == Main Multi-Use Route
  - Green Road
  - ..... Existing path network
  - - - Shuttle Bus Route

**SEA Environmental Report in relation to the**

***Draft Visitor Experience & Management Masterplan for Glendalough***

***and Wicklow Mountains National Park, Co. Wicklow***



## **APPENDIX 3 – FLOOD RISK ASSESSMENT**

# Flood Risk and Drainage Assessment

## Proposed Visitor Centre and Car Parking Facilities At Glendalough Laragh



Prepared by:  .....

Brian Pope  
Chartered Civil Engineer

Checked by:  .....

K McShane  
Managing Director

Approved by:  .....

K McShane  
Managing Director

Rev No	Comments	Checked by	Approved by	Date
A	Updated Masterplan included	KMS	KMS	24.08.22

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Telephone: 028 9560 9798

Job No: 20-059

Date Created 22 August 2022

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## Contents

Contents .....	3
Table of Figures .....	3
1.Introduction.....	4
2.Description of Site .....	5
3.Flood Risk Assessment .....	9
4.Existing and Proposed Surface Water Drainage.....	14
5.Proposed Foul Drainage .....	14
6.Drainage Maintenance Requirements .....	15
7.Conclusions and Recommendations .....	16
Appendix 1: Proposed Drawings .....	18

## Table of Figures

Figure 2-1: Draft Visitor Experience Masterplan.....	5
Figure 2-2: Draft Masterplan, Laragh, adjacent to R755.....	6
Figure 2-3: Draft Masterplan, Upper Lake Visitor Facilities .....	7
Figure 3-1: Present Day Fluvial Flood Map (Floodinfo.ie) – Western Area .....	9
Figure 3-2: Present Day Fluvial Flood Map (Floodinfo.ie) – Eastern Area.....	10
Figure 3-3: Present Day Fluvial Flood Map (Floodinfo.ie) – Upper Lake .....	11

## 1. Introduction

Kevin McShane Ltd. were commissioned to undertake a Flood Risk and Drainage Assessment for a proposed Glendalough visitor facilities in Wicklow. The visitor facilities involve the development of the new Laragh Visitor Hub, replacement of Upper Lake toilet block and creation of new cafe and enhanced car parking and playground facilities. This Flood Risk Assessment has been prepared in accordance with the Strategic Environmental Assessment (SEA) process and the EU Water Framework Directive and also in accordance with the *'The Planning System and Flood Risk Management Guidelines for Planning Authorities'*, dated Nov 2009, and published by The Office for Public Works (OPW) and Appendix A : Identification and Assessment of Flood Risk.

This Flood Risk and Drainage Assessment will provide an account of the site's existing and proposed surface water run-offs and the proposed drainage connections for the development. It will identify potential impacts and will discuss the mitigation for the development. The risk of flooding from fluvial flooding, existing infrastructure or groundwater has also been investigated.

Consideration has been given to the sources of fluvial flooding at the site, as well as flooding to the site from pluvial sources, infrastructure failure, overland flow and ponding of localised rainfall within the site. The report will consider the implications on the following stages:

Stage 1 – Flood Risk identification

Stage 2 – Initial flood risk assessment

Stage 3 - Detailed flood risk assessment

## 2. Description of Site

### Site Location

The proposed visitor facilities comprise of new or enhanced developments at a number of sites at Glendalough. The existing visitor centre at Laragh is located within the existing floodplain, however, it is proposed to relocate this and create a new Laragh Visitor Hub close to the GAA pavilion located off the R755 in Laragh. It is also proposed to connect foul drainage from this new facility to the existing waste water treatment plant at Laragh which we understand from Irish Water is flood protected.

It is also proposed replace the existing toilet block at the Upper Lake, enhance the car parking facilities and create a new café. Foul drainage is to connect to the existing treatment plant located at the Upper Lake.

Presented in Figure 2-1, Figure 2-2 and Figure 2-3 below, is a copy of the draft masterplan arrangement for Glendalough, including the creation of new parking areas and the new visitor hub in the east at Laragh.

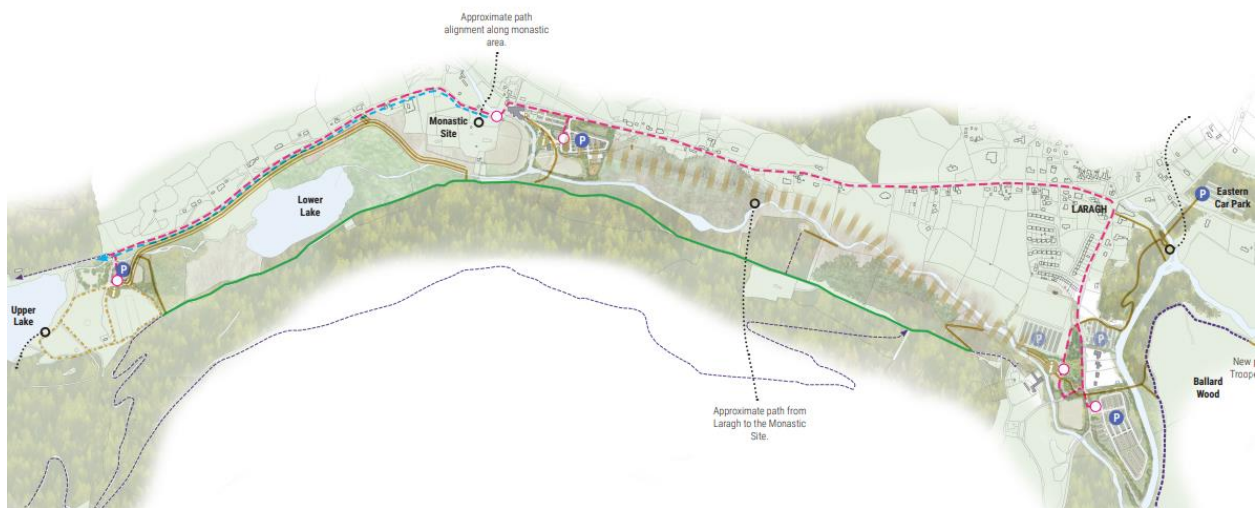


Figure 2-1: Draft Visitor Experience Masterplan





Figure 2-2: Draft Masterplan, Laragh, adjacent to R755



Figure 2-3: Draft Masterplan, Upper Lake Visitor Facilities

#### Existing Site

The proposed development areas currently comprise of primarily agricultural green-field lands with some limited areas of existing hardstanding areas. Ground levels and falls across the existing visitor centre and proposed Laragh visitor centre sites generally fall towards the existing watercourse, Glendasan River, located to the south of the draft masterplan layout included in Figures 2-1 and 2-2. A Topographical Survey has not yet been undertaken.

#### Irish Water / OPW Consultation

It is proposed to consult with both Irish Water and The Office for Public Works including following the Pre-Connection Enquiry process for the discharge of foul water. Also, liaison with Wicklow County Council with regard to the discharge of surface water from the development areas and visitor hub roof, and replacement toilet block and café at the Upper Lake.

#### Existing Watercourses and Water Bodies

As part of the primary sources of flood risk a review of the online flood mapping and OS maps has been undertaken. The Glendasan River is located to the south of draft masterplan area, flowing due east, from the Lower Lake in the west to Laragh in the east, then flows in a southerly direction.

There is also the existing Lower Lake and the Glendalough Upper Lake located to the west of the proposed visitor facilities. A review of the existing flood maps and fluvial mapping indicates that the discharge from the upper and lower lakes join the Glendasan River adjacent to the existing visitor centre and Glendalough Cathedral.

The extent of potential flooding associated with both the upper and lower lakes and the Glendasan River are included in the images of the online flood mapping shown in the following section of this report.

### 3. Flood Risk Assessment

#### Information from Flood Info IE Mapping

The online flood mapping indicates that part of the visitor development lands would be inside of the 1 in 100 year fluvial flood plain. The flood risk exerts images included below in Figures 3-1, 3-2 and 3-3 show the extent of estimated flooding associated with the annual exceedance probability (% Medium Probability) for the Return Period 100 years. However, these maps do not include the risk of localised site-based surface water flooding which will be dealt with later in this report.



Figure 3-1: Present Day Fluvial Flood Map (Floodinfo.ie) – Western Area

The image presented above in Figure 3-1 indicates that the existing Glendalough Visitor Centre, located due west of Laragh, is within the present day 1 in 100 year flood plain. Any proposed enhancements of the car parking area located to the east of the existing visitor centre would also be

located within the flood plain. Therefore, within this area, no land-raising should be proposed, and SUDS drainage should be included to address the issues of surface water discharges from the site and the risk of localised surface water flooding associated with storm water discharge from the car park. Also, existing localised overland flow from the higher ground adjacent to the car parking areas needs diverted to the watercourse.

A detailed analysis of potential depth of flooding in the area of the existing visitor centre and car parking has not been undertaken but the natural escape route away from this potential flooding would be due north to the R757.

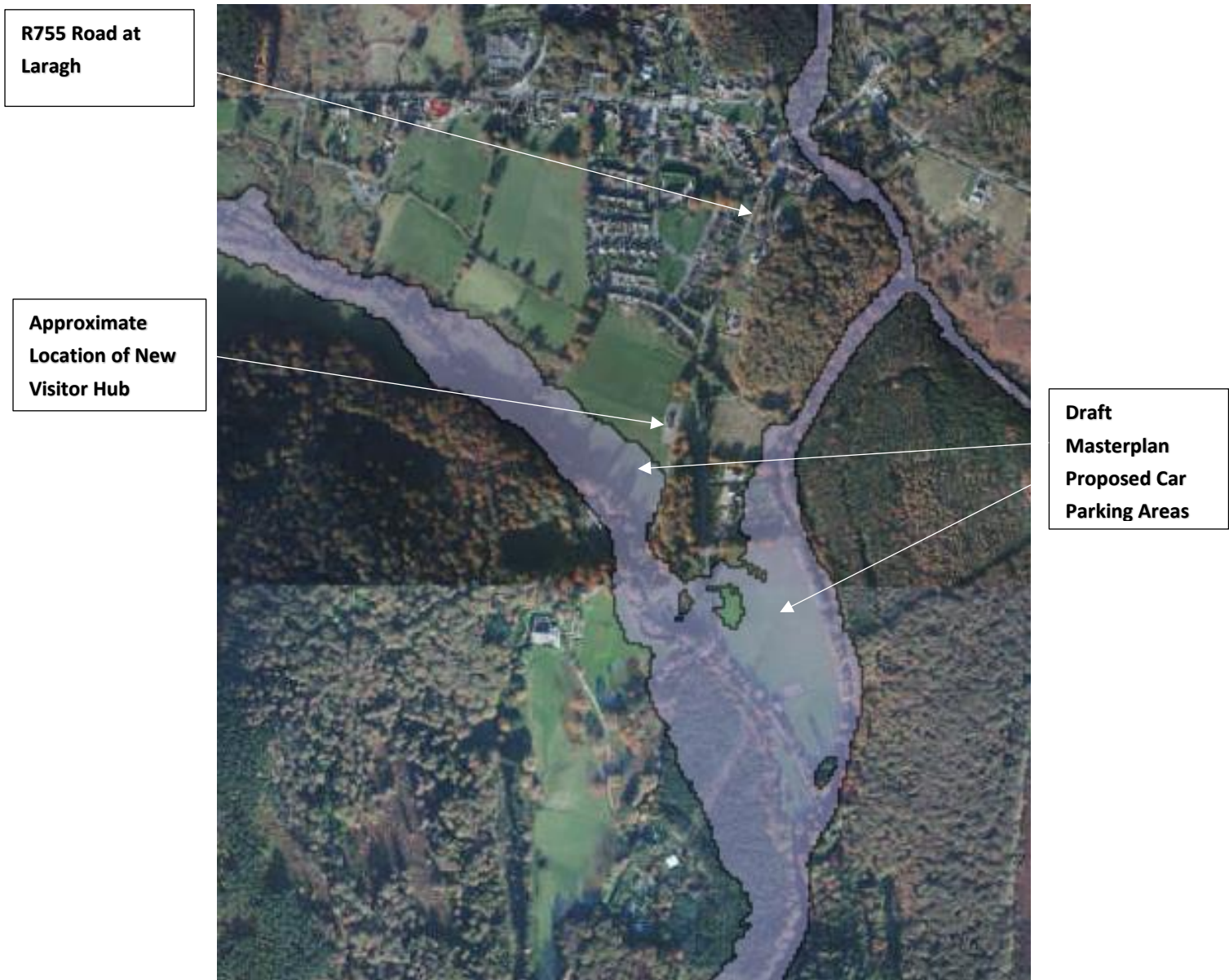


Figure 3-2: Present Day Fluvial Flood Map (Floodinfo.ie) – Eastern Area

The image in Figure 3-2 presented above has been obtained from the Floodinfo.ie online flood mapping and indicates the potential extent of flooding associated with the 1 in 100 year storm return period.

The flood map, included Figure 3-2, indicates that the proposed location of the new Laragh Visitor Hub would be located outside of the estimated 1 in 100 year floodplain. However, it is understood that the local waste water treatment plant at Laragh is flood protected.

However, as some of proposed car parking areas would be located within the 1 in 100 year floodplain it would be necessary to assess the potential storage of these surface water volumes within the site and provide mitigation in the form of compensation underground storage. Clear signage should also be incorporated within these car parking areas as mitigation to direct visitors from the parking areas via a safe route to higher ground to the north.



Figure 3-3: Present Day Fluvial Flood Map (Floodinfo.ie) – Upper Lake

The image in Figure 3-3 presented above has been obtained from the Floodinfo.ie online flood mapping and indicates the potential extent of flooding associated with the 1 in 100 year storm return period. This indicates that the proposed location of the replacement toilet block and new café would

be located within the estimated 1 in 100 year floodplain. It will therefore be necessary to mitigate this risk by the provision of flood resilience measures and the provision of flood evacuation strategy and route signage.

Furthermore, as some of proposed car parking areas would be located within the 1 in 100 year floodplain it would be necessary to assess the potential storage of these surface water volumes within the site and provide mitigation in the form of compensation underground storage. Clear signage should also be incorporated within this car parking area, as mitigation, to direct visitors from the parking areas via a safe route to higher ground to the north.

### **Flood Mitigation Measures at Upper Lake Facility**

The approach taken is to allow water through the property to avoid structural damage of the proposed café and toilet block as part of flood resilience strategy. The design shall incorporate methods for water to drain away after flooding. Where practical all electrical appliances and sockets on the ground floor should be raised at least 1.2m above flood level.

Given the proposed use of this building it is considered that flood proofing would not significantly benefit this building and demountable flood guards have been considered.

### **Flood Emergency Evacuation Plan**

A Flood Emergency Evacuation Plan should be prepared for the proposal if planning permission is granted. This will include details of the evacuation procedures and emergency service liaisons. It should form part of the Operation and Maintenance Manual for the proposal.

The Flood Evacuation Plan should include details on the following items:

- Flood Safety Management Structure;
- Evacuation of people with special needs;
- Responsibilities of designated staff;
- Routine procedures;
- Emergency Response Procedures;
- Maintenance and testing of any flood alarms;

- Staff training;
- Evacuation drills;
- Evacuation Signage;
- Information displayed for visitors to the site;
- Evacuation route plan

### **Other Sources of Flood**

#### Overland Surface Water Flow Flooding

A preliminary investigation would suggest that there is no reported history or other evidence associated with overland flow in the immediate vicinity of the proposed site, other than that already identified in the flood mapping in the section above. Therefore, this is not considered for any additional flood risk mitigation, however, it is recommended that cut-off filter drains are included in the detailed design along the boundary of the proposed development areas.

#### Existing Infrastructure

A review of existing watercourse structures of bridges in the vicinity of the proposed visitor facilities that these do not present any significant additional flood risk to that already identified on the flood mapping included in the section above.



## 4. Existing and Proposed Surface Water Drainage

The existing development land is primarily agricultural and without formalised drainage systems. Therefore, an assessment of the existing and proposed surface water will be undertaken using Causeway FLOW software based on the location, ground conditions and area of surface water run-off. For the existing case, it is proposed to install sustainable urban drainage systems (SUDS) to restrict the discharge of surface water to the equivalent to greenfield flow rate of approximately 10 l/s/Ha. This will be achieved by the use of a flow control device and by underground surface water attenuation. Runoff flows will be attenuated below ground between the 1 in 2 year event and the 1 in 30 year event, and within the site boundary for the more extreme 1 in 100 year rainfall event.

Potential SUDS elements will include filter trenches, swales, retention ponds, and underground storm water attenuation tanks, taking account of the soil classification of the site, porosity tests and topography.

## 5. Proposed Foul Drainage

Foul water discharge for the proposed visitor centre development will be required, comprising foul effluence from the proposed visitor hub.

A separate foul drainage system is proposed for this development and foul drainage calculations will be undertaken based on the estimated number of staff and visitors, and also the café facilities to be provided to allow for sizing of the plant at detailed design stage. The proposed foul discharge from the proposed site comprises only of domestic effluent.

The site plans and building plans for the proposed new visitor hub at Laragh and the replacement toilet block and café at the Upper Lake is included in Appendix 1. A total of 20 wcs and 16 basins are proposed at the new visitor hub at Laragh, and a total of 20 wcs and 13 basins are proposed at the replacement toilet block and café facilities at the Upper Lake.

It is understood that there is adequate capacity at the existing public waste water plants at both Laragh and the Upper Lake. However, confirmation of connection of foul discharge will be subject to the completion of a Pre-Connection Enquiry application to Irish Water.

## 6. Drainage Maintenance Requirements

Appendix A : Identification and Assessment of Flood Risk of the *'The Planning System and Flood Risk Management Guidelines for Planning Authorities'*, also requires that long term management and maintenance of drainage infrastructure on which the mitigation measures proposed depends is considered.

At present it is not proposed that the internal drainage for the visitor sites will be adopted. Therefore, it will be necessary for the management company responsible to ensure that there is an adequate drainage management process and plan in place. This plan should include the following considerations:

Regular Drainage scheme inspections will:

- Help determine future maintenance activities
- Confirm hydraulic, water quality, amenity and ecological performance
- Allow identification of potential system failures, e.g., blockage, poor infiltration, poor water quality etc.

During the first year of operation, inspections should ideally be carried out after every significant storm event to ensure proper functioning.

Typical routine inspection questions for maintenance activities and investigations include:

Are outlets or pipe inlets blocked or silted?

Check of proposed Hydrobrake flow control

Does any part of the system appear to be leaking?

Is there evidence of sedimentation build-up?

Is there evidence of structural damage which requires repair?

All those responsible for maintenance should take appropriate health and safety precautions and risk assessments should always be carried out.

## 7. Conclusions and Recommendations

This assessment has been carried out in accordance with the Strategic Environmental Assessment (SEA) process and the EU Water Framework Directive and also in accordance with the *'The Planning System and Flood Risk Management Guidelines for Planning Authorities'*, dated Nov 2009, and published by The Office for Public Works (OPW). The Drainage Assessment presented a review of the existing base conditions on the site.

The OPW Strategic Flood Map has been assessed and indicates that the site of the proposed visitor centre 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 some additional underground surface water attenuation and retaining the existing ground level so that existing volume is not lost during a 1:100 event. The risk of life due to flooding is considered low.

The OPW Strategic Flood Map has also been assessed and indicates that the site of the proposed replacement toilet block and café at the Upper lake is within present 1 in 100 year fluvial floodplain. However, it is considered that this flood risk can be mitigated by the provision of flood resilience measures and the provision of flood evacuation strategy and route signage.

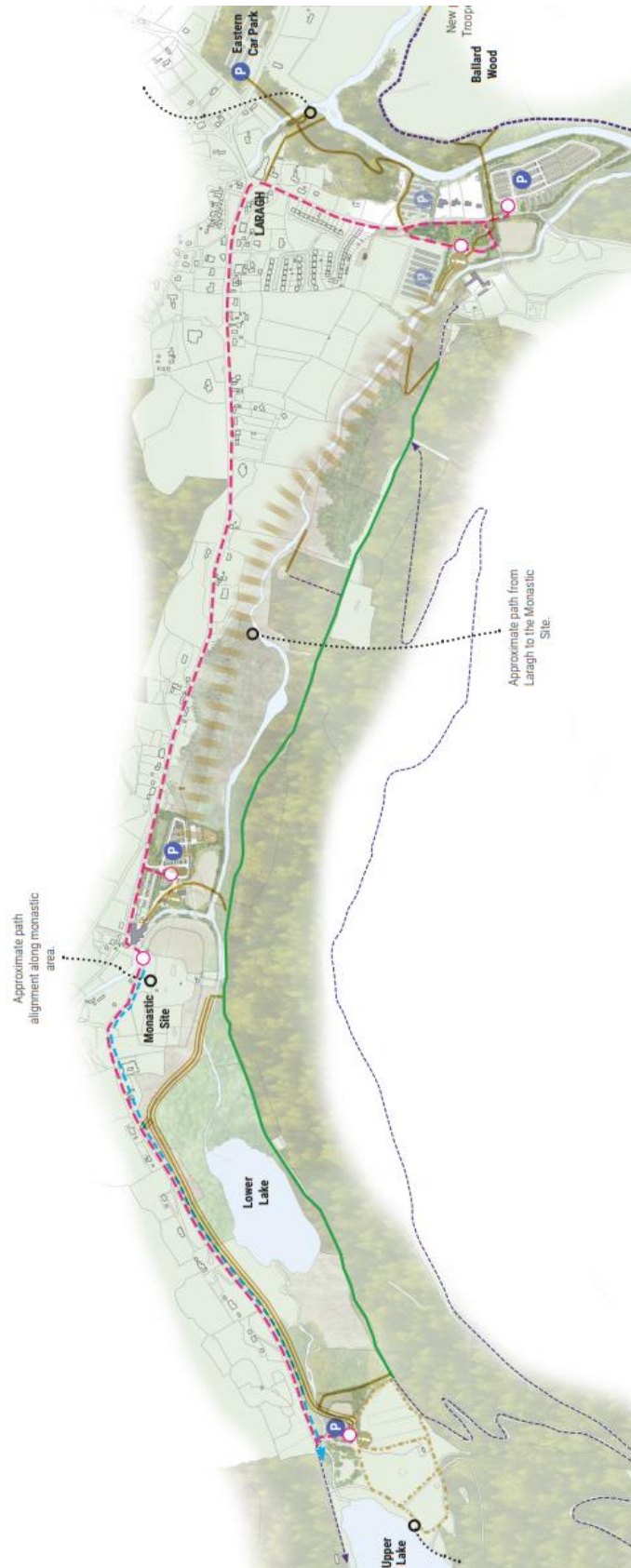
OPW have also confirmed that the nearest existing watercourse is the Glendasan River located south of the site. The building and new car parking will be designed with SUDS attenuation and the proposed surface water drainage assessment carried out as part of this report indicates that surface water run-off from the proposed site can be safely attenuated within this site and discharged at a controlled rate, equivalent to a greenfield flow rate, of 10 l/s per hectare subject to OPW consent.

In addition to attenuating surface water for the storm event between the 1 in 2 year event to the 1 in 30 year event in underground storage tanks exceedance flows have been considered. These can be safely stored within the proposed site. A 150mm high level overflow pipe should be provided at the discharge manhole to reduce the risk of flooding as a result of any blockage.

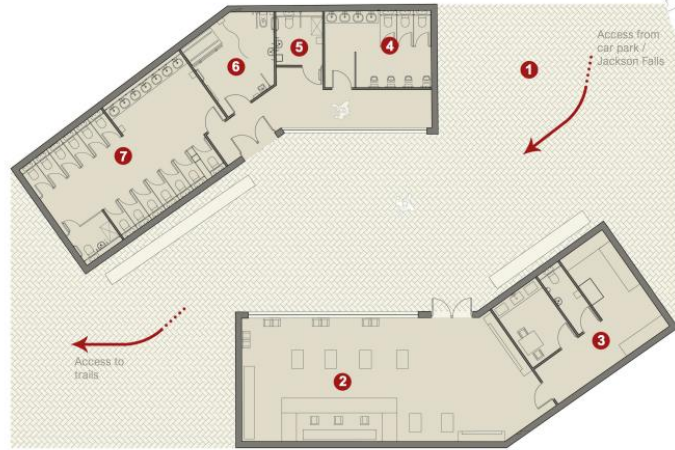
The proposed foul discharge has been assessed at a high level and it is understood from Irish Water that there is adequate capacity at both the existing waste water plants at Laragh and the Upper Lake, subject to completion of a Pre-Connection Enquiry to Irish Water.

Finally, the Management Team of the site will be made aware of any residual drainage risks, mitigation measures, operational requirements, access restrictions, staff training and the long-term maintenance requirements.

## Appendix 1: Proposed Drawings



Visitor Experience Management Plan **Laragh Visitor Pavilion**  
Wicklow Mountains National Park  
**DRAFT**



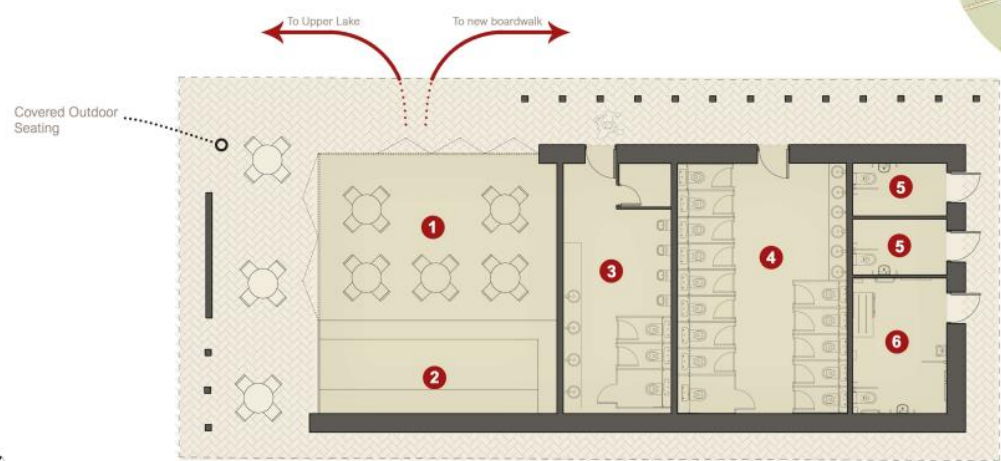
Visitor Information / WCs  
Floor Plan 1:100



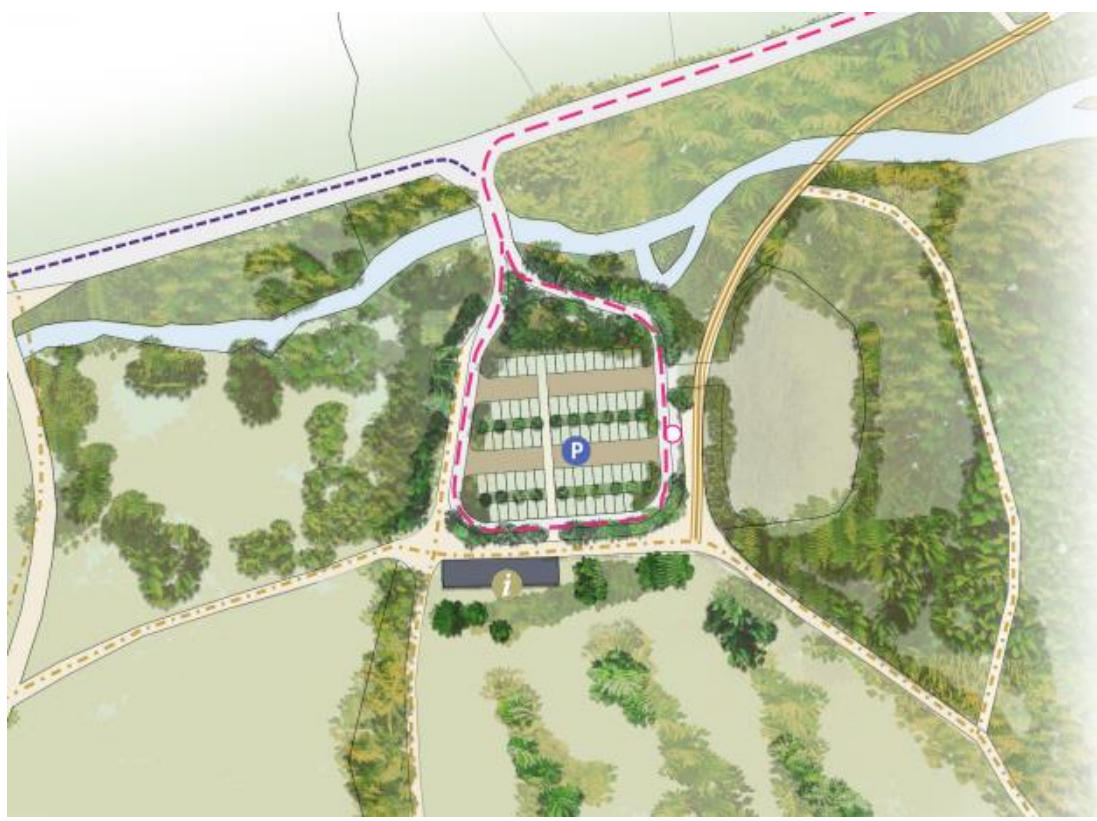
Visitor Experience Management Plan **Upper Lake Visitor Pavilion**  
 Wicklow Mountains National Park  
**DRAFT**



Site Plan



Visitor Information / Cafe / WCs  
 Floor Plan 1:100







**SEA Environmental Report in relation to the**

***Draft Visitor Experience & Management Masterplan for Glendalough***

***and Wicklow Mountains National Park, Co. Wicklow***



## **APPENDIX 4 – SEA DETERMINATION + AA DETERMINATION**

# SEA Determination

## Strategic Environmental Assessment (SEA) Screening Determination for the: Draft Masterplan for Glendalough and Wicklow Mountains National Park and Visitor Orientation Recommendations for County Wicklow

Article 3 para. 2 of the SEA Directive<sup>1</sup>, introduced the requirement that SEA be carried out on plans and programmes, or modifications to these:

- a) which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II to the EIA Directive<sup>2</sup>, or
- b) which, in view of the likely effect on sites, have been determined to require an assessment pursuant to Article 6 or 7 of the Habitats Directive<sup>3</sup> i.e. the Directive requires that SEA is undertaken where Stage 2 Appropriate Assessment (AA)<sup>4</sup> is being undertaken on plans, programmes etc.

This tourism sector Plan does not contribute towards the framework for future development consent of projects listed in Annexes I and II to the EIA Directive and does not contain provisions or define rules that must be complied with when administrative consent of other projects is being granted.

The Masterplan does, however, fall under the definition of a "plan" contained within the Birds and Natural Habitats Regulations 2011 (as amended) and therefore must be screened for the need to undertake AA. The Screening for AA has found that the Plan has the potential, if unmitigated, to affect the ecological integrity European Sites and that measures to ensure that potential effects are avoided are required. Taking into account the requirements of the Habitats Directive and recent case law (including, European Court of Justice Judgement C323-17), Stage 2 AA must therefore be carried out for the Plan. As Stage 2 AA is being undertaken on the Plan, SEA must also be undertaken for this Plan - see requirement at b) above.

This determination has been made having regard to the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Statutory Instrument Number (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).

### Signatory:



Signatory

Approved Officer

**Date: 07.11.22**

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<sup>1</sup> Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27<sup>th</sup> June 2001, on the Assessment of the Effects of Certain Plans and Programmes on the Environment

<sup>2</sup> Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011, on the assessment of the effects of certain public and private projects on the environment (codification), as amended by Directive 2014/52/EU

<sup>3</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

<sup>4</sup> AA is provided for by the Habitats Directive and is a focused and detailed impact assessment of the implications of a strategic action or project, alone and in combination with other strategic actions and projects, on the integrity of a European Site in view of its conservation objectives.

# Ancillary AA determination

further to the main AA Natura Impact Statement

under the  
European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended)  
for the  
Draft Masterplan for Glendalough and Wicklow Mountains National Park  
and Visitor Orientation Recommendations for County Wicklow

## Appropriate Assessment (AA) screening


This ancillary determination is ancillary to both:

- Fáilte Ireland's AA Natura Impact Statement; and
- Fáilte Ireland's AA determination that is made in advance of finalisation of the Draft Masterplan for Glendalough and Wicklow Mountains National Park and Visitor Orientation Recommendations for County Wicklow

In making the determination that AA is required, the information on the potential effects on European Sites arising from the Draft Masterplan for Glendalough and Wicklow Mountains National Park and Visitor Orientation Recommendations for County Wicklow is taken into account (this information is reproduced in the AA Natura Impact Statement).

That information has been carefully considered and its reasoning and conclusion agreed with and adopted – allowing the AA Natura Impact Statement to conclude "Screening for Appropriate Assessment" of the Natura Impact Statement that Stage 2 AA is required. It has been determined that the Draft Masterplan for Glendalough and Wicklow Mountains National Park and Visitor Orientation Recommendations for County Wicklow may have effects on a number of European Sites - therefore, Stage 2 AA (including the preparation of the Natura Impact Statement) is required for the Plan.

### Signatory:



Signatory  
Approved Officer  
**Date: 07.11.22**