## **GLENDALOUGH AND WICKLOW MOUNTAINS** NATIONAL PARK

**Appendix D2** Ecological Requirements for Successful Funding & Support ofProjects Resulting from the Masterplan Author: Consarc Design Group

Table 1 Ecological Requirements for Successful Funding & Support of Projects Resulting from the Masterplan.

Ecological Component Requiring Mitigation	Ecological Requirement for Plan Partners & Implementation Group to Consider in Order Receive Funding & Support at Project Level
Natura 2000 Network	<b>Regulatory framework for environmental protection and management</b> Cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management and will ensure that plans, programmes and projects comply with EU Directives – including the Habitats Directive (92/43/EEC), the Birds Directive (2009/147/EC), the Environmental Impact Assessment Directive (2011/92/EU, as amended by 2014/52/EC) and the Strategic Environmental Assessment Directive (2001/42/EC) – and relevant transposing Regulations.
	Protection of Natura 2000 Sites No plans or projects giving rise to adverse effects on the integrity of European sites (cumulatively, directly or indirectly) arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Masterplan (either individually or in combination with other plans or projects).
	<ul> <li>Appropriate Assessment</li> <li>All projects and plans arising from this Masterplan will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. A plan or project will only be authorised after the competent authority has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and subsequent Appropriate Assessment where necessary, that: <ul> <li>The Plan or project will not give rise to adverse direct, indirect or secondary effects on the integrity of any European site (either individually or in combination with other plans or projects); or</li> <li>The Plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type/and or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or</li> <li>The Plan or project will have a significant adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or</li> </ul></li></ul>

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	NPWS & Integrated Management Plans Article 6(1) of the Habitats Directive requires that Member States establish the necessary conservation measures for European sites involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans. The NPWS's current priority is to identify site specific conservation objectives; management plans may be considered after this is done. Where Integrated Management Plans are being prepared for European sites (or parts thereof), Fáilte Ireland and local authorities shall engage with the National Parks and Wildlife Service in order to ensure that plans are fully integrated with the Masterplan and other plans and programmes, with the intention that such plans are practical, achievable and sustainable and have regard to all relevant ecological, cultural, social and economic considerations, including those of local communities.
Natura 2000 Network and Supporting Habitats and Species	Information to be considered by local authorities and others at lower levels of decision making and environmental assessment Lower levels of decision making and environmental assessment should consider the environmental sensitivities identified in Section 4 of the SEA Environmental Report, including the following: Special Areas of Conservation and Special Protection Areas; Features of the landscape that provide linkages/connectivity to designated sites (e.g., watercourses and areas of semi-natural habitat, such as linear woodlands); Salmonid Waters; Shelfish Waters; Shelfish Waters; Nature Reserves; Nature Reserves; Areas likely to contain a habitat listed in Annex 1 of the Habitats Directive; Entries to the Record of Monuments and Places and Zones of Archaeological Potential; Entries to the Record of Protected Structures; Un-designated sites of importance to wintering or breeding bird species of conservation concern; Architectural Conservation Plan; Architectural Conservation Areas; and Relevant landscape designations.

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Biodiversity, Flora and Fauna	<ul> <li>Protection of Biodiversity including Natura 2000 Network</li> <li>Contribute, as appropriate, towards the protection of designated ecological sites including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); UNESCO World Heritage and UNESCO Biosphere sites; Ramsar Sites; Salmonid Waters; Shellfish Waters; Freshwater Pearl Mussel catchments; Flora Protection Areas; Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs); Wildfowl Sanctuaries (see S.I. 192 of 1979); and Tree Preservation Orders (TPOs).</li> <li>Contribute towards compliance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines, including the Habitats Directive (92/43/EEC, as amended), the Birds Directive (2009/147/EC), the Environmental Liability Directive(2004/35/EC), the Environmental Impact Assessment Directive (2011/42/EU, as amended by 2014/52/EC), the Water Framework Directive (2000/60/EC) and the Strategic Environmental Assessment Directive (2001/42/EC).</li> <li>National legislation, including the Wildlife Acts 1976 and 2010 (as amended), the Planning and Development Act 2000 (as amended) and associated Regulations, Environmental Impact Assessment Regulations, the European Union (Water Policy) Regulations 2003 (as amended), the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended), the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended), the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended), the European Communities (Birds and Natural Habitats) Directive (2001/02/EU.</li> <li>National policy guidelines (including any clarifying Circulars or superseding versions of same), including the "Landscape Assessment" Draf Guidelines 2000, the Environmental Impact Assessment Sub-Threshold Development Guidance 2010.</li> <li>Catchment and water resource management Plans, including the relevant River Basin Management Plan and Flood Risk Man</li></ul>
	hedgerows, semi-natural grasslands, rivers, streams, natural springs, wetlands, geological and geo-morphological systems,

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Ecological Networks & Connectivity	other landscape features, natural lighting conditions, and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones in the context of Article 10 of the Habitats Directive
General Ecological Features/Non- designated Biodiversity	<ul> <li>Ensure the undertaking of appropriately detailed surveying and assessment at project/EIA/EIAR level and minimisation of loss of biodiversity, including old trees or tree lines or areas of vegetation, as a result of the development of new or widened infrastructure.</li> <li>Help to ensure the appropriate protection of non-designated habitat features, landscapes and biological diversity. Where possible, to strive to achieve no net loss of these features as a result of new development granted permission under the Plan.</li> <li>Contribute towards the protection and management of fisheries as appropriate and take into account Inland Fisheries Ireland's "Planning for Watercourses in the Urban Environments" (2020) for developments along watercourses</li> </ul>
Non-Native Species	<ul> <li>Support, as appropriate, the National Parks and Wildlife Service's efforts to seek to control and manage the spread of non- native invasive species on land and water. Where the presence of non-native invasive species is identified at the site of any proposed development or where the proposed activity has an elevated risk of resulting in the presence of these species, details of how these species will be managed and controlled will be required.</li> </ul>
Habitat or Species Fragmentation and/or Disturbance - due to the Development or Extension of Trails and Walkways for the Purposes of Tourism	<ul> <li>Corridor and Route Selection Process</li> <li>The following Corridor and Route Selection Process will be undertaken for relevant trail infrastructure:</li> <li>Stage 1 – Route Corridor Identification, Evaluation and Selection <ul> <li>Environmental constraints and opportunities (such as existing linear infrastructure) will assist in the identification of possible route corridor options;</li> <li>Potentially feasible corridors within which infrastructure could be accommodated will be identified and these corridors assessed. The selection of the preferred route</li> <li>corridor will avoid constraints and meet opportunities to the optimum extent, as advised by relevant specialists; and</li> <li>In addition to the constraints identified above, site-specific field data may be required to identify the most appropriate corridors.</li> </ul> </li> <li>Stage 2 – Route Identification, Evaluation and Selection <ul> <li>Potentially feasible routes within the preferred corridor will be identified and assessed. The selection of preferred routes will avoid constraints and meet opportunities to the optimum extent, as advised by relevant specialists; and</li> <li>In addition to the constraints identified above, site-specific field data may be required to identify the most appropriate corridors.</li> </ul> </li> <li>Stage 2 – Route Identification, Evaluation and Selection <ul> <li>Potentially feasible routes within the preferred corridor will be identified and assessed. The selection of preferred routes will avoid constraints and meet opportunities to the optimum extent, as advised by relevant specialists, taking into account project level information and potential mitigation measures that are readily achievable;</li> <li>In addition to the constraints identified above, site-specific field data may be required to identify the most appropriate routes; and</li> <li>In addition to environmental considerations, the identification of route corridors and the refinement of the route lines is likely to be informed by other con</li></ul></li></ul>

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	<ul> <li>European sites may be vulnerable to greenway/cycleway developments due to their location. As outlined in Appendix I to the AA Natura Impact Statement, amenity and leisure activities are already posing an existing level of threat and pressure to various European sites. Some of these sites are in close proximity to a number of already proposed greenways.</li> <li>Screening for AA, and subsequent stages of AA as relevant, will be required for all greenway/cycleway developments when implementing the Masterplan.</li> </ul>
	The feasibility and determination of any route is subject to presenting no significant adverse effect(s) to the integrity of European sites, alone or in combination with other plans or projects, where projects do not meet the strict criteria for imperative reasons of overriding public interest and/or where alternative routes are identified.
	Green Infrastructure and Ecosystem Services
	<ul> <li>In contributing towards outcomes under the Strategies, partners and stakeholders shall contribute towards the maintenance of existing green infrastructure and its ecosystem services, taking into account the output of the Mapping and Assessment of Ecosystem Services project being undertaken by the NPWS. Proposals for the development of any green infrastructure should demonstrate the synergies that can be achieved with regard to the: provision of open space amenities; sustainable management of water; protection and management of biodiversity; protection of cultural heritage; and protection of protected landscape sensitivities.</li> <li>Where possible, extension of existing greenways and future development of new greenways and blueways should complement and integrate rather than replace existing green infrastructure. Stakeholders considering the development of greenways and</li> </ul>
	blueways should have regard to the Fáilte Ireland publication "Greenway - Visitor Experience & Interpretation Toolkit" and, "Connecting with nature for health and wellbeing" EPA Research Report 2020.
Appropriate and	Site and Visitor Management
tailored site	• Fáilte Ireland's extensive monitoring of the effects of tourism to date has shown predictors of impact occurrence to include: site
management, which	type; group type; the number of activities; activity intensity; and the interaction between activity intensity and abundance. Site
responds to ongoing	management must consider these factors in seeking to reduce the potential for impacts to occur and to remove impacts.
monitoring results, to	Visitor Management
reduce direct impacts	In contributing towards outcomes under the Strategies, partners and stakeholders shall seek to manage any increase in visitor
of tourism (such as	numbers and/or any change in visitor behaviour in order to avoid significant effects including loss of habitat and disturbance,
trampling, dog walking,	including ensuring that new projects are a suitable distance from ecological sensitivities.
littering, disturbance) to	• Extensive research by Fáilte Ireland has shown improved environmental outcomes (including improved attainment of
sensitive ecological	conservation objectives) in areas with visitor management strategies. Visitor management strategies may be required from
receptor	partners and stakeholders who are contributing towards outcomes under the Strategies, as relevant and appropriate.

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	• Visitor management strategies will be required for proposed plans, programmes and projects that are to receive funding as relevant and appropriate.
Protection of Riparian Zone, Waterbodies, Watercourses and Peatlands	<ul> <li>Help to ensure that waterbodies and watercourses are protected from inappropriate development, including rivers, streams, associated undeveloped riparian strips, wetlands and natural floodplains. This will include the preservation habitat features/structure, such as treeline density, and protection buffers in riverine, wetland and coastal areas, as appropriate.</li> <li>Support, as appropriate, any relevant recommendations contained in the National Peatlands Strategy 2015.</li> <li>Water Framework Directive and associated legislation.</li> <li>Support the implementation of the relevant recommendations and measures as outlined in the most up to date River Basin Management Plan, and associated Programme of Measures. Proposed plans, programmes and projects shall not have an unacceptable impact on the water environment, including surface waters, groundwater quality and quantity, river corridors and associated woodlands. Also, to have cognisance of, where relevant, the EU's Common Implementation Strategy Guidance Document No. 20 and 36 which provide guidance on exemptions to the environmental objectives of the Water Framework Directive.</li> </ul>
Flood Risk Management	<ul> <li>Comply with the Planning System and Flood Risk Management Guidelines (2009, DEHLG/OPW) (including any clarifying Circulars or superseding versions of same) and relevant outputs of the Catchment and Flood Risk Assessment and Management Studies.</li> </ul>
Water Quality	<ul> <li>Contribute towards, as appropriate, the protection of existing and potential water resources, and their use by humans and wildlife, including rivers, streams, wetlands, groundwater, coastal waters and associated habitats and species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009), the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (groundwater) Regulations, 2010 (S.I. No. 9 of 2010) and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same). To support the application and implementation of a catchment planning and management approach to development and conservation, including the implementation of Sustainable Drainage System techniques for new development.</li> </ul>
Built Environment and Infrastructure	<ul> <li>With respect to infrastructural capacity (including drinking water, wastewater, waste and transport) the potential impact on existing infrastructure as well as the potential environmental effects of a likely increase in tourism-related traffic volumes along any routes resulting from the relevant initiative shall be considered and mitigated as appropriate, where relevant. This consideration and associated mitigation shall take into account the need to provide for climate resilience.</li> <li>Close collaboration will also be undertaken with the relevant stakeholders, such as Local Authorities and Irish Water, to ensure that any proposed tourism developments align with the capacity of the supporting critical service infrastructure.</li> <li>Plan partners will encourage site owners and operators to consider environmentally sustainable solutions and ensure compliance with the Water Framework Directive.</li> </ul>

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	<ul> <li>There is a need for close collaboration with Irish Water, to ensure that proposals align with the capacity of the supporting critical water services infrastructure. Local authorities and others shall seek the support of Irish Water, as relevant and appropriate, in its role as the lead authority for water services. Fáilte Ireland will encourage site owners and operators to consider environmentally sustainable solutions and ensure compliance with the Water Framework Directive.</li> <li>Ensure that new development is adequately serviced with surface water drainage infrastructure and promote the use of Sustainable Drainage Systems as appropriate.</li> </ul>
Detailed Assessments at Project Stage	<ul> <li>Detailed assessments will be required for the following and should include ecological baseline surveys, surveys and monitoring of visitor numbers and habitat condition surveys. This will inform if these objectives are sustainable and where visitors should be directed to and what mitigation measures would be required at these sites at project level. These proposals will then be subject to further assessment.</li> <li>Assess existing visitor impacts on European Sites and to inform mitigation measures for same required;</li> <li>There should be no promotion of sites until detailed studies to assess existing visitor impacts on European Sites at the proposed bus drop off/collection locations and to inform mitigation measures for same required</li> <li>Assess existing visitor impacts within the Glendalough Valley and to inform mitigation measures for same required</li> <li>Detailed studies to assess existing visitor impacts at the proposed Discovery Walk locations and to inform mitigation measures for same required</li> </ul>
Construction Stage Protection	<ul> <li>Construction Environmental Management Plan (CEMP)</li> <li>Potential sources of impact must be address in a CEMP at project stage to ensure there are no hydrological interactions which could lead to significant adverse effects to European sites.</li> <li>The CEMP must detail control measures for:         <ul> <li>All hazardous materials; such as bunding of materials, appropriate work practices etc.</li> <li>Dust control measures to ensure dust emissions are minimised.</li> <li>All surface water runoff must be controlled in an appropriate manner; where necessary silt fences will be installed in advance of works and appropriately maintained to ensure hydrological interactions are minimised.</li> <li>Construction phase lighting will need to be controlled to minimise light pollution as a matter of good practice – for example: via the implementation of lights out hours when construction is not active on site (evening and night hours), and the use of low UV, directional lighting.</li> </ul> </li> </ul>