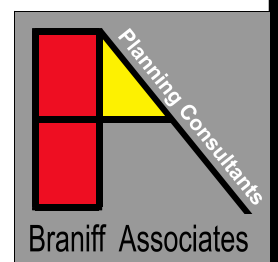


Strategic Environmental Assessment Environmental Report

Beara Breifne Way Trail Plan 2023



Braniff Associates
Chartered planning consultants
5 Windsor Avenue North
Belfast BT9 6EL
Tel 00442890662050
Email: info@braniffassociates.com



CONTENTS

| | Page |
|-------------------------------------------------------------------------------------|---------------|
| Non-Technical Summary | i-vii |
| | |
| 1.0 Introduction & Background | 1-5 |
| 1.0 Introduction | |
| 1.1 Literature and database review | |
| 1.2 Overview of Tourism Masterplan for Beara Breifne Way 2019 | |
| 1.3 Screening for Strategic Environmental Assessment | |
| 1.4 Scoping the SEA | |
| 1.5 Appropriate Assessment | |
| 1.6 Built Heritage Impact Report | |
| 1.7 Conclusion | |
| | |
| 2.0 Relationship with other plans, programmes & environmental objectives | 6-11 |
| 2.0 Introduction | |
| 2.1 Other Plans and programmes | |
| 2.2 Environmental protection objectives | |
| | |
| 3.0 Existing environment & Environmental issues | 12-24 |
| 3.0 Introduction | |
| 3.1 Environmental designations | |
| 3.2 Existing baseline environment | |
| 3.3 Environmental Issues | |
| 3.4 Conclusion | |
| | |
| 4.0 SEA objectives & indicators | 25- 26 |
| 4.0 SEA Objectives | |
| 4.1 SEA Monitoring Indicators | |

5.0 Assessment of Environmental Effects

27-45

5.0 Introduction

5.1 Trail Plan Objectives

5.2 Trail surface intervention

5.3 Trail infrastructure

5.4 Tourism Infrastructure

5.5 Potential effects of proposals on the environment

5.6 The experience of trails elsewhere

5.7 Classification of environmental effects

5.8 Nature of environmental effects

5.9 Difficulties in carrying out assessment

5.10 Alternatives

5.11 Mitigation

5.12 Assessment of proposals by Trail Section

5.13 Conclusion

6.0 Strategic Environmental Assessment by Section

46-111

Beara Way

Sli Gaeltacht Mhuscraí

North West Cork Way

Ballyhoura Way

Multeen Way

Ormond Way

Hymany Way

Suck Valley Way

Lung Lough Gara Way

Miner's Way & Historical Trail

Leitrim Way

Cavan Way

Appendices

- 1.1 Response from EPA to Screening Report
- 1.2 Response from EPA to Scoping Report
- 1.3 Response from Inland Fisheries to Scoping Report
- 1.4 Response from Geological Survey Ireland to Scoping Report
- 1.5 Response from DAERA (NI) to SEA Scoping Report
- 1.6 Response from HED (NI) to SEA Scoping Report

STRATEGIC ENVIRONMENTAL ASSESSMENT ENVIRONMENTAL REPORT BEARA BREIFNE WAY TRAIL PLAN 2023

NON-TECHNICAL SUMMARY

Introduction

This is a Non-Technical Summary (NTS) of the Strategic Environmental Assessment (SEA) Environmental Report prepared for the Beara Breifne Way Trail Plan 2023. It is prepared by Braniff Associates Planning & Environmental Consultants on behalf of Fáilte Ireland, as the competent authority, which commissioned the preparation of the Trail Plan. In the interest of completeness, the contents of this NTS are cross referenced in parentheses to the legislative requirements for SEA outlined in Schedule 2 of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, S.I. No. 435/2004.

Beara Breifne Way Trail Plan 2023 (Schedule 2 (a))

The Trail Plan consists of two elements, namely: a Technical Trail Audit and Design Report for the Beara Breifne Way prepared by Outdoor Recreation NI; and the Beara Breifne Way Visitor Experience Strategy Summary Document, prepared by the Paul Hogarth Company. The Trail Plan essentially provides high-level guidance for the development of the trail, which consists of 12 mainly waymarked sections and extends from Dursey Sound in County Cork to Blacklion in County Cavan (Figure 1).

Figure 1.0



It is important to note that the route of the trail is currently in place and for the most part passable utilising existing national waymarked trails. Of the 12 sections that comprise the Trail (Figure 1) all but North West Cork Way are classified as national waymarked trails by Sport Ireland Outdoors.

The Trail Plan makes a series of recommendations relating to proposed surface intervention, trail infrastructure and tourism infrastructure. **Understandably, given the 707kms expanse of the trail, many of the findings and recommendations of the Trail Plan are subject to further investigation and detailed confirmation at the local level. This relates to the fact that many of the proposals, especially in respect of tourism infrastructure, are indicative & subject to landowner consultation and consent. They also have to satisfy planning and environmental policies at Council level.**

The preparation of the Trail Plan should be appreciated in the light of the national strategic aspiration to provide trails under Project Ireland 2040. National Policy Objective 21 seeks to *“Enhance the competitiveness of rural areas”* and states that *“the development of a strategic national network of these trails is a priority and will support the development of rural communities and job creation in the rural economy, as well as the protection and promotion of natural assets and biodiversity.”*¹

The need for the Beara Breifne Way Trail Plan 2023 (Schedule 2 (b))

In the main, the SEA Environmental Report assesses the effects of proposals in the Trail Plan that relate to surface intervention, trail infrastructure and tourism infrastructure.

In the absence of the Plan this Trail would be subject to uncoordinated, piecemeal development in each of the 12 sections along its length. Viewed in this context, the Beara Breifne Way Trail Plan 2023 seeks to provide overarching strategic direction and guidance for the coherent development of the entire trail against which proposals at the project level can be considered.

Environmental characteristics and problems of the Beara Breifne Way Trail (Schedule 2 (c & d))

Covering a distance of 707kms the 12 sections of this trail span 10 counties and largely proceed through areas of heath and bog. Due to its extent the existing trail inevitably traverses environmentally sensitive areas relating to the natural and built environment. The trail directly intersects 13 Special Areas of Conservation (SACs), 6 Special Protection Areas (SPAs), 6 Natural Heritage Areas (NHAs) and 13 proposed Natural Heritage Areas (pNHAs). It is worth noting that 8 of the pNHAs and 1 NHA, which are designations of national importance, generally overlap with the aforementioned SACs and SPAs, which are designations of European importance.

The main degradation threat to most of the SAC habitats pertains to agricultural practices, notably overgrazing and run-off/seepage from fertilisation. SPAs chiefly encounter impacts from noise and disturbance on birds, while the degradation of their habitats can affect numbers.

Environmental protection objectives (Schedule 2 (e))

The key environmental protection objectives relevant to the SEA relate to The Habitats Directive 1992/43/EEC and The Birds Directive 2009/147/EC. Other objectives and regulations that the SEA considered included: the Water Framework Directive 2000/60/EC, which is the basis of River Basin Management Plans; the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010); Environmental Noise Regulations 2018 (S.I. No. 549); The Drinking Water Directive 98/83/EC on the quality of water intended for human consumption; Air Quality Directive 2008/50/EC on ambient air quality and cleaner air for Europe; and the EU Floods Directive 2007/60/EC on the assessment and management of flood risks.

European Conventions were also consulted, including those pertaining to Archaeological Heritage (Valletta, 1992), Architectural Heritage of Europe (Granada Convention, 1985), The European Landscape Convention of the Council of Europe (Florence, 2004) and the Aarhus Convention (1998) which established a number of rights of the public with regard to the environment.

¹ p77, Project Ireland 2040, National Planning Framework

Likely significant environmental effects (Schedule 2 (f))

Likely significant environmental effects associated with this Trail Plan are interrelated and apply during both the construction stage and operational stage. They are summarised below for each of the SEA topics considered in this report.

(i) Biodiversity, flora & fauna

In basic terms, the biodiversity sensitivity of the trail is highest in the south and lowest in the north. The Beara Way section in the south traverses 3 SACs, 1 SPA and 2 pNHAs while the Leitrim Way section in the north traverses 1 pNHA. Within this environmental context the required level of trail surface intervention amounts to c.28kms in the Beara Way section compared to 4.54kms in the Leitrim Way section.

Likely significant effects on biodiversity generally include loss of habitats and noise and disturbance to wildlife. These are summarised below for each of the sections.

1. Beara Way - Stone stepping is proposed for two Annex 1 blanket bogs, one in the Kenmare River SAC and one north of Castletownbere. A beacon with lectern and seating is proposed for Dursey Island which is within the Beara Peninsula SPA.
2. Sli Gaeltacht Mhuscraí – New surfacing, infrastructure works and a tourism beacon are proposed as the trail proceeds through Mullaghanish to Musheramore Mts SPA, which accommodates the hen harrier. According to a 2015 survey, numbers have fallen by 80% since 2005 to several pairs. Increased usage of the trail will heighten the potential for disturbance to these protected birds. The trail also passes through Conigar Bog NHA where 235m of stone stepping is proposed, together with a beacon. A proposed tourism shelter is proposed within Aghaneenagh Ancient Woodland, c.20m from Blackwater River (Cork/Waterford) SAC. In addition, gravel surfacing is proposed within 200m of the River Lee which is also a salmonid regulated watercourse.
3. North West Cork Way - This entire section is located in the Munster Blackwater sensitive area for the catchment of The Freshwater Pearl Mussel SAC populations listed in S.I. 296 of 2009. Currently, this section requires the least amount of surface intervention with only 38m of gravel and fencing recommended. However, in the desire to increase the proportion of off-road trail in this section, the level of surface intervention is likely to increase in the future.
4. Ballyhoura Way - The route passes through the Ballyhoura Mts SAC and pNHA, which comprises Annex 1 Blanket bogs (Habitat Code: 7130) and Wet and Dry Heath (Codes: 4010, 4030). New build, including stone stepping and bog bridges, is proposed here. Several kms of new gravel build and fencing, together with mainly replacement footbridges, are proposed along the bank of the River Aherlow east of Galbally, which is a salmonid regulated watercourse. Ballyhoura Way is also within the Munster Blackwater sensitive area for the catchment of The Freshwater Pearl Mussel SAC populations listed in S.I. 296 of 2009. Site-specific conservation objectives for the restoration of these mussel populations and their habitats are being developed by the National Parks and Wildlife Service (NPWS) via the preparation of Sub-basin Management Plans. Surface interventions including gravel build, bog bridges and stone stepping are proposed in the area south of Ardpatrick.
5. Multeen Way – An element of new gravel build and fencing is proposed in the Slievefelim to Silvermines Mts SPA, where no existing trail exists. Some of these works are proposed for Annex 1 Habitats Dry heaths, Wet heath (Codes: 4030, 4010). This SPA is one of the key locations for Hen Harriers in the country. A survey in 2005 recorded five breeding pairs compared to nine pairs in the 1998-2000 period.
6. Ormond Way - Ormond Way transects 3 SACs, 1 SPA and has hydrological connections to 4 SACs and 2 SPAs. Some new gravel build is proposed for Lough Derg-North East Shore SAC near Portumna. There are also proposals to provide circa 200m of stone stepping and new gravel build with fencing at Annex 1 Alpine & Boreal heaths habitat (Code 4060), north of Milestone. Furthermore, there are proposals to provide enhancements for a viewing platform at the existing boardwalk located within

- Scohaboy Bog NHA and a tourism beacon within River Shannon Callows SAC/pNHA and Middle Shannon Callows SPA.
7. Hymany Way - Out of all the sections, Hymany Way is subject to the highest length of boardwalk construction (2.4kms). Boardwalks, together with an element of new gravel build is proposed for Castle Ffrench West Bog NHA and Crit Island West NHA, with the latter also incorporating a small component of bog bridges. A beacon, with benches, is proposed at the point of the Shannon Crossing by O'Sullivan Beare, which is situated within River Shannon Callows SAC/pNHA and Middle Shannon Callows SPA.
 8. Suck Valley Way – The Trail transects Corliskea/Trien Cloonfelliv Bog SAC and pNHA and Aghrim (Aghrane) Bog NHA but no works are proposed.
 9. Lung Lough Gara Way - This section is to receive a considerable degree of surface intervention. It requires the highest level of bog bridge construction of all sections (2.6kms). Fortunately, however, no European or National sites are directly affected by proposed surface works.
 10. Miners Way & Historical Trail – The trail transects Bricklieve Mountains and Keishcorran SAC/pNHA, where several hundred metres of stone stepping is proposed for the Annex 1 Blanket bogs, Wet heath Habitat (Codes: 7130, 4010) that exist here. A beacon is also proposed at Carrowkeel in this SAC/pNHA. Some upgrade to existing gravel and stone pitching is proposed for Annex 1 Blanket bogs, Dry heath, Wet heath (Codes: 7130, 4030, 4010) at Kilonan Mountains. Furthermore, approximately 800m of surface intervention (new gravel build with terram, stone stepping, boardwalk) is proposed for woodland at Knockranny (possibly ancient) located south of Lough Meelagh.
 11. Leitrim Way – No natural environmental designations are directly affected by this section of trail. At certain points, the trail passes within 100m of the Cuilcagh - Anierin Uplands SAC and pNHA, with its Annex 1 habitats of Blanket bogs, Dry heath, and Wet heath.
 12. Cavan Way - Surface intervention is proposed in Corratirrim SAC/pNHA, which comprises several Annex 1 habitats. This includes proposals for gravel and stone stepping on wet heath, with stone stepping recommended for areas of dry heath and limestone pavement.

The above impacts on the biodiversity found in European sites are further considered in the Natura Impact Report, prepared by Woodrow APEM Group, which accompanies this SEA.

(ii) Population and human health

Sections of the Trail propose works which intersect or are near river systems that are listed in the Register of Protected Areas for drinking water abstraction under the Water Framework Directive (2000/60/EC). These Sections include Beara Way, Sli Gaeltacht Mhuscraí, Ormond Way, Hymany Way, Suck Valley Way, Lung Lough Gara Way and Cavan Way.

(iii) Soil/Geo-Diversity

Proposed works for the trail affect large areas of peat bog, some of which are the subject of environmental protection. A mix of interventions is proposed in 8 sections where these peatlands exist, including stone stepping, boardwalks and new gravel build.

Added to the above, the trail intersects or passes close to over a dozen County Geological Sites, most of which are bogs. The trail in four of the Sections (Ballyhoura Way, Ormond Way, Miner's Way and Cavan Way) traverses County Geological sites, where proposed surfacing works (stone stepping and gravel) and trail/tourism infrastructure are planned. Ormond Way possesses the highest number of County Geological sites (5).

(iv) Water

Beara Way, together with the Sli Gaeltacht Way, have the highest aquifer vulnerability of all sections, with thin subsoils and rock near the surface along most of the route.

Three sections (Ballyhoura Way, Lung Lough Gara Way and Miners Way) that require surface intervention and new infrastructure affect areas where the groundwater is considered at risk of not achieving good ecological status.

Trail works consisting mainly of gravel build and fencing are proposed near ten rivers in various sections of the trail whose quality is considered to be at risk of deteriorating. The main threat to surface and ground water quality occurs at construction stage due to the risk of spillages and sediment mobilisation.

(v) Air & Climate

The entire trail proceeds through rural Ireland (Air Zone d) where air quality is considered good.

(vi) Material Assets

Severance of farmland, which is mostly used for pastoral farming, is largely avoided by proceeding along field boundaries. Stock proof fencing is proposed along some of the field boundaries to prevent walker conflict with cattle. As a standard rule, the off-road component of the trail seeks to use existing laneways, field boundaries and natural features such as the path of a river in order to avoid transecting agricultural land.

In addition, trail construction is generally removed from landfill sites and waste water treatment plants and therefore presents little risk of creating pollutant pathways.

(vii) Cultural Heritage

With the exception of Leitrim Way and Cavan Way, proposed trail works of varying degrees take place in zones of notification (ZoN) for recorded archaeological sites and monuments in all sections.

Recorded sites include enclosures, castles, churches, burial grounds, hut sites, etc., where surface intervention and trail/tourism infrastructure are proposed.

Zones of notification generally encompass an area delimited by a 40-60m radius. The zones do not define the exact extent of the monuments but rather are intended to identify them for the purposes of notification under Section 12 of the National Monuments Acts 1930 to 2004. They are not necessarily a constraint on development, as the specifics of each site will be addressed at the local authority level.

Notable proposed development within the Zones of Notification includes the following:

- Beara Way - A beacon with paving is proposed within the zone of notification for historic Dunboy Castle (SMRS Code: CO115-021) in Castletownbere.
- Sli Gaeltacht Mhuscraí – there are proposals for new gravel build, a tourism shelter, beacon and paving within the zone of notification (ZoN) at Augheris church (SMRS Code: CO069-038002) and burial ground (SMRS Code: CO069-038001), in the townland of Goirtín na Coille. The Built Heritage Impact Report that accompanies this SEA notes that there is an existing interpretation board at the church ruin.
- Ballyhoura Way - A beacon is proposed within the ZoN of Lis Carroll Castle, which is recognised for its Anglo-Norman masonry (SMRS Code: CO016-015001). The Built Heritage Impact Report concludes that there will be no adverse impact on the setting of the Castle.
- Suck Valley Way - a tourism beacon is proposed in the Zone of Notification for Glinsk Castle ruins (SMRS Code: GA007-062003). The Built Heritage Impact Report notes that the Beacon will be located on the public road to avoid impacting on the setting of the Castle.
- Miners Way and Historical Trail - New gravel build and fencing is proposed as an off-road measure within the zone of notification at Keadew Roman Catholic Cemetery, with its recorded church (SMRS Code: RO004-003001) and graveyard (SMRS Code: RO004-003002).

Most protected structures are located in settlements where no trail works are proposed, save for the erection of tourism infrastructure in certain places. The impact on protected structures is assessed in the Built Heritage Impact Report 2022 prepared by CONSARC. No significant impacts are envisaged in this report.

(viii) Landscape

Landscapes are classified according to their sensitivity to change, namely high, medium and low. Four of the sections (Mulleen Way, Ormond Way, Leitrim Way and Cavan Way) are not mapped in terms of their sensitivity. Of the 8 that are mapped or partly mapped, 6 are highly sensitive to change, one has a medium sensitivity to change, while only one (Hymany Way) has a low sensitivity to change. The tallest structures proposed for the trail are the 13 shelters (3.6m tall and 4m long) and 55 Trailhead beacons (2.55m – 3.12m tall). Again it must be reiterated that these are indicative only and subject to landowner consent. The appropriateness of their locations for development from a landscape impact perspective would require detailed assessment at the local level, involving visual impact appraisals to aid micro-siting.

Mitigation (Schedule 2 (g))

Mitigation of any adverse impacts resulting from this Trail Plan will be largely secured by complying with the statutory planning and consent framework at the project level. However, at the strategic level, mitigation is advanced by the fact that, in order to achieve funding (including promotion) from Fáilte Ireland for land use or infrastructural development or land use activities, stakeholders shall be required to demonstrate compliance with legislative requirements relating to sustainable development, environmental protection and environmental management.

At the project level, the means of mitigation will take place at the Pre-Construction, Construction and Operational stages of the Trail Plan. Each of these stages is expanded upon below.

At the Pre-Construction stage all necessary environmental surveys and assessments should be undertaken. These may include: Ecological Impact Assessment (EclA); Natura Impact Report (NIR); archaeological and built heritage assessments; drainage/flood risk assessments; preliminary risk assessments of contamination; landscape and visual impact assessments; and traffic assessments.

At the Construction stage the development of the trail will largely adopt the principles of non-intervention and minimal intervention where circumstances permit this to happen. Where development is necessary, emphasis will be placed on the creation of a sustainable, non-bitmac, off-road trail that is developed in line with best practice guidance.

In order to ensure that the trail is properly constructed from the perspective of minimizing environmental impact the appropriate personnel need to be put in place. This includes the appointment of a Design and Build Contractor with specialist experience in this field. It is further recommended that the Contractor engages the services of a qualified trail designer. In addition, the appointment of an accredited Ecological Clerk of Works (ECoW) will be a critical member of the construction team. The ECoW may seek advice from other specialists including an Arboriculturist, Invasive Species contractor and licenced Bat Ecologist. This may necessitate recommendations on such matters as the specific timing of certain works and micro-siting to improve separation distances from habitats such as setts, holts, dens and roosts. It may also involve fine tuning the specific route of the trail and ensuring works are carried out in compliance with the relevant ecology provisions of the Construction Environmental Management Plan (CEMP).

During the operational stage, a range of measures to mitigate impact could include: preparation of litter management plans; trail condition audits; deployment of personnel during busy times to manage traffic at car park locations; and signage to highlight the natural and agricultural sensitivity of the location.

Alternatives (Schedule 2 (h))

At the strategic level the alternative of not preparing this Trail Plan would result in trail development having to rely solely on the existing statutory planning and consent framework to secure sustainable development, environmental management and environmental protection. However, the Trail Plan supplements this statutory framework by reinforcing the requirement for compliance with environmental legislation and providing guidance for the coherent, sustainable development of the Trail along its entire length.

As for the consideration of alternative proposals within the Trail Plan this was assisted by the preparation of an Environmental Sensitivities and Opportunities Report (ESOR). It was prepared concurrently with the Trail Plan by Woodrow APEM Group (Ecological Consultants). It sought to advise on the preferred route of the Trail in terms of avoiding impact on highly sensitive environmental locations. Recommendations ranged from avoiding specific habitats and applying appropriate trail surfaces.

Having stated the above it must be acknowledged that there are limitations to the consideration of preferred alternative trail routes from an environmental perspective. These include the necessity to accord weight to the following considerations:

- the Historic route of O'Sullivan Beare;
- the observation that 80% of the trail accords with the original route
- the fact that there are 12 walking sections to this trail that are predominantly waymarked;
- landowners who are signed up to the Walk Scheme; and
- the extensive designations and environmentally sensitive areas along the route which often limit options to bypass them.

Monitoring (Schedule 2 (i))

For the most part, monitoring effects on the environment is conducted at the national level by the NPWS (habitats & bird reports), EPA (water quality and river biology testing), Inland Fisheries Ireland (assessment of fish stocks) and the Department of Housing, Local Government and Heritage (archaeology & architectural heritage recording). At the Council level, monitoring will be particularly required to evaluate the condition of the trail, traffic/parking capacity and litter management.

Conclusion

This SEA Environmental Report underlines the necessity to reconcile the development aspirations of the Beara Breifne Way Trail Plan with the aims of legislation and policy governing environmental protection and sustainable development.

The Beara Breifne Way is an historic trail that is predominantly waymarked. In this regard, it is already in place and is not an artificial construct being imposed on the countryside. It is also an underused tourist attraction that has the potential to be transformed, in keeping with Project Ireland 2040, into an economic asset for a lesser travelled part of Ireland west of the Shannon. For the trail to be developed sustainably it is imperative that proactive interventions, capable of supporting anticipated high footfall in some areas, are considered as part of its development. In this regard, the rationale for trail development is predicated on identifying a defined corridor within which to confine walking to a surface that can support it, and in so doing, restrict impact on surrounding habitats.

It is a walking trail that only resorts to intervention in order to enhance safe access through the countryside for the benefit of tourism, recreation and wellbeing. Nevertheless, it is clear that the level of construction involved and the operational opening up of areas of the countryside that are seldom visited need to be carefully managed in the interest of minimizing impact on the rural environment. Ultimately, an appropriate balance has to be reached between promoting the use of the trail and safeguarding the environment. The SEA Environmental Report, together with the Environmental Sensitivities and Opportunities Report (ESOR), Natura Impact Report and Built Heritage Impact Report have been prepared to help attain this appropriate balance.

SECTION 1: INTRODUCTION & BACKGROUND

1.0 Introduction

This Strategic Environmental Assessment (SEA) Environmental Report has been prepared by Braniff Associates Planning & Environmental Consultants on behalf of Fáilte Ireland, and in conjunction with Outdoor Recreation Northern Ireland (ORNI). Fáilte Ireland is the competent authority for this SEA under the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, S.I. No. 435/2004.

The SEA Environmental Report comprises an assessment of the likely significant environmental effects associated with the Beara Breifne Way Trail Plan 2023. It has been prepared in accordance with the aforementioned Regulations, which aim to place environmental protection and sustainable development at the centre of plan and programme preparation as per the requirements of The European Union's Strategic Environmental Assessment (SEA) Directive (2001/42/EC).

1.1 Literature and database review

The preparation of this SEA was guided, as reasonably practicable, by reference to the SEA Pack (updated September 2021) prepared by the Environmental Protection Agency (EPA). It refers to a range of relevant information and literature including: Good practice note on Cumulative Effects Assessment (EPA, 2020); Guidance on SEA Statements and Monitoring (EPA, 2020); Integrating climatic factors into SEA (EPA, 2019); Developing and Assessing Alternatives in SEA (EPA, 2015); and Integrated Biodiversity Impact Assessment (EPA, 2012).

In the interest of comparative analysis reference was also made to corresponding UK information sources. These included: the 2005 publication "A Practical Guide to the Strategic Environmental Assessment Directive" by the Office of the Prime and Deputy Minister (OPDPM); the Scottish Government's 2013 Strategic Environmental Assessment Guidance; and the 2015 Development Plan Practice Note for NI titled "Sustainability Appraisal incorporating Strategic Environmental Assessment".

1.2 Overview of the Beara Breifne Way Trail Plan 2023

The Trail Plan which is the subject of this SEA consists of two elements, namely: a Technical Trail Audit and Design Report for the Beara Breifne Way prepared by Outdoor Recreation NI; and the Beara Breifne Way Visitor Experience Strategy Summary Document prepared by the Paul Hogarth Company.

The Trail Plan relates to The Beara Breifne Way (BBW), which is the longest trail in Ireland that extends for circa 700kms from Dursey Sound in Co. Cork to Blacklion in Co. Cavan. The trail generally follows the route of the historic march northwards by Dónal Cam O'Sullivan Beara and his followers in 1602/1603 to reach rebel leaders in Ulster, a year after the defeat of the Irish by the English at the battle of Kinsale.

It is important to note that the route is currently in place and for the most part passable utilising existing national waymarked trails. Of the 12 sections that comprise the Trail (Figure 1) all but North West Cork Way are classified as national waymarked trails by Sport Ireland Outdoors.

Figure 1.0: Beara Breifne Way Trail



It is envisaged that the bulk of the route (circa 80%) will not change from its existing path. An audit undertaken in 2019 as part of the Tourism Masterplan for the BBW recognised the tourism potential of the trail but identified required improvements to its route and surrounding visitor infrastructure. A web link for the Tourism Masterplan, which is the forerunner for the Trail Plan, is provided at:

www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/Ireland's%20Hidden%20Heartlands/Summary_report_Beara_Breifne_Way_updated050220_compressed.pdf

Recent on the ground survey work highlighted difficult walking conditions in many parts of the Trail which will require an appreciable degree of intervention. Not only was the Trail boggy underfoot, even against a backdrop of

dry weather conditions, but parts of it were also rutted, overgrown, poached and eroded. In contrast, other parts of it were underused and there was the added issue of securing safe passage through fields containing cattle.

At the time of preparing this SEA the Trail Plan is at the draft stage of formulation. During its preparation the Trail Plan took into account the parallel findings of both an Environmental Sensitivity and Opportunities Report (ESOR) and this SEA to ensure that all environmental checks and balances are being observed.

In terms of its relationship with the environment the Trail Plan seeks to improve the route by confining footfall to a clearly defined, durable trail surface that can sustain it. It achieves this by investigating the following:

- Upgrades to existing Trail route, including new build on sections where there is no built trail, with a view to enhancing accessibility, safety, and experience;
- New build reroutes of Trail to facilitate off-road journeys and/or to safeguard the more sensitive environmental aspects of the route; and

Where it becomes necessary to carry out works in certain locations to secure safe and comfortable passage, these works may include the following:

- Surface interventions consisting of gravel build sections; stone stepping/pitching, bog bridges and in exceptional cases boardwalks; and
- Supporting trail infrastructure comprising stiles, gates, waymarker posts, signposts and fencing where appropriate.

Other associated development largely pertains to the incorporation of tourism infrastructure along the route which largely includes the erection of trail beacons, shelters, viewing platforms and benches. Potential locations have been identified visitor viewpoints and discovery points along the existing trail sections to allow the walker to capture the built and natural beauty of the area. It is important to note that these proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level.

1.3 Screening for Strategic Environmental Assessment

Screening refers to the process involved in deciding whether a particular plan or programme, other than those for which Strategic Environmental Assessment (SEA) is mandatory, would be likely to have significant effects on the environment, thereby requiring SEA and the preparation of an Environmental Report.

The criteria for determining whether a particular plan or programme is likely to have significant effects on the environment are outlined in Schedule 1 of the 2004 Regulations.

Schedule 1 of the 2004 Regulations identifies two main sets of criteria for determining whether a plan or programme is likely to have significant effects on the environment. These include:

- (i) the characteristics of the plan and programmes; and
- (ii) the characteristics of the effects and of the area likely to be affected.

Having regard to the screening assessment criteria above the following conclusions were stated in the Screening Report:

- The majority of the Screening Report's responses to criteria relating to the characteristics of the Trail Plan are affirmative in determining the need for SEA. Moreover, the requirement to undertake a SEA is underpinned by the fact that the Trail Plan aims to have material weight in guiding the development of the trail at the Council level.
- Most of the responses to screening criteria relating to characteristics of the effects and of the area likely to be affected are equally positive in confirming the need for SEA. The trail directly transects 13 Special Areas of Conservation (SACs), 6 Special Protection Areas (SPAs), 6 Natural Heritage Areas (NHAs) and 13 proposed Natural Heritage Areas (pNHAs). Likely significant effects on the environment could occur at both the construction and operational. Key impacts may include: noise & disturbance to wildlife/habitats; soil compaction/erosion; sediment activation and/or hydrocarbon release to watercourses/groundwaters during construction; visual impact on sensitive unspoilt landscapes; severance of farmland; and litter pollution.

Taking into account the foregoing therefore the Beara Breifne Trail Plan is likely to have significant effects on the environment and these need to be evaluated under Strategic Environmental Assessment. A copy of the response to this screening determination from the Environmental Protection Agency (EPA) is attached as Appendix 1.1.

1.4 Scoping the SEA

Further to the screening determination above the same environmental bodies were consulted on the scope of the SEA, in order to agree the type and level of detail to be contained in the SEA Environmental Report.

Braniff Associates on behalf of the competent authority, Fáilte Ireland, contacted the consultation bodies in question and responses were received from the EPA, Inland Fisheries Ireland, Geological Survey Ireland, the Department for Agriculture Environment and Rural Affairs NI (DAERA) and Historic Environment Division NI (HED). A copy of each of the respective scoping responses is enclosed as Appendix 1.2, 1.3, 1.4, 1.5 and 1.6.

All submissions pointed to relevant environmental guidance and information sources. The EPA also cited the need to consider the impact of increased tourist numbers on demand for water, wastewater treatment and transport capacity at congregation points e.g. Shannon Pot car park in County Cavan.¹

Moreover, because the trail intersects European designated sites, the EPA stressed the importance of aligning the SEA findings with those of the Appropriate Assessment.

¹ The prospective development of the Shannon Pot is being independently considered by Cavan County Council.

While all efforts will be made to protect the environment through management of the Trail it must also be recognised that the environment along this route faces macro pressures at the national/international level, from farming to climate change, that are beyond the remit of this SEA to address.

1.5 Appropriate Assessment

Stage 1 of the Appropriate Assessment (AA) considers that, in accordance with Article 6(3) of the Habitats Directive, a Stage 2 AA is required for the Beara Breifne Way Trail Plan. This is based on the conclusion that, in the absence of mitigation, it could have significant impacts on the Natura 2000 network (European Sites) within the Study Area (c.15kms from the trail). It is also based on the fact that the Trail Plan is not directly connected with or necessary for the management of any European site. The AA considers that the trail intersects with or is hydrologically connected with 115 SACs and 23 SPAs. However, it should be noted that in the interest of producing a manageable environmental assessment, the SEA has instead focused on those Natura designations which are directly intersected, hydrologically linked or adjacent to the trail.

1.6 Built Heritage Impact Report

The Built Heritage Impact Report assesses the impact of the Trail proposals on protected structures, monuments and sites. It particularly focuses on the impact of the tourism infrastructure (beacons, shelters, etc) proposed for the 55 trailhead and signature points along the route. This is due to the fact that they constitute the tallest and most prominent features of the trail proposals. In the main the Built Heritage Impact Report concluded that they will not have an adverse impact on the built heritage and its findings should be read in conjunction with the contents of this SEA.

1.7 Conclusion

The Trail Plan outlines a development framework for the BBW which is aimed at fostering a coordinated, joined up approach to its development and use. This SEA tests the Trail Plan for its likely significant effects on the environment, the overarching findings of which will help inform its detailed delivery at Council level.

SECTION 2: RELATIONSHIP WITH OTHER PLANS & OBJECTIVES

2.0 Introduction

Understandably, given that the Beara Breifne Way (BBW) extends for circa 700 kms and traverses 10 counties it relates to a range of statutory County Development Plans (CDPs). These are listed in Table 2.0. Once the Trail Plan is completed it is anticipated that each of the planning authorities will be made aware of its contents so that it can feed into their plan preparation process.

Table 2.0: Beara Breifne Way and relevant County Development Plans

| Beara Breifne Way Section | County | County Development Plans |
|--------------------------------------|----------------------|------------------------------------------------------------------------------------------|
| 1-2 Beara Way | Cork and Kerry | Cork County Development Plan 2014 Kerry County Development Plan 2015-2021 |
| 2-3 Sli Gaeltacht Mhuscraí | Cork | Cork County Development Plan 2014 |
| 3-4 North West Cork Way | Cork | Cork County Development Plan 2014 |
| 4-5 Ballyhoura Way | Cork Limerick | Cork County Development Plan 2014 Limerick County Development Plan 2010 - 2016 |
| 5-6 Multeen Way | Tipperary | South Tipperary County Development Plan 2009 (as varied) |
| 6-7 Ormond Way | Tipperary Offaly* | North Tipperary County Development Plan 2010 Offaly County Development Plan 2014-2020 |
| 7-8 Hymany Way | Galway | Galway County Development Plan 2015-2021 |
| 8-9 Suck Valley Way | Roscommon & Galway | Roscommon County Development Plan 2014-2020 Galway County Development Plan 2015-2021 |
| 9-10 Lung Lough Gara Way | Sligo & Roscommon | Sligo County Development Plan 2017-2023 Roscommon County Development Plan 2014-2020 |
| 10-11 Miner's Way & Historical Trail | Roscommon & Sligo | Sligo County Development Plan 2017-2023 Roscommon County Development Plan 2014-2020 |
| 11-12 Leitrim Way | Leitrim | Leitrim County Development Plan 2015-2021 |
| 12-13 Cavan Way | Cavan | Cavan County Development Plan 2014 - 2020 To be superseded by 2022-2028 Plan |
| * Only partially affected by route | | |

In the main, CDPs recognise the recreational and tourism potential of walking trails and are supportive of them in their policy and development objectives.

2.1 Other Plans and Programmes

In addition to County Development Plans, there are other plans and programmes at the national and regional level that are relevant to this SEA. They include the following:

2.11 National Plans and Programmes

- Project Ireland 2040 - National Planning Framework & National Development Plan 2021-2030
- Rural Development Programme 2014-2022 (RDP)

- National Biodiversity Action Plan 2017-21, under review.
- National Peatland Strategy 2015
- National Raised Bog Special Areas of Conservation Management Plan 2017–2022
- The Climate Action Plan 2021
- Sectoral Climate Change Adaptation Strategies and Low Carbon Roadmaps
- National Mitigation Plan
- National Adaptation Framework 2018
- National Policy Position on Climate Action and Low Carbon Development
- EU Climate Adaptation Strategy 2021
- 10 Year Tourism Strategy (Fáilte Ireland)
- Smarter Transport / Strategic Framework for Integrated Land Transport
- National Greenway Strategy
- State of the Environment Report 2020
- Waste Action Plan for a Circular Economy 2020
- River Basin Management Plan for Ireland 2018-2021, and the Draft River Basin Management Plan 2022-2027
- Draft National Marine Planning Framework
- National CFRAMS Programme
- All-Ireland Pollinator Plan 2021-2025, National Biodiversity Data Centre
- Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters

Some of the above documents merit a brief mention below.

Project Ireland 2040 - National Planning Framework

A National Policy Objective of Project Ireland 2040, the National Planning Framework, is to facilitate tourism development and in particular a National Greenways, Blueways and Peatways Strategy, which prioritises projects on the basis of achieving maximum impact and connectivity at national and regional level.

Under National Policy Objective 21 which seeks to “Enhance the competitiveness of rural areas” Project Ireland states that *“the development of a strategic national network of these trails is a priority and will support the development of rural communities and job creation in the rural economy, as well as the protection and promotion of natural assets and biodiversity.”*¹

National Development Plan 2021-2030

One of the strategic investment priorities of the National Development Plan is *“Working with the Executive on large scale North-South tourism initiatives which support the sustainable growth of the sector including cross-border walking/cycling trails as well as new marketing opportunities.”*²

National Peatland Strategy 2015

In the section addressing “Tourism & Recreational Use” the National Peatland Strategy notes that *“Peatlands provide space for recreation and tourism. In past years, the number of tourists interested in outdoor activities and eco-tourism has increased and this has both positive and negative impacts for peatlands in Ireland. As a result of*

¹ p77, Project Ireland 2040, National Planning Framework

² P168, National Development Plan 2021-2030

additional tourism & recreational use, peatlands are likely to be viewed as more valuable local assets to communities. However this can also lead to pressure on the peatlands unless appropriately managed.”³

Accordingly, in recognition of the above, one of the actions in the Strategy (A29) states that “*The enhancement of peatlands as sustainable tourism and recreation amenities, which have the potential to return a community dividend, will be considered as part of the National Raised Bog SAC Management Plan and other appropriate plans.*”⁴

National Raised Bog Special Areas of Conservation Management Plan 2017–2022

The EU LIFE 2014–2020 Programme funded project ‘Restoring Active Raised Bogs in Ireland’s SAC Network 2016–2020’ (LIFE14 NAT/IE/000032) aims to restore active raised bogs in 12 raised bog SACs in the network. Significantly, it notes that “*as part of the restoration planning process the creation of a number of recreational amenities will be considered, such as the installation of boardwalks and walking trails.*”

2.12 Regional Plans and Strategies

Several regional plans and programmes were consulted in the preparation of this SEA. These are listed below.

- Shannon Tourism Masterplan 2020-2030
- County Tourism Strategies / Visitor Experience Development Plans
- CFRAMS Flood Risk Management Plans relevant to trail areas
- Regional Spatial and Economic Strategies (RSES), namely the Southern RSES and the Northern and Western Region RSES 2020-2032

Of particular relevance to the BBW Trail Plan is Failte Ireland’s Shannon Tourism Masterplan 2020-2030 and this is considered below.

Shannon Tourism Masterplan 2020-2030

The Shannon Tourism Masterplan and the Beara Breifne Way Tourism Masterplan are viewed as the two major plans that will unlock the tourism potential in this part of Ireland. They sit within the overarching Regional Tourism Plan for Ireland’s Hidden Heartlands and will ultimately inform the preparation and implementation of a number of Visitor Experience Development Plans (or Tourism Destination Plans) throughout the region. The geographical interrelationship between the two Masterplans is graphically illustrated in Figure 2.1.

³ p57, National Peatland Strategy 2015

⁴ P67, *ibid*

Figure 2.1: Route of Beara Breifne Way superimposed on Shannon Tourism Masterplan area



Under the Shannon Tourism Masterplan the BBW is recognised as providing potential for outdoor activities in the Shannon's hinterlands. The Shannon Tourism Masterplan notes that the waymarked Cavan Way, Leitrim Way,

and Miners' Way & Historical Trail offer "*splendid vistas over Lough Allen, Lough Key and the upper Shannon, with opportunities to explore the geology, ecology and birdlife of the zone's 'away from it all' uplands.*"⁵ Viewed in this context the enhancement of the Beara Breifne Way is identified as one of the Upper Shannon Priority Projects in the Shannon Tourism Masterplan.

Further downstream the Shannon Tourism Masterplan notes the potential of the Masterplan linking with the BBW at Portumna (Hymany Way) and Ballinasloe (Suck Valley Way). The Shannon Tourism Masterplan proposes to re-develop Connaught Harbour by expanding the number of mooring berths for public use and by providing additional onshore facilities such as seating and picnic areas. A new cycle and walking route linking the Harbour to Portumna is also proposed. In addition, at Ballinasloe, there is scope to promote tourism in the town linked to its cultural, built and natural heritage, including the western Grand Canal link to the Shannon.

Some plans in NI were also consulted for strategic and policy guidance given the potential for linkage with the Ulster Way and the Sligo to Enniskillen Greenway. These included the:

- Regional Development Strategy 2035;
- Strategic Planning Policy Statement (SPPS) 2015;
- Biodiversity Strategy for NI 2020; and the
- Sustainable Development Strategy NI 2010

2.2 Environmental Protection Objectives

Environmental Protection Objectives are embodied in European Directives and most have been transposed into Irish law as Regulations. The relevant directives are listed below.

- SEA European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment.
- The Birds Directive 2009/147/EC which aims to protect all European wild birds and the habitats of listed species, in particular through the designation of Special Protection Areas.
- The Habitats Directive 1992/43/EEC, the main aim of which is to contribute towards the conservation of biodiversity by maintaining or restoring natural habitats and wild species via the designation of Special Areas of Conservation (SAC).
- European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010).
- Water Framework Directive 2000/60/EC.
- The Waste Framework Directive 2008/98/EC.
- The Environmental Noise Directive 2002/49/EC relating to the assessment and management of environmental noise.
- Environmental Noise Regulations 2018 (S.I. No. 549)
- The Drinking Water Directive 98/83/EC on the quality of water intended for human consumption.
- Air Quality Fourth Daughter Directive 2004/107/EC.
- Air Quality Directive 2008/50/EC on ambient air quality and cleaner air for Europe.
- The EU Floods Directive 2007/60/EC on the assessment and management of flood risks.

⁵ P81, Shannon tourism masterplan 2020-2030

- Aarhus Convention (1998) which established rights of the public in respect of the environment.
- The European Convention on the Protection of the Architectural Heritage of Europe (Granada Convention, 1985).
- The European Landscape Convention of the Council of Europe - this applies to the whole landscape, both rural and urban (Florence, 2004).
- The European Convention on the Protection of the Archaeological Heritage (Valletta, 1992).

Given the cross-border potential to link with trails and greenways in Northern Ireland the relevant legislation here was also consulted. These included:

- The Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004.
- Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1995 (as amended).
- The Conservation (Natural Habitats, etc.) (Amendment) (Northern Ireland) (EU Exit) Regulations 2019.
- Environment (Northern Ireland) Order 2002 (as amended).
- The Wildlife (Northern Ireland) Order 1985 (as amended).
- Planning Act (Northern Ireland) 2011 (as amended).
- Historic Monuments and Archaeological Objects (NI) Order 1995.
- Nature Conservation and Amenity Lands (Northern Ireland) Order 1985.

As with the aforementioned plans and programmes, reference to environmental protection legislation helps cast light on the environmental issues and objectives that are pertinent to the BBW Trail Plan. These are considered in the subsequent sections of this SEA.

SECTION 3: EXISTING ENVIRONMENT & ENVIRONMENTAL ISSUES

3.0 Introduction

The Trail is primarily an inland route and only connects with the coastline at the Beara Way Section in County Cork. It passes the northern tip of Lough Derg in County Tipperary and several loughs near its border with Northern Ireland (Lough Gara, Lough Arrow, Lough Skean, Lough Allen and Lough Meelagh). It is mainly greenfield in nature, though there are a considerable number of developed sections in the form of footpaths and roadways interspersed along its route, particularly near settlements.

3.1 Environmental designations

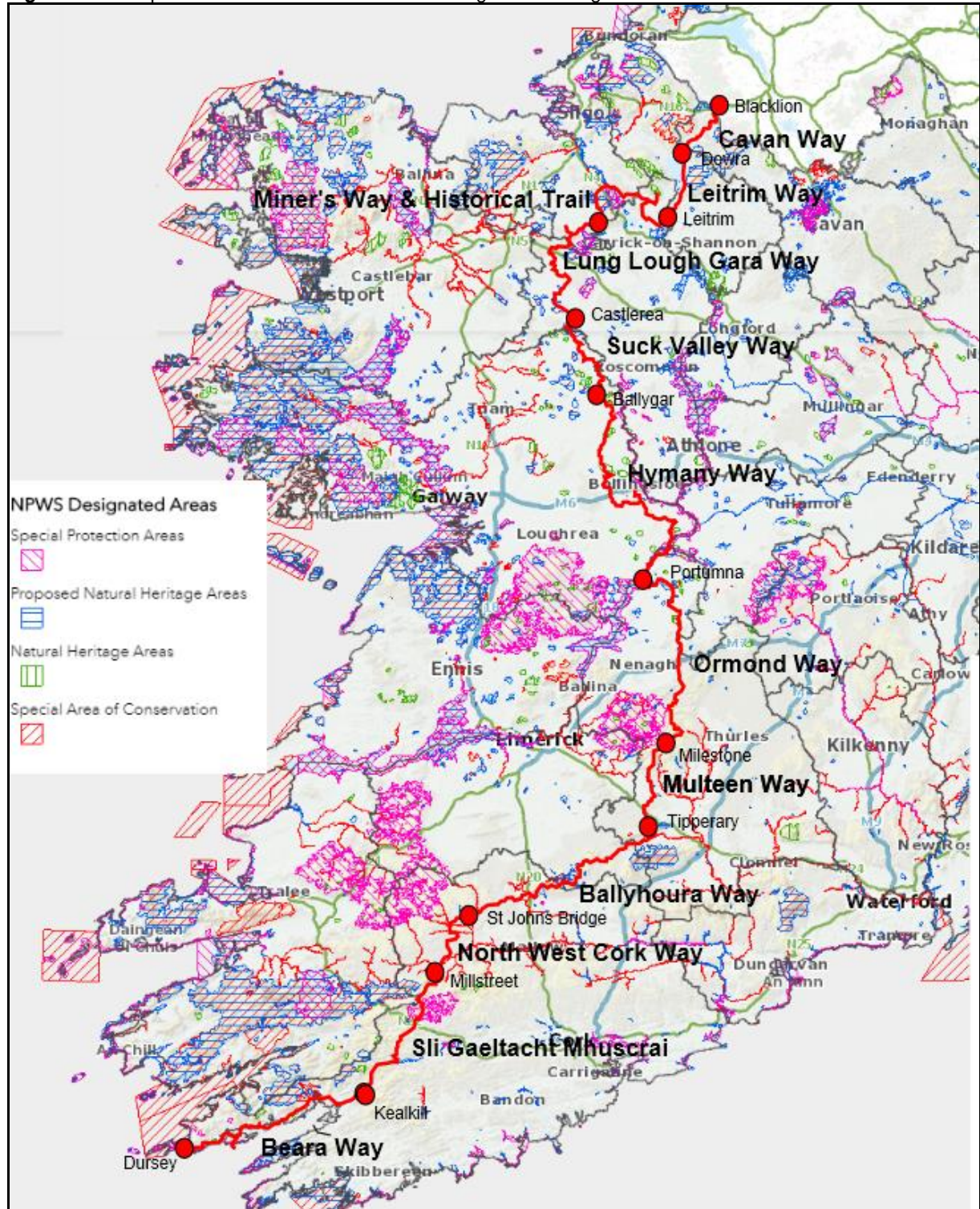
The Appropriate Assessment recorded multiple environmental designations of European and National importance within 15kms of the Trail. Table 3.1 outlines those European and National environmental designations which the Trail intersects or is hydrologically linked to. European sites refer to Special Areas of Conservation (SAC) that are designated to protect habitats and Special Protection Areas (SPA) that are identified to protect birdlife. SACs are designated under the EU Habitats Directive 1992, which was transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended. SPAs are designated in Ireland under the terms of the EU Birds Directive (2009/147/EC).

Table 3.1: European & National Sites intersected or hydrologically linked to the Trail

| European & National Sites intersected by and/or hydrologically linked to Beara Breifne Way Trail | | | | |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Trail Section | Special Areas of Conservation | Special Protection Areas | Natural Heritage Areas | proposed Natural Heritage Areas |
| 1. Beara Way | Kenmare River Caha Mountains Glengarriff Harbour & Woodland | Beara Peninsula | | Garinish Point Caha Mts Glengarriff Harbour & Woodland Firkeel Gap |
| 2. Sli Gaeltacht Mhuscraí | St Gobnets Wood* Killarney National Park* Blackwater River (H) | Mullaghanish to Musheramore Mts | Conigar Bog | St Gobnets Wood* Killarney National Park* Gouganebarra Lake* |
| 3. North West Cork Way | Blackwater River | | | Priory Wood, Lismire |
| 4. Ballyhoura Way | Ballyhoura Mountains Blackwater River Lower River Suir (H) Moanour Mountain (H) | | | Ballyhoura Mts Bansha Wood* |
| 5. Multeen Way | Lower River Shannon (H) Lower River Suir (H) Philipston Marsh (H) | Slievefelim to Silvermines Mts | | Ballyneill Marsh |
| 6. Ormond Way | Lough Derg-North East Shore Schoaboy (Sopwell) Bog Kilcarren-Firville Arragh More Bog (H)* Liskeenan Fen (H) Lower River Suir (H) River Shannon Callows (H) | Lough Derg (Shannon) Middle Shannon Callows Slievefelim to Silvermines Mts (H) | Schoaboy Bog Arragh More Bog* Lorrha Bog | Lough Derg Kilcarren-Firville Bog |
| 7. Hymany Way | River Shannon Callows Glenloughaun Esker (H) Lough Derg, NE Shore (H) Lower River Shannon (H) | Middle Shannon Callows River Suck Callows* Lough Derg (Shannon) (H) River Little Brosna Callows (H) | Kilnaborris Bog* Suck River Callows* Crit Island West Castle Ffrench West Bog Castle Ffrench East Bog* | River Shannon Callows |
| 8. Suck Valley Way | Corliskea/Trien Cloonfelliv Bog Aughrim (Aghrane) Bog* | River Suck Callows (H) | Aughrim Bog* | Corliskea/Trien/Cloonfelliv Bog |
| 9. Lung Lough Gara Way & Historical Trail | Tullaghanrock Bog (H) | | | Lough Glinn* Lough Gara* |
| 10. Miner's Way | Bricklieve Mts & Keishcorran Unshin River* Lough Arrow (H)* | Lough Arrow* | Kilronan Mountain Bog | Bricklieve Mts & Keishcorran Unshin River* Lough Arrow* |
| 11. Leitrim Way | | | | Drumhierny Wood* |
| 12. Cavan Way | Corratirrim | | | Corratirrim |
| * Passes edge of designation (H) Hydrologically linked to Trail | | | | |

National sites refer to Natural Heritage Areas (NHA) and proposed Natural Heritage Areas (pNHA) designated under the Wildlife (Amendment) Act 2000 to protect biodiversity. It can be seen from Table 3.1 that Leitrim Way is the only part of the trail that does not pass through a European Site or is hydrologically linked to it. It is also evident from Table 3.1 that most of the European sites affected are SACs, as opposed to SPAs. European and National sites affected by the Trail are graphically presented in Figure 3.1.

Figure 3.1: European and National Environmental designations along Beara Breifne Trail



In terms of the historic heritage, there are multiple locations along the path of trail that are registered as sites and monuments. These are mainly sites of archaeological potential along its path, commonly associated with historic human activity such as enclosures, huts, burial mounds and raths.

3.2 Existing baseline environment

Understandably, given the length of the Trail (707kms) the characteristics of the environment differ by section as it passes through upland and lowland areas. In broad terms, the rural environment is characterised by the following habitats:

- Alpine and Subalpine Heath;
- Wetland Heath (peatland); and
- Blanket bogs and Raised bogs (peatlands).

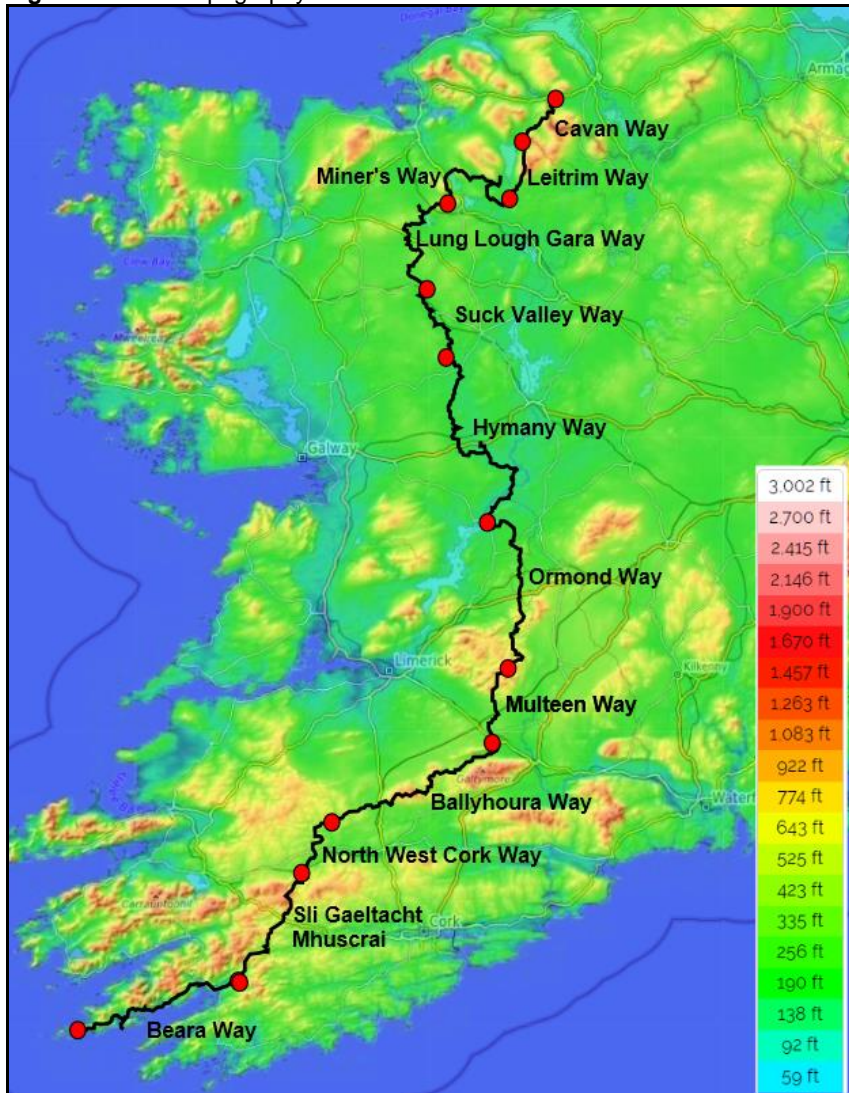
Figure 3.2 shows the incidence of peat bogs along the trail. Some sections are particularly affected, with Lung Lough Gara earmarked for the highest length of bog bridge construction (2.6kms).

Figure 3.2: Peat bogs along the Trail



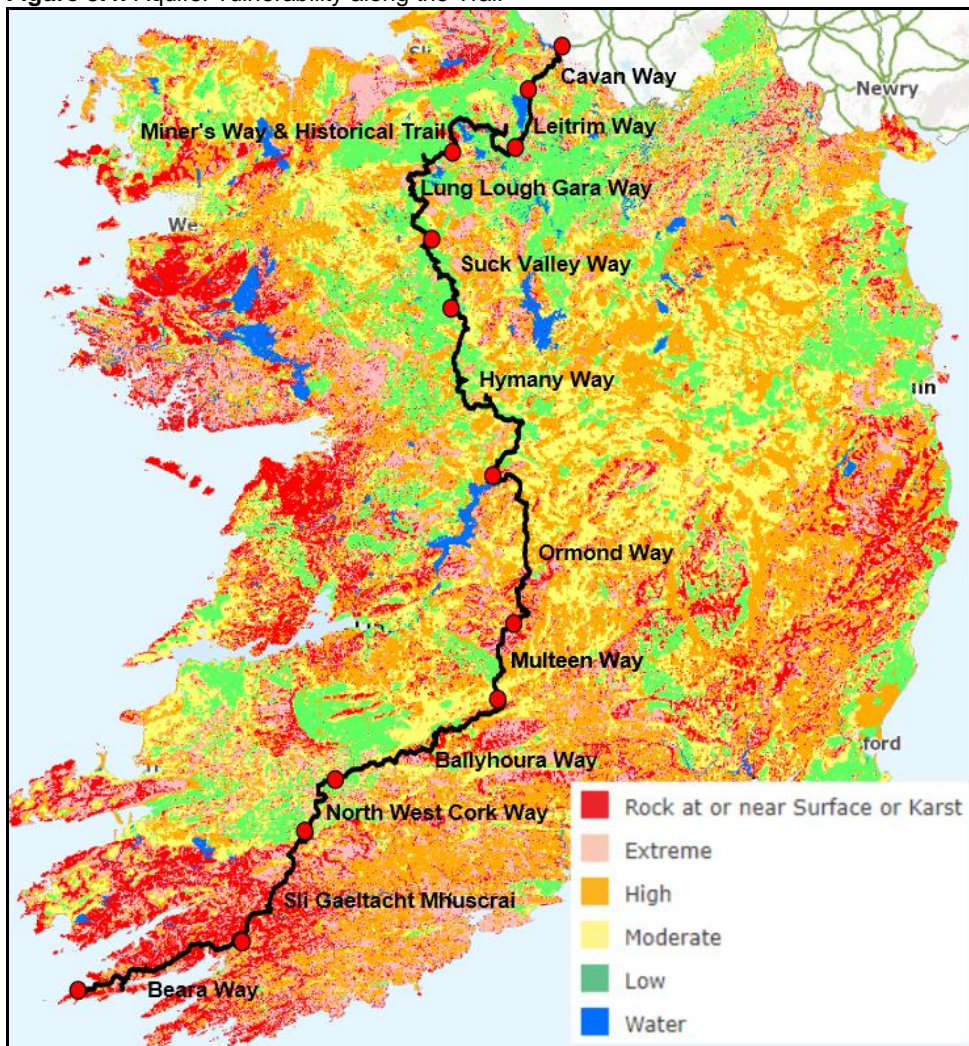
Figure 3.3 indicates that the elevated parts of the trail are mainly located in the southern and northern ends of the route.

Figure 3.3: Trail topography



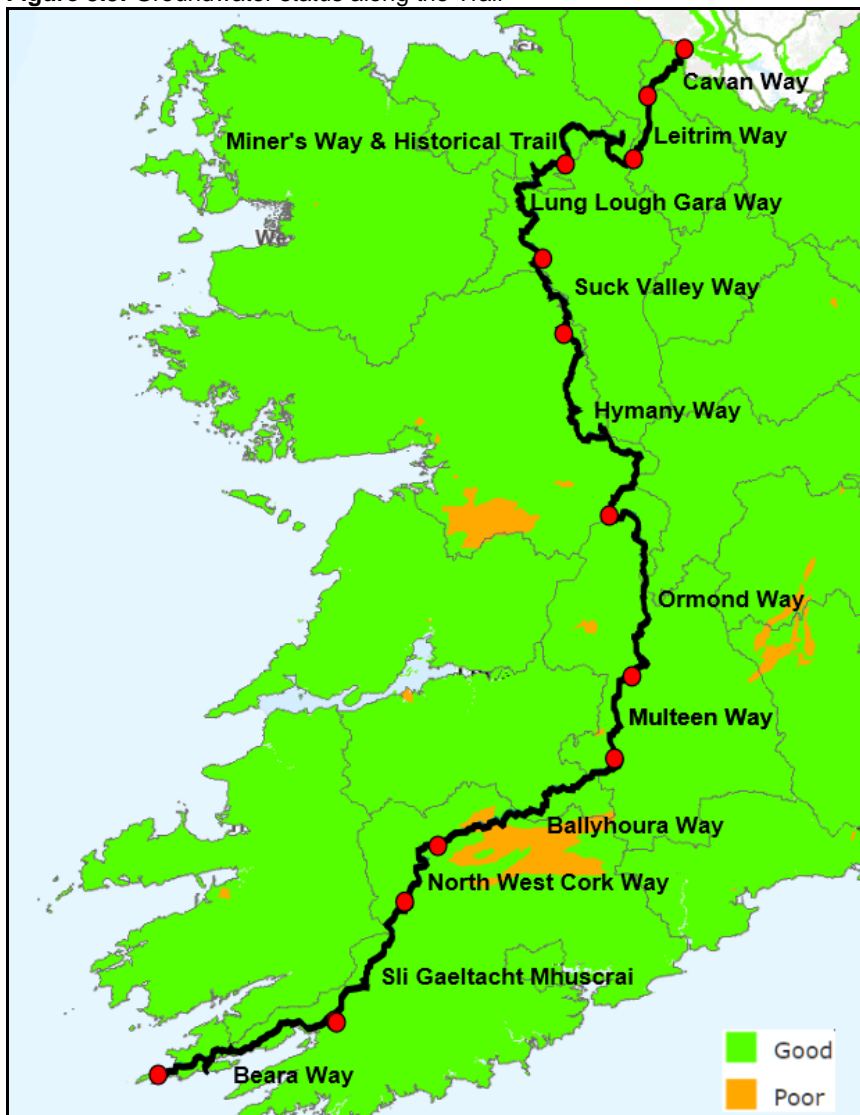
In keeping with this topography, aquifer vulnerability is highest in the elevated parts of the route where the subsoils are absent or thin, and in areas of karstic limestone (Figure 3.4).

Figure 3.4: Aquifer vulnerability along the Trail



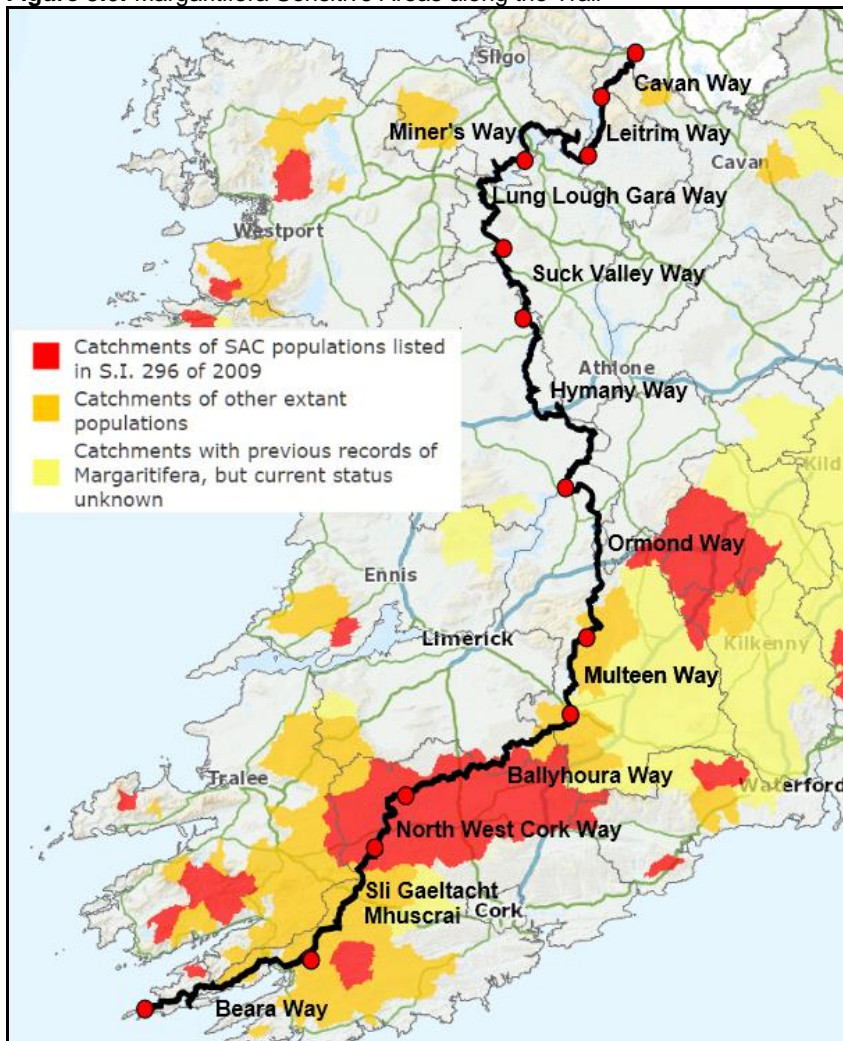
The groundwater status along the trail is generally good, with the largest incidence of poor status noted on the Ballyhoura Way (Figure 3.5). This is largely due to the karstic ground encountered here and groundwater is considered at risk.

Figure 3.5: Groundwater status along the Trail



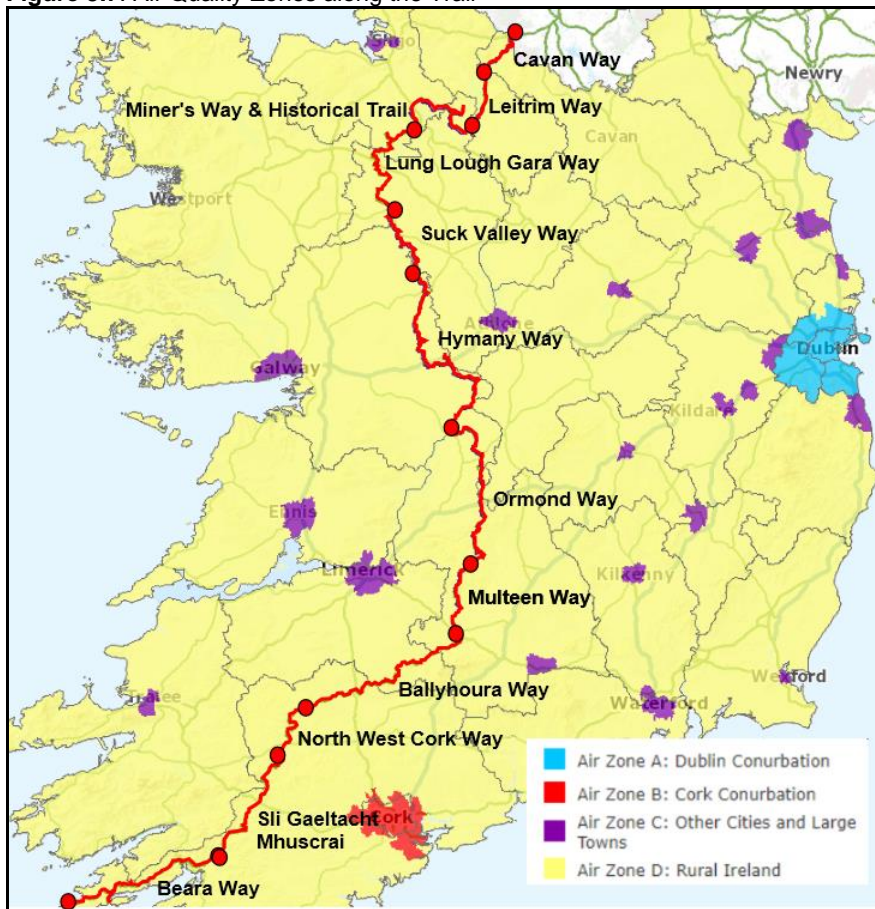
The southern half of the trail from Beara Way to Ormond Way traverses Margaritifera Sensitive Areas, which are catchments of the freshwater pearl mussel (Figure 3.6).

Figure 3.6: Margaritifera Sensitive Areas along the Trail



It is also worth noting that the Trail is wholly located in Air Zone D - Rural Ireland, which is the least polluted part of the island (Figure 3.7)

Figure 3.7: Air Quality Zones along the Trail



The largest settlements along the trail route are Ballinasloe and Tipperary Town, with 2016 populations of 6,662 and 4,979 persons respectively (Table 3.2).

Table 3.2: Largest settlements on Trail

| Town | 2016 Population | Trail section |
|-----------------|-----------------|--------------------------------------------|
| Ballinasloe | 6,662 | Hymany Way - by Link |
| Tipperary Town | 4,979 | Ballyhoura Way/Multeen Way |
| Castlerea | 1,992 | Suck Valley Way/Lung Lough Gara Way |
| Ballaghaderreen | 1,808 | Lung Lough Gara Way |
| Millstreet | 1,555 | Slí Gaeltacht Mhuscraí/North West Cork Way |
| Portumna | 1,450 | Ormond Way/Hymany Way |
| Ballygar | 1,235 | Hymany Way/Suck Valley Way |

The Trail also passes through many landscapes considered to be highly sensitive to change (Figure 3.8).

Figure 3.8: Sensitivity of Landscape Character Areas along Trail



Note: Not all areas are classified according to their landscape sensitivity.

In addition to the baseline environmental characteristics noted above the SEA consultation process underlined the importance of ensuring that the critical service infrastructure is in place to cater for the increased activity generated by the trail. This includes the requirement for adequate wastewater treatment facilities, as well as waste management services and drinking water supplies.

3.3 Environmental Issues

The chief environmental issues pertaining to the BBW relate to the need to reconcile the Trail Plan's objectives with the requirement to protect the environment and to promote sustainable development.

Existing environmental problems along the Trail are interrelated and can be appraised at the global, national and regional/local level. They respectively relate to issues such as climate change, farming practices and pressure

from urban development. The unifying theme to all environmental problems is their source – the interaction of human activity with the environment, either directly or indirectly.

The BBW Trail is almost national in length and there is a commonality of problems confronting habitats and species at this level. Environmental problems at both the national and regional/local level are briefly considered below.

3.31 Existing environmental problems at the National level

In April 2019, Ireland submitted its third assessment of the conservation status of EU Protected Habitats and Species in Ireland in its Article 17 Report on Habitats and Species. This relates to 59 habitats and 60 species. Under Article 11 of the Directive, Ireland is obliged to undertake surveillance of the conservation status of the natural habitats and species listed in the Annexes of the Directive. Furthermore, under Article 17 of the same Directive, it is to report to the European Commission every six years on their status and on the implementation of measures taken under the Directive.

The report of the above assessment was prepared by the National Parks and Wildlife Service (NPWS). In terms of environmental problems associated with walking the report summary stated the following in respect of pressure from category F uses, which includes “Development, construction and use of residential, commercial, industrial and recreational infrastructure and areas”

“The most frequent sub-category of pressure associated with category F is “F07 Sports, tourism and leisure activities” (e.g. hiking, walking), which is recorded in 15 of the 24 habitats in which this category was recorded. Not surprisingly, habitats affected include coastal habitats such as dunes, machair and sea cliffs, as well as some types of heath and bog, all of which are usually located in areas popular with walkers and tourists.”¹

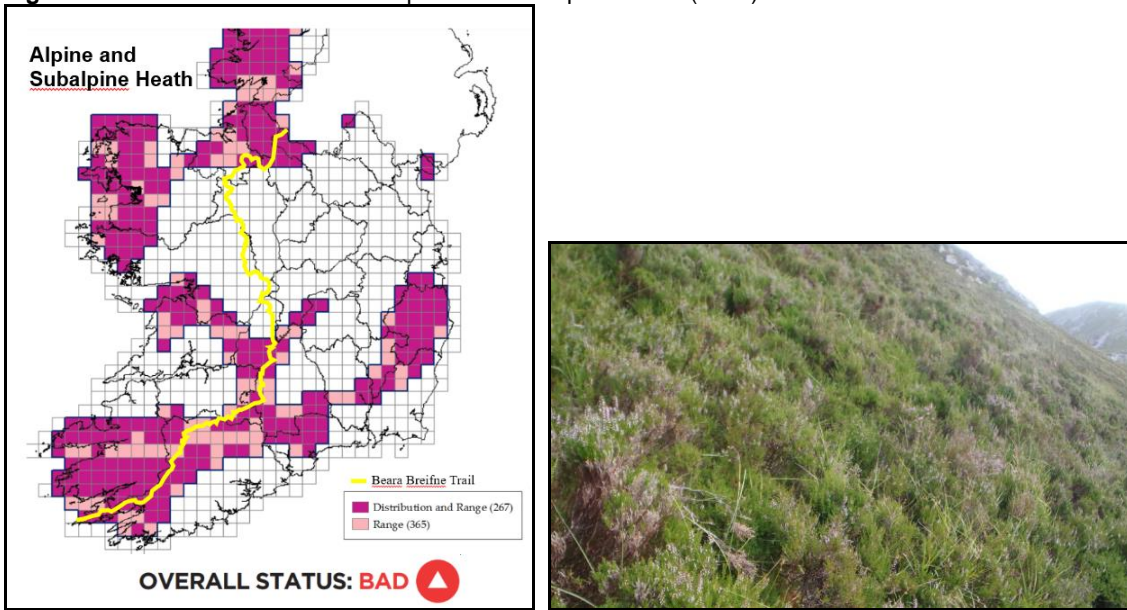
In the main, based on the findings of the Article 17 report, the habitat most at risk from the BBW Trail Plan is Alpine and Subalpine Heath (4060) in upland areas usually above 350m. The Report notes that *“Hill walking is often concentrated on the summits and ridges where this habitat is found, and can cause erosion and damage to the habitat.”²*

Reference to Figure 3.9 indicates that many sections traverse areas that possess alpine and subalpine heath. Two sections do not traverse this type of habitat, namely Hymany Way and Suck Valley Way, while Ormond Way is partially affected, and Lung Lough Gara Way minimally affected.

¹ p85, The Status of EU Protected Habitats and Species in Ireland, 2019

² p28), ibid

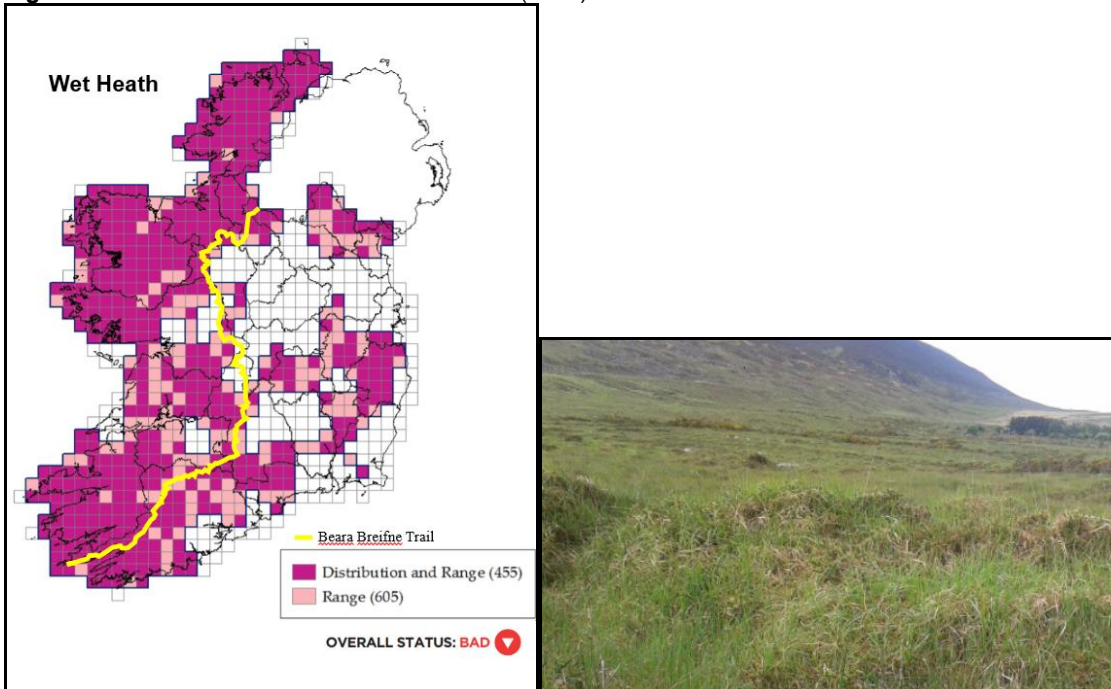
Figure 3.9: BBW Trail & location of Alpine and Subalpine Heath (4060)



Map & Photo Source: p28, The Status of EU Protected Habitats and Species in Ireland, 2019

The report also recognises that areas of wet heath habitat (Figure 3.10) are lost to the creation of paths and tracks, although it acknowledges that erosion in these habitats is mostly associated with overgrazing rather than walking.

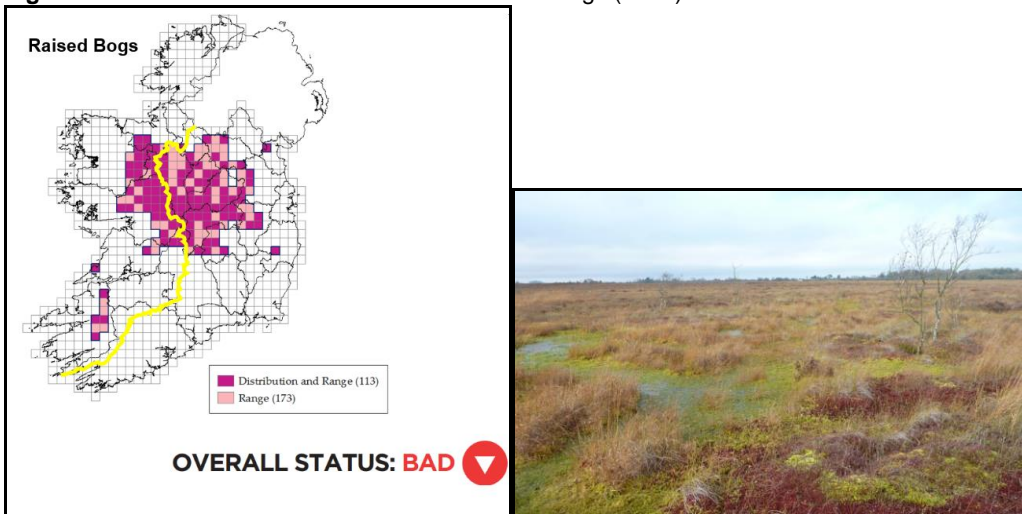
Figure 3.10: BBW Trail & location of Wet Heath (4010)



Map & Photo Source: p27, The Status of EU Protected Habitats and Species in Ireland, 2019

Reference to Figures 3.11 and 3.12 indicates that the Trail passes through areas of peat in the form of raised bogs and blanket bogs. Raised bogs are accumulations of deep acid peat (3-12m) that are found in shallow lake basins or topographic depressions.

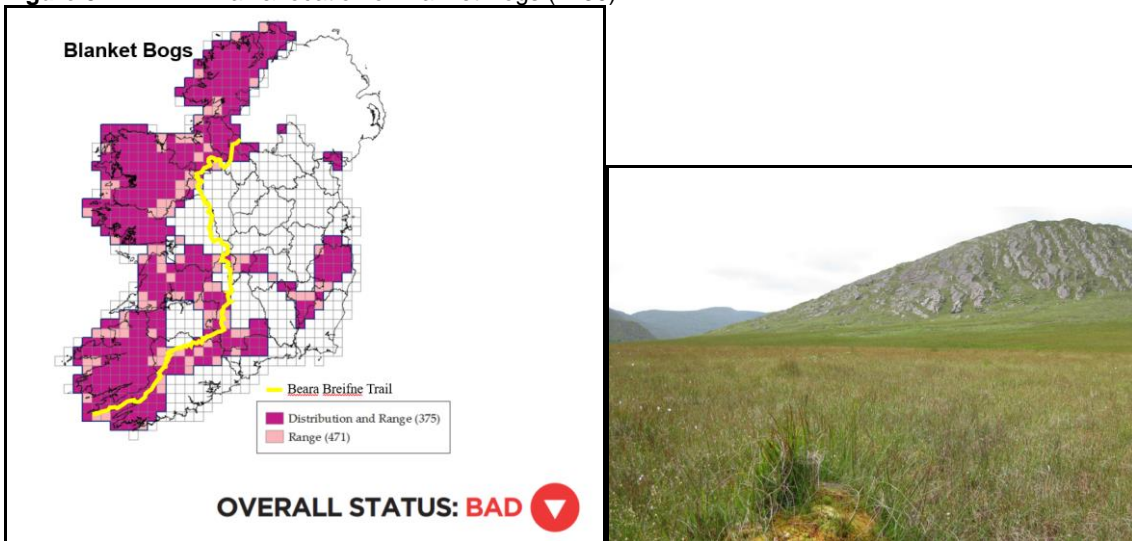
Figure 3.11: BBW Trail & location of Active Raised Bogs (7110)



Map & Photo Source: p32, The Status of EU Protected Habitats and Species in Ireland, 2019

Blanket bogs occur in areas of consistently high rainfall (>1,250mm and >225 rain days per annum) where the ground surface is waterlogged for much of the time. The habitat is widespread along the western seaboard and on uplands, but mainly absent from lowlands in the midlands and in the east of Ireland.

Figure 3.12: BBW Trail & location of Blanket Bogs (7130)



Map & Photo Source: p33, The Status of EU Protected Habitats and Species in Ireland, 2019

Given the peaty nature of this terrain it is not surprising that conditions are wet underfoot. As evidenced by recent walkovers, considerable intervention will be required in parts to secure safe, comfortable passage. These conditions may also explain why some off-road options may not be feasible. Having stated this, the Article 17 report does note that, as opposed to walking, the main existential threats to these peatland areas relate to peat extraction, drainage, afforestation and burning, with climate change a future threat.

3.32 Environmental Issues at European Sites

Examination of European Sites located along the route of the Trail indicates that the main threats to most of the SAC habitats relate to agricultural practices, notably overgrazing and run-off from fertilisation measures. Overgrazing results in degradation of heath and blanket bogs, the erosion of which is accentuated by the exposed nature of the terrain.

Raised bogs in particular face challenges from drainage measures, turf cutting and afforestation.

SPAs chiefly encounter impacts from noise and disturbance on birds, while the degradation of their habitats can affect numbers.

Within the context of the above, it is anticipated that potential impacts of the Trail on SACs will mainly relate to building works at the construction stage and will be of short-term duration. In contrast, the increased use of the trail at the operational stage poses the main risk to SPAs, in terms of the long-term propensity for noise and disturbance to birds.

3.4 Conclusion

In the light of the above, it is evident that there are a number of environmental issues that the Trail Plan must take into account. These are considered further in the remaining sections of this SEA.

SECTION 4: SEA OBJECTIVES & INDICATORS

4.0 SEA objectives

The 2004 Regulations point to the assessment of the likely significant effects on the environment under the subject matters of: (i) biodiversity; (ii) population; (iii) human health; (iv) fauna; (v) flora; (vi) soil; (vii) water; (viii) air; (ix) climatic factors; (x) material assets; (xi) cultural heritage, including architectural and archaeological heritage; (xii) landscape, and (xiii) the inter-relationship between them.

Based on a review of County Development Plans that the Trail traverses the following SEA objectives can be distilled for the SEA Topics. They typically align with sustainability objectives identified for social, economic and environmental considerations.

Table 4.1

| | SEA Topic | SEA Objective |
|---|-----------------------------|---------------------------------------------------------------------------|
| 1 | Biodiversity, flora & fauna | Maintain and enhance biodiversity assets and protect habitats and species |
| 2 | Population & human health | Promote wellbeing & respect for the environment |
| 3 | Soil/Geo-diversity | Protect and enhance soil quality and geodiversity |
| 4 | Water | Protect the quality of water resources |
| 5 | Air & Climate | Reduce air pollution |
| 6 | Material Assets | Protect farmland & avoid conflict with material assets |
| 7 | Cultural Heritage | Conserve the historic environment, heritage assets and their settings |
| 8 | Landscape | Protect, maintain and enhance the quality of scenic landscapes |

4.1 SEA Monitoring Indicators

For the most part, monitoring effects on the environment is conducted at the national level, particularly by the NPWS and EPA.

In an effort to maintain and enhance the integrity of the habitats and conservation status of species under the Habitats Directive the NPWS, as well as the National Biodiversity Data Centre, has routine monitoring programmes in place. As stated previously, it produces an Article 17 report every 6 years on the status of Habitats and an Article 12 Report every 3 years on the status of bird species under the Birds Directive. Survey work by Birdwatch Ireland is also helpful in this regard.

Added to the above, the EPA produces a State of the Environment report every 4 years, as well as assessing changes in land cover and their effects on the environment via the Corine Land Cover project. It also carries out regular monitoring of water quality and air quality.

Monitoring of effects at the local level, such as erosion of rural landscapes notably heathlands can be assisted by trail audits/condition reviews at Council level, perhaps as part of the plan preparation process, and/or by the input of community organisations/interest groups.

For the purposes of monitoring progress in complying with SEA objectives identified in Table 4.1 a range of indicators is outlined in Table 4.2. In part, they build upon advice provided by the consultation feedback on the SEA. The indicators for SEA Objectives 2, 5 and 8 in Table 4.2 are suggestions only and contingent upon responsible bodies agreeing to monitor them.

The EPA recommends that SEA-related monitoring should also be incorporated into any Trail Plan implementation monitoring/review proposed over its lifetime, so that the environmental performance of the Plan can be evaluated.

Table 4.2

| SEA Objective | SEA Monitoring Indicators |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Maintain and enhance biodiversity assets and protect habitats and species | <ul style="list-style-type: none"> - NPWS Article 17 Habitats Reports every 6 years - NPWS Article 12 Bird Reports every 3 years - Birdwatch Ireland Surveys - Quarterly monitoring of visitor numbers |
| 2. Promote wellbeing & respect for the environment | <ul style="list-style-type: none"> - Monthly random inspection of stretches of trail section* - Number of litter pick up days required* |
| 3. Protect and enhance soil quality and geodiversity | <ul style="list-style-type: none"> - EPA CORINE Land Cover Type Monitoring every 6 years - County Geological Heritage Audits by Geological Survey Ireland (Department of the Environment, Climate and Communications), as incorporated into County Development Plan |
| 4. Protect the quality of water resources | <ul style="list-style-type: none"> - EPA Monitoring of Water Quality - EPA National River Biology Monitoring Programme every 3 years - Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD) |
| 5. Reduce air pollution | <ul style="list-style-type: none"> - Number of visitors travelling by bus as opposed to cars* - Number of electrical charging points in car parks* |
| 6. Protect farmland & avoid conflict with material assets | <ul style="list-style-type: none"> - Historic Mine Sites – Inventory and Risk Classification (HMS-IRC) by EPA - Biological monitoring of water quality in the vicinity of landfill by Council |
| 7. Conserve the historic environment, heritage assets and their settings | <ul style="list-style-type: none"> - Record of Monuments and Places compiled by the National Monuments Service, Department of Housing, Local Government and Heritage. - National Inventory of Architectural Heritage (NIAH), Department of Housing, Local Government and Heritage. |
| 8. Protect, maintain and enhance the quality of scenic landscapes | <ul style="list-style-type: none"> - Assess extent of erosion at start and end points on an annual basis* - Quarterly review of cleanliness of trail to ensure that litter does not detract from visual amenity* - Quarterly monitoring of visitor numbers |

* Potential monitoring indicators that are subject to a responsible body agreeing to monitor them

SECTION 5: ASSESSMENT OF ENVIRONMENTAL EFFECTS

5.0 Introduction

Strategic environmental assessment of the Trail Plan largely involves assessing its proposals against the SEA Objectives identified in Section 4. These SEA objectives have been formulated to address the environmental issues raised by the proposed works.

Taking each of the 12 sections in turn the strategic environmental assessment of the respective proposals will comprise the following steps:

- Assess the potential effects of proposals on the environment.
- Outline the alternatives, where feasible and appropriate, to recommendations in the Trail Plan.
- Outline mitigation, where warranted, in terms of prevention, reduction or compensatory measures to offset likely significant negative effects on the environment.
- Identify indicators by which to monitor effects on environment, including their sources, targets, and frequency of monitoring.

Clearly, having regard to the 707kms length of the trail, it is impractical to specifically address in detail the environmental impact of every surface intervention and infrastructure proposed along its path. Rather, it is sufficient to provide a hi-level response to proposals and to focus on those which have the potential for greatest environmental effects in sensitive locations. This approach is premised on the understanding that the detail of the proposed Trail has yet to be fully confirmed and will be addressed at the Council level.

5.1 Trail Plan Objectives

Before strategically assessing proposals for the Trail Plan by section it is first necessary to environmentally review its objectives.

The key objectives of the Trail Plan largely centre on the need to promote and develop the Trail while protecting the environment. They are to:

1. Identify key opportunities and significant constraints along the Trail to help to ensure the sustainable development of future proposals along the Beara Breifne Way (BBW).
2. Create an internationally compelling tourism proposition of scale and singularity that appeals to both the domestic and overseas markets.
3. Deliver economic and social impacts directly to rural, non-traditional tourism areas in a viable manner, thereby contributing to sustainable job creation, increased revenues, and local community development.
4. Support a network of clusters of tourism businesses in the ten counties along the trail corridor.
5. Protect the natural and historic environment along the Trail route, and encourage respect for and understanding of the natural, built and the anthropogenic history of the Beara Breifne Way route for all visitors and local communities.

- Promote the sustainable use of the Trail in the interest of the environment and amenity of the local communities.

Clearly, a third of the Trail Plan objectives, notably 5 and 6 above expressly resonate with the need to promote sustainable development and to protect the environment.

Within the context of the above objectives, proposals for trail development can broadly be categorised into three groups – Trail surface intervention, Trail infrastructure and Tourism Infrastructure. Each of these is considered below.

5.2 Trail surface intervention

It is important to emphasize at the outset that all the proposals outlined in the Trail Plan, which consists of the “Technical Trail Audit & Design Report” prepared by Outdoor Recreation NI and the “Beara Breifne Way Visitor Experience Strategy Summary Document” prepared by the Paul Hogarth Company are indicative only. Confirmation of proposals are subject to landowner consent, to compliance with planning/ environmental policies at the county level and to detailed works investigations on the ground.

Large sections of the trail consist of unbound aggregate matter. The majority of the BBW is classified as a Category 3 trail (i.e. 1.2m-1.6m wide comprising mainly gravel build) and a Category 4 trail (i.e. 0.6m-1.2m wide of mainly stone build). It is mainly a single-use trail by walkers, with only limited use by cyclists in certain locations. Shared usage with cyclists occurs on urban roads and towpaths e.g. part of the Shannon Blueway. In addition, unbound trail sections within some Coillte forests are also shared with mountain bikers, while parts of the trail on the Beara Way are also shared with equestrian users on the Beara Bridle Way.

On average, nearly a fifth (19%) of the entire trail route (including uplands/remote rural areas) requires some level of intervention, in terms of providing or improving the trail surface. This amounts to 135kms out of a trail route of 707kms. The types of surface intervention proposed include:

- Gravel build (some with geotextile base)
- Stone stepping
- Boardwalk
- Bog bridge
- Stone pitching
- Hardcore vehicular access

Stone stepping refers to the laying of flagstone steps interspersed with gravel sections or longer sections of flagstones. This is recommended for trail sections with areas of gradient and for trail sections on flat but wet terrain.

Boardwalks are elevated recycled plastic structures or wooden structures (>1.5m above ground), with and without handrails, that are commonly built above ground level to facilitate crossing areas of sensitive or very wet ground. Recycled plastic material will be used for large stretches of new installation, while like-for-like timber replacement will apply to existing boardwalks.

Bog bridges are ‘floating’ treated timber surfaces that provide dry passage through wetland areas. They are particularly suitable for narrow trail corridors where boardwalks would not be appropriate due to the inability to build adequate foundations in deep peat and/or due to environmental constraints.

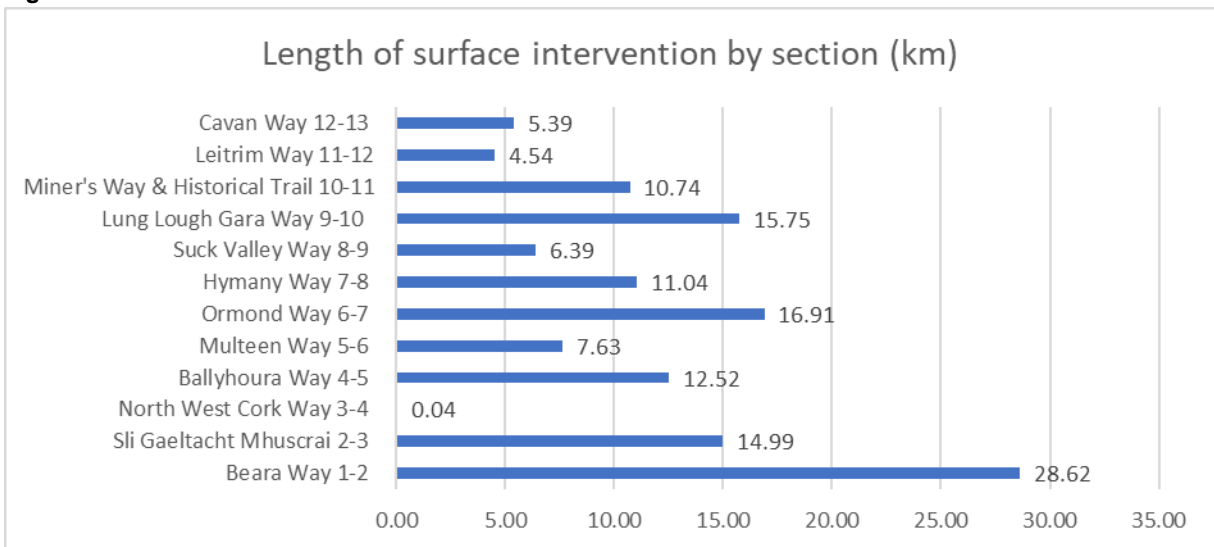
Stone pitching is recommended in some upland areas with steep gradients. It only makes up 1% of the proposed surface interventions recommended for the BBW. It involves the laying of stones as opposed to aggregate on suitably compacted mineral soils.

5.21 Trail surface intervention by Section

The level of intervention to improve trail surface ranges from high at Beara Way (32.4% of trail) to low at North West Cork Way (0.1% of trail). However, it should be noted that the North West Cork Way has the highest percentage of trail classified as 'on-road' and significant development work is required to identify alternative off road routes. As a result, the amount of trail surface intervention will eventually increase in this section.

Reference to Figure 5.1 indicates that the Beara Way section has the longest stretch of trail (28.6kms) requiring surface intervention, followed by Ormond Way (16.9kms), Lung Lough Gara Way (15.7kms) and Sli Gaeltacht Mhuscraí (14.99kms).

Figure 5.1



The majority of trail surface intervention involves the laying of gravel (70%), followed by stone stepping (18%). Images of these types of surface are shown in Figures 5.2 and 5.3 below.

Three of the sections (Beara Way, Sli Gaeltacht Mhuscraí and Ballyhoura Way) possess upland/remote areas that require specialist investigation to advise on the type of surfacing required. The existence of deep peat, particularly on steep sections is perhaps the most difficult part of the route to address. This is especially the case where Annex 1 habitats designated for environmental protection are encountered.

Figure 5.2: Example of gravel route proposed for 70% of Trail



Source: Image reproduced from Trail Plan

Figure 5.3: Example of stone stepping proposed for 18% of Trail



Source: Image reproduced from Trail Plan

At present, bog bridges and boardwalks are recommended for 5% and 3% of the trail respectively (Figures 5.4 and 5.5).

Figure 5.4: Example of bog bridge at Scohaboy Bog (Ormond Way) proposed for 5% of Trail



Source: Image reproduced from Trail Plan

Figure 5.5: Example of boardwalk proposed for 3% of Trail



Source: Image reproduced from Trail Plan

5.3 Trail infrastructure

The bulk of the proposed trail infrastructure consists of items to improve the connectivity, quality and safety of the route. These include:

- Footbridges
- Stiles
- Gates
- Fencing
- Culverts
- Water bars
- Sign posts
- Panels (Info/Interpretation)

The most notable pieces of trail infrastructure proposed, in terms of scale, are footbridges and the length of fencing. There are a total of 94 footbridges required along the Trail (37 of which are replacements) as well as a new bridge at Suck Valley. Lung Lough Gara Way requires the highest number of footbridges (24) compared to an average of 8 for each section (Figure 5.6). None are required at Cavan Way and North West Cork Way.

Figure 5.6

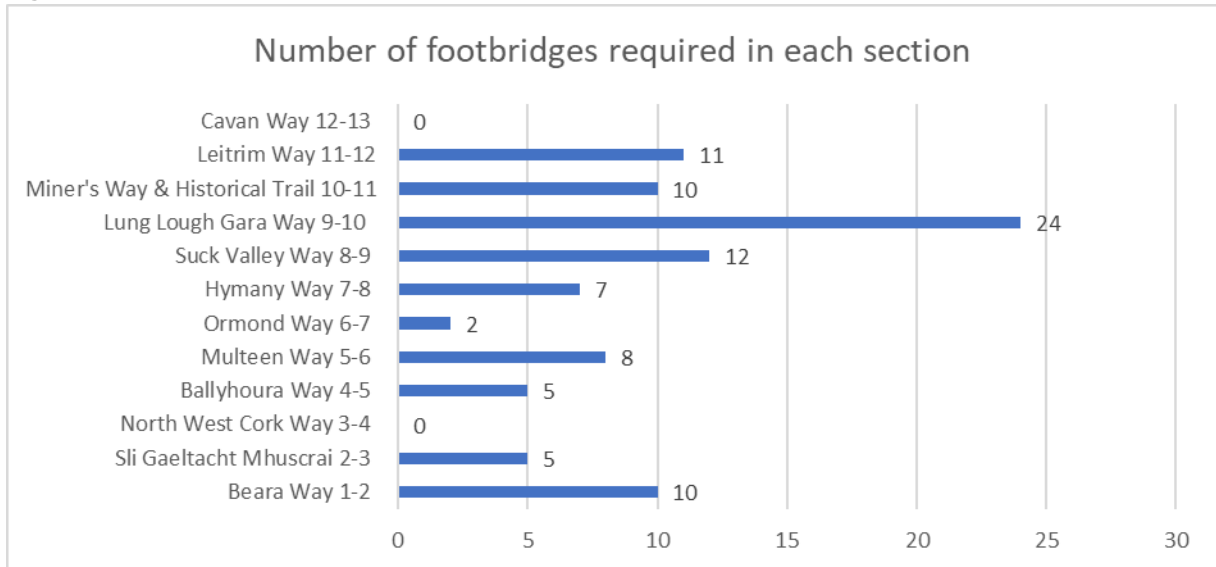
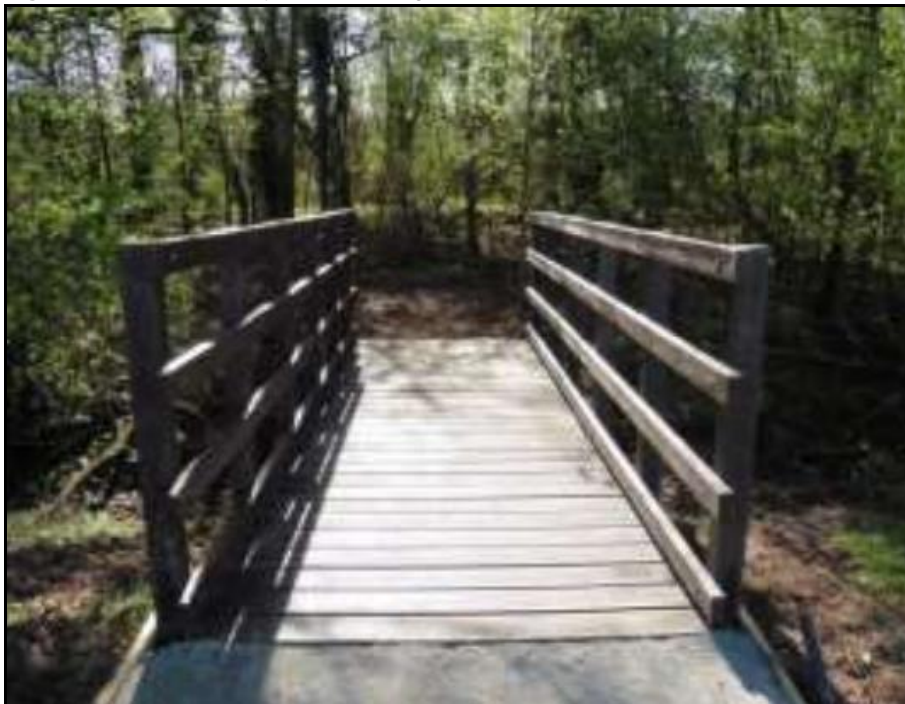


Figure 5.7: Example of typical footbridge



Source: Image reproduced from Trail Plan

Some 6.2% of the recommended trail route is to be bounded by stock proof fencing (Figure 5.8) with Ormond Way targeted at providing over 3 times the average length for all sections (13.8kms v average of 3.6Kms).

Figure 5.8: Example of post and wire fencing proposed



Source: Image reproduced from Trail Plan

5.4 Tourism infrastructure

Tourism infrastructure is also proposed for the Beara Breifne Way. It is mainly located at signature points along the trail aimed at highlighting its historic origins. Proposals include:

- Trailhead Beacons
- Viewing platforms
- Shelters
- Benches and lecterns
- Directional posts and bronze ground plates

Further details in respect of this tourism infrastructure are provided below.

Trailhead Beacons

Beacons are mainly 2.5m tall, with a 0.3m-0.5m wide base tapering to a 0.25m summit. They are made of timber and stone and stand on a paved base with a 0.5m concrete understorey (Figure 5.9). There are 51 of these proposed throughout the trail. Added to these, there are 4 Signature trailhead beacons at the beginning and end of the trail (Durse Sound and Blacklion) as well as one at Glengarriff and in Leitrim to signify the beginning and end of the march as opposed to the trail. These will be slightly taller at 3.12m tall and will have bronze cladding in place of the timber. In total there are 55 beacons, which approximates to one for every 12kms or one per day's walk. Radial paving will form the base of 44 of these beacon locations.

Figure 5.9: Illustrative example of potential beacon at Ardpatrick



Source: *Beara Breifne Way Visitor Experience Strategy Summary Document Sep 2023*

Viewing platforms

There are 8 viewing platforms suggested for various scenic locations that capture panoramic views of the countryside or water bodies (Figure 5.10). Potential locations include:

- Ballydonegan Beach Signature Point (Beara Way)
- Claragh Mountain Signature Point (Sli Gaeltacht Mhuscraí)
- Slievereagh Signature Point (Ballyhoura Way)
- Folidarg Signature Point (Multeen Way)
- Scohaboy Signature Point (Ormond Way)
- Cloonascragh Signature Point (Hymany Way)
- Lough Allen Signature Point (Leitrim Way)
- Blacklion Signature Point (Cavan Way)

Figure 5.10: Example of Viewing Platform



Shelters

There are 13 shelters proposed to signal historic camping locations and known rest points along the march. They are primarily of timber construction with metal framing, possessing typical dimensions of 3.6m in height by 4m in length and 2.5m in width. Nine of them are provisionally envisaged to take the form of Type 1 below, one in the form of Type 2 and three in the form of Type 3 (Figure 5.11).

Figure 5.11 Indicative examples of proposed shelters



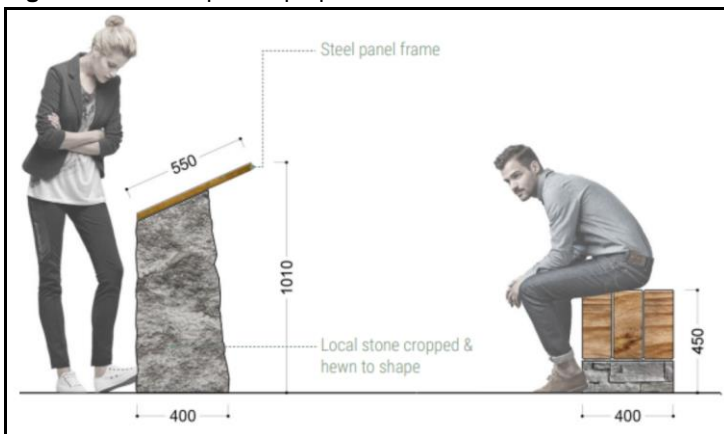
Source: *Beara Breifne Way Visitor Experience Strategy Summary Document Sep 2023*

Benches and lecterns

There are 15 benches proposed measuring 1.5m in length, 0.275m to 0.4m in width, and 0.45m in height. They are equally made of stone and timber (Figure 5.12).

The proposed lecterns are 1m in height and 1.2m long.

Figure 5.12: Examples of proposed benches and lecterns



Source: *Beara Breifne Way Visitor Experience Strategy Summary Document Sep 2023*

Directional posts and bronze ground plates

The proposed directional posts are made of timber with a steel marker panel and measure 0.95m in height and 0.09-0.12m in width.

There are also proposals to install bronze plates on the ground to indicate start and end points of a trail section.

5.5 Potential effects of proposals on the environment

Likely significant environmental effects associated with this Trail are both positive and negative and apply both during the construction stage and the operational stage.

In the main, the locations that are likely to be significantly affected relate to those areas that require the largest degree of intervention. So too, intensification of visitor numbers frequenting the waymarked trail could also pose issues for those parts of the trail already popular with walkers, as well as those less travelled parts of the BBW that largely have an undisturbed environmental character.

It is estimated that visitor numbers to the trail could grow from 15-30,000 in the first few years to 90,000 by the tenth year. A third of these could constitute overseas visitors.

As noted previously, upland heath habitats and blanket bogs are especially susceptible to potential impacts from erosion, habitat loss and potential disturbance to habitats, especially to ground nesting birds. These areas have a considerable amount of Annex I habitat and some of the proposals traverse EU Annex I areas, as well as European and National designated sites. The Trail also has potential for impacts on protected species in Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Freshwater Pearl Mussel (FPM) catchments and Salmonid rivers. The general effects associated with the proposed trail are summarised in Table 5.1.

Table 5.1

| SEA Topic | Potential Negative & Positive Impacts (Construction & Operational Stage) |
|----------------------------------|----------------------------------------------------------------------------------------|
| Biodiversity, fauna and flora | Loss of habitats & species |
| | Noise & disturbance to wildlife |
| | Potential to create additional habitats (e.g. woodland, hedgerows) |
| Population & Human Health | Noise & litter |
| | Pollution to drinking water |
| | Promotion of physical and mental wellbeing |
| | Enhanced access to countryside & appreciation of the environment |
| Soil/Geodiversity | Economic opportunities created via tourism |
| | Avoidable loss of non-renewable mineral resource |
| | Soil erosion |
| | Damage to peatland |
| Water | Widespread trampling discouraged by signposted walking trails |
| | Potential to improve educational awareness of geological features |
| | Pollution of surface waters & ground waters |
| Air & climate | Air pollution from visitor vehicular traffic |
| | Lower carbon footprint through walking |
| Material assets | Severance of farmland & disruption to farm activity |
| | Construction near landfills, WWTPs & historic mines poses pollution risk |
| | Improved viability of tourism assets |
| Cultural heritage | Direct and indirect impacts on heritage assets and their settings |
| | Tourism related improvements to heritage assets |
| | Potential to highlight archaeological heritage to general public |
| Landscape | Visual impact on sensitive unspoilt landscapes |
| | Managed access to poorly accessible scenic locations |

5.6 The experience of Trails elsewhere

The Stairway to Heaven trail in County Fermanagh points to the issues that can emerge from the increase usage of a trail. It comprises a 5kms gravel trail that links to a boardwalk which, while ascending Cuilcagh Mountain, traverses a protected blanket bog in a SAC. Opening in 2015 the number of walkers frequenting the trail has grown eightfold in the space of a few years, increasing from 3,000 to 24,000.

Problems at the trail include: localised erosion at the summit; parking congestion caused by parking demand exceeding supply; litter; and injudicious parking on surrounding rural roads/lanes leading to obstruction of farm/field access.

In an attempt to alleviate congestion, parking stewards are deployed at the busiest times during the weekends and on bank holidays. Consideration is also being given to widening some country lanes and incorporating laybys to aid the flow of traffic.

5.7 Classification of environmental effects

Proposals are assessed by Section on the basis of their impact relationship with the SEA objectives. Impact occurs at both the construction and operational stage and is classified according to the following categories.

Table 5.2: Classification categories

| | |
|-----|--------------------------------------------------------------|
| – | Likely significant negative effect |
| ✓ | Likely significant positive effect |
| ✓/– | Likely significant positive & negative effects |
| x | Likely insignificant or imperceptible effect or not relevant |
| ? | Indeterminable effect due to lack of information/detail |

Each of the above impact categories is briefly described below.

Likely significant negative effect - Invariably the principal purpose of a SEA is to identify the likely significant adverse effects on the environment and to recommend alternatives, mitigation and monitoring where necessary.

Likely significant positive effect - It is recognised that the trail proposals are likely to have significant beneficial effects on the environment, for example promoting the physical and mental wellbeing of the population.

Likely significant negative & positive effects – Some proposals can have obvious negative environmental effects (e.g. loss of soil to gravel surface) while at the same time possessing the potential for positive effects on the environment (channelling walkers within a confined path thereby avoiding widespread trampling and disturbance to habitats).

Likely insignificant or imperceptible effect or not relevant – Some effects may be considered insignificant or imperceptible or are of questionable strategic relevance to the environmental objectives considered, for example, the low-key impact of erecting signposts.

Indeterminable effect due to lack of information/detail - Some effects on the environment may be uncertain due to the lack of information or detail at this strategic stage and are therefore incapable of being fully assessed.

For instance, environmental effects in certain upland and remote rural areas can only be fully appraised once further specialist investigations are carried out to advise on the appropriate surface intervention.

Having regard to the above classification of effects it is considered that proposals for the trail will have “likely significant negative effects” or “likely significant positive & negative effects” (Table 5.3). This is also reflected in the preceding Table 5.1, which highlights the negative and positive impacts that are envisaged for the trail.

Table 5.3

| | SEA Topic and Objectives | | | | | | | |
|-----------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------|--------------------------|------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------|
| | Biodiversity, flora & fauna | Population and human health | Soil/Geo-Diversity | Water | Air & Climate | Material Assets | Cultural Heritage | Landscape |
| | Obj 1 | Obj 2 | Obj 3 | Obj 4 | Obj 5 | Obj 6 | Obj 7 | Obj 8 |
| | 1.0 Maintain and enhance biodiversity assets and protect habitats and species | 2.0 Promote wellbeing & respect for the environment | 3.0 Protect and enhance soil quality & geodiversity | 4.0 Protect the quality of surface water and groundwater resources | 5.0 Reduce air pollution | 6.0 Protect farmland & avoid conflict with material assets | 7.0 Conserve the historic environment, heritage assets and their settings | 8.0 Protect, maintain and enhance the quality of scenic landscapes |
| Trail Recommendations | | | | | | | | |
| Trail surface intervention | - | ✓/- | - | - | ✓/- | ✓/- | ✓/- | - |
| Gravel | | | | | | | | |
| Gravel including geotextile | | | | | | | | |
| Stone pitching | | | | | | | | |
| Stone stepping | | | | | | | | |
| Boardwalk | | | | | | | | |
| Bog bridge | | | | | | | | |
| Hardcore vehicular access | | | | | | | | |
| Trail Infrastructure | - | ✓/- | - | - | ✓/- | ✓/- | ✓/- | - |
| Footbridges | | | | | | | | |
| Stiles | | | | | | | | |
| Gates | | | | | | | | |
| Fencing | | | | | | | | |
| Culverts | | | | | | | | |
| Water bars | | | | | | | | |
| Sign posts | | | | | | | | |
| Panels (Info/Interpretation) | | | | | | | | |
| Tourism infrastructure | - | ✓/- | - | - | ✓/- | - | ✓/- | - |
| Trailhead Beacons | | | | | | | | |
| Viewing platforms | | | | | | | | |
| Shelters | | | | | | | | |
| Benches and lecterns | | | | | | | | |
| Directional posts/ground plates | | | | | | | | |

5.8 Nature of environmental effects

Likely significant effects on the environment can take the following forms:

Short, medium and long-term effects - Short term effects are more likely to relate to the construction period while medium and long term effects are usually associated with operations and activities linked to the proposal. The notable exception here is the construction of the infrastructure, particularly tourism infrastructure, which has the potential for the greatest long term visual impact on the landscape.

Temporary and permanent effects – Likewise, the duration of effects has a close relationship with the respective construction and operational stages. Again, the construction of trail and tourism infrastructure, notably bog bridges, boardwalks, beacons, shelters and viewing platforms possess the potential for temporary impacts on habitats/species during construction and permanent impacts on the landscape.

Cumulative effects – These effects occur when two or more environmental effects combine to produce a greater effect. One example of this is the potential for the cumulative impact of proposed tourism infrastructure with existing tourism infrastructure, which could lead to cluttering and an adverse impact on visual amenity.

Synergistic effects – These occur when two or more effects work together to create a new effect. This could occur if two harmless emissions combine during development to create a pollutant that is harmful to environmental receptors.

Secondary effects - Secondary effects may ensue from initial environmental impacts. For instance, direct effects upstream as a result of pollution could have a secondary significant effect on biodiversity downstream.

Mindful of the above, it must be stated that effects on the environment are usually interrelated and often overlap to make simplistic categorisation difficult. Indeed, Scottish guidance considers synergistic and secondary effects as other forms of cumulative impact. Viewed in this context, the differentiation of effects on the basis of the above categories is not explicitly referred to in subsequent SEA tables. Attempting to do would only confuse matters and detract from the conciseness of the SEA. Instead, it can be assumed that they are implicitly considered as part of the assessment.

5.9 Difficulties in carrying out assessment

In keeping with Schedule 2 (h) of the 2004 Regulations it is worth highlighting the difficulties encountered in compiling the required information for this SEA. Obviously, the 707kms length of the Trail spanning 10 counties ensured that a high-level approach could only be adopted for assessment. In some respects, these difficulties were reflected in the preparation of the Trail Plan itself, where it was deemed necessary to caveat trail surface recommendations with the need for further investigation by an Ecological Clerk of Works, as well as by on-the-ground advice by the contractor. Indeed, specialist advice on the required surface intervention is recommended in certain upland and remote rural areas located in Beara Way, Sli Gaeltacht Mhuscraí and Ballyhoura Way.

As with greenways and blueways, there is a lack of data on trails to inform the potential use of the BBW Trail and to correspondingly enable a full assessment of operational impact. This shortcoming is recognised in the EPAs document “Our Environment, Our Health, Our Wellbeing: Access to Blue/Green Spaces in Ireland, 2021”. It states that there is a lack of data on the use of blue/green spaces, which does not facilitate informed, cohesive planning and governance.

Other difficulties in carrying out the assessment relate to the inaccessibility of certain stretches of the trail due to both the non-take up of the walk scheme and the poor ground conditions underfoot.

In terms of data, not all landscape character areas designated by local authorities are mapped by Geohive. Added to this, the overriding length of the trail is not mapped for flood risk. Only areas of population concentration are mapped for flood risk and the trail in these locations usually does not require any construction as it mainly avails of existing path and road infrastructure.

5.10 Alternatives

At a strategic level, the consideration of alternatives in respect of this Trail Plan can broadly be appraised from three perspectives. These are outlined below.

Alternative 1: Do Nothing

This approach questions the very necessity of preparing a Trail Plan in the first place and how the environment would evolve in the absence of it. However, it must be remembered that most of the Trail route is already in place and in the absence of this overarching Trail Plan, there is potential for uncoordinated, piecemeal development of the BBW by section and by county. This option would also have to rely solely on the existing statutory planning and consent framework to secure sustainable development, environmental management and environmental protection.

Alternative 2a: Do Something without environmental appraisal

This approach relates to the option of simply making recommendations to develop the Trail without taking cognisance of its environmental impact. Given its status as a Plan there is a legal requirement for strategic environmental assessment under SEA legislation, which means that this alternative is not feasible.

Alternative 2b: Do Something with environmental appraisal

This option acknowledges that, in keeping with legislative requirements, the Trail Plan has to be prepared in conjunction with strategic environmental assessment.

Within the context of the above it is clear that Alternative 2b is the only logical option to pursue. The Plan seeks to improve Beara Breifne Way Trail as a tourist asset, while respecting the sensitivities of the environment. Its preparation will allow individual proposals at the local level to be considered against a broader vision for the route, thereby promoting orderly and consistent development. In so doing, it will strengthen Trail identity and foster continuity of experience.

As for the consideration of alternative proposals within the Plan this was assisted by the preparation of an Environmental Sensitivities and Opportunities Report (ESOR). It was prepared concurrently with the Trail Plan by Woodrow APEM Group (Ecological Consultants). It sought to advise on the preferred route of the Trail in terms of avoiding impact on highly sensitive environmental locations. Recommendations ranged from avoiding specific habitats and applying appropriate trail surfaces.

Examples when environmental screening under the ESOR assisted the recommendation of alternatives for the Trail Plan include:

- 1) Alternative routes to avoid areas of intact raised bog. There were instances where the existing route would have proceeded across an intact raised bog, and the route was amended to avoid this e.g. Ussey Raised Bog (Active) in the Suck Valley Way.
- 2) Adopt appropriate trail surfaces for certain locations e.g. boardwalks and bog bridges were recommended as suitable forms of new build trail that would address the issues of vegetation trampling and erosion on peat bogs.

3) Trail surface recommendation for part of the Hymany Way Section between Portumna and Meelick Weir. The output of the ESOR advised that retaining a grass surface here would be the preferred option to prevent additional surface runoff into the River Shannon Callows SAC and Middle Shannon Callows SPA. In keeping with the All-Ireland Pollinator Plan, grass verges of this type can be mown less often thereby allowing flowers to bloom and enhancing habitat.

Having stated the above it must be acknowledged that there are understandable limitations to the consideration of preferred alternative routes from an environmental perspective. These include the necessity to accord weight to the following considerations:

- the Historic route of O'Sullivan Beare;
- the observation that 80% of the trail accords with the original route;
- the fact that there are 12 walking sections to this trail that are predominantly waymarked;
- landowners who are signed up to the Walk Scheme; and
- the extensive coverage of environmentally sensitive areas and designations along the route which often constrains options to bypass them.

Ultimately, the BBW Trail Plan seeks to provide strategic direction and guidance for the coherent development of the Trail along its entire length, against which proposals for each section can be assessed. Accordingly, equipped with the Trail Plan, Councils will be in a stronger position to influence the pattern of development along the Trail in the interest of sustainable development and environmental protection.

5.11 Mitigation

The Trail Plan is a **non-statutory** document that is advisory in nature and intended to guide and promote the development of the Beara Breifne Way. Importantly, it does not provide a basis for granting planning permission and other consents. It sits alongside a hierarchy of **statutory** documents that set out public policy for, among other things, land use development, tourism, infrastructure, sustainable development, environmental protection and environmental management. These statutory documents comprise Frameworks, Strategies, Development Plans and Guidelines which have been subject to their own environmental assessment processes, as relevant, and either form or contribute to the decision-making and consent-granting framework. Mitigation of any adverse impacts resulting from this Trail Plan will be largely secured by complying with this statutory planning and consent framework.

Notwithstanding the above, Failte Ireland can contribute to mitigating impact from trail development at the Plan level and this is explained below.

5.111 Mitigation at Plan level

Failte Ireland has incorporated mitigation at the Plan level by ensuring that the preparation of the Trail Plan took place in conjunction with all environmental due diligence. As noted above, this initially involved undertaking an Environmental Sensitivities and Opportunities Report (ESOR) as a building block for environmental assessment. It then included the preparation of a Natura Impact Report (NIR) and a SEA in compliance with environmental legislation. Furthermore, a Built Heritage Impact Report was undertaken to appraise and mitigate impact of the Trail Plan on cultural heritage.

At the plan level this environmental documentation helped to mitigate impact by:

- seeking to avoid, reduce or offset potential significant adverse effects of implementing the Plan, in combination with other plans, programmes, etc; and
- maximising beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from other plans, programmes, etc.

Moreover, mitigation is advanced by the fact that, in order to achieve funding (including promotion) from Fáilte Ireland for land use or infrastructural development or land use activities, stakeholders shall be required to demonstrate compliance with legislative requirements relating to sustainable development, environmental protection and environmental management. Environmental compliance may relate to the provision of adequate infrastructure capacity, visitor management strategies and appropriate surveys and reporting at the project stage, examples of which are considered below.

5.112 Typical mitigation at project level

Mitigation of the environmental impact of the proposals considered in the SEA can take place at the Pre-Construction, Construction and Operational stages of the Trail Plan. Examples of mitigation that can occur at each of these stages is expanded upon below.

Pre-Construction

Before development commences all necessary environmental surveys should be undertaken. These are likely to be a requirement of the planning process but are usually prepared in advance of submitting the application in order to inform the nature of the proposal. This supporting information is likely to consist of the preparation of an **Ecological Impact Assessment (EclA)** which will be underpinned by specific surveys of wildlife and habitats, with the latter also checking for Invasive Alien Species. The type of wildlife surveys required are advised in the ESOR and Natura Impact Report. They relate to birds and protected species such as badgers, bats, dormice, great crested newts, otter, red squirrels, water vole and white-clawed crayfish.

The EclA will provide a detailed suite of mitigation measures for the construction and operational stage to reduce the potential for disturbance of species and trampling of habitats. Habitat enhancements will be recommended, which should be incorporated into the Construction Environmental Management Plan (CEMP).

Given that all but one of the Sections of the BBW trail either pass through a European Site or are hydrologically linked to one, the preparation of Natura Impact Reports at Council level will also be required.

Outside of the above reports and surveys on the natural environment, additional detailed studies/information may possibly include:

- archaeological and built heritage impact assessments. It is likely that an archaeological assessment will have to be carried out for each section to address the impact of works proposed within Zones of Notification (ZoNs) of recorded monuments. This is because Ministerial consent will be required for the works proposed in ZoNs. The archaeological assessment will recommend any avoidance or mitigation required. Mitigation typically relates to the need for archaeological monitoring/supervision. This will be made a condition of planning permission. This work may be conducted under licence from National Monuments Service (NMS) of the Department of Culture, Heritage and the Gaeltacht. An archaeological

licence is not an absolute requirement for monitoring, but it is necessary to address the investigation of any identified archaeological deposits. A three stage process is normally undertaken to facilitate archaeological monitoring:

Stage 1: Preparation of and submission of an archaeological method statement and licence application to NMS;

Stage 2: Archaeological monitoring of topsoil removal within Zones of Notification (and elsewhere if advised by Archaeologist);

Stage 3: Preparation of final monitoring report for submission to NMS in line with licence requirements.

- landscape and visual impact assessments. These will be particularly required for the proposed tourism infrastructure. Ideally, these should include before and after images from short, medium and long-range public vantage points within the zone of visual influence of each proposal. The assessment should inform micro-siting the erection of the proposed structures and should protect any views and prospects that are outlined in the relevant Development Plan.
- drainage/flood risk assessments. The trail largely passes through locations that are outside of settlements and little flood mapping exists for these areas. Accordingly, a drainage/flood risk assessment may be required for proposals that are situated in areas that are particularly susceptible to flood risk e.g. along river bank floodplains.
- preliminary risk assessments of contamination; These may be requested for trail proposals on previously developed ground where the threat of contamination cannot be discounted. They may also be required where trail works pose a risk of creating pollutant pathways in locations near existing/former landfill sites and Wastewater Treatment Plants (WWTP).
- traffic impact assessments. These may be required where parking and road improvements are proposed as part of the trail works.

Construction

At the Construction stage the development of the trail will broadly proceed in accordance with the following principles.

- Firstly, the overriding development principle for the Trail Plan will be the adoption of a non-intervention approach to its delivery if it is considered that the trail, in its existing form, can sustain the projected increase in the number of walkers.
- The second step will be to make full use of the existing environment to guide trail development as opposed to the creation of a new route. This includes utilising existing hedgerows and laneways to avoid field severance and to serve as natural barriers against wandering off-course and creating 'desire lines'. It may also involve demarcating the trail with stock proof fencing along field boundaries that contain cattle or are close to roads, in order to facilitate safe passage for users and to protect farming interests.
- The final step will be to develop a sustainable, non-bitmac, off-road trail in line with best practice guidance. This guidance is sourced from publications including: Sport Ireland Outdoors Walking Trails Criteria for Ireland (2020); Helping the Hills Principles to guide the management of path erosion in Ireland's upland areas (2014); and Outdoor Access Design Guide - Paths for All / Scottish Natural Heritage (2016).

Sustainable trail construction incorporates mainly low-level construction techniques consisting of gravel build and stone stepping. Where greater intervention is required in poorly drained areas, boardwalks and bog bridges are recommended as they facilitate drainage and plant growth beneath them. In terms of materials, an emphasis is placed on the use of recycled products in construction e.g. recycled plastic for boardwalks.

Added to the above, no lighting will be deployed except for minimal low intensity lighting if it is unavoidably needed at certain parking locations at the start and finish points of a particular section.

In order to ensure that the trail is properly constructed from the perspective of minimizing environmental impact the appropriate personnel will be put in place. This includes the appointment of a **Design and Build Contractor with specialist experience** in this field. It is further recommended that the Contractor engages the services of a **qualified trail designer**.

In addition, the appointment of an accredited **Ecological Clerk of Works (ECoW)** will be a critical member of the construction team. The role will involve ongoing field research and supervision of works to ensure that all steps are taken to minimise impact on habitats and species. The ECoW may seek advice from other specialists including an Arboriculturist, specialist Invasive Species contractor and licenced Bat Ecologist. This may necessitate recommendations on such matters as the specific timing of certain works and micro-siting to improve separation distances from habitats such as setts, holts, dens and roosts. It may also involve fine tuning the specific route of the trail and ensuring works are carried out in compliance with the relevant ecology provisions of the **Construction Environmental Management Plan (CEMP)**.

Preparation of a Construction Environmental Management Plan (CEMP) for the Contractor essentially underlines the importance of adopting environmental due diligence and sensitive construction techniques to avoid and reduce environmental impact. The CEMP will provide advice on the type of work practices and equipment to be used. It will be an iterative process, which shall focus on micro-siting works as part of the progression of this scheme. Typical recommendations of the CEMP are likely to include:

- Provision of trail surface by hand near roots of trees to avoid wider damage.
- Geotextiles to be used on peatland locations and where soil has significant clay content.
- Use of machinery no wider than the trail corridor.
- Use of mini excavators (1.5 tonnes) in wooded areas.
- Coordination of construction times to avoid unnecessary distress to protected birds.

The CEMP will also include a detailed **Invasive Alien Species Management Plan (IASMP)** and any relevant information in relation to the derogation of licence requirements for the protection and avoidance of impacts upon Protected Species such as bats, otters, badgers and pine martens.

Operational

During the operational stage, the following measures may be considered to mitigate environmental impact when the trail is in use.

- Preparation of litter management plans including scheduling of 'tidy-up' days.
- Appropriately located signage to remind users to respect the natural and agricultural sensitivity of the location.
- Deployment of Council staff at weekends and bank holidays to manage traffic at car park locations for start and end points at each section.
- Quarterly review of trail condition by Council to check for erosion, rutting, trampling, desire lines, etc.

In instances where transboundary environmental effects are identified or are likely to take place at project level local authorities will consult with the relevant authorities in NI.

5.12 Assessment of proposals by Trail Section

Taking each of the 12 sections in turn, the approach to strategic environmental assessment involves a number of steps. It outlines the type of surface intervention, trail infrastructure and tourism infrastructure proposed. It then assesses the impact of these trail proposals on the SEA topics identified previously. Those proposals adjudged to have "likely significant negative effects" or "likely significant positive & negative effects" are then considered against the sequence of subject matters stated in the 2004 Regulations, namely: alternatives, mitigation and monitoring. The strategic environmental assessment of the Trail for each of the 12 sections is detailed in the succeeding pages of this report under SEA Tables numbered BBW1 to BBW12.

5.13 Conclusion

The Trail Plan aims to delineate the route of the trail to channel walkers along a specific path, thereby discouraging the creation of desire lines and minimizing off-course disturbance to the environment. In the absence of this Trail Plan the environment will be exposed to an increased risk of habitat loss, erosion, litter, etc. as the popularity of the trail increases in line with its upgrade and promotion. The Trail Plan, in conjunction with the SEA, ESOR, Natura Impact Report and Built Heritage Impact Report have been prepared with the aim of mitigating this risk at the outset.

Based on the output of the SEA tables for each section in subsequent pages it is envisaged that the bulk of detailed mitigation measures to prevent, reduce or offset significant negative adverse effects will emerge at the project stage. This is because relevant studies/information will be forthcoming at this time and planning conditions can be tailored accordingly and attached to planning permissions. Planning conditions are likely to include the prerequisites of Construction Environmental Management Plans and possibly Operational Management Plans.

SEA Tables

Sections 1-12

This part of the SEA Environmental Report outlines the indicative proposals for the Beara Breifne Way Trail Plan 2023 and considers their likely significant effects on the environment. Effects are assessed in the context of potential alternatives, possible mitigation at project stage, and monitoring. The monitoring indicators for SEA Objectives 2, 5 and 8 are suggestions only and contingent upon a responsible body agreeing to monitor them.

The indicative proposals in the Trail Plan are tabulated for each Trail Section as follows:

- Proposed New Build Trail and Upgrade – collated from the Technical Trail Audit and Design Report for the Beara Breifne Way prepared by Outdoor Recreation NI
- Proposed Infrastructure and Signs – collated from the above Technical Trail Audit
- Uplands/Remote Rural Sections requiring specialist intervention – collated from the Technical Trail Audit (applies to 3 Trail Sections only)
- Tourism Infrastructure Proposals – collated from the Beara Breifne Way Visitor Experience Strategy Summary Document prepared by the Paul Hogarth Company

All proposals in the Trail Plan are indicative only and subject to landowner consultation and consent.

SEA of Beara Way (Section 1)

Table 1a

| Beara Way | Proposed New build Trail & Upgrade | |
|------------------------------------------------------|------------------------------------|--------------|
| | Quantity (m) | % of Route |
| Gravel | 2,887 | 3.3% |
| Gravel upgrade | 1,350 | 1.5% |
| Gravel including geotextile | 95 | 0.1% |
| Stone pitching (incl'g upgrade) | 893 | 1.0% |
| Stone stepping | 13,163 | 14.9% |
| Boardwalk | 96 | 0.1% |
| Bog bridge | 856 | 1.0% |
| Hardcore vehicular access | 157 | 0.2% |
| Other (Repairs to Adrigole Waterfront+5 stone steps) | 312 | 0.4% |
| Total | 19,809 | 22.4% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 1b

| Beara Way | Proposed Infrastructure & Signs | | |
|------------------------------|---------------------------------|------------|----------------|
| | Quantity (unit/m) | % of Route | Site clearance |
| Footbridges | 10 | N/A | 3 footbridges |
| Stiles | 12 | N/A | |
| Gates | 1 | N/A | |
| Fencing (m) | 758 | 0.9% | |
| Culverts | 6 | N/A | 1 culvert |
| Water bars | 5 | N/A | |
| Sign posts | 141 | N/A | 51 sign posts |
| Panels (Info/Interpretation) | 10 | N/A | |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 1c

| Beara Way | Uplands/Remote Rural Sections requiring Specialist Intervention | |
|--------------------------------------------|-----------------------------------------------------------------|--------------|
| | Quantity (m) | % of Route |
| New Build | 6,228 | 7.0% |
| New Build in Deep Peat | 2,519 | 2.8% |
| New Build in Deep Peat with gradients >30% | 59 | 0.1% |
| Total | 8,806 | 10.0% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 1d

| Beara Way - Tourism Infrastructure Proposals | | | | | |
|-----------------------------------------------------|---------------|--------------|-----------------|----------------|--------------------------------------------------------------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 1. Dursey Island | Y | | | | Located in Beara Peninsula SPA |
| 2. Ballydonegan Beach | Y | Y | Y | | Platform c.30m from Kenmare River SAC & Beara Peninsula SPA |
| 3. Dunboy Castle | Y | | | | Within the zone of notification (ZoN) of historic castle, SMRS Code: CO115-021 |
| 4. Beara Peninsula | Y | Y | | | |
| 5. Toberaranha Lough | Y | Y | | | c.20m from Caha Mountains SAC/pNHA |
| 6. Coomarkane Valley | Y | | | Y | c.10m from Glengarriff Harbour and Woodland SAC & Caha Mountains SAC/pNHA |
| 7. Glengarriff | Y | Y | | | |
| 8. Bantry Bay | Y | | | | |
| 9. Beara Way / Sli Gaeltacht Mhuscraí | Y | | | | Within ZoN for Stone row, SMRS Code: CO092-019. |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Figure 1a: Beara Way – European and National Environmental Designations

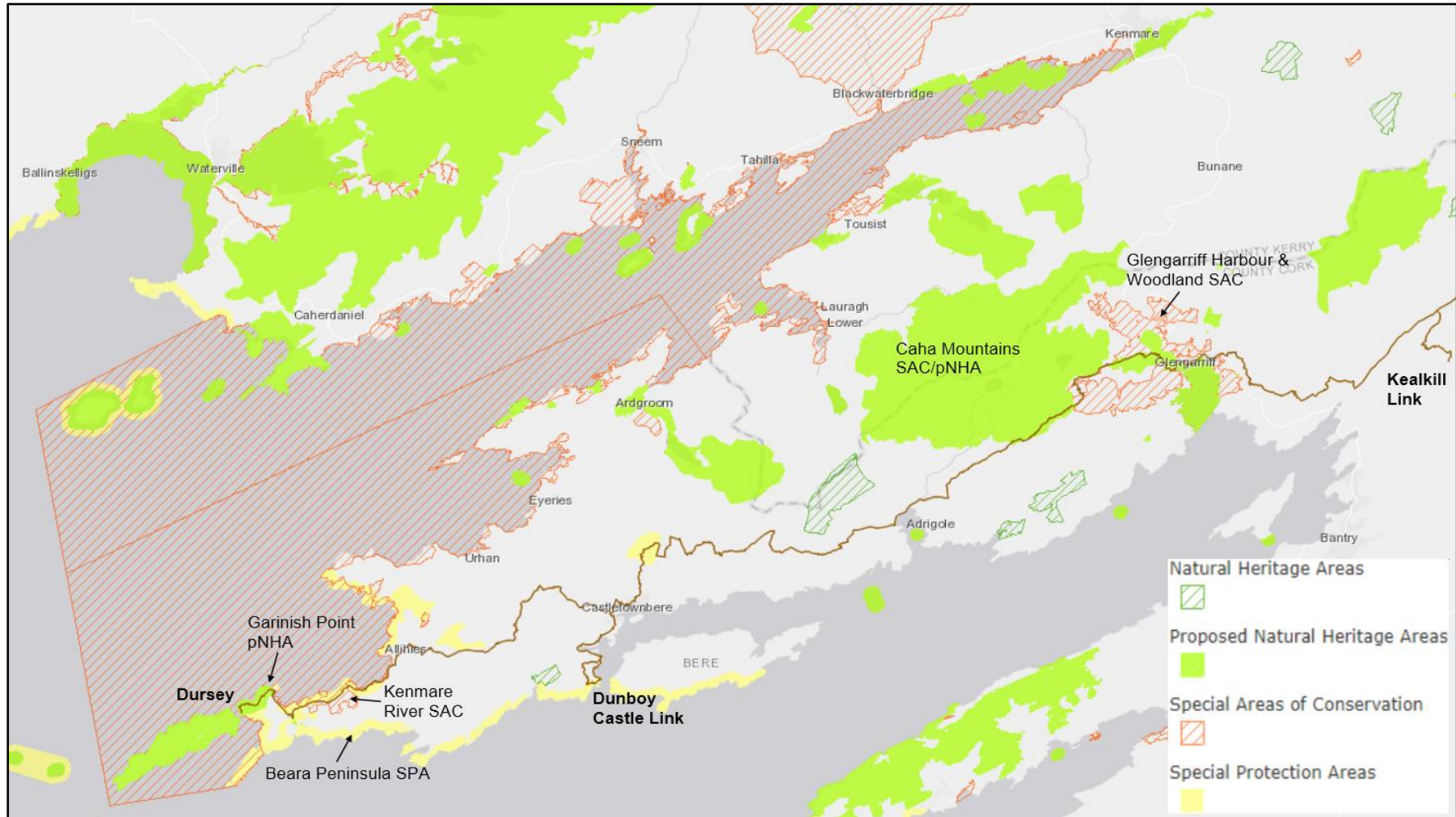


Table BBW 1: Beara Way SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>This Section requires the largest length of surface intervention of all sections (c.28kms). It passes through 3 SACs, 1 SPA, 4 pNHAs and Annex 1 heath and bog habitats.</p> <p>There are two stretches of the trail located in areas described as upland/remote rural areas, where specialist intervention in terms of recommending the preferred trail design is required. Both areas are located in Annex 1 habitats, with one partly located within the Beara Peninsula SPA and one within the Caha Mts SAC/pNHA.</p> <p>Stone stepping is proposed for two Annex 1 blanket bogs in the Kenmare River SAC and north of Castletownbere. Likely significant effects on environment include loss of habitats and noise and disturbance to wildlife.</p> <p>No work is required enroute through Glengarriff Forest (Ancient Woodland), with its Annex 1 woodland habitats of Old Sessile Oak Woods and Bogland Woods.</p> <p>This section of trail lies within the catchment of other extant freshwater mussel populations. While their quality may not be subject to detailed restoration objectives their impact is still considered in this SEA.</p> <p>A beacon with lecturn and seating is proposed for Dursey Island which is within the Beara Peninsula SPA. The proposed viewing platform for Ballydonegan Bay is outside the Kenmare River SAC but within 50m of it. A proposed shelter at Coomarkane Valley is c.10m from Glengarriff Harbour and Woodland SAC & Caha Mountains SAC/pNHA.</p> <p>The 10 proposed footbridges (3 replacements) are not located in any European or National designated site, however some of the proposed fencing is.</p> | Bulk of route is in place. Alternatives to avoid environmental designations were constrained by their prevalence. | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys (otter, bat roosts, Invasive Alien Species) and studies, namely Ecological Impact Assessment (EclA) and Appropriate Assessment (AA) where required.</p> <p>Ecological Clerk of Works (ECoW) to advise on detailed trail construction.</p> <p>Contractor to adhere to contents of CEMP.</p> | <p>NPWS Article 17 Habitats Reports every 6 years</p> <p>NPWS Article 12 Bird Reports every 3 years.</p> <p>Periodic Birdwatch Ireland Surveys.</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|---------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Population & human health | 2.0 Promote wellbeing & respect for the environment | <p>Increased usage will heighten the potential for litter pollution and noise disturbance.</p> <p>Trail intersects 4 river systems that are listed in the Register of Protected Areas for drinking water abstraction under the Water Framework Directive (2000/60/EC), namely Ballydonegan, Adrigole, Glengarriff and Barony. Some new surface build and at least one footbridge is proposed here.</p> <p>Potential for litter pollution</p> | <p>Intersection of the RPA rivers is largely unavoidable.</p> <p>Restriction on visitor numbers not considered feasible</p> | <p>ECoW supervision of works and contractor adherence to CEMP.</p> <p>Litter Management Plans - Litter Pick-Up days.</p> <p>Signage to remind users of sensitivity of location.</p> | <p>EPA Monitoring of Water Quality.</p> <p>Monthly random inspection of stretches of trail section.</p> <p>No. of litter pick up days required</p> |
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | <p>Considerable portions of the route pass through peat bogs/wetland, parts of which are designated European and National sites. Consequently, c.13kms of stone stepping is required, which is five times as much as the section with the next highest level.</p> | <p>Avoidance of peat bogs is virtually impossible given their preponderance along this section of the Trail</p> | <p>Use of bog bridges in highly sensitive environmental locations.</p> <p>Specialist intervention required in areas of deep peat (2.6kms in extent).</p> <p>Construction will be guided by advice of ECoW and remit of CEMP.</p> | <p>EPA CORINE Land Cover Type Monitoring every 6 years</p> |
| Water | 4.0 Protect the quality of surface water and groundwater resources | <p>Main threat to water quality occurs at construction stage due to spillages and sediment mobilisation. Beara Way, together with the Sli Gaeltacht Way, have the highest aquifer vulnerability of all sections, with thin subsoils and rock near the surface along most of their routes.</p> <p>New gravel build is proposed near the Adrigole River, the water quality of which is at risk of deteriorating. The status of the Beara Sneem WFD Groundwater Water Body is considered good and not at risk at present.</p> | <p>Traversing areas of high aquifer vulnerability and watercourses is unavoidable due to their proliferation.</p> | <p>ECoW supervision of works and contractor adherence to CEMP.</p> | <p>EPA Monitoring of Water Quality.</p> <p>EPA National River Biology Monitoring Programme every 3 years.</p> <p>Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD)</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Air & Climate | 5.0 Reduce air pollution | Though impacts on air and climate are clearly positive due to lower carbon footprint associated with walking, increased vehicular traffic could heighten pollution levels locally, albeit air quality along the entire trail is categorised "Rural Ireland (Air Zone d)" and is considered good. | Restriction of use of trail to bus visitors only or electric vehicles not considered reasonable or practical. | Encourage visitors to travel to route by public transport. Deployment of parking stewards to manage congestion during busy times such as bank holidays | Number of visitors travelling by bus as opposed to cars |
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | Large tracts of farmland are categorised as commonage, with the emphasis on degrazing. The trail passes within several hundred metres of historic mines at Allihies but they are Class V sites that do not require any specific monitoring. The trail also passes close to several landfill sites, notably at Castletownbere, but no works are proposed here which could risk activating pollutant pathways. | The low risk of environmental impact on material assets did not warrant consideration of alternative routes. | No mitigation required. | No monitoring required |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings | <p>Some new build trail proposals pass within zones of notification (ZoN) for protected archaeological sites and monuments. This includes stone stepping proposals within ZoN of enclosures SMRS Code: CO115-058 and SMRS Code: CO115-058003, Hut sites SMRS Code: CO115-05801 and SMRS Code: CO115-058002 within the Beara Peninsula SPA.</p> <p>Stone stepping is also proposed in the ZoN for Field boundary SMRS Code: CO115-092 at Slieve Miskish Mountains, Hut site SMRS Code: CO115-107, Fulacht fia, SMRS Code: CO116-034001 and Enclosure SMRS Code: CO116-034002.</p> <p>Stone pitching is proposed in ZoN for Field boundary SMRS Code: CO116-029001. Gravel upgrade is proposed within ZoN for a Midden, SMRS Code: CO104-039. New gravel build is proposed at Enclosures, SMRS Code: CO105-05500 and SMRS Code: CO105-055002. New gravel build, plus stone stepping and a bog bridge is proposed in ZoN for Cairn, SMRS Code: CO105-055003.</p> <p>A beacon with paving is proposed within the ZoN for historic Dunboy castle (SMRS Code: CO115-021) in Castletownbere.</p> | The high incidence of archaeological sites meant that it was highly probable that the trail would traverse a number of zones of notification. | Archaeological Assessments will be required where new build route is within zone of notification of recorded site | <p>Record of Monuments and Places compiled by the National Monuments Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>National Inventory of Architectural Heritage and Records of Protected Structures by Department of Housing, Local Government and Heritage</p> |
| Landscape | 8.0 Protect, maintain and enhance the quality of scenic landscapes | <p>All of this Section is in a landscape classified as Rugged Ridge Peninsulas LCA and is adjudged to be highly sensitive to change.</p> <p>Proposed tourism infrastructure and surface interventions are likely to have a visual impact on the environment. These include the proposed viewing platform at Ballydonegan beach, as well as the proposed shelter, beacons, boardwalks and bog bridges.</p> <p>There is potential for erosion/ trampling at start and end points of boardwalks and bog bridges.</p> | Given the extensive coverage of the highly sensitive landscape, alternative routes outside it would constitute gross departures from the original trail and unrealistic options in this regard. | Visual impact appraisals at the application stage of proposed tourism infrastructure and new build trail. These should include before and after images from short, medium and long-range public vantage points within the zone of visual influence of each proposal. | <p>Record extent of erosion at start and end points on an annual basis.</p> <p>Quarterly/monthly review of cleanliness of route to ensure that litter does not detract from visual amenity.</p> |

SEA of Sli Gaeltacht Mhuscraí (Section 2)

Table 2a

| Sli Gaeltacht Mhuscraí | New build Trail & Upgrade | |
|---------------------------------|---------------------------|--------------|
| | Quantity (m) | % of Route |
| Gravel | 8,034 | 13.9% |
| Gravel upgrade | 1,485 | 2.6% |
| Gravel including geotextile | 927 | 1.6% |
| Stone pitching (incl'g upgrade) | 434 | 0.8% |
| Stone stepping | 1,190 | 2.1% |
| Boardwalk | 276 | 0.5% |
| Bog bridge | 325 | 0.6% |
| Hardcore vehicular access | 1,268 | 2.2% |
| Other (10 Stone Steps) | 1 | 0.0% |
| Total | 13,940 | 24.1% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 2b

| Sli Gaeltacht Mhuscraí | Infrastructure & Signs | | |
|------------------------------|------------------------|------------|----------------|
| | Quantity (unit/m) | % of Route | Site clearance |
| Footbridges | 5 | N/A | 2 footbridges |
| Stiles | 23 | N/A | 5 stiles |
| Gates | 1 | N/A | |
| Fencing | 2,620 | 4.5% | |
| Culverts | 5 | N/A | 1 culvert |
| Water bars | 3 | N/A | |
| Sign posts | 43 | N/A | 34 sign posts |
| Panels (Info/Interpretation) | 3 | N/A | |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 2c

| Sli Gaeltacht Mhuscraí | Uplands/Remote Rural Sections requiring Specialist Intervention | |
|--------------------------------------------|-----------------------------------------------------------------|-------------|
| | Quantity (m) | % of Route |
| New Build | | |
| New Build in Deep Peat | 1,015 | 1.8% |
| New Build in Deep Peat with gradients >30% | 32 | 0.1% |
| Total | 1,047 | 1.8% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 2d

| Sli Gaeltacht Mhuscraí - Tourism Infrastructure Proposals | | | | | |
|------------------------------------------------------------------|---------------|--------------|-----------------|----------------|-------------------------------------------------------------------------------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 10. Conigar Mountaintop | Y | Y | | | Located within Conigar Bog NHA |
| 11. Augheris Church | Y | | | Y | Within ZoN of Augheris church SMRS Code: CO069-038002 and burial ground SMRS Code: CO069-038001 |
| 12. St Gobnait's Shrine | Y | Y | Y | | |
| 13. OSB Skirmish | Y | | | | Located within Mullaghanish to Musheramore Mountains SPA |
| 14. Claragh Mountain | Y | Y | Y | | |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Figure 2a: Sli Gaeltacht Mhuscraí – European & National Environmental Designations

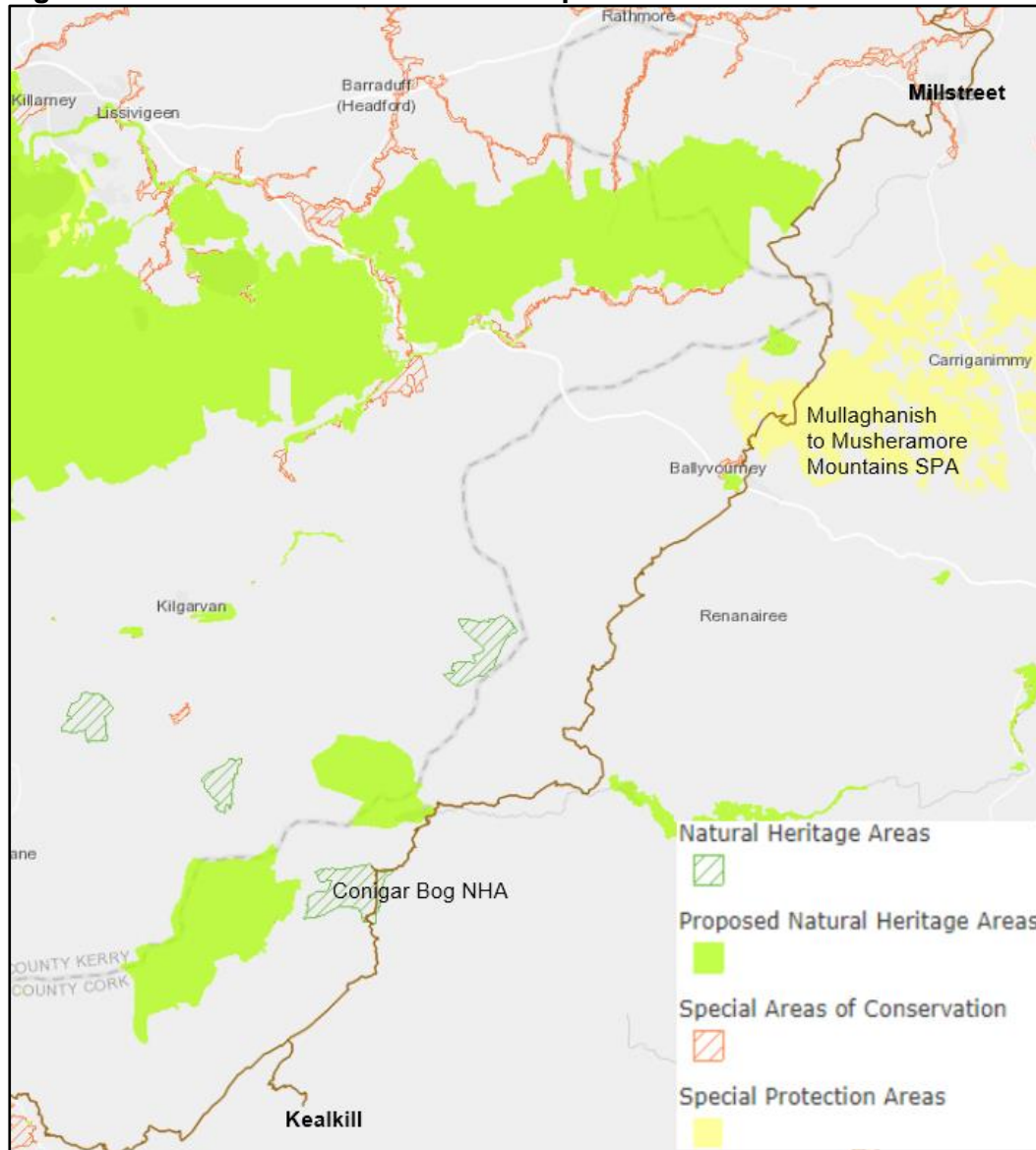


Table BBW 2: Sli Gaeltacht Mhuscraí SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>The trail traverses the edge of 2 SACs and 3 pNHAs. It proceeds through Mullaghanish to Musheramore Mts SPA, where surfacing, infrastructure works and a beacon are proposed.</p> <p>Increased usage will heighten the potential for noise disturbance to Mullaghanish and Musheramore Mts SPA, which accommodates the hen harrier. According to a 2015 survey, numbers have fallen by 80% since 2005 to several pairs.</p> <p>This section of trail lies within the catchment of other extant freshwater mussel populations.</p> <p>The trail also passes through Conigar Bog NHA where 235m of stone stepping is proposed, together with a beacon. Specialist intervention is required in this NHA to advise on the final trail design.</p> <p>Trail surfacing works (gravel mainly) are proposed within 200m of the River Lee west of Ballinageary, which is a salmonid regulated watercourse. High ecological quality is required to sustain salmonid fish stocks and the River Lee has high status under the WFD.</p> <p>The viewing platform proposed for Claragh Mountain near Millstreet is not located in a European or National designated environmental area.</p> | Circumventing the SPA that is home to the hen harriers is unavoidable due to the expanse of this environmental designation. | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys (otter, bat roosts, raptor) and studies, namely Ecological Impact Assessment (EclA) and Appropriate Assessment (AA) where appropriate.</p> <p>Ecological Clerk of Works (ECoW) to advise on detailed trail route construction.</p> <p>Adherence to contents of CEMP.</p> | <p>NPWS Article 17 Habitats Reports every 6 years</p> <p>NPWS Article 12 Bird Reports every 3 years.</p> <p>Periodic Birdwatch Ireland Surveys.</p> <p>Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD)</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|---------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Population & human health | 2.0 Promote wellbeing & respect for the environment | The River Lee is listed in the Register of Protected Areas for drinking water abstraction under the Water Framework Directive (2000/60/EC) and an element of new gravel build and a footbridge is proposed here. Potential for litter pollution | Surface intervention is a necessity in this part of the trail. Restriction on visitor numbers not considered feasible | ECoW supervision of works and contractor adherence to CEMP. Litter Management Plans by Council - Litter Pick-Up days. Signage to remind users of sensitivity of location. | EPA Monitoring of Water Quality. Monthly random inspection of stretches of trail section. No. of litter pick up days required |
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | Parts of the trail pass through peat bogs/wetland, where surface intervention such as stone stepping is recommended. | Avoidance of peat bogs is unavoidable given their preponderance along this section of the Trail | As with the Beara Way, specialist intervention is required in areas of deep peat (1 km in extent). ECoW supervision of works and adherence to CEMP. | EPA CORINE Land Cover Type Monitoring every 6 years |
| Water | 4.0 Protect the quality of surface water and groundwater resources | The River Lee is considered at risk further downstream where new gravel build plus fencing is proposed. However, this part of the river is not salmonid regulated. As with Beara Way, groundwater status is considered good. | Intersection with the River Lee is unavoidable | ECoW supervision of works and contractor adherence to CEMP. Reference will be made to the 2016 Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters | EPA Monitoring of Water Quality. EPA National River Biology Monitoring Programme every 3 years. |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Air & Climate | 5.0 Reduce air pollution | Though impacts on air and climate are clearly positive from lower carbon footprint due to walking, increased vehicular traffic could heighten pollution levels locally, albeit air quality in Rural Ireland (Air Zone d) is considered good. | Restriction of use to bus visitors or electric vehicles not considered reasonable or practical. | Encourage visitors to travel to trail by public transport. Deployment of parking stewards to manage congestion during busy times | Number of visitors travelling by bus as opposed to car. |
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | Some of the route passes through commonage areas, with the emphasis on degrazing. | The low risk of environmental impact on material assets did not warrant consideration of alternative routes | No mitigation required. | No monitoring required |
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings | While the trail passes within several hundred metres of a range of protected archaeological sites and monuments (e.g. raths, stone circles, enclosures) in most cases no works are proposed. The exceptions are the proposal for new gravel build and a shelter within the zone of notification (ZoN) at Augheris church, SMRS Code: CO069-038002 and burial ground SMRS Code: CO069-038001, as well as the proposal for a trailhead beacon within the ZoN for a Stone row, SMRS Code: CO092-019. | The specific location of the proposed shelter within the ZoN at Augheris church will be determined at the planning application stage. | Archaeological Assessments will be required where new build trail and tourism infrastructure is proposed within zone of notification of recorded site. | Record of Monuments and Places compiled by the National Monuments Service, Department of Arts, Heritage and the Gaeltacht. |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Landscape | 8.0 Protect, maintain and enhance the quality of scenic landscapes | <p>The majority of this Section is in a landscape adjudged to be highly sensitive to change, with the exception of parts of the trail south of Millstreet which have a medium to low sensitivity to change.</p> <p>The trail passes through 4 LCAs described as: Ridged and Peaked Upland; Rolling Marginal Middleground, Glaciated Cradle Valleys; Broad Marginal Middleground Valleys; & Ridged and Peaked Upland (Medium sensitivity)</p> | Given the extensive coverage of the highly sensitive landscape, alternative routes outside it would constitute gross departures from the original trail and unrealistic options in this regard. | Visual impact appraisals at the application stage of proposed new build trail and infrastructure, notably the proposed shelter, tourism beacons, boardwalks, bog bridges and fencing. | <p>Record extent of erosion/trampling at start and end points of boardwalks and bog bridges on an annual basis.</p> <p>Quarterly/monthly review of cleanliness of route to ensure that litter does not detract from visual amenity</p> |

SEA of North West Cork Way (Section 3)

Table 3a

| North West Cork Way | Proposed New build Trail & Upgrade | |
|---------------------------------|------------------------------------|-------------|
| | Number (m) | % of Route |
| Gravel | 38 | 0.1% |
| Gravel upgrade | | |
| Gravel including geotextile | | |
| Stone pitching (incl'g upgrade) | | |
| Stone stepping | | |
| Boardwalk | | |
| Bog bridge | | |
| Hardcore vehicular access | | |
| Other (25 Stone Steps) | 1 | 0.0% |
| Total | 39 | 0.1% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 3b

| North West Cork Way | Proposed Infrastructure & Signs | | |
|------------------------------|---------------------------------|------------|----------------|
| | Number (Unit/m) | % of Route | Site clearance |
| Footbridges | | | |
| Stiles | | | |
| Gates | | | |
| Fencing | 38 | 0.1% | |
| Culverts | 2 | N/A | |
| Water bars | | | |
| Sign posts | 14 | N/A | 4 sign posts |
| Panels (Info/Interpretation) | 5 | N/A | |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 3c

| North West Cork Way - Tourism Infrastructure Proposals | | | | | |
|--------------------------------------------------------|--------|-------|----------|---------|---------------------------------------------------------------------------------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 15. Sli Gaeltacht Mhuscraí / North West Cork Way | Y | | | | |
| 16. Blackwater crossing | Y | | | | Located within Blackwater River (Cork/Waterford) SAC |
| 17. Dernagree | Y | | | Y | |
| 18. Island Woods | Y | | | Y | located within Aghaneenagh Ancient Woodland and c.20m from Blackwater River (Cork/ Waterford) SAC |

Note: Proposals are indicative & subject to landowner consent & compliance with planning/environmental policies at Council level

Figure 3a: North West Cork Way – European and National Environmental Designations

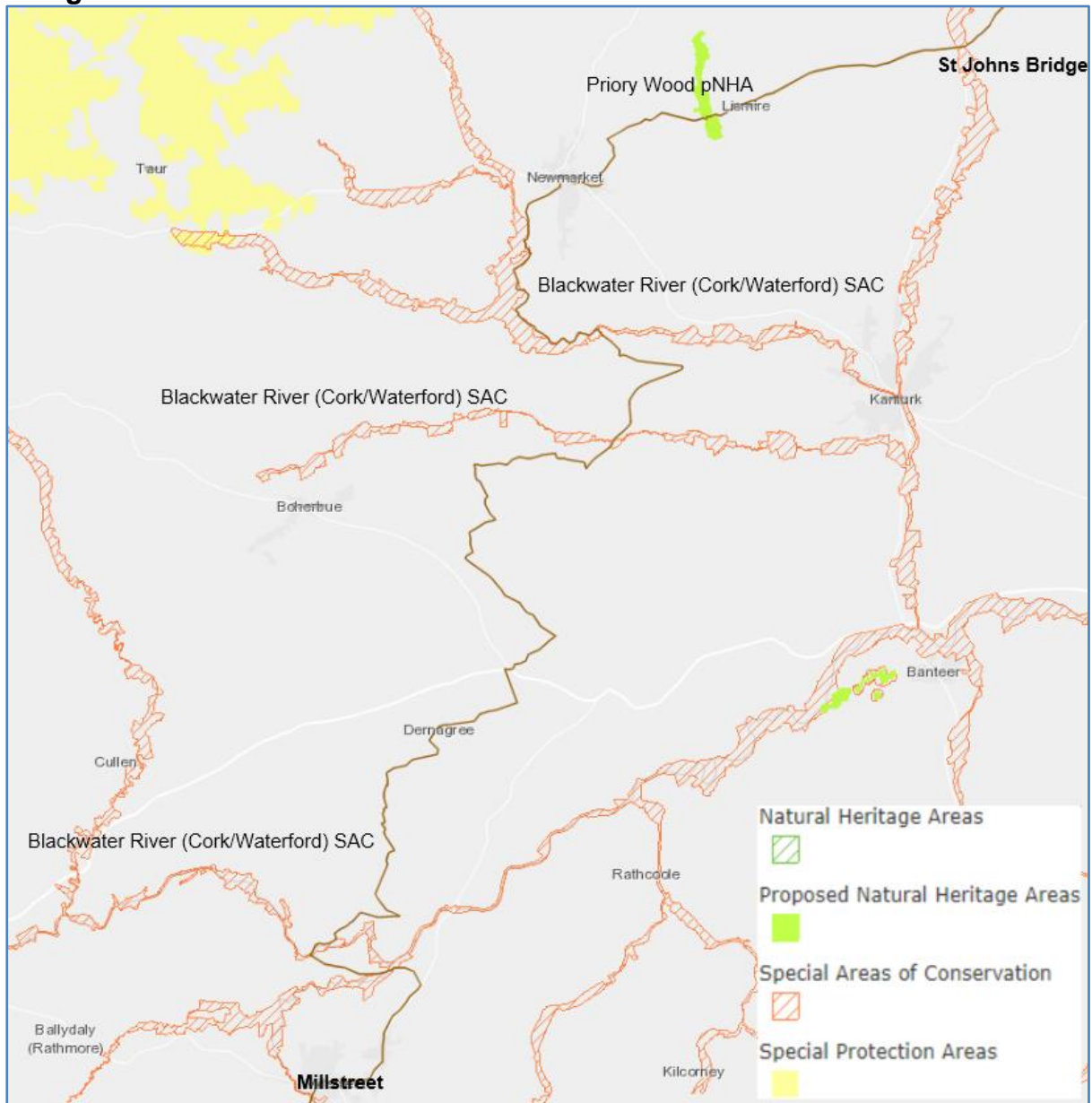


Table BBW 3: North West Cork Way SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>This trail section intersects the Blackwater River SAC at various points and Priory Wood pNHA. Only limited infrastructure such as a number of culverts is proposed here, though two beacons are proposed for the Blackwater River (Cork/Waterford) SAC.</p> <p>The Trail traverses Aghaneenagh Ancient Woodland but no surface works are proposed, though a beacon and shelter are.</p> <p>There are several Annex 1 woodland habitats in close proximity to the trail.</p> <p>This section requires the least amount of surface intervention with 38m of gravel and fencing recommended. This is fortuitous because nearly the entire section is located in the Munster Blackwater sensitive area for the catchment of The Freshwater Pearl Mussel. The main cause of the decline of mussels across Ireland is sedimentation and eutrophication of its habitat.</p> | <p>Crossing the River Blackwater SAC using existing bridges is unavoidable.</p> <p>Consideration of alternatives is unnecessary due to low level of intervention and minimal impact on designated sites.</p> | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys and studies, namely Ecological Impact Assessment (EclA) and Appropriate Assessment (AA) where appropriate.</p> <p>Ecological Clerk of Works (ECoW) to advise on detailed trail route construction.</p> <p>Contractor adherence to contents of CEMP.</p> | <p>NPWS Article 17 Habitats Reports every 6 years</p> <p>NPWS Article 12 Bird Reports every 3 years.</p> <p>Periodic Birdwatch Ireland Surveys.</p> |
| Population & human health | 2.0 Promote wellbeing & respect for the environment | Increased usage will heighten the potential for litter pollution and noise disturbance. | Restriction on visitor numbers not considered feasible | <p>Contractor adherence to CEMP.</p> <p>Litter Management Plans by Council - Litter Pick-Up days.</p> <p>Signage to remind users of sensitivity of location.</p> | <p>Monthly random inspection of stretches of trail section.</p> <p>No. of litter pick up days required</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|--------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | There are no Annex 1 peatland priority habitats on this route | Not considered necessary | Construction will be guided by advice of ECoW and remit of CEMP. | EPA CORINE Land Cover Type Monitoring every 6 years |
| Water | 4.0 Protect the quality of surface water and groundwater resources | Aquifer vulnerability is generally low to moderate in many parts of this section. The trail passes over the River Blackwater which is a salmonid regulated watercourse with an unpolluted Q value of 4. However, no works are proposed here. Groundwater is good and is not considered at risk. | Not considered necessary | ECoW supervision of works and adherence to CEMP. | EPA Monitoring of Water Quality. EPA National River Biology Monitoring Programme every 3 years. Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD) |
| Air & Climate | 5.0 Reduce air pollution | Air quality in Rural Ireland (Air Zone d) is considered good. | Restriction in the number of users of trail not considered feasible. | Encourage visitors to travel to trail by public transport. Deployment of parking stewards to manage congestion during busy times e.g. bank holidays | Number of visitors travelling by bus as opposed to car. |
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | Most of the land is used for pasture. Trail passes within 100m of Newmarket WWTP but no likely environmental effects anticipated as no works are proposed. | The low risk of environmental impact on material assets did not warrant consideration of alternative routes | No mitigation required. | No monitoring required |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings | <p>The trail traverses the zones of notification (ZoN) for several protected archaeological sites and monuments (bawn, burial ground) but no works are proposed.</p> <p>The beacon and shelter proposed at Dernagree are located over 0.7kms eastwards from the church at Dernagree, which is a protected structure Reg Number: 20,903,002 and monument, SMRS Code: CO030-152.</p> <p>Most protected structures are in the settlements of Millstreet and Newmarket (historic town) where no work is proposed. The exception here is the addition of a Welcome Point, with lectern, within the ZoN for Newmarket Historic town SMRS Code: CO022-279.</p> | Only 38m of new gravel build and fence is required north of Aghaneenagh ancient woodland, and no sites and monuments are within 200m of these works, so alternatives were not considered necessary | Archaeological Assessments may be required where new build route is within zone of notification of recorded site. | <p>Record of Monuments and Places compiled by the National Monuments Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>National Inventory of Architectural Heritage and Records of Protected Structures by Department of Housing, Local Government and Heritage</p> |
| Landscape | 8.0 Protect, maintain and enhance the quality of scenic landscapes | Much of this Section is in a landscape described as Broad Marginal Middleground Valleys and is adjudged to be highly sensitive to change. | Given the extensive coverage of the highly sensitive landscape the consideration of alternative trail routes outside it is totally impractical. | Visual impact appraisals of the proposed tourism shelters at Dernagree and Island Woods will aid micro-siting at the planning application stage. | Quarterly/monthly review of cleanliness of route to ensure that litter does not detract from visual amenity. |

SEA of Ballyhoura Way (Section 4)

Table 4a

| Ballyhoura Way | Proposed New build Trail & Upgrade | |
|-------------------------------------------------------------------|-----------------------------------------------|-------------------|
| | Number (m) | % of Route |
| Gravel | 5,168 | 6.0% |
| Gravel upgrade | 1,270 | 1.5% |
| Gravel including geotextile Stone pitching (incl'g upgrade) | 159 | 0.2% |
| Stone stepping | 2,516 | 2.9% |
| Boardwalk | | |
| Bog bridge | 1,330 | 1.5% |
| Hardcore vehicular access | | |
| Other (5+10 Stone Steps) | 2 | 0.0% |
| Total | 10,445 | 12.1% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 4b

| Ballyhoura Way | Proposed Infrastructure & Signs | | |
|------------------------------|--------------------------------------------|-------------------|-----------------------|
| | Number (Unit/m) | % of Route | Site clearance |
| Footbridges | 5 | N/A | 6 footbridges |
| Stiles | 5 | N/A | 14 stiles |
| Gates | | | |
| Fencing | 3,298 | 3.8% | |
| Culverts | 6 | N/A | |
| Water bars | | | |
| Sign posts | 79 | N/A | 38 sign posts |
| Panels (Info/Interpretation) | 25 | N/A | 5 panels |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 4c

| Ballyhoura Way | Uplands/Remote Rural Sections requiring Specialist Intervention | |
|--------------------------------------------|-----------------------------------------------------------------|-------------|
| | Quantity (m) | % of Route |
| New Build | 202 | 0.2% |
| New Build in Deep Peat | 1876 | 2.2% |
| New Build in Deep Peat with gradients >30% | 0 | 0.0% |
| Total | 2,078 | 2.4% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 4d

| Ballyhoura Way - Tourism Infrastructure Proposals | | | | | |
|---------------------------------------------------|--------|-------|----------|---------|---------------------------------------------------------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 19. North Cork Way / Ballyhoura Way | Y | | | | Located within Blackwater River (Cork/Waterford) SAC |
| 20. Liscarroll Castle | Y | | | | Located within ZoN of Anglo-Norman masonry castle SMRS Code: CO016-015001 |
| 21. Ardpatrik | Y | | | Y | c.10m from Ballyhoura Mountains pNHA |
| 22. Goldenvale | Y | Y | | | |
| 23. Slievareagh Viewpoint | Y | | Y | | |
| 24. Aherlow Shelter | Y | | | Y | |
| 25. Ballyhoura Way / Multeen Way | Y | | | | |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Figure 4a: Ballyhoura Way – European and National Environmental Designations

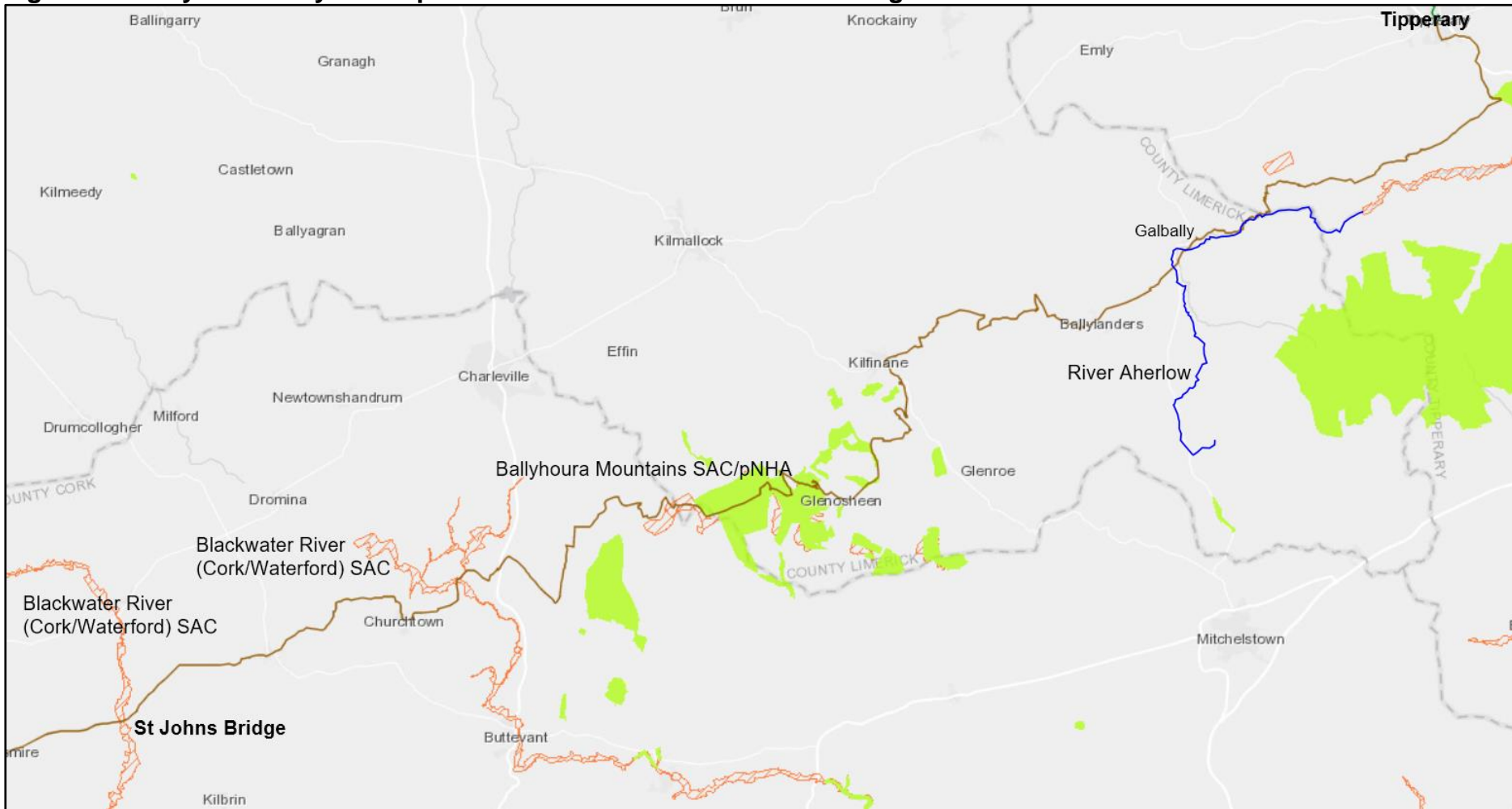


Table BBW 2: Ballyhoura Way SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>The trail passes through the Ballyhoura Mts SAC and pNHA, which comprises Annex 1 Blanket bogs (Code: 7130 4010) and Wet and Dry Heath. New build, including stone stepping and bog bridges, is proposed here though it is recognised that specialist intervention is also required to advise on final trail design.</p> <p>Surface interventions including gravel build, bog bridges and stone stepping are proposed in the area south of Ardpatrik.</p> <p>Several kms of new gravel build and fencing, together with mainly replacement footbridges, are proposed along the bank of the River Aherlow east of Galbally which is a salmonid regulated watercourse and a river adjudged to be at risk.</p> <p>As with the North West Cork Way, Ballyhoura Way is also within the Munster Blackwater sensitive area for the catchment of The Freshwater Pearl Mussel SAC populations listed in S.I. 296 of 2009. Site-specific conservation objectives for the restoration of these mussel populations and their habitats are being developed by the NPWS via the preparation of Sub-basin Management Plans. Given that the Trail Plan traverses this catchment it must be screened for Appropriate Assessment (Article 6 (3), Habitats Directive).</p> <p>A Welcome Point is proposed within Ballyhoura Mountains pNHA.</p> <p>The Boardwalk viewing platform for Slieveveagh Signature Point is not in a designated environmental area.</p> | <p>The proposed passage of the trail along the salmonid protected Aherlow River is made in response to the current on-road route, which offers a poor experience for the walker.</p> <p>On-road alternative to the trail along the River Aherlow was discounted on the grounds that proper safeguards can be put in place for construction along river.</p> | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys and studies, namely Ecological Impact Assessment) (EclA) and Appropriate Assessment (AA) where appropriate.</p> <p>Ecological Clerk of Works (ECoW) to advise on detailed trail route construction.</p> <p>Contractor adherence to contents of CEMP.</p> <p>Reference will be made to the 2016 Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters.</p> <p>Presence of desire lines in Annex 1 habitats indicates that proposed stone stepping and bog bridges will mitigate further impact on these sensitive habitats.</p> | <p>NPWS Article 17 Habitats Reports every 6 years</p> <p>NPWS Article 12 Bird Reports every 3 years</p> <p>Periodic Birdwatch Ireland Surveys.</p> <p>Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD)</p> <p>EPA National River Biology Monitoring Programme every 3 years.</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|---------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Population & human health | 2.0 Promote wellbeing & respect for the environment | It traverses a tributary of the Loobagh River at Keale Mountain, which is a designated WFD RPA Surface Water Drinking Water location, however no works are proposed here. Potential for litter pollution. | Restriction on visitor numbers not considered feasible | Litter Management Plans by Council - Litter Pick-Up days. Signage to remind users of sensitivity of location. | Monthly random inspection of stretches of trail section. No. of litter pick up days required |
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | The trail passes through Lissvarrinane Meltwater Channels east of Galbally Village which is a recognised County Geological Site, Code: TY045. New surfacing and replacement footbridges are proposed here. | The County Geological Site is over 1km wide in extent and the procession of the trail through the mountains is part of the appeal of the walk. It is already an established route not to mention the historic path of the march. Alternatives are limited. | Construction will be guided by advice of ECoW and remit of CEMP. | EPA CORINE Land Cover Type Monitoring every 6 years County Geological Heritage Audits by Geological Survey Ireland (Department of the Environment, Climate and Communications), as incorporated into County Development Plan |
| Water | 4.0 Protect the quality of surface water and groundwater resources | Many parts of the trail have high to extreme aquifer vulnerability. Equally, there are significant stretches where the groundwater is at risk of not achieving good ecological status. These "at risk areas" coincide with proposals for new gravel build northeast of Galbally, as well as tourism infrastructure proposed at Ardpatrik and Slievereah. | The expanse of territory with groundwater considered at risk is so extensive it is impossible to circumvent it. | Standard mitigation measures outlined in this SEA | EPA Monitoring of Water Quality. |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Air & Climate | 5.0 Reduce air pollution | Air quality in Rural Ireland (Air Zone d) is considered good. | Restriction in the number of users of trail not considered necessary. | Encourage visitors to travel to route by public transport. Deployment of parking stewards to manage congestion during busy times | Number of visitors travelling by bus as opposed to car |
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | Trail passes close to Tipperary WWTP but no likely environmental effects anticipated as no works are proposed which could create pollutant pathways. | The low risk of environmental impact on material assets did not warrant consideration of alternative routes | No mitigation required. | No monitoring required |
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings | <p>In most cases no works are proposed where the trail traverses the zones of notification (ZoN) for several protected archaeological sites and monuments (enclosures, raths, burial grounds, cairns, fulucht fia).</p> <p>However, there are a few instances when new build is proposed in these zones. These include new gravel build at a Cairn (SMRS Code: CO008-025) in the Ballyhoura Mts. New gravel build plus fencing are also proposed at Moorabbey within the ZoN for several heritage sites including: a holy well, SMRS Code: LI049-087001, Enclosure, SMRS Code: LI049-087002, Religious house - Franciscan friars, SMRS Code: TS073-011, and Graveslab, SMRS Code: TS073-011001.</p> <p>A beacon is proposed within ZoN of Liscarroll Castle, with its Anglo-Norman masonry, SMRS Code: CO016-015001. So too, a Welcome Point is proposed within ZoN of Bruhenny Graveyard SMRS Code: CO016-056001.</p> | Archaeological assessment at the detailed design stage will guide the path and of the trail and type of infrastructure proposed in Zones of Notification. | Archaeological Assessments will mitigate impact in the few occasions when the trail transects the zones of notification for the aforementioned sites and monuments. | Record of Monuments and Places compiled by the National Monuments Service, Department of Arts, Heritage and the Gaeltacht. |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Landscape | 8.0 Protect, maintain and enhance the quality of scenic landscapes | The first third of the Trail Section is classified as a Fertile Plain within the Moorland Ridge LCA, which is considered highly sensitive to change. | Given the extensive coverage of the highly sensitive landscape, alternative routes outside it would constitute gross departures from the original trail and unrealistic options in this regard. | Visual impact appraisals of proposed infrastructure and new build at the application stage. This particularly applies to proposed tourism shelters at Ardpatrik and Aherlow and bog bridges. | Quarterly/monthly review of cleanliness of route to ensure that litter does not detract from visual amenity. |

SEA of Multeen Way (Section 5)

Table 5a

| Multeen Way | Proposed New build Trail & Upgrade | |
|---------------------------------|------------------------------------|--------------|
| | Number (m) | % of Route |
| Gravel | 7,369 | 19.4% |
| Gravel upgrade | | |
| Gravel including geotextile | | |
| Stone pitching (incl'g upgrade) | | |
| Stone stepping | 37 | 0.1% |
| Boardwalk | | |
| Bog bridge | | |
| Hardcore vehicular access | 223 | 0.6% |
| Other (5 Stone Steps) | 1 | 0.0% |
| Total | 7,630 | 20.1% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 5b

| Multeen Way | Proposed Infrastructure & Signs | | |
|------------------------------|---------------------------------|------------|----------------|
| | Number (Unit/m) | % of Route | Site clearance |
| Footbridges | 8 | N/A | |
| Stiles | 28 | N/A | 11 stiles |
| Gates | 11 | N/A | |
| Fencing | 6124 | 16.2% | |
| Culverts | | | |
| Water bars | | | |
| Sign posts | 47 | N/A | 44 sign posts |
| Panels (Info/Interpretation) | 12 | N/A | 2 panels |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 5c

| Multeen Way - Tourism Infrastructure Proposals | | | | | |
|------------------------------------------------|--------|-------|----------|---------|---------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 26. Soloheadbeg | Y | | Y | Y | N/A |
| 27. Donohill | Y | | | | N/A |
| 28. Folidarg | Y | Y | Y | | N/A |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Figure 5a: Multeen Way – European and National Environmental Designations

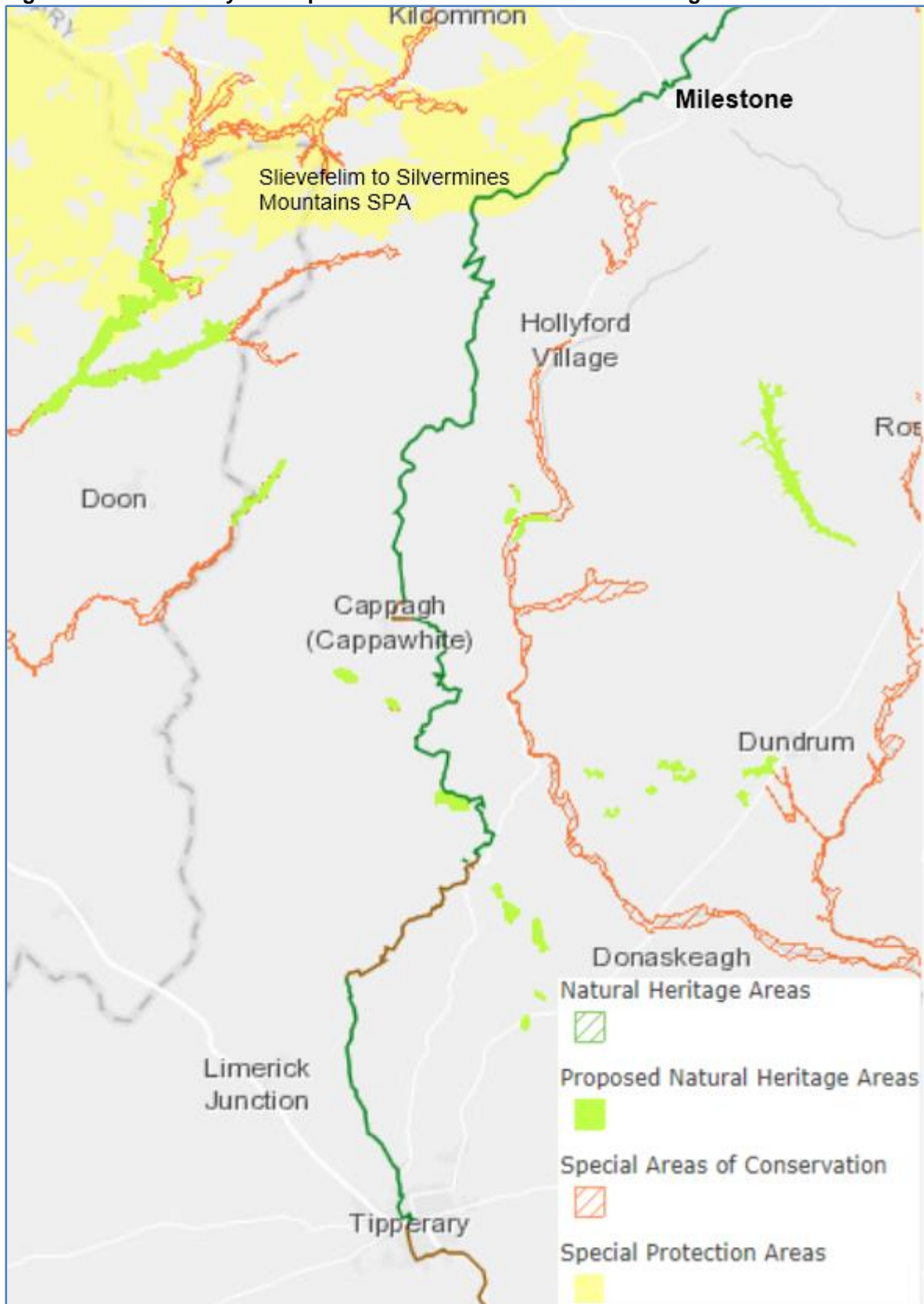


Table BBW 5: Multeen Way SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>The trail passes through the Slievefelim to Silvermines Mts SPA. A degree of new gravel build and fencing is proposed here where no existing trail exists. Some of these works are proposed for Annex 1 Habitats Dry heaths, Wet heath (Code: 4030 4010). This SPA is one of the key locations for Hen Harriers in the country. A survey in 2005 recorded five breeding pairs compared to nine pairs in the 1998-2000 period.</p> <p>The trail passes through the edge of Ballyneill Marsh pNHA but no works are proposed.</p> <p>The viewing platform at Folidarg is on the outside edge of an Annex 1 Blanket Bog.</p> | <p>The R497 Milestone Road represents an on-road alternative to proceeding through the SPA. However, extending for over 5kms it offers a poor and less safe walking environment than the mountain trail.</p> <p>The extent of new build within the SPA is 450m in length and it formalises an existing stretch of trail.</p> | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys and studies, namely Ecological Impact Assessment (EclA) and Appropriate Assessment (AA) where appropriate.</p> <p>Ecological Clerk of Works (ECoW) to advise on detailed trail construction.</p> <p>Contractor adherence to contents of CEMP.</p> | <p>NPWS Article 17 Habitats Reports every 6 years</p> <p>NPWS Article 12 Bird Reports every 3 years.</p> <p>Periodic Birdwatch Ireland Surveys.</p> |
| Population & human health | 2.0 Promote wellbeing & respect for the environment | <p>It traverses the Multeen River near Milestone, which is a designated WFD RPA Surface Water Drinking Water location, however no works are proposed here.</p> <p>Potential for litter pollution.</p> | Restriction on visitor numbers not considered feasible | <p>Litter Management Plans by Council</p> <p>Litter Pick-Up days.</p> <p>Signage to remind users of sensitivity of location.</p> | <p>Quarterly/monthly random inspection of stretches of trail section.</p> <p>No. of litter pick up days required</p> |
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | A peat bog corresponds with the Annex 1 area of wet heath identified in the SPA. Approximately 0.5km of new gravel build and fence will be constructed here. | The new build route follows the edge of an established field boundary in order to minimise impact on bog. | Adherence to the conservation principles in the National Raised Bog Special Areas of Conservation Management Plan 2017–2022 | EPA CORINE Land Cover Type Monitoring every 6 years |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Water | 4.0 Protect the quality of surface water and groundwater resources | New gravel build plus fencing is proposed near Cappaghwhite Stream (east of Cappagh), the Cauteen River and Inch River, which are considered to have poor ecological status and to be at risk. Groundwater status is good. Aquifer vulnerability is most extreme in the more elevated northern parts of the trail section. | Trail improvements near the “at risk” rivers are essential and unavoidable in this regard. | ECoW supervision of works and contractor adherence to CEMP. | EPA Monitoring of Water Quality. EPA National River Biology Monitoring Programme every 3 years. Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD) |
| Air & Climate | 5.0 Reduce air pollution | Air quality in Rural Ireland (Air Zone d) is considered good. | Restriction in the number of users of trail not considered feasible or reasonable. | Encourage visitors to travel to route by public transport. Deployment of parking stewards to manage congestion during busy times | Number of visitors travelling by bus as opposed to cars |
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | Trail passes near the historic copper mine at Gortdrum, which is also a recognised County geological site. | Alternatives not necessary as trail avoids intersecting historic copper mine. The trail proceeds along established field boundaries and laneways to avoid severance of fields. | Standard mitigation involving contractor adherence to CEMP. | No monitoring required |
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings | The trail proceeds within the zone of notification (ZoN) for historic sites of former castles at Donohill (TS059-014002) and Cappagh White (TS051-005) where new gravel build with fencing is proposed | Following archaeological assessment at detailed design stage there may be scope to refine trail, in terms of its path or type of works, if advised to do so. | Archaeological Assessments will mitigate impact in the few occasions when the trail transects the zones of notification for the sites and monuments. | Record of Monuments and Places compiled by the National Monuments Service, Department of Arts, Heritage and the Gaeltacht. |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Landscape | 8.0 Protect, maintain and enhance the quality of scenic landscapes | Landscape sensitivity is not mapped on Geohive but proposed tourism infrastructure is likely to have a visual impact on the landscape. | Fine tuning of alternative locations for tourism infrastructure possible at detailed planning stage | <p>Visual impact appraisals at the application stage of proposed tourism shelter/viewing platform at Soloheadbeg.</p> <p>It is worth noting that the visual amenity of the landscape is already affected by a windfarm is located south of the proposed viewing platform at Folidarg.</p> | Quarterly/monthly review of cleanliness of route to ensure that litter does not detract from visual amenity. |

SEA of Ormond Way (Section 6)

Table 6a

| Ormond Way | Proposed New build Trail & Upgrade | |
|---------------------------------|------------------------------------|--------------|
| | Number (m) | % of Route |
| Gravel | 15,503 | 18.7% |
| Gravel upgrade | 471 | 0.6% |
| Gravel including geotextile | 243 | 0.3% |
| Stone pitching (incl'g upgrade) | | |
| Stone stepping | 580 | 0.7% |
| Boardwalk | | |
| Bog bridge | 44 | 0.1% |
| Hardcore vehicular access | 64 | 0.1% |
| Other (15 Stone Steps) | 1 | 0.0% |
| Total | 16,906 | 20.4% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 6b

| Ormond Way | Proposed Infrastructure & Signs | | |
|------------------------------|---------------------------------|------------|----------------|
| | Number (Unit/m) | % of Route | Site clearance |
| Footbridges | 2 | N/A | 11 stiles |
| Stiles | 37 | N/A | |
| Gates | 35 | N/A | |
| Fencing | 13,801 | 16.6% | |
| Culverts | | | |
| Water bars | | | |
| Sign posts | 86 | N/A | 44 sign posts |
| Panels (Info/Interpretation) | 32 | N/A | 2 panels |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 6c

| Ormond Way - Tourism Infrastructure Proposals | | | | | |
|-----------------------------------------------|--------|-------|----------|---------|------------------------------------------------------------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 29. Multeen Way / Ormond Way | Y | | | | |
| 30. Lackern | Y | | | Y | |
| 31. Latteragh | Y | | | Y | |
| 32. Scohaboy bog | Y | Y | Y | | Located within Scohaboy Bog NHA |
| 33. Portland | Y | | | Y | |
| 34. Ormond Way / Hymany way | Y | | | | Located within River Shannon Callows SAC/pNHA and Middle Shannon Callows SPA |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Figure 6a: Ormond Way – European and National Environmental Designations

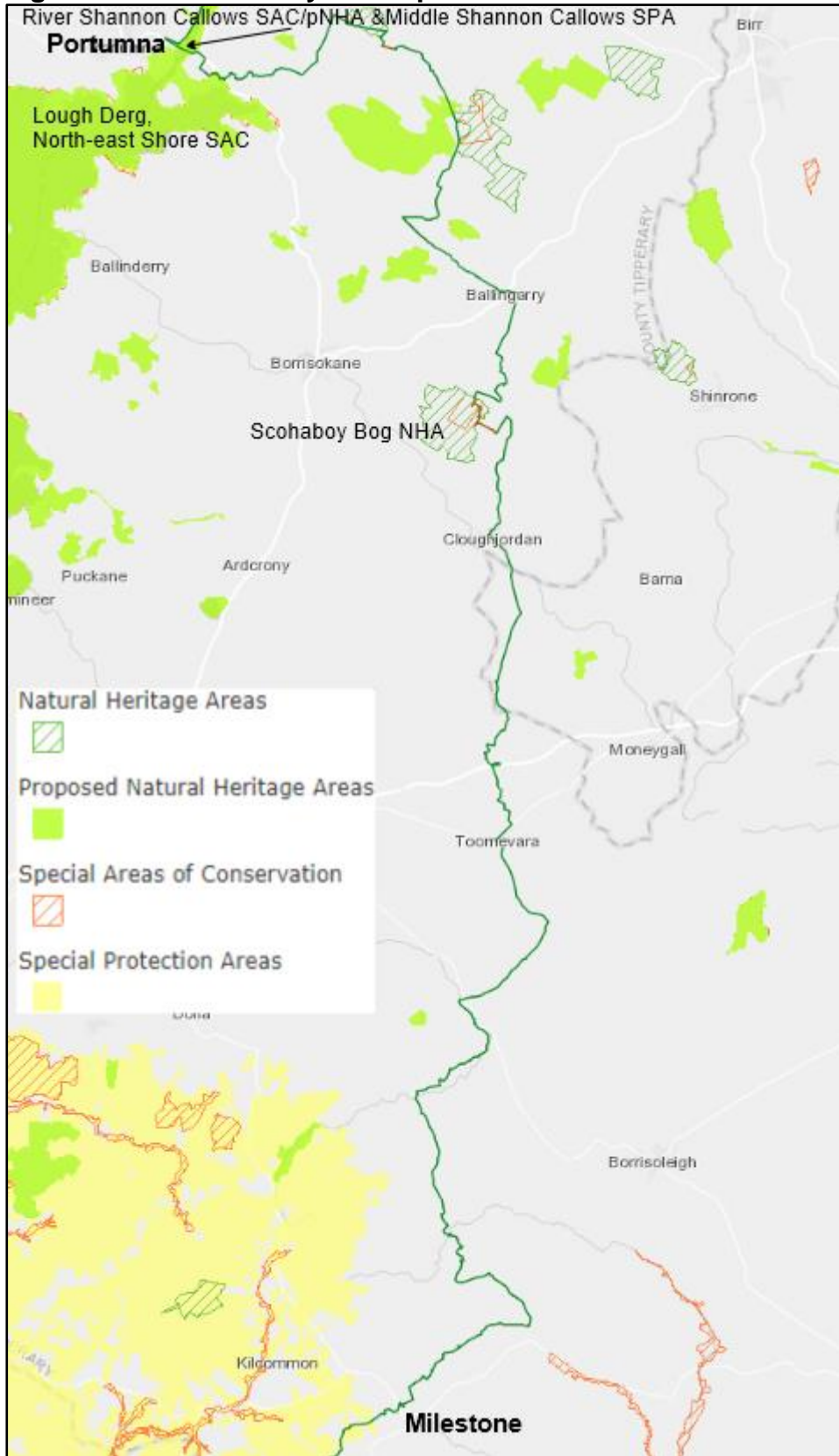


Table BBW 6: Ormond Way SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>Ormond Way transects 3 SACs, 1 SPA and has hydrological connections to 4 SACs and 2 SPAs. Some new gravel build is proposed for Lough Derg-North East Shore SAC/pNHA near Portumna.</p> <p>There are proposals to provide several hundred metres of stone stepping and new gravel build with fencing at Annex 1 Alpine & Boreal heaths habitat (Code: 4060) north of Milestone.</p> <p>In addition, there are proposals to provide enhancements for a viewing platform at the existing boardwalk located within Scohaboy Bog NHA and a beacon within River Shannon Callows SAC/pNHA and Middle Shannon Callows SPA.</p> <p>This section of trail lies within the catchment of other extant freshwater mussel populations.</p> | <p>The alternative to proposed works to the Lough Derg-North East Shore SAC/pNHA at Lehinch, Portumna is to proceed along the N65. However, it does not offer the trail experience and runs counter to the desire to maximize the off-road proportion of the BBW trail.</p> <p>This extent of new build here is 365m in length and uses a trackway that is periodically used for agricultural access. It was recommended by local community trail representatives in order to provide an off-road trail section leading into Portumna.</p> <p>Maximum use is made of existing tracks and field boundaries to minimise impact on habitats.</p> | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys and studies, namely Ecological Impact Assessment) (EclIA) and Appropriate Assessment (AA) where appropriate.</p> <p>Ecological Clerk of Works (ECoW) to advise on detailed trail route construction.</p> <p>Contractor adherence to contents of CEMP.</p> | <p>NPWS Article 17 Habitats Reports every 6 years</p> <p>NPWS Article 12 Bird Reports every 3 years.</p> <p>Periodic Birdwatch Ireland Surveys.</p> |
| Population & human health | 2.0 Promote wellbeing & respect for the environment | <p>It traverses the Multeen River near Milestone, which is a designated WFD RPA Surface Water Drinking Water location. Some new gravel build with fencing is proposed here.</p> <p>Potential for litter pollution.</p> | <p>Crossing the Multeen River at Milestone is unavoidable.</p> <p>Restriction on visitor numbers not considered feasible or reasonable.</p> | <p>ECoW supervision of works and contractor adherence to CEMP.</p> <p>Litter Management Plans by Council</p> <p>Litter Pick-Up days.</p> <p>Signage to remind users of sensitivity of location.</p> | <p>EPA Monitoring of Water Quality.</p> <p>Quarterly/Monthly random inspection of stretches of trail section.</p> <p>No. of litter pick up days required</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|--------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | <p>This section of trail has the highest number of county geological sites (5) of all sections. These include: Owenbeg Moraine near Milestone, Clodiagh River Meanders, Schohaboy Bog, Kilcarren-Firville Bog and River Shannon Callows near Portumna. Two of these are subject of trail works. New gravel build plus fencing is proposed for the Owenbeg Moraines, Site Code: TY054. Also, 207m of new gravel build is proposed where the trail proceeds through Clodiagh River Meanders, Site Code: TY021.</p> <p>Trail also passes through a 52ha peat bog located east of Portumna, where some new gravel build with terram is proposed.</p> | The county geological sites that are the subject of proposed works are so extensive they are impossible to avoid. | Construction will be guided by advice of ECoW and remit of CEMP. | <p>EPA CORINE Land Cover Type Monitoring every 6 years.</p> <p>County Geological Heritage Audits by Geological Survey Ireland (Department of the Environment, Climate and Communications), as incorporated into County Development Plan</p> |
| Water | 4.0 Protect the quality of surface water and groundwater resources | <p>The trail crosses the Clodiagh River, which is considered to be at risk, but no works are proposed.</p> <p>Groundwater status is good though aquifer vulnerability is generally high to extreme with karst present.</p> <p>The trail traverses several groundwater source protection areas at Aglish and Lorrha but no works are proposed.</p> | Consideration of alternative routes not necessary. | Standard ECoW supervision of works and contractor adherence to CEMP. | <p>EPA Monitoring of Water Quality.</p> <p>EPA National River Biology Monitoring Programme every 3 years.</p> <p>Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD)</p> |
| Air & Climate | 5.0 Reduce air pollution | Air quality in Rural Ireland (Air Zone d) is considered good. | Restriction in the number of users of trail not considered feasible or reasonable. | <p>Encourage visitors to travel to trail by public transport.</p> <p>Deployment of parking stewards to manage congestion during busy times</p> | Number of visitors travelling by bus as opposed to travelling by car. |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | Trail proceeds within 100m of Toomevara Landfill but no works are proposed. | Not necessary. | Standard mitigation involving contractor adherence to CEMP. | No monitoring required |
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings | <p>New gravel build plus fencing is proposed along the edge of zones of notification (ZoN) for a ring-barrow SMRS Code: TN033-064 at Knockatoora Common, as well as at the site of a castle & motte, SMRS Code: TN027-105001 at Ballypark.</p> <p>The Trail also transacts the historic site of a church, SMRS Code: TN004-012001 at Curraghglass.</p> <p>Welcome Points are proposed in the ZoN for Cloughjordan Historic town, SMRS Code: TN016-001 and Lorrha Historic town, SMRS Code: TN004-010.</p> <p>Trail also passes close by many SMRS sites where no works are proposed.</p> | Following archaeological assessment at the detailed design stage there may be a need to refine the path of the trail or type of infrastructure proposed. | Archaeological Assessments will mitigate impact in the few occasions when the trail transects the zones of notification for sites and monuments. | Record of Monuments and Places compiled by the National Monuments Service, Department of Arts, Heritage and the Gaeltacht. |
| Landscape | 8.0 Protect, maintain and enhance the quality of scenic landscapes | Landscape sensitivity is not mapped on Geohive but the three proposed tourism shelters at Lackern, Latteragh and Portland are likely to have an effect on the landscape. | Micrositing of the specific locations for tourism infrastructure will be considered at the detailed planning stage | Visual impact appraisals of proposed tourism shelters at the application stage | Quarterly/monthly review of cleanliness of route to ensure that litter does not detract from visual amenity |

SEA of Hymany Way (Section 7)

Table 7a

| Hymany Way | Proposed New build Trail & Upgrade | |
|---------------------------------|------------------------------------|--------------|
| | Number (m) | % of Route |
| Gravel | 8,318 | 8.9% |
| Gravel upgrade | | |
| Gravel including geotextile | 120 | 0.1% |
| Stone pitching (incl'g upgrade) | | |
| Stone stepping | 118 | 0.1% |
| Boardwalk | 2,430 | 2.6% |
| Bog bridge | 37 | 0.0% |
| Hardcore vehicular access | 19 | 0.0% |
| Other (8 Stone Steps) | 1 | 0.0% |
| Total | 11,043 | 11.8% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 7b

| Hymany Way | Proposed Infrastructure & Signs | | |
|---------------------------------|---------------------------------|------------|----------------|
| | Number (Unit/m) | % of Route | Site clearance |
| Footbridges | 7 | N/A | 5 footbridges |
| Stiles | 14 | N/A | 7 stiles |
| Gates | 9 | N/A | 1 gate |
| Fencing | 4639 | 5.0% | |
| Culverts | 2 | N/A | |
| Water bars | | | |
| Sign posts | 143 | N/A | 99 sign posts |
| Panels (Info/Interpretation) | 41 | N/A | 6 panels |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 7c

| Hymany Way - Tourism Infrastructure Proposals | | | | | |
|-----------------------------------------------|--------|-------|----------|---------|------------------------------------------------------------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 35. Shannon Crossing | Y | Y | | | Located within River Shannon Callows SAC/pNHA and Middle Shannon Callows SPA |
| 36. Cloonascragh | Y | | Y | | |
| 37. Aughrim | Y | Y | | | |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Figure 7a: Hymany Way - European and National Environmental Designations

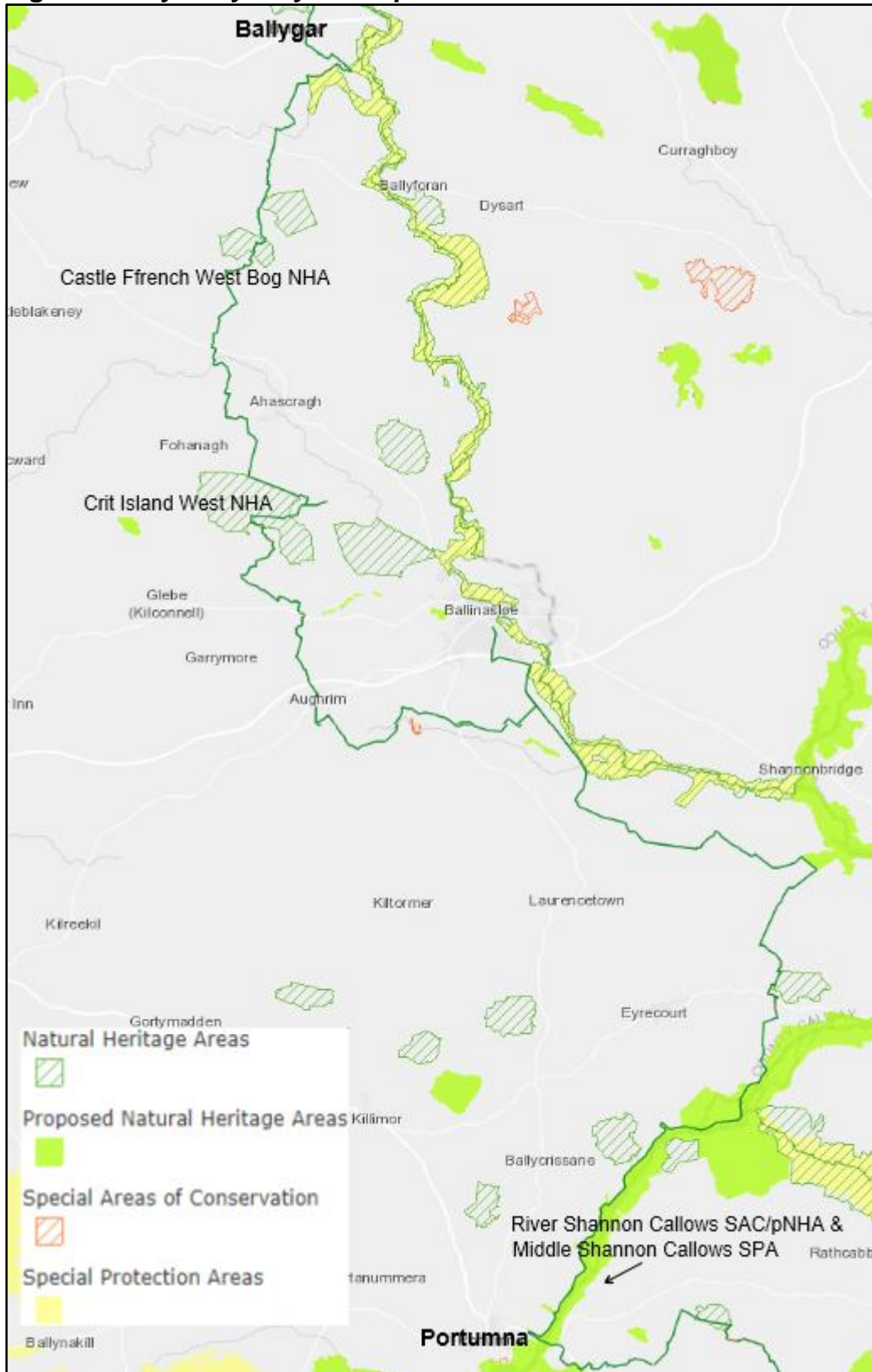


Table BBW 7: Hymany Way SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>Hymany Way proceeds along the River Shannon Callows SAC and Middle Shannon Callows SPA, as well as passing along the edge of River Suck Callows SPA.</p> <p>Proposed upgrades to the Portumna to Meelick Weir Shannon embankment, which forms part of River Shannon Callows SAC/Middle Shannon Callows SPA, will be restricted to scraping back of surface, rolling flat and re-grassing.</p> <p>The trail also traverses 2 NHAs, 1 pNHA (overlaps with River Shannon Callows SAC) and passes the edge of another 3 NHAs. Boardwalks, stone stepping and an element of new gravel build are proposed for Castle Ffrench West Bog NHA and Crit Island West NHA, with the latter also incorporating a small component of bog bridges.</p> <p>Out of all the sections, Hymany Way is subject to the highest length of boardwalk construction (2.4kms). Experience of trails elsewhere points to erosion of soil at start and end points of boardwalks.</p> <p>The trail passes through an Annex 1 active raised bog at Kellsgrove, south of Ballinasloe but no works are proposed. The Cloonascragh Viewing platform is over 50m from the edge of this raised bog.</p> <p>A beacon, with benches, is proposed at the point of the Shannon Crossing by O'Sullivan Beare, which is situated within River Shannon Callows SAC/pNHA and Middle Shannon Callows SPA.</p> | <p>Retention of the grass bank from Portumna to Meelick Weir was recommended by the ESOR in preference to gravel surfacing. This was aimed at preventing runoff to the Shannon SAC/SPA and enabling the habitat to contribute to the All-Ireland Pollinator Plan.</p> <p>From an environmental perspective, the construction of boardwalks in the two NHA bogs is considered the least invasive means of construction.</p> | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys and studies, namely Ecological Impact Assessment (EclA) and Appropriate Assessment (AA) where appropriate.</p> <p>Ecological Clerk of Works (ECoW) to advise on detailed trail route construction.</p> <p>Contractor adherence to contents of CEMP.</p> | <p>NPWS Article 17 Habitats Reports every 6 years</p> <p>NPWS Article 12 Bird Reports every 3 years.</p> <p>Periodic Birdwatch Ireland Surveys.</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|---------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Population & human health | 2.0 Promote wellbeing & respect for the environment | Gravel surfacing is proposed close to Ahascragh River, near Ballinasloe, which is a WFD RPA Surface Water Drinking Water location. Potential for litter pollution. | Surface intervention is a necessity in this part of the trail. | ECoW supervision of works and contractor adherence to CEMP. | EPA Monitoring of Water Quality. Quarterly/Monthly random inspection of stretches of trail section. No. of litter pick up days required |
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | New gravel surfacing, boardwalk and replacement footbridge are proposed for peat bogs situated near Ballinamore Bridge. Boardwalks are also proposed for peat bogs south of Shannonbridge and Ballinasloe. Trail proceeds through the Ballinasloe Esker, which is a County Geological Site, Site Code: GY009, but no intervention is proposed here. | The coverage of peat bogs is extensive and the trail does skirt around their edges on many occasions. | Construction will be guided by advice of ECoW and remit of CEMP. | EPA CORINE Land Cover Type Monitoring every 6 years |
| Water | 4.0 Protect the quality of surface water and groundwater resources | Aquifer vulnerability is generally low to moderate in this section. New gravel build, with fence and footbridge are proposed at Derrymullan Stream, northwest of Ballinasloe, which is a river adjudged to be at risk of deteriorating or not achieving 'Good' ecological status. It has a Q value of 4 (poor) based on the level of invertebrates present. | The Derrymullan Stream extends for quite a distance and its crossing is unavoidable. | ECoW supervision of works and contractor adherence to CEMP. | EPA Monitoring of Water Quality. EPA National River Biology Monitoring Programme every 3 years. Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD) |
| Air & Climate | 5.0 Reduce air pollution | Though impacts on air and climate are clearly positive due to lower carbon footprint associated with walking, increased vehicular traffic could heighten pollution levels locally, albeit air quality along the entire trail is categorised "Rural Ireland (Air Zone d)" and is considered good. | Restriction of use to bus visitors only or electric vehicles not considered reasonable or practical. | Encourage visitors to travel to route by public transport. Deployment of parking stewards to manage congestion during busy times | Number of visitors travelling by bus as opposed to travelling by car. |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | No works are proposed near any WWTPs or landfill sites. | The low risk of environmental impact on material assets did not warrant consideration of alternative routes | No mitigation required. | No monitoring required |
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings | New gravel surface with fencing is proposed in the zones of notification (ZoN) for a ringfort-rath located south of Aughrim, SMRS Code:GA087-004. A boardwalk proposed for Castle Ffrench West Bog NHA is within the ZoN for a Class 3 togher, SMRS Code: GA061-208. | The proposed boardwalk in the ZoN for the Class 3 Togher is located on its outer fringes. | Archaeological Assessments at the planning application stage will advise on mitigation. | Record of Monuments and Places compiled by the National Monuments Service, Department of Arts, Heritage and the Gaeltacht. |
| Landscape | 8.0 Protect, maintain and enhance the quality of scenic landscapes | The bulk of the trail is located in East Galway LCA which has a low sensitivity to change. The exceptions are the beginning of the trail north of Portumna along the Shannon & Suck River Valley between Portumna & Ballinasloe LCA, which has a medium sensitivity to change, as well as a comparatively small stretch of trail located in the Castlerea and Upper Suck Valley LCA, which has a high sensitivity to change. While no tourism shelters are proposed for Hymany Way a viewing platform is proposed at Cloonascragh, together with a number of beacons elsewhere. | The least visually intrusive locations for the proposed tourism infrastructure will be determined at the local level with the aid of visual impact appraisals. | Visual impact appraisals at the application stage of proposed new build trail and infrastructure, notably viewing platform, tourism beacons, boardwalks, bog bridges and fencing. | Assess extent of erosion at start and end points on an annual basis. Quarterly/monthly review of cleanliness of trail to ensure that litter does not detract from visual amenity of this trail section. |

SEA of Suck Valley Way (Section 8)

Table 8a

| Suck Valley Way | Proposed New build Trail & Upgrade | |
|---------------------------------|------------------------------------|--------------|
| | Number (m) | % of Route |
| Gravel | 5,330 | 9.2% |
| Gravel upgrade | 78 | 0.1% |
| Gravel including geotextile | 439 | 0.8% |
| Stone pitching (incl'g upgrade) | | |
| Stone stepping | 131 | 0.2% |
| Boardwalk | 292 | 0.5% |
| Bog bridge | 114 | 0.2% |
| Hardcore vehicular access | | |
| Other (5+6 Stone Steps) | 2 | 0.0% |
| Total | 6,386 | 11.0% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 8b

| Suck Valley Way | Proposed Infrastructure & Signs | | |
|------------------------------|---------------------------------|------------|-----------------|
| | Number (Unit/m) | % of Route | Site clearance |
| Suck Valley Bridge | 1 | N/A | Existing bridge |
| Footbridges | 12 | N/A | 12 footbridges |
| Stiles | 17 | N/A | 15 stiles |
| Gates | 1 | N/A | |
| Fencing | 2466 | 4.3% | |
| Culverts | | | |
| Water bars | | | |
| Sign posts | 32 | N/A | 28 sign posts |
| Panels (Info/Interpretation) | 29 | N/A | 5 panels |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 8c

| Suck Valley Way - Tourism Infrastructure Proposals | | | | | |
|-----------------------------------------------------------|---------------|--------------|-----------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 38. Hymany Way / Suck Valley Way | Y | | | | |
| 39. Castle Kelly | Y | | | | Located within ZoN of Castle Kelly - tower house, SMRS Code: GA033-006001 |
| 40. Mount Mary | Y | | | Y | |
| 41. Lough Ioung | Y | | Y | | |
| 42. Glinsk Castle | Y | | | | Located within ZoN for Glinsk Castle ruins SMRS Code: GA007-062003, 17th century House SMRS Code: GA007-062001 and Bawn SMRS Code: GA007-062002 |
| 43. Sleive O'Flynn | Y | | | | |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Figure 8a: Suck Valley Way – European and National Environmental Designations

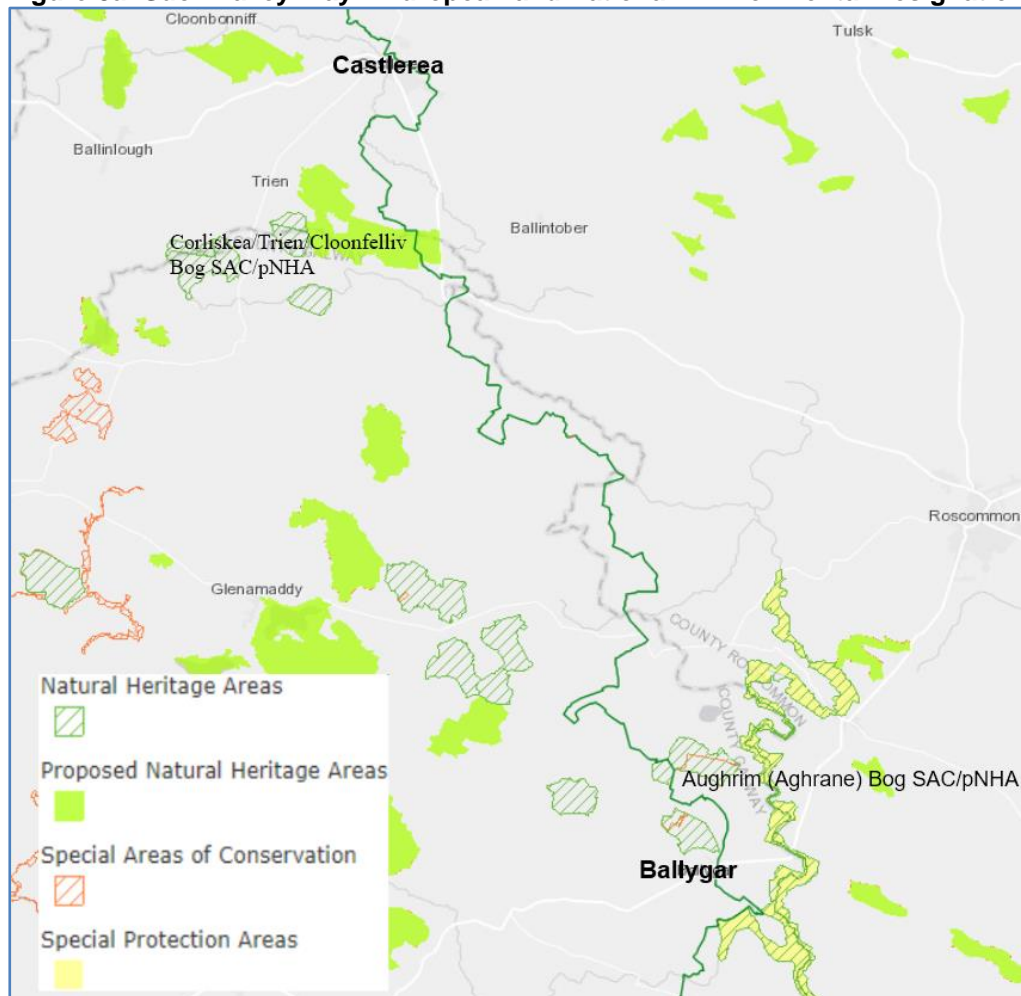


Table BBW 8: Suck Valley Way SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>Transects Corliskea/Trien Cloonfelliv Bog SAC/pNHA but no works proposed.</p> <p>Equally, the trail traverses Aughrim (Aghrane) Bog NHA and the edge of Aughrim (Aghrane) Bog SAC but no works proposed.</p> | Trail was rerouted to avoid the Annex I Habitats Raised bog (Active) Habitat Code: 7110 known as Ussey Bog near the settlement of Keelogesbeg | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys and studies, namely Ecological Impact Assessment) (EclA) and Appropriate Assessment (AA) where appropriate.</p> <p>Ecological Clerk of Works (ECoW) to advise on detailed trail route construction.</p> <p>Contractor adherence to contents of CEMP.</p> | NPWS Article 17 Habitats Reports every 6 years |
| Population & human health | 2.0 Promote wellbeing & respect for the environment | <p>A replacement footbridge and c.50m of boardwalk is proposed at the River Suck, east of Lough Loung. River Suck is a WFD RPA Surface Water Drinking Water location.</p> <p>Potential for litter pollution.</p> | Surface intervention is necessary on this part of the trail and the proposed boardwalk is considered the most environmentally preferable construction technique. | <p>ECoW supervision of works and contractor adherence to CEMP.</p> <p>Litter Management Plans by Council</p> <p>Litter Pick-Up days.</p> <p>Signage to remind users of sensitivity of location.</p> | <p>EPA Monitoring of Water Quality</p> <p>Quarterly/Monthly random inspection of stretches of trail section.</p> <p>No. of litter pick up days required</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|--------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | <p>Replacement footbridge proposed for peat bog located north of Ballymoe.</p> <p>Passes through Aughrim Bog SAC, which is also a County Geological Site located north of Ballygar, but no works are proposed.</p> <p>Outside of the peat bogs, most of the land is classified as pasture land under CORINE.</p> | Work in the peat bogs consists only a replacement footbridge. | Construction will be guided by advice of ECoW and remit of CEMP. | <p>EPA CORINE Land Cover Type Monitoring every 6 years</p> <p>County Geological Heritage Audits by Geological Survey Ireland (Department of the Environment, Climate and Communications), as incorporated into County Development Plan</p> |
| Water | 4.0 Protect the quality of surface water and groundwater resources | <p>Most of the trail is of low to moderate aquifer vulnerability.</p> <p>No works are proposed where the trail passes along that part of the Suck River WFD Water Body, which is considered to be at risk.</p> <p>Several replacement footbridges and stiles are proposed where the trail passes along the Derryhippoo river, which is considered at risk.</p> | Construction near sensitive waters is kept to a minimum and comprises replacement footbridges. | ECoW supervision of works and contractor adherence to CEMP. | <p>EPA Monitoring of Water Quality.</p> <p>EPA National River Biology Monitoring Programme every 3 years.</p> <p>Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD)</p> |
| Air & Climate | 5.0 Reduce air pollution | Though impacts on air and climate are clearly positive due to lower carbon footprint associated with walking, increased vehicular traffic could heighten pollution levels locally, albeit air quality along the entire trail is categorised "Rural Ireland (Air Zone d)" and is considered good. | Restriction of trail use to bus visitors only or electric vehicles not considered reasonable or practical. | <p>Encourage visitors to travel to trail by public transport.</p> <p>Deployment of parking stewards to manage congestion during busy times</p> | Number of visitors travelling by bus as opposed to travelling by car |
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | Trail passes within 120m of Castlerea Landfill site but no works are proposed. | The low risk of environmental impact on material assets does not warrant consideration of alternative routes | No mitigation required. | No monitoring required |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings | <p>The trail passes through the Zone of Notification (ZoN) for a ringfort - rath, SMRS Code: GA019-038, southwest of Creggs, where new gravel build with terram and fencing are proposed.</p> <p>It passes the edge of a ZoN for a ringfort - rath SMRS Code: GA007-056 near Glinsk where new gravel build plus fencing is proposed.</p> <p>A beacon is also proposed within the ZoN for the historic site of Glinsk Castle, which has several records pertaining to it consisting of: castle remains, SMRS Code: GA007-062003; 17th century House, SMRS Code: GA007-062001; and Bawn, SMRS Code: GA007-062002.</p> <p>A beacon is also proposed within the ZoN for Castle Kelly - tower house, SMRS Code: GA033-006001.</p> | <p>The Built Heritage report notes that the Beacon within the ZoN for Glinsk Castle will be located on the public road some distance from the castle to avoid impacting on its setting.</p> <p>It is worth noting that the trail affects the outer edges of most of the ZoNs.</p> | Archaeological assessment at the detailed design stage will guide the path of the trail and type of infrastructure proposed. | Record of Monuments and Places compiled by the National Monuments Service, Department of Arts, Heritage and the Gaeltacht. |
| Landscape | 8.0 Protect, maintain and enhance the quality of scenic landscapes | <p>Most of the trail and its infrastructure are in the East Galway LCA, which has a low sensitivity to change. The exception is the northern part of the trail in the Castlerea and Upper Suck Valley LCA, which has a high sensitivity to change.</p> <p>The proposed tourism shelter at Mount Mary is in a well screened wooded area.</p> | The exact location of the proposed beacons will be confirmed at the detailed planning stage but, understandably, recognition needs to be afforded to the fact that they highlight key heritage features along this section, such as Glinsk Castle, etc. | Visual impact appraisals at the detailed design stage of proposed new build trail and infrastructure, notably tourism beacons, boardwalks, bog bridges and fencing. | Quarterly/monthly review of cleanliness of route to ensure that litter does not detract from visual amenity |

SEA of Lung Lough Gara Way (Section 9)

Table 9a

| Lung Lough Gara Way | Proposed New build Trail & Upgrade | |
|---------------------------------|------------------------------------|--------------|
| | Number (m) | % of Route |
| Gravel | 7,862 | 13.4% |
| Gravel upgrade | 1,257 | 2.1% |
| Gravel including geotextile | 1,620 | 2.8% |
| Stone pitching (incl'g upgrade) | | |
| Stone stepping | 521 | 0.9% |
| Boardwalk | 49 | 0.1% |
| Bog bridge | 2,664 | 4.5% |
| Hardcore vehicular access | 1,772 | 3.0% |
| Total | 15,745 | 26.8% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 9b

| Lung Lough Gara Way | Proposed Infrastructure & Signs | | |
|------------------------------|---------------------------------|------------|----------------|
| | Number (Unit/m) | % of Route | Site clearance |
| Footbridges | 24 | N/A | |
| Stiles | 42 | N/A | 1 stile |
| Gates | 36 | N/A | 3 gates |
| Fencing | 4,911 | 8.4% | |
| Culverts | 1 | N/A | |
| Water bars | | | |
| Sign posts | 87 | N/A | 25 sign posts |
| Panels (Info/Interpretation) | 13 | N/A | |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 9c

| Lung Lough Gara Way - Tourism Infrastructure Proposals | | | | | |
|--------------------------------------------------------|--------|-------|----------|---------|---------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 44. Suck Valley Way /Lung Lough Gara Way | Y | | | | N/A |
| 45. Ballaghadereen | Y | | | Y | N/A |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Figure 9a: Lung Lough Gara Way – European and National Environmental Designations

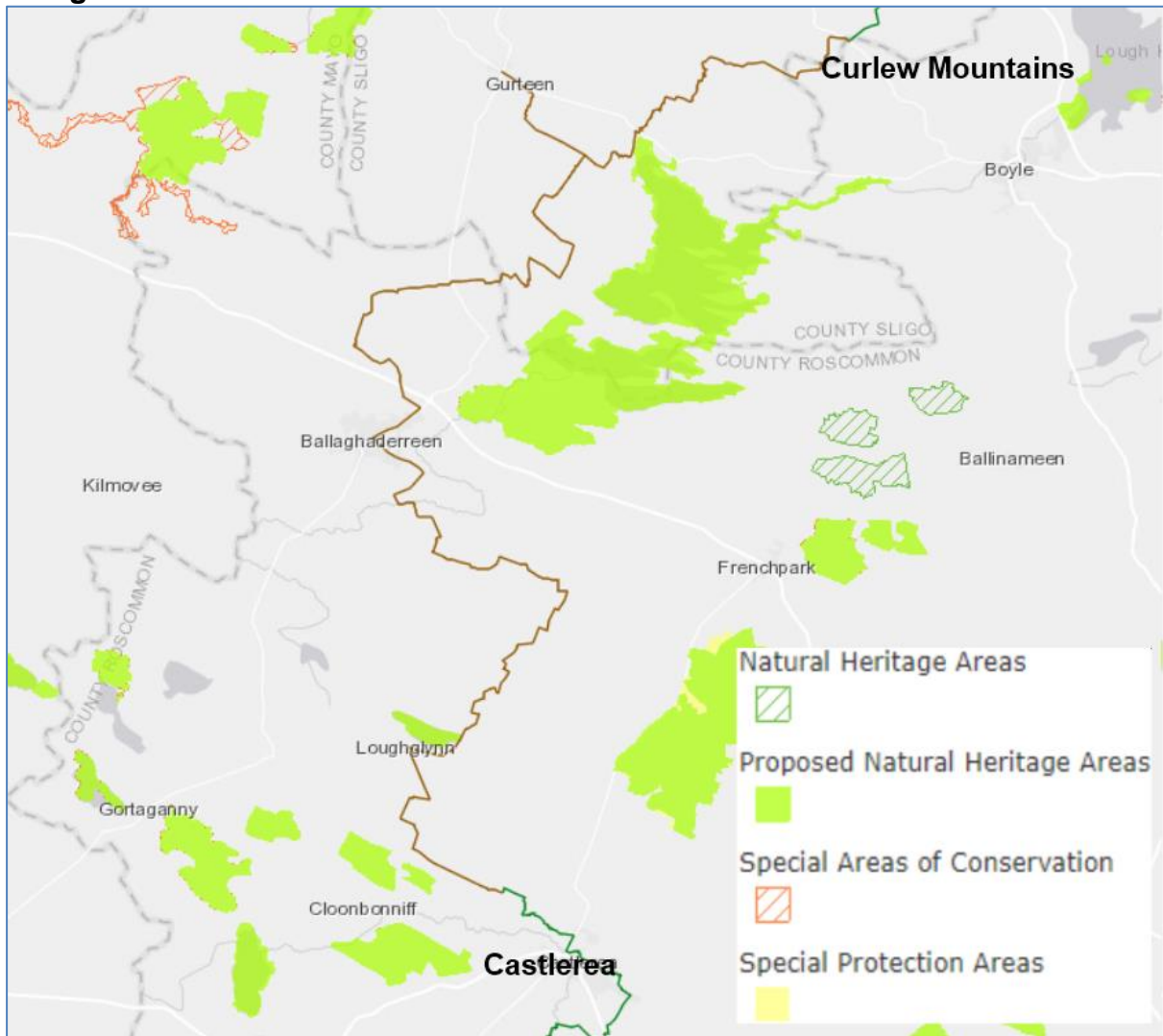


Table BBW 9: Lung Lough Gara Way SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>The Lung Lough Gara Way section of Trail is recommended for a fair level of intervention, including surfacing (15% of trail) and installation of 24 footbridges, which is twice that of the section with the next highest number.</p> <p>This section is also to receive the highest level of bog bridge construction (2.6kms) of all sections.</p> <p>Fortunately, no SPAs or SACs are directly affected and the trail passes the edge of two pNHAs.</p> | <p>Given that the trail does not traverse European designated sites and passes the edge of National designated sites there was little requirement to consider alternative routes. Added to this, it should be noted that the trail avoids the active raised bog situated south of Loughglynn.</p> | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys and studies, namely Ecological Impact Assessment (EclA) and Appropriate Assessment (AA) where appropriate.</p> <p>Ecological Clerk of Works (ECoW) to advise on detailed trail route construction.</p> <p>Contractor adherence to contents of CEMP.</p> | <p>NPWS Article 17 Habitats Reports every 6 years</p> <p>NPWS Article 12 Bird Reports every 3 years.</p> <p>Birdwatch Ireland Surveys.</p> |
| Population & human health | 2.0 Promote wellbeing & respect for the environment | <p>New gravel build and footbridge is proposed within 300m of Lough Gara, which is protected for drinking water abstraction under the Water Framework Directive (2000/60/EC).</p> <p>Potential for litter pollution.</p> | <p>The trail is sufficiently distanced from Lough Gara so the consideration of alternatives is not necessary.</p> | <p>ECoW supervision of works and contractor adherence to CEMP.</p> <p>Litter Management Plans by Council</p> <p>Litter Pick-Up days.</p> <p>Signage to remind users of sensitivity of location.</p> | <p>EPA Monitoring of Water Quality</p> <p>Quarterly/Monthly random inspection of stretches of trail.</p> <p>No. of litter pick-up days required</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|--------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | There are three areas of peatland where intervention is required. The first is the peat bog area near Aghalour Bog West which is also earmarked for new gravel build, with fencing and two footbridges. The second and third areas are located north and south of Ballaghadeerren where gravel, gravel with terram and a bog bridge for each area is proposed. | Peat bogs are so ubiquitous there are few alternatives to avoid them. | Construction will be guided by advice of ECoW and remit of CEMP. | EPA CORINE Land Cover Type Monitoring every 6 years |
| Water | 4.0 Protect the quality of surface water and groundwater resources | <p>A bog bridge (475m long) and new gravel build is proposed on land northeast of Loughglynn where the groundwater is considered to be at risk of not achieving good ecological status.</p> <p>A range of surface interventions, including new gravel build plus fencing, bog bridges, boardwalks, stone stepping and footbridges are also proposed at the Owenmore River, east of Gurteen, which is considered to have poor ecological status and to be at risk.</p> <p>So too, new gravel build is proposed at the River Liskeagh, which is also considered to be at risk.</p> | Both the Owenmore River and Liskeagh River have to be crossed at some point as the trail proceeds north. | ECoW supervision of works and contractor adherence to CEMP. | <p>EPA Monitoring of Water Quality.</p> <p>EPA National River Biology Monitoring Programme every 3 years.</p> <p>Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD)</p> |
| Air & Climate | 5.0 Reduce air pollution | Though impacts on air and climate are clearly positive due to lower carbon footprint associated with walking, increased vehicular traffic could heighten pollution levels locally, albeit air quality along the entire trail is Air Zone d and is considered good. | Restriction of use to bus visitors only or electric vehicles not considered reasonable or practical. | <p>Encourage visitors to travel to route by public transport.</p> <p>Deployment of parking stewards to manage congestion during busy times</p> | Number of visitors travelling by bus to start points as opposed to travelling by car |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | New gravel build with terram is proposed within 40m of Ballaghderreen Civic Amenity Site. | It is an off-road part of the trail that is separated from the Amenity Site by an earth bund. | A Preliminary Risk Assessment may be required at the planning application stage to assess any contamination risk triggered by the gravel works to the trail. ECoW supervision of works and contractor adherence to CEMP. | No monitoring required but Remediation Strategy/Verification Report may be required further to the findings of Preliminary Risk Assessment. |
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings | New gravel build is proposed within zone of notification (ZoN) for Enclosure, SMRS Code: SL044-039 at Gurteen. | The negligible impact on the cultural heritage did not warrant consideration of alternative trail routes. | Archaeological assessment at the detailed design stage will guide the nature of the trail within this ZoN. | Record of Monuments and Places compiled by the National Monuments Service, Department of Arts, Heritage and the Gaeltacht. |
| Landscape | 8.0 Protect, maintain and enhance the quality of scenic landscapes | A significant proportion of the trail passes through the LCA described as the Cloona Lough and Lung River Bogland basin. It has a medium sensitivity to change. A shelter and beacon are proposed at Crimlin, a remote rural location. | The tourism shelter and beacon are proposed next to the junction of rural lanes as opposed to the middle of a field. | Visual impact appraisal at the detailed design stage will advise on the specific location of this proposed infrastructure. | Quarterly/monthly review of cleanliness of route to ensure that litter does not detract from visual amenity |

SEA of Miners Way (Section 10)

Table 10a

| Miners Way & Historical Trail | Proposed New build Trail & Upgrade | |
|---------------------------------|------------------------------------|--------------|
| | Number (m) | % of Route |
| Gravel | 7,124 | 13.2% |
| Gravel upgrade | 169 | 0.3% |
| Gravel including geotextile | 752 | 1.4% |
| Stone pitching (incl'g upgrade) | 133 | 0.2% |
| Stone stepping | 2,264 | 4.2% |
| Boardwalk | 11 | 0.0% |
| Bog bridge | 283 | 0.5% |
| Hardcore vehicular access | | |
| Other (6 Stone Steps) | 1 | |
| Total | 10,737 | 20.0% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 10b

| Miners Way & Historical Trail | Proposed Infrastructure & Signs | | |
|-------------------------------|---------------------------------|------------|----------------|
| | Number (Unit/m) | % of Route | Site clearance |
| Footbridges | 10 | N/A | 9 footbridges |
| Stiles | 51 | N/A | 36 stiles |
| Gates | 15 | N/A | 15 gates |
| Fencing | 4480 | 8.3% | |
| Culverts | 1 | N/A | |
| Water bars | 1 | N/A | 1 water bar |
| Sign posts | 113 | N/A | 76 sign posts |
| Panels (Info/Interpretation) | 26 | N/A | 1 panel |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 10c

| Miners Way - Tourism Infrastructure Proposals | | | | | |
|-----------------------------------------------|--------|-------|----------|---------|--------------------------------------------------------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 46. Lough Gara Way / Miners Way | Y | | | | |
| 47. Carrowkeel | Y | | | | Located in Bricklieve Mountains and Keishcorran SAC/pNHA |
| 48. Megalithic Tombs | Y | Y | | | C.5m from the ZoN for Megalithic tomb SMRS Code: SL034-206 at Ballindoon |
| 49. Knockvicar | Y | | | Y | |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Figure 10a: Miners Way – European and National Environmental Designations

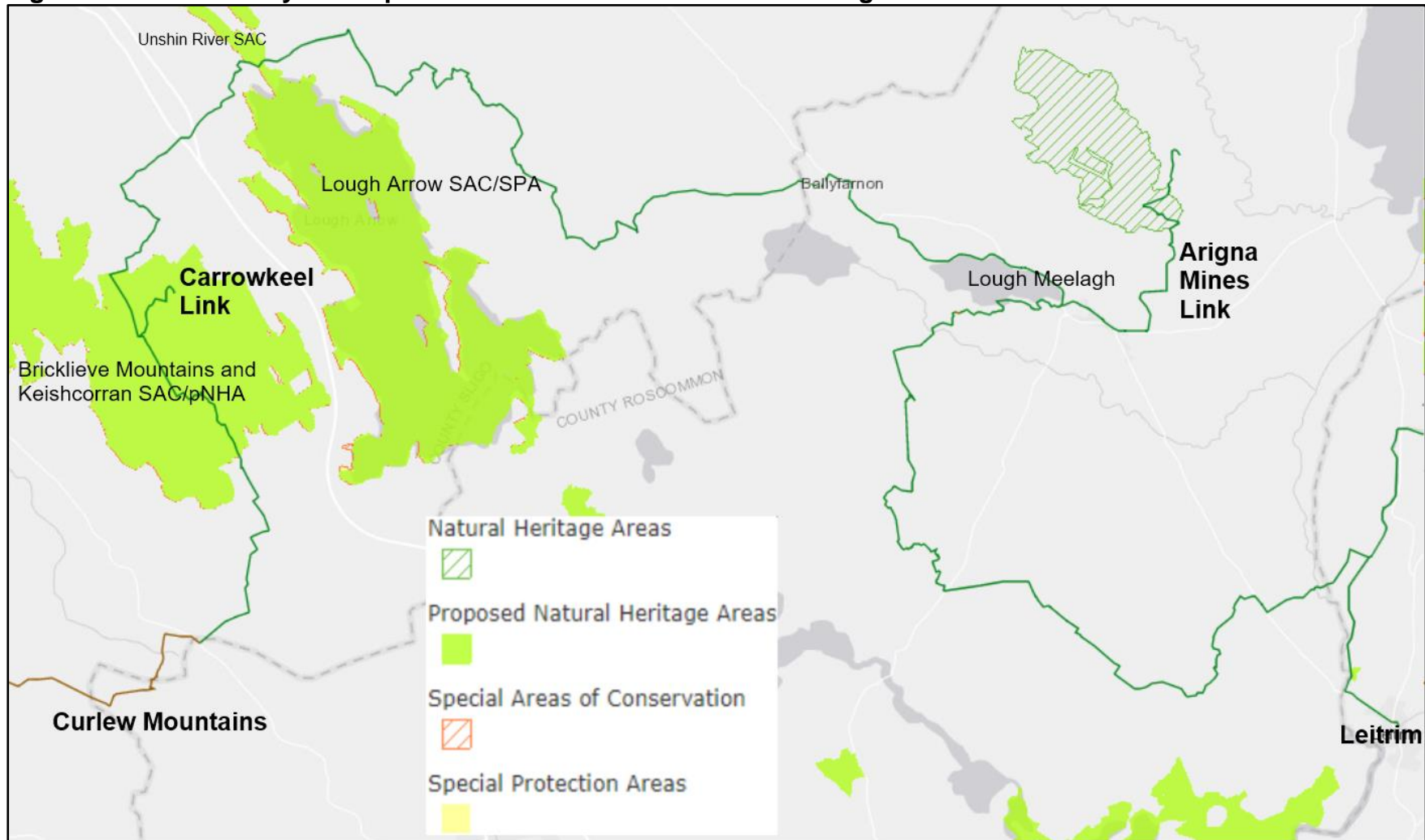


Table BBW 10: Miners Way SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>Trail transects Bricklieve Mountains and Keishcorran SAC/pNHA, where several hundred metres of stone stepping is proposed for the Annex 1 Blanket bogs, Wet heath Habitat (Code: 7130 4010) found here. A beacon is also proposed at Carrowkeel in this SAC/pNHA.</p> <p>Some upgrade to existing gravel and stone pitching is proposed for Annex 1 Blanket bogs, Dry heath, Wet heath (Habitat Code: 7130 4030 4010) at Kilonan Mountains.</p> <p>Approximately 800m of surface intervention (new gravel build with terram, stone stepping, boardwalk) is proposed for a possible ancient woodland (Knockranny) located south of Lough Meelagh.</p> <p>The trail passes between the edge of Lough Arrow SAC/SPA and Unshin River SAC but no works are proposed.</p> | The N4 passes the eastern side of the Bricklieve Mountains but redirecting the trail here would constitute a considerable departure from the original route and would run contrary to the aspiration to harness the off-road walker experience. | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys and studies, namely Ecological Impact Assessment (EclA) and Appropriate Assessment (AA) where appropriate.</p> <p>Ecological Clerk of Works (EoW) to advise on detailed trail route construction.</p> <p>Contractor adherence to contents of CEMP.</p> | <p>NPWS Article 17 Habitats Reports every 6 years</p> <p>NPWS Article 12 Bird Reports every 3 years.</p> <p>Periodic Birdwatch Ireland Surveys.</p> |
| Population & human health | 2.0 Promote wellbeing & respect for the environment | <p>Lough Arrow is a WFD RPA Surface Water Drinking Water location. The trail proceeds around it and works are quite modest in scale involving mainly stone stepping and replacement stiles.</p> <p>Potential for litter pollution.</p> | Minimal works involving stone stepping near Lough Arrow are viewed as the preferred means of construction. | <p>ECoW supervision of works and contractor adherence to CEMP.</p> <p>Litter Management Plans by Council – Litter Pick-Up days.</p> <p>Signage to remind users of sensitivity of location.</p> | <p>EPA Monitoring of Water Quality.</p> <p>Quarterly/Monthly random inspection of stretches of trail section.</p> <p>No. of litter pick up days required</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|--------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | <p>An area in the Bricklieves/Keshcorran mountains (Site Code: SO003), as well as the Arigna coal site Code: RO002, are recognised as County geological heritage sites. Stone stepping is proposed in both, together with a bogbridge in the latter.</p> <p>The trail also transects a peat bog at Corradoo but no works are proposed.</p> | <p>The Bricklieves/Keshcorran mountains county geological site is so large that an alternative route would entail proceeding along the N4.</p> <p>In terms of the Arigna coal site the trail largely proceeds along an established roadway.</p> | Construction will be guided by advice of ECoW and remit of CEMP. | <p>EPA CORINE Land Cover Type Monitoring every 6 years.</p> <p>County Geological Heritage Audits by Geological Survey Ireland (Department of the Environment, Climate and Communications), as incorporated into County Development Plan</p> |
| Water | 4.0 Protect the quality of surface water and groundwater resources | <p>Trail passes the Rivers Unswin and Shannon Upper, which are considered to be at risk, but no works are proposed at these locations.</p> <p>Aquifer vulnerability is generally low but extreme and high (karst) in the elevated parts of the trail, namely Bricklieve (Curlew) Mountains, Kilronan Mountains and elevated land east of Lough Arrow.</p> <p>Due to the karstic nature of the land east of Lough Arrow, known as Geevagh, it is considered to be a WFD Groundwater Water Body at Risk. A small amount of gravel build and replacement footbridges are proposed here.</p> <p>Trail passes the Riverstown Pws Groundwater Source Protection Area north of Lough Arrow but no works is proposed here.</p> <p>Lough Meelagh is accorded poor ecological status and considered to be at risk. A fair amount of new gravel build and several replacement footbridges are proposed here.</p> | Gravel surface already exists in a large part of the trail bordering Lough Meelagh. The aim is to extend this by developing the off-road route adjacent to the R284. | ECoW supervision of works and contractor adherence to CEMP. | <p>EPA Monitoring of Water Quality.</p> <p>EPA National River Biology Monitoring Programme every 3 years.</p> <p>Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD)</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Air & Climate | 5.0 Reduce air pollution | Though impacts on air and climate are clearly positive due to lower carbon footprint associated with walking, increased vehicular traffic could heighten pollution levels locally, albeit air quality along the entire trail is categorised "Rural Ireland (Air Zone d)" and is considered good. | Restriction of use to bus visitors only or electric vehicles not considered reasonable or practical. | Encourage visitors to travel to trail by public transport. Deployment of parking stewards to manage congestion during busy times | Number of visitors travelling by bus as opposed to travelling by car. |
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | The trail makes a link to the Arigna Historic Coal Mine site, which is a visitor attraction. An element of stone stepping and new gravel build is proposed for this link but the area has a category V status where no specific monitoring is required. The trail passes through the two small settlements of Ballyfarnon and Keadew. | As noted above in response to SEA objective No.3 the bulk of the trail to Arigna Coal Mine utilises an existing roadway. | ECOW supervision of works and contractor adherence to CEMP. | No monitoring required |
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings | A link of the trail, where stone stepping is proposed, enters the zone of notification (ZoN) for a megalithic tomb and passage tombs at Carrowkeel in the Bricklieve Mountains, SMRS Codes: SL040-088 & SL040-089. A beacon and bench are also suggested at this location but outside the ZoN. New gravel build is proposed at Carrickglass NE of Lough Arrow and it traverses ZoNs for a megalithic tomb - portal tomb, SMRS Code: SL034-152, and two raths, SMRS Codes SL034-153, SL034-154. At Barroe Upper, NE of Lough Arrow, a bog bridge (100m) is proposed within the ZoN for a megalithic tomb - passage tomb, SMRS Code: SL034-155, while stone stepping is proposed within ZoN for | The trail at Carrowkeel seeks to highlight the ancient burial grounds here. The stone stepping proposed here formalises one of several existing desire lines and erosion scars created by walkers. Nonetheless, it is recognised that additional footfall in this area could exacerbate erosion and therefore the input of local land management bodies and landowners is recommended at the detailed design stage in order to resolve the potential for further damage. | Archaeological assessment at the detailed design stage will guide the extent and nature of the trail within ZoNs. | Record of Monuments and Places compiled by the National Monuments Service, Department of Arts, Heritage and the Gaeltacht. |

| | | | | | |
|-----------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| | <p>7.0 Continued</p> <p>Conserve the historic environment, heritage assets and their settings</p> | <p>an enclosure, SMRS Code: SL034-156.</p> <p>Nearby at Barroe North, stone stepping is proposed for the ZoN for several recorded sites including: a Hut site, SMRS Code: SL034-209002; Souterrain, SMRS Code: SL034-209003; and Ringfort, SMRS Code: SL034-209001.</p> <p>New gravel build and fencing is proposed as an off-road measure within the ZoN at Keadew Roman Catholic Church, SMRS Code: RO004-003001 and graveyard, SMRS Code: RO004-003002.</p> <p>A viewing area comprising a beacon and benches, involving modifications to a wall, are proposed for a site within 5m of the ZoN for Megalithic tomb SMRS Code: SL034-206 at Ballindoon.</p> | | | |
| Landscape | <p>8.0 Protect, maintain and enhance the quality of scenic landscapes</p> | <p>The landscape in the eastern part of the trail is mapped as highly sensitive to change. It comprises the LCAs of Arigna Mountains, Lough Meelagh Drumlins, Lough Key and Boyle River Network and Upper Shannon and Derreenannagh Drumlin Belt.</p> <p>A beacon and bench are proposed on elevated land at Carrowkeel and a shelter is proposed at Knockvicar.</p> | <p>The micro-siting of alternative locations for the proposed beacon and bench at Carrowkeel can be considered at the detailed design stage.</p> | <p>Visual impact assessment of the proposed beacon at Carrowkeel and proposed shelter at Knockvicar will help guide their integration.</p> | <p>Quarterly/monthly review of cleanliness of route to ensure that litter does not detract from visual amenity</p> |

SEA of Leitrim Way (Section 11)

Table 11a

| Leitrim Way | Proposed New build Trail & Upgrade | |
|---------------------------------|------------------------------------|--------------|
| | Number (m) | % of Route |
| Gravel | 2,839 | 11.3% |
| Gravel upgrade | 197 | 0.8% |
| Gravel including geotextile | 41 | 0.2% |
| Stone pitching (incl'g upgrade) | | |
| Stone stepping | 822 | 3.3% |
| Boardwalk | 125 | 0.5% |
| Bog bridge | 53 | 0.2% |
| Hardcore vehicular access | 467 | 1.9% |
| Total | 4,544 | 18.0% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 11b

| Leitrim Way | Proposed Infrastructure & Signs | | |
|------------------------------|---------------------------------|------------|----------------|
| | Number (Unit/m) | % of Route | Site clearance |
| Footbridges | 11 | N/A | |
| Stiles | 24 | N/A | 2 stiles |
| Gates | 18 | N/A | 1 gate |
| Fencing | 916 | 3.6% | |
| Culverts | 7 | N/A | |
| Water bars | | | |
| Sign posts | 44 | N/A | 13 sign posts |
| Panels (Info/Interpretation) | 4 | N/A | |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 11c

| Leitrim Way - Tourism Infrastructure Proposals | | | | | |
|------------------------------------------------|--------|-------|----------|---------|---------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 50. Miners Way / Leitrim | Y | | | | N/A |
| 51. Lough Allen | Y | | Y | | N/A |
| 52. Leitrim Way / Cavan Way | Y | | | | N/A |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Figure 11a: Leitrim Way – European and National Environmental Designations

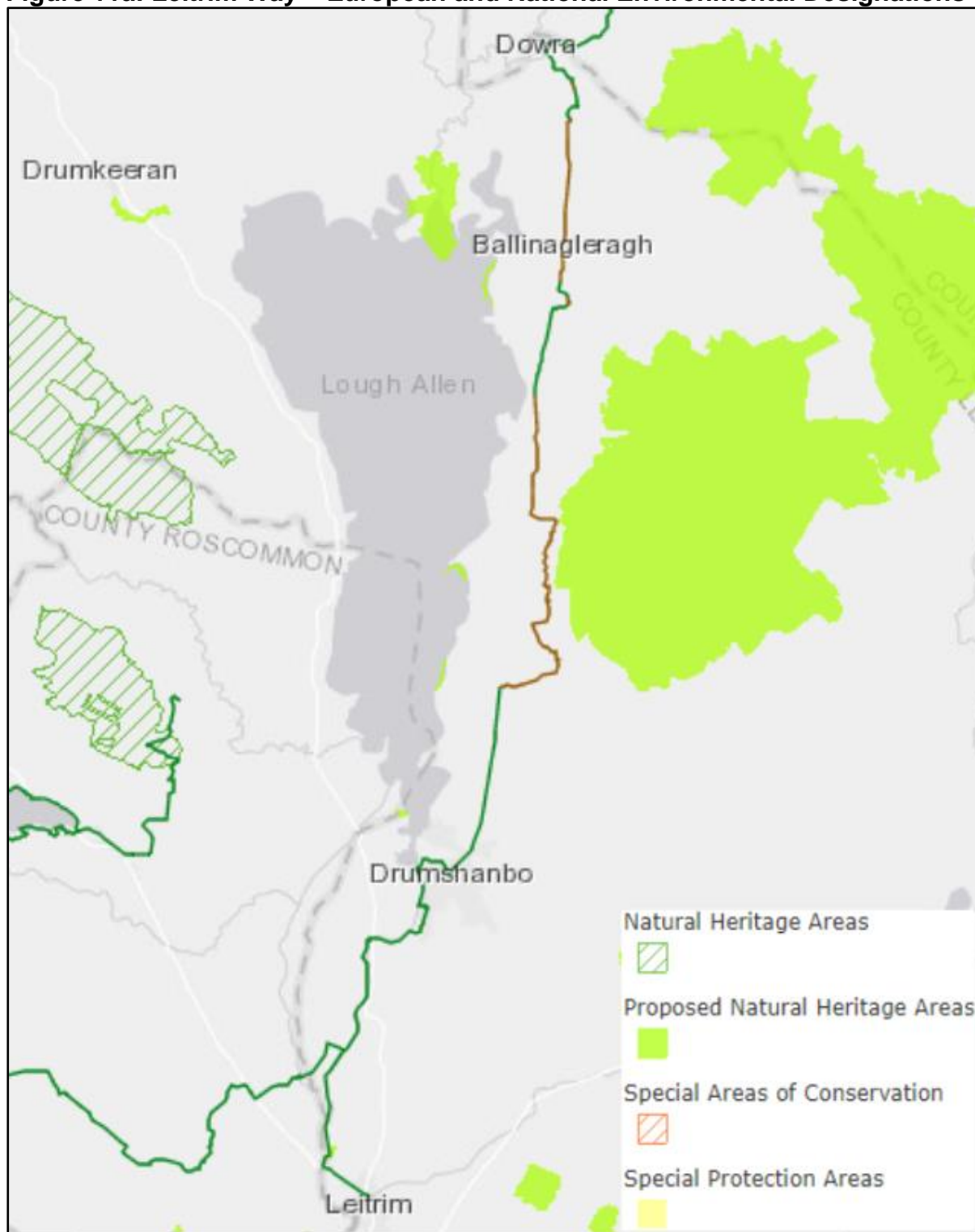


Table BBW 11: Leitrim Way SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>At certain points the trail is within 100m distance of the Cuilcagh - Anierin Uplands SAC and pNHA, with its Annex 1 habitats of Blanket bogs, Dry heath, Wet heath but it does not traverse it.</p> <p>The proposed Lough Allen viewing platform is not affected by environmental designations.</p> | Alternative trail route not considered necessary. | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys and studies, namely Ecological Impact Assessment) (EclA) and Appropriate Assessment (AA) where appropriate.</p> <p>Ecological Clerk of Works (ECoW) to advise on detailed trail route construction.</p> <p>Contractor adherence to contents of CEMP.</p> | <p>NPWS Article 17 Habitats Reports every 6 year</p> <p>NPWS Article 12 Bird Reports every 3 years.</p> <p>Periodic Birdwatch Ireland Surveys.</p> |
| Population & human health | 2.0 Promote wellbeing & respect for the environment | <p>Does not cross any RPA surface water drinking rivers.</p> <p>Potential for litter pollution.</p> | Alternative trail route not considered necessary. | <p>Litter Management Plans by Council - Litter Pick-Up days.</p> <p>Signage to remind users of sensitivity of location.</p> | <p>Quarterly/Monthly random inspection of stretches of trail section.</p> <p>No. of litter pick up days required</p> |
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | It traverses a peat bog where several hundred metres of gravel new build is proposed at Barnameenagh West, next to the Cuilcagh - Anierin Uplands SAC/pNHA. | There is an on-road alternative here but the preference is to allow walkers to experience the off-road trails through the peat bog, given that the SAC/pNHA are avoided. | Construction will be guided by advice of ECoW and remit of CEMP. | EPA CORINE Land Cover Type Monitoring every 6 years |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Water | 4.0 Protect the quality of surface water and groundwater resources | Proceeding up the east side of Lough Allen aquifer vulnerability is predominantly low to moderate. At the northern end of Lough Allen gravel build is proposed where the route passes tributaries of the Shannon (Upper) which is a river at risk (Q value of 4 - slightly polluted). This river feeds into Lough Allen, which is a lake of moderate ecological status but at risk of deteriorating or not achieving 'Good' ecological status. | There are five tributaries of the River Shannon on the eastern side of Lough Allen and there is little choice but to traverse them. | ECoW supervision of works and contractor adherence to CEMP. | EPA Monitoring of Water Quality. EPA National River Biology Monitoring Programme every 3 years. Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD) |
| Air & Climate | 5.0 Reduce air pollution | Though impacts on air and climate are clearly positive due to lower carbon footprint associated with walking, increased vehicular traffic could heighten pollution levels locally, albeit air quality along the entire trail is categorised "Rural Ireland (Air Zone d)" and is considered good. | Restriction of use to bus visitors only or electric vehicles not considered reasonable or practical. | Encourage visitors to travel to route by public transport. Deployment of parking stewards to manage congestion during busy times | Number of visitors travelling by bus as opposed to cars |
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | This section of Trail links the settlements of Leitim, Drumshanbo and Dowra | No need to consider alternative routes. | No mitigation required. | No monitoring required |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings | The proposed beacon to signify the end of the march at the canal lock in Leitrim is located in the zone of notification (ZoN) for a Castle - tower house, SMRS Code: LE027-026. This site is located within the development limit of Leitrim Village and is zoned for Open Space and Recreation in the Cavan County Development Plan 2022-2028. | Micrositing of the proposed beacon will be advised by the archaeological findings at the detailed planning stage. | Archaeological Assessment. | Record of Monuments and Places compiled by the National Monuments Service, Department of Arts, Heritage and the Gaeltacht. |
| Landscape | 8.0 Protect, maintain and enhance the quality of scenic landscapes | Landscape sensitivity is not mapped on Geohive but standard visual impact assessment of tourism infrastructure is anticipated, particularly for the proposed viewing platform at Lough Allen. | Apart from the proposed beacon at the canal in Leitrim Village none of the proposed tourism infrastructure is located in environmental designations. Nevertheless, the specific location of each will be determined at the detailed planning stage. | Visual impact appraisal of proposed beacons to aid micrositing. | Quarterly/monthly review of cleanliness of trail to ensure that litter does not detract from visual amenity |

SEA of Cavan Way (Section 12)

Table 12a

| Cavan Way | Proposed New build Trail & Upgrade | |
|------------------------------------|------------------------------------|--------------|
| | Number (m) | % of Route |
| Gravel | 3,652 | 16.8% |
| Gravel upgrade | 141 | 0.6% |
| Gravel including geotextile | 439 | 2.0% |
| Stone pitching (including upgrade) | 93 | 0.4% |
| Stone stepping | 624 | 2.9% |
| Boardwalk | 421 | 1.9% |
| Bog bridge | 17 | 0.1% |
| Hardcore vehicular access | | |
| Other (5+6 Stone Steps) | 2 | |
| Total | 5,389 | 24.7% |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 12b

| Cavan Way | Proposed Infrastructure & Signs | | |
|------------------------------|---------------------------------|------------|----------------|
| | Number (Unit/m) | % of Route | Site clearance |
| Footbridges | | | 1 footbridge |
| Stiles | | | 3 stiles |
| Gates | | | 1 gate |
| Fencing | | | |
| Culverts | | | |
| Water bars | | | |
| Sign posts | | | 16 sign posts |
| Panels (Info/Interpretation) | | | 1 panel |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Table 12c

| Cavan Way - Tourism Infrastructure Proposals | | | | | |
|----------------------------------------------|--------|-------|----------|---------|---------------------------|
| Signature Point No | Beacon | Bench | Platform | Shelter | Environmental Observation |
| 53. Shannon Pot | Y | | | | N/A |
| 54. Burren Woodland | Y | Y | | | N/A |
| 55. Blacklion | Y | Y | Y | | N/A |

Note: Proposals are indicative & subject to landowner consent and compliance with planning/environmental policies at Council level

Figure 12a: Cavan Way – European and National Environmental Designations

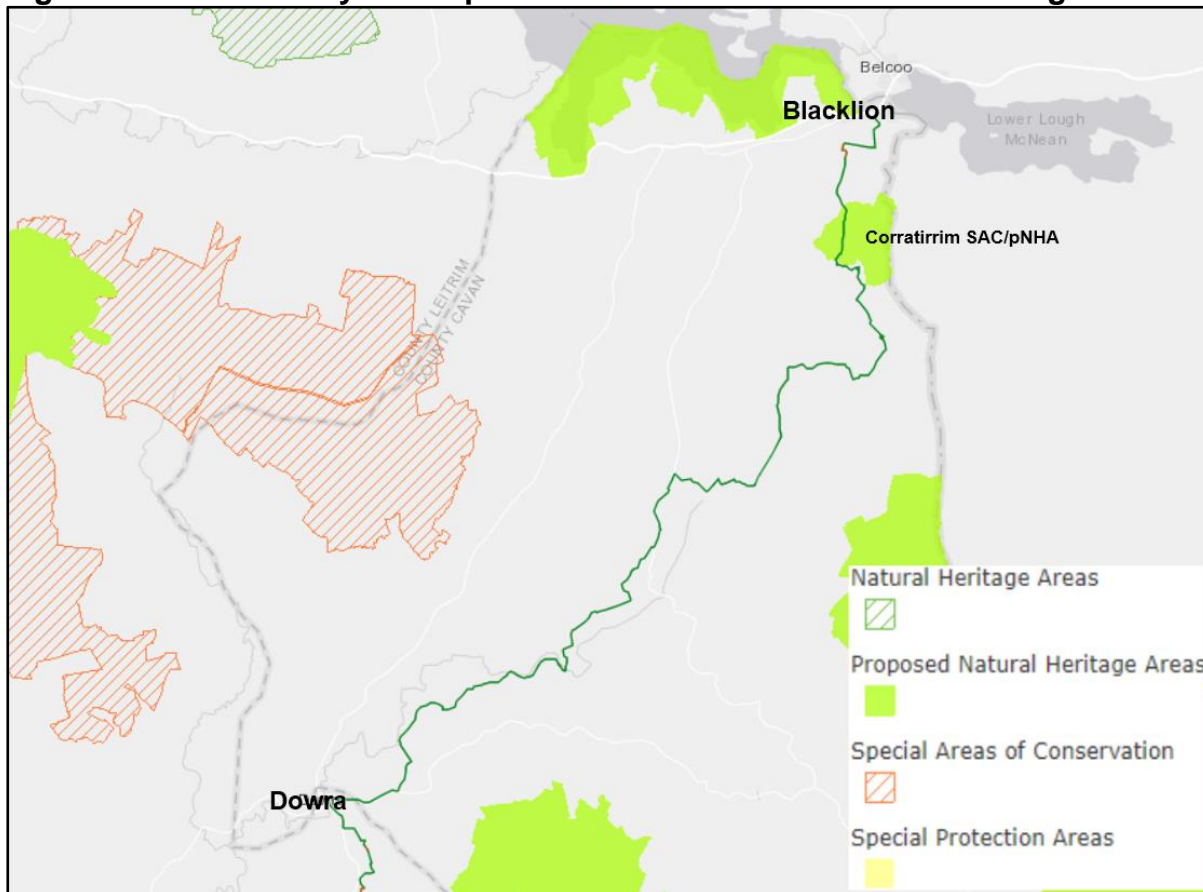


Table BBW 12: Cavan Way SEA

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|----------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity flora & fauna | 1.0 Maintain & enhance biodiversity assets and protect habitats and species | <p>Surface intervention is proposed in Corratirrim SAC/pNHA, which comprises a number of Annex 1 habitats. Proposed surface intervention includes gravel and stone stepping on wet heath, with stone stepping recommended for areas of dry heath and limestone pavement.</p> <p>The proposed Blacklion viewing platform is not affected by environmental designations.</p> <p>The proposed beacon at Burren Woodland is located on the very edge of this woodland.</p> | The trail could not avoid this extensive area of peat, which is a SAC/pNHA. It measures over 16,000 ha and alternatives would have encountered similar habitats. | <p>Consult findings of the Environmental Sensitivities and Opportunities Report (ESOR) including potential to create compensatory habitats.</p> <p>Undertake all necessary surveys and studies, namely Ecological Impact Assessment (EclA) and Appropriate Assessment (AA) where appropriate.</p> <p>Ecological Clerk of Works (ECoW) to advise on detailed trail route construction.</p> <p>Adherence to contents of CEMP. Stone stepping recommended to ameliorate impact.</p> | <p>NPWS Article 17 Habitats Reports every 6 years</p> <p>NPWS Article 12 Bird Reports every 3 years.</p> <p>Birdwatch Ireland Surveys.</p> |
| Population & human health | 2.0 Promote wellbeing & respect for the environment | <p>The trail crosses a tributary network of the River Shannon (Upper), which is a WFD RPA Surface Water Drinking Water location. New gravel build is proposed at a number of footbridge intersections and along its bank in the townland of Derrynatuan.</p> <p>Potential for litter pollution.</p> | Crossing the River Shannon is unavoidable in this area. | <p>ECoW supervision of works and contractor adherence to CEMP.</p> <p>Litter Management Plans by Council - Litter Pick-Up days.</p> <p>Signage to remind users of sensitivity of location.</p> | <p>EPA Monitoring of Water Quality.</p> <p>Quarterly/Monthly random inspection of stretches of trail section.</p> <p>No. of litter pick up days required</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|--------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Soil/Geo-Diversity | 3.0 Protect and enhance soil quality and geodiversity | <p>A mix of interventions including stone stepping, boardwalk and new gravel build is proposed for a peat bog at Derrylahan. Within this bog there are two county geological sites. Gravel surfacing is proposed for the County Geological site known as Western Cuilcagh - Burren Forest Site Code: CN021. Stone stepping is proposed at the County Geological site referred to as Western Cuilcagh - Corratirrim Site Code: CN022, which is also a SAC and pNHA.</p> <p>Beacons are proposed for the Shannon Pot, the recognised source of the River Shannon, and Burren Forest.</p> | <p>Approximately half of the trail section traverses land defined as peat bog. The same state of affairs applies to the county geological sites.</p> <p>The beacon at the Shannon Pot is proposed for development just outside the designated Western Cuilcagh-Shannon Pot Geological Site, while the proposed beacon in the Western Cuilcagh-Burren Forest County Geological Site is situated on its boundary.</p> | Construction will be guided by advice of ECoW and remit of CEMP. | <p>EPA CORINE Land Cover Type Monitoring every 6 years.</p> <p>County Geological Heritage Audits by Geological Survey Ireland (Department of the Environment, Climate and Communications), as incorporated into County Development Plan</p> |
| Water | 4.0 Protect the quality of surface water and groundwater resources | <p>Aquifer vulnerability is generally low to moderate save where the trail traverses Breifne Mountains where it is extreme/karst.</p> <p>Groundwater status is good and not considered to be at risk.</p> | <p>The trail passes the outer northern edge of the county geological site designated to protect the aquifer fed Shannon Pot. New gravel build is proposed on part of this trail at this location, which underlines the requirement for due diligence during construction.</p> | ECoW supervision of works and contractor adherence to CEMP. | <p>EPA Monitoring of Water Quality.</p> <p>EPA National River Biology Monitoring Programme every 3 years.</p> <p>Inland Fisheries Ireland 3 yearly fish monitoring for the Water Framework Directive (WFD)</p> |

| SEA Topic | SEA Objective | Likely significant effects on environment | Alternatives considered | Possible Mitigation at Project Stage | Monitoring indicators |
|-------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Air & Climate | 5.0 Reduce air pollution | Though impacts on air and climate are clearly positive due to the lower carbon footprint associated with walking, increased vehicular traffic could heighten pollution levels locally, albeit air quality along the entire trail is categorised as "Rural Ireland (Air Zone d)" and is considered good. | Restriction of use to bus visitors only or electric vehicles not considered reasonable or practical. | Encourage visitors to travel to trail by public transport. Deployment of parking stewards to manage congestion during busy times | Number of visitors travelling by bus as opposed to cars |
| Material Assets | 6.0 Protect farmland & avoid conflict with material assets | As a general rule, the off-road component of the trail seeks to use existing laneways and field boundaries in order to avoid transecting agricultural land. There are no landfill sites near this section of the trail and only one WWTP at Blacklion. | No need to consider alternative routes. | No mitigation required. | No monitoring required |
| Cultural Heritage | 7.0 Conserve the historic environment, heritage assets and their settings. | The trail transects the zones of notification (ZoN) for a megalithic tomb, burnt mound and mine at Burren Forest Park but no works are proposed. | No need to consider alternative routes. | No mitigation required. | No monitoring required |
| Landscape | 8.0 Protect, maintain and enhance the quality of scenic landscapes | Landscape sensitivity is not mapped on Geohive but standard visual impact assessment of tourism infrastructure is anticipated, particularly for the proposed beacon at the Shannon Pot. The proposed beacon in Burren Forest will be appreciably screened from middle and long-range views by tree cover. | Both the Shannon Pot and Burren Forest are already popular destinations so the requirement for additional tourism infrastructure will be reviewed at the detailed planning stage. | Proposed beacons at the Shannon Pot and Burren Forest aim to make the most of the existing planting to promote their integration. Visual impact appraisals at the planning stage will further mitigate impact. | Quarterly/monthly review of cleanliness of trail to ensure that litter does not detract from visual amenity |

Appendices

- 1.1 Response from EPA to Screening Report
- 1.2 Response from EPA to Scoping Report
- 1.3 Response from Inland Fisheries to Scoping Report
- 1.4 Response from Geological Survey Ireland to Scoping Report
- 1.5 Response from DAERA (NI) to SEA Scoping Report
- 1.6 Response from HED (NI) to SEA Scoping Report



Regional Inspectorate,
Inniscarra,
County Cork, Ireland
Cigireacht Réigiúnach, Inis Cara
Chontae Chorcaí, Éire
T: +353 21 487 5540
F: +353 21 487 5545
E: info@epa.ie
W: www.epa.ie
LoCall: 1890 33 55 99

Dr Tony Quinn
Principal
Braniff Associates
Chartered Planning Consultants
5 Windsor Avenue North
Malone Road
Belfast BT96EL

27th September 2021

Our Ref: 210903.1

Re: SEA Screening for the proposed Beara Breifne Way Trail Plan 2021/2022

Dear Dr Quinn,

We acknowledge your notice, dated 15th September 2021, in relation to the proposed Beara Breifne Way Trail Plan 2021/2022 (the 'Plan') and associated Strategic Environmental Assessment (SEA) screening.

The EPA is one of the statutory environmental authorities under the SEA Regulations. In our role as a SEA environmental authority, we focus on promoting the full and transparent integration of the findings of the Environmental Assessment into the Plan and advocating that the key environmental challenges for Ireland are addressed as relevant and appropriate to the plan. Our functions as an SEA environmental authority do not include approving or enforcing SEAs or plans.

Where we provide specific comments on plans and programmes, our comments will focus on the EPA's remit and areas of expertise (in particular water, air, climate change, waste, resource efficiency, noise, radon and the inter-relationships between these and other relevant topics e.g. biodiversity), as appropriate and relevant to the particular Plan.

Proposed SEA Determination

We note your proposed determination that SEA is required for the Beara Breifne Way Trail Plan 2021/2022.

Guidance on the SEA process, including an SEA pack and checklist available on our website at: <https://www.epa.ie/our-services/monitoring-->

[assessment/assessment/strategic-environmental-assessment/sea-resources-and-guidance-/-](#).

We recommend that Fáilte Ireland takes the available guidance into account in finalising your SEA Screening Determination and incorporate the relevant recommendations as relevant and appropriate to the Plan.

Infrastructure Planning

In proposing the Plan, and any related amendments of the Plan and in implementing the Plan, adequate and appropriate infrastructure should be in place, or required to be put in place, to service any development proposed and authorised during the lifetime of the Plan.

Sustainable Development

In considering the Plan, Fáilte Ireland should ensure that the Plan is consistent with other key relevant higher-level plans and programmes. In proposing the Plan, you should also recognise the need for the Plan to align with national commitments on biodiversity, climate change mitigation and adaptation. The relevant objectives and policy commitments of the National Planning Framework and the relevant Regional Spatial and Economic Strategies should also be considered, as appropriate.

Specific Comments on the Plan

We may provide specific SEA related comments on the proceeding stages in the SEA process. We attach our land use recommendations guidance document. While primarily of relevance to local authority land use plans, it includes a list of high-level plans and programmes that may be relevant to the Plan. It also provides links to available SEA resources and sources of environmental information that may be useful to you, in preparing the SEA.

In terms of biodiversity protection, the Plan and SEA should take into account the need for appropriate biosecurity measures to limit or avoid the spread of invasive species. Additional aspects to consider include avoiding disturbance to protected habitats, designated species and any associated ecological corridors and linkages.

Additional aspects to consider include the need to adequately protect cultural heritage, protect water quality and waste management should also be considered.

In relation to transport considerations, opportunities to utilise public transport links between sections of the route, to limit the need for private vehicle transport would be a useful aspect to consider.

In considering SEA alternatives, aspects such as phased development of the route and potential route options could be among those aspects considered.

Environmental Sensitivity Mapping (ESM) WebTool

This tool is a new decision support tool to assist SEA and planning processes in Ireland. It is available at www.enviromap.ie. The tool brings together over 100 datasets and

allows users to create plan-specific environmental sensitivity maps. These maps can help planners examine environmental considerations, anticipate potential land-use conflicts, and help identify suitable development locations while also protecting the environment.

State of the Environment Report – Ireland’s Environment 2020

In preparing the Plan and associated SEA screening, the recommendations, key issues and challenges described in our [State of the Environment Report Ireland’s Environment – An Integrated Assessment 2020](#) (EPA, 2020) should be considered, as relevant and appropriate to the Plan.

Available Guidance & Resources

Our website contains various SEA resources and guidance, including:

- SEA process guidance and checklists
- Inventory of spatial datasets relevant to SEA
- topic specific SEA guidance (including *Good practice note on Cumulative Effects Assessment* (EPA, 2020), *Guidance on SEA Statements and Monitoring* (EPA, 2020), *Integrating climatic factors into SEA* (EPA, 2019), *Developing and Assessing Alternatives in SEA* (EPA, 2015), and *Integrated Biodiversity Impact Assessment* (EPA, 2012))

You can access these guidance notes and other resources at: <https://www.epa.ie/our-services/monitoring--assessment/assessment/strategic-environmental-assessment/sea-topic-and-sector-specific-guidance/>

EPA SEA WebGIS Tool

Our SEA WebGIS Tool has been updated recently and is now publicly available at <https://gis.epa.ie/EPAMaps/SEA>. It allows public authorities to produce an indicative report on key aspects of the environment in a specific geographic area. It is intended to assist public authorities in SEA screening and scoping exercises.

EPA WFD Application

Our WFD Application provides access to water quality and catchment data from the national WFD monitoring programme and is available through EPA Maps. It is also publicly available data can be accessed via the www.catchments.ie website.

EPA AA GeoTool

Our AA GeoTool application has been developed in partnership with the NPWS. It allows users to select a location, specify a search area and gather available information for each European Site within the area. It is available at: <https://gis.epa.ie/EPAMaps/AAGeoTool>

Future amendments to the Plan

Where changes to the Plan are made prior to finalisation, or where modifications to the Plan are proposed following its adoption, these should be screened for potential for likely significant effects in accordance with the criteria set out in Schedule 1 of the SEA Regulations (S.I. No. 435 of 2004, as amended).

Appropriate Assessment

You should ensure that the Plan complies with the requirements of the Habitats Directive where relevant, and its transposing legislation. Where Appropriate Assessment is required, the key findings and recommendations should be incorporated into the SEA and the Plan.

Environmental Authorities

Under the SEA Regulations (S.I. No. 435, as amended), prior to making your SEA determination you should consult with:

- Environmental Protection Agency
- Minister for Housing, Local Government and Heritage
- Minister for Environment, Climate and Communications; and
- Minister for Agriculture, Food and the Marine.

SEA Determination

As soon as practicable after making your determination as to whether SEA is required or not, you should make a copy of your decision, including, as appropriate, the reasons for not requiring an environmental assessment, available for public inspection in your offices and on your website. You should also send a copy of your determination to the relevant environmental authorities consulted.

If you have any queries or need further information in relation to this submission, please contact me directly. I would be grateful if you could send an email confirming receipt of this submission to: sea@epa.ie.

Yours sincerely,



Cian O'Mahony
SEA Section
Office of Evidence and Assessment



Regional Inspectorate,
Inniscarra,
County Cork, Ireland
Cigireacht Réigiúnach, Inis Cara
Chontae Chorcaí, Éire

T: +353 21 487 5540

F: +353 21 487 5545

E: info@epa.ie

W: www.epa.ie

LoCall: 1890 33 55 99

Dr Tony Quinn
Principal
Braniff Associates
Chartered Town Planning Consultants
5 Windsor Avenue North
Malone Road
Belfast BT9 6EL

9th May 2022

Our Ref: SCP220404.1

Re. SEA Scoping for Beara Breifne Way Trail Plan 2021-2022

Dear Dr Quinn,

We acknowledge your notice, dated 28th April 2022, in relation to the SEA Scoping for Beara Breifne Way Trail Plan 2021-2022 (the 'Plan').

The EPA is a designated statutory environmental authority under the SEA Regulations. In our role as an SEA environmental authority, we focus on promoting the full and transparent integration of the findings of the Environmental Assessment into the Plan and advocating that the key environmental challenges for Ireland are addressed as relevant and appropriate to the Plan. Our functions as an SEA environmental authority do not include approving or enforcing SEAs or plans.

Where we provide specific comments on plans and programmes, our comments will focus on the EPA's remit and areas of expertise (in particular water, air, climate change, waste, resource efficiency, noise, radon and the inter-relationships between these and other relevant topics e.g. biodiversity), as appropriate and relevant to the particular plan or programme.

We attach our '*SEA of Local Authority Land Use Plans – EPA Recommendations and Resources*' document which sets out recommendations to integrate environmental considerations into Local Authority land use plans. Given that the broad principles and many of the issues addressed in this document also apply to tourism, we suggest that you consider this guidance document, where relevant and appropriate, in preparing the Plan and in undertaking the SEA.

Comments on the SEA Process are provided in Appendix I while Appendix II provides some suggested relevant plans and programmes to consider.

State of the Environment & Key Actions for Ireland

In developing the Plan and integrating the findings of the SEA into the Plan, the relevant recommendations, key issues and challenges described in our State of the Environment Report [*Ireland's Environment – An Integrated Assessment 2020*](#) (EPA, 2020) should be taken into account.

The relevant objectives and policy commitments of the National Planning Framework and the Regional Spatial and Economic Strategies should be aligned with the Plan and considered, as appropriate.

Transition to a low carbon climate resilient economy and society

You should ensure that the Plan aligns with national commitments on climate change mitigation and adaptation, as well as any relevant sectoral, regional and local adaptation plans.

If you have any queries or need further information in relation to this submission, please contact me directly. I would be grateful if you could send an email confirming receipt of this submission to: sea@epa.ie.

Yours Sincerely,

A handwritten signature in blue ink, appearing to read 'Cian O'Mahony'.

Cian O'Mahony
SEA Section
Office of Evidence and Assessment
Environmental Protection Agency

Appendix I – Comments on the SEA Process

Scope of the SEA

The Plan should clearly set out the scope, remit and implementation related elements. These will have implications for the SEA, in terms of guiding the level of assessment applicable at the appropriate level for the Plan. Where it is envisaged that measures proposed in the Plan will be implemented via other plans, which themselves have been or will be subject to SEA, this should be explained in the Environmental Report and taken into account in the assessment.

Where specific measures will be implemented directly, further detail should be provided in the Environmental Report and the Plan on the relevant environmental assessments to be carried out at the project stage and relevant mitigation measures to be applied, as appropriate. There may be merit in exploring this issue further with the relevant Environmental Authorities during the Plan-preparation and SEA processes.

Assessment of Environmental Effects

The assessment should identify and focus on the key relevant significant environmental aspects of the Plan. The methodology applied to assess the likely significant effects of implementing the Plan should be described, along with any assumptions made. Where possible and practical, quantitative assessments should be undertaken.

In developing the SEA assessment framework / methodology, you should ensure that the environmental objectives / targets / indicators selected are relevant and specific to the scope, context and remit of the Plan. You should assess and document the full range of significant environmental effects of implementing the Plan (secondary, cumulative, synergistic, short, medium and long term, permanent, temporary, positive and negative).

The assessment should consider the potential for cumulative effects associated with the implementation of the Plan in association with other key relevant plans / programmes and projects within and adjacent to the Plan area.

Infrastructure-related Considerations

The SEA should assess the potential additional pressures (including seasonal variations) on existing critical infrastructure (drinking water, wastewater, waste, transport) servicing areas associated with any projected increased visitor numbers and/or already experiencing congestion / increased numbers. An increase in visitor numbers, for example, may have the potential to result in pressures on both surface waters and groundwaters, due to increased demands on water supply and increased loadings to existing wastewater treatment facilities. This assessment would provide a better indication of the nature and possible scale of impacts that could be expected. There is merit in recommending the need for close collaboration with the relevant stakeholders, including local authorities and Irish Water, to ensure that proposed tourism-related development aligns with the capacity of the supporting critical service infrastructure.

Traffic Management

The SEA should promote the need to work with the relevant stakeholders to avoid, reduce and mitigate the potential negative environmental effects of a likely increase in tourism-related traffic volumes, along any routes resulting from implementation of the Plan. The need for additional parking during peak season and any required road improvements / road maintenance associated with increased traffic volumes should be assessed in collaboration with the relevant stakeholders. Where the scope allows, possible alternative traffic management scenarios should also be considered. The provision of electric vehicles charging infrastructure in designated parking areas should be prioritised, in collaboration with the relevant stakeholders. It would also be useful to describe the range of works likely to be involved in implementing the Plan, including aspects such as the provision of signage, discovery point information etc. The relevant recommendations in Chapter 11 – Environment and Transport of our State of the Environment Report would be important to consider, where relevant and appropriate to the Plan.

Water Quality

The Plan should include clear commitments to protect both surface water (including rivers, lakes and estuaries), groundwater and their associated habitats and species, including fisheries, within and adjacent to the Plan area. Where specific recommendations/concerns for water bodies within the Plan area are identified in EPA water quality reports, including the [Water Quality in Ireland 2020 – An Indicators Report](#) (EPA, 2021) and the [Bathing Water Quality in Ireland - 2020](#) (EPA, 2021), or www.catchments.ie, these should also be considered at an appropriate level in the Plan. Water quality reports are prepared by the EPA on an annual basis and once published, the relevant reports for 2021, should be considered, where appropriate and where relevant.

The Plan should consider any relevant objectives and measures for individual water bodies within the Plan area, as set out in the River Basin Management Plan (RBMP) 2018-2021 (and in the subsequent third cycle RBMP, currently being prepared and undergoing SEA). This is important, in the context of ensuring that developments arising from implementing the Plan support the need to protect and where possible contribute to improving water quality status.

An assessment should be undertaken to determine whether any proposals and associated development could be potentially in conflict with the overall RBMP including the Areas for Action. Any proposals which are identified to be in potential conflict with the RBMP and Water Framework Directive (WFD) objectives, should be re-examined with a view to ensuring the conflicts are removed through a suitable strategy of avoidance and/or mitigation as appropriate. It is worth noting that the DHLGH are preparing guidelines to incorporate the WFD into the planning system. There is merit in including a commitment, that once published, these will be incorporated as appropriate into any relevant tourism strategies and developments.

Biodiversity

The Plan should include specific commitments to protect designated habitats and protected species (and associated ecological corridors/linkages) within and adjacent to the Plan area. The findings of the Appropriate Assessment (AA) should be reflected in the relevant sections of the SEA. You should consult with the National Parks and Wildlife Service (NPWS) regarding any existing or proposed new conservation management plans and where relevant, these should be integrated into the Plan and its implementation.

The EPA published guidance on [Integrated Biodiversity Impact Assessment - Streamlining AA, SEA and EIA Processes. Good Practice Guidance](#) (EPA, 2013) may be useful to consider in preparing the biodiversity related aspects of the SEA.

Ecosystem Services & Green Infrastructure

There is merit in adopting an ecosystem services approach to the relevant aspects of the SEA. The Plan area supports a significant ecological resource, with associated ecosystem services, that can benefit local communities and the local economy, while also protecting environmental sensitivities and vulnerabilities. The Plan should include a section that recognises the ecosystem services in the Plan area. The Plan should consider a commitment to mapping the services within the key destination sites and associated catchment zones/usage areas within and in the zone of influence of the destination areas/sites.

The EPA-funded Irish Natural Capital Accounting for Sustainable Environments (INCASE) research project outputs might be useful. (<https://www.incaseproject.com/>). It may assist in considering any relevant natural capital accounting aspects.

In implementing the Plan, tourism-related development and associated activities should be managed in a manner that avoids or minimises the potential for significant disturbance to habitats and species. This could also be strengthened by highlighting the need for a “*green infrastructure first*” approach and provision of guiding advice on how to implement green infrastructure as part of tourism plans and strategies. Our State of the Environment Report [Ireland's Environment – An Integrated Assessment 2020](#) (EPA, 2020) also highlights that high-quality green and blue spaces are important not just for nature but for peoples’ health & wellbeing, particularly in the context of an increasingly urban society and increasing settlement densities.

Invasive Alien Species Control and Management

Control and management of invasive alien species should be considered in the planning, construction, and carrying out of maintenance activities (e.g. hedgerow cutting, road or development works) associated with implementing the Plan. A commitment should be included to ensure that implementation of the Plan minimises the risk of spreading invasive species, both aquatic and terrestrial.

Landscape Considerations

In preparing the Plan and SEA, a review of available landscape sensitivity information could be considered. The Plan should consider available Local Authority landscape character assessments, and available habitat mapping within the Plan area.

Consideration of Alternatives

The development of alternatives and the methodology applied in the assessment of alternatives, along with any assumptions made, should be clearly described. Our guidance on [*Developing and Assessing Alternatives in Strategic Environmental Assessment*](#) (EPA, 2015) may be useful in this regard.

Key impacts arising from the Plan may be related to increased tourist numbers/traffic movements and associated pressures on critical water and transport infrastructure. This should be reflected in the assessment of and consideration of alternatives. In developing and assessing alternatives, the alternatives proposed should be reasonable and realistic and should be set at the appropriate level of the Plan within the tourism planning hierarchy. They should be assessed against the relevant environmental objectives established for the key environmental aspects of the environment likely to be significantly affected. Clear justification, on environmental grounds, should be provided for the selection of the preferred alternative/ combination of alternatives.

Integration of SEA into the Plan

All recommendations from the SEA and AA processes, including mitigation measures, should be integrated in the Plan. We recommend that the Plan includes summary tables outlining the key findings of the SEA and linking the significant environmental effects identified to the proposed mitigation measures, monitoring programme and Plan policies/measures. Providing a chapter in the Plan, that summarises the key findings of the environmental assessments (such as SEA, AA, Flood risk) carried out, would be beneficial. It would clearly establish the link between the Plan and SEA-preparation process and show how environmental considerations identified have been reflected in the Plan.

Monitoring, Review & Reporting

The Plan should include a commitment to monitoring visitor numbers and to incorporate this into the Plan-implementation and SEA-related monitoring and associated activities, with a view to assessing the potential environmental effects which may occur with increased tourism numbers. It may also assist in determining the capacity of sensitive areas to accommodate visitor numbers at a given time, and during sensitive seasons. The Plan should be subject to the relevant aspects, both established and evolving, for the Wild Atlantic Way Environmental Monitoring Programme.

The Environmental Report should refer to any relevant monitoring carried out on the impacts of initiatives such as the Wild Atlantic Way and Northern Ireland Causeway Coastal Route or other similar tourism routes. This would provide an opportunity to learn from and incorporate useful approaches to consider in monitoring the effectiveness and environmental performance of the Plan.

We suggest including a separate section on ‘*Monitoring, Review and Reporting*’ in the Plan, setting out the provisions for monitoring and reporting on the implementation of the Plan and periodic reviews. There may be merits in aligning the periodic reviews of the Plan with existing cyclical reporting e.g. State of the Environment reports, National Planning Framework, Water Framework Directive, Marine Strategy Framework Directive etc. Interim reviews of the Plan would be useful to carry out and this should be supported by environmental monitoring information.

We recommend aligning the Plan implementation monitoring/reporting with the environmental monitoring required under the SEA legislation. Doing so would enable the environmental performance of the Plan to be evaluated and would also provide for increased transparency during implementation.

The SEA-related monitoring should address positive, negative and cumulative effects where they are likely to occur and should include provision for on-going review to facilitate an early response to any environmental issues that may arise. The Environmental Report should specify the monitoring frequency and responsibilities and include provisions for reporting on the monitoring. To avoid duplication in data collection, where appropriate, the same indicators should be used for monitoring the Plan and the SEA-related monitoring, where possible.

Data & Knowledge Gaps

The Plan should identify any significant data and knowledge gaps, include commitments to help address these on a priority basis during the implementation phase of the Plan. This is with a view to strengthening the evidence base for future reviews and iterations of the Plan.

The EPA may provide additional comments upon receipt of the SEA Environmental Report and Draft Plan at the next stage of the SEA process.

Available Guidance & Resources

Our website contains various SEA resources and guidance, including:

- SEA process guidance and checklists
- Inventory of spatial datasets relevant to SEA
- topic specific SEA guidance (including [Good practice note on Cumulative Effects Assessment](#) (EPA, 2020), [Guidance on SEA Statements and Monitoring](#) (EPA, 2020), [Integrating climatic factors into SEA](#) (EPA, 2019), [Developing and Assessing Alternatives in SEA](#) (EPA, 2015), and [Integrated Biodiversity Impact Assessment](#) (EPA, 2012))

You can access these guidance notes and other resources at: <https://www.epa.ie/our-services/monitoring--assessment/assessment/strategic-environmental-assessment/sea-topic-and-sector-specific-guidance/>



You should also consider and take into account the updated national SEA Guidelines: [Strategic Environmental Assessment: Guidelines for Regional Assemblies and Planning Authorities](#) (DHLGH, 2022).

Environmental Sensitivity Mapping (ESM) Webtool

The ESM Webtool is a decision support tool to assist SEA and planning processes in Ireland. The tool brings together over 100 datasets and allows users to explore environmental considerations within a particular area and create plan-specific environmental sensitivity maps. These maps can help planners anticipate potential land-use conflicts and help identify suitable development locations, while also protecting the environment. The ESM Webtool is available at www.enviromap.ie.

EPA SEAGIS Search and Reporting Webtool

Our SEA WebGIS Tool is available at <https://gis.epa.ie/EPAMaps/SEA>. It allows users to produce an indicative report on key aspects of the environment in a specific geographic area. It is intended to assist public authorities in SEA screening and scoping exercises.

EPA WFD Application

Our WFD Application provides a single point of access to water quality and catchment data from the national WFD monitoring programme. The Application is available via www.catchments.ie.

EPA Appropriate Assessment GeoTool

Our AA GeoTool application has been developed in partnership with the NPWS. It allows users to select a location, specify a search area and gather available information for each European Site within the area. It is available at: <https://gis.epa.ie/EPAMaps/AAGeoTool>.

Environmental Authorities

Under the SEA Regulations, you should consult with:

- Environmental Protection Agency;
- Minister for Housing, Local Government and Heritage;
- Minister for Environment, Climate and Communications;
- Minister for Agriculture, Food and the Marine.

Appropriate Assessment

You should ensure that the Plan complies with the requirements of the Habitats Directive where relevant, and its transposing legislation. Where Appropriate Assessment is required, the key findings and recommendations should be incorporated into the SEA and the Plan.

Appendix II – Some suggested key plans and programmes

Suggested key plans and programmes are shown below to consider in preparing the SEA and the Plan, where relevant and appropriate. We recommend including schematics in the SEA, showing the links and key inter-relationships with the key relevant national, regional, sectoral and environmental plans.

Spatial Planning

National Planning Framework, Regional Spatial and Economic Strategies, Local Authority Development Plans and Land use Plans

Sustainable Development

National Implementation Plan for the Sustainable Development Goals

Tourism

National Greenways Strategy, Local authority tourism strategies, Visitor Experience Development Plans and Visitor Management Plans

Climate

Relevant local authority climate adaptation and mitigation plans/strategies, Relevant OPW Flood Risk Managements Plans and associated flood risk mapping, National Climate Action Plan 2021, National Adaptation Framework

Biodiversity

National Biodiversity Action Plan, All Island Pollinator Plan, Local authority biodiversity/heritage plans and habitat mapping

Landscape

County Landscape Character Areas (Local Authorities – where available)

Water & Water Services

River Basin Management Plan for Ireland 2018-2021, and the Draft River Basin Management Plan 2022-2027 (DHLGH, draft)

Transport

National Investment Framework for Transport Investment (DTTAS), National Cycle Plan (TII, in preparation)

Air & Noise

National Clean Air Strategy (DCCAIE, in prep), National Air Pollution Control Programme (DCCAIE, 2021), Local Authority Noise Action Plans

Waste

National Circular Economy Strategy (DECC), National Waste Plan for Circular Economy (DECC)



SEA of Local Authority Land-Use Plans - EPA Recommendations and Resources

2022 Version 1.15

ENVIRONMENTAL PROTECTION AGENCY
An Ghníomhaireacht um Chaomhnú Comhshaoil

Website: www.epa.ie

E-mail: sea@epa.ie

Lo Call: 1890 335599

PO Box 3000,
Johnstown Castle Estate,
Co. Wexford, Y35 W821
Tel.: +353-(0)53-9160600

Inniscarra
Co. Cork
P31 VX59
Tel.: +353-(0)21-487 5540

Tracking of Updates for 2021

| Version No. | Date | Updates since previous version |
|--------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version 1.10 | 19/01/2021 | Reference to Water Quality in Ireland for 2019 (EPA, 2020), National Waste Statistics Summary Report 2018 (EPA, 2020) |
| Version 1.11 | 10/02/2021 | Updated Biodiversity Section (Green/Blue Infrastructure) Updated Climate Change Section (including mitigation/adaptation and OPR role and related resource links. |
| Version 1.12 | 22/02/2021 | Updated various sections (Marine Waters, Waste Section, Noise Section and Quality of Life and EIA) |
| Version 1.13 | 14/06/2021 | Reference to Waste Water CoP for Domestic Treatment Systems (EPA, 2021), Bathing Water Quality 2020 Report (EPA, 2021) |
| Version 1.14 | 09/11/2021 | Urban Waste Water Treatment in 2020 (EPA, 2021) Ireland's Greenhouse Gas Emissions Projections for 2020-2040 (EPA, 2021) |
| Version 1.15 | 02/03/2022 | Updated Noise Section |
| Version 1.16 | 01/04/2022 | Updated Water, Waste and Climate Sections |

Table of Contents

| | |
|--------------------------------------------------------------------------|----|
| 1. Introduction..... | 4 |
| 2. Key Environmental Recommendations to Consider..... | 4 |
| Drinking Water | 4 |
| Climate Change / Climatic Factors..... | 7 |
| Air..... | 9 |
| Noise | 10 |
| Waste Management | 11 |
| Radon..... | 11 |
| 3. Wider Environmental Recommendations to Consider | 11 |
| Biodiversity | 11 |
| Energy Conservation & Renewable Energy | 13 |
| Landscape | 13 |
| Geology / Geomorphology | 13 |
| Human Health / Quality of Life..... | 13 |
| Transportation | 14 |
| Infrastructure Planning..... | 14 |
| Environmental Impact Assessment (EIA) | 14 |
| Appendix 1a: Links to environmental guidance/reports | 16 |
| Appendix 1b: Links to spatial environmental resources..... | 17 |
| The Environmental Sensitivity Mapping (ESM) WebTool..... | 17 |
| EPA SEAGIS Search and Reporting Tool..... | 18 |
| The Office of the Planning Regulator (OPR) | 18 |
| Appendix II: Key national & regional plans, programmes & strategies..... | 19 |

1. Introduction

This document provides key EPA recommendations for Local Authorities to consider when carrying out Strategic Environmental Assessment (SEA) of land-use plans at county and local level. It also includes information on recently published EPA reports and links to other relevant resources.

EPA is one of five statutory Environmental Authorities under the SEA regulations. Our role in SEA focuses on promoting full integration of the findings of the Environmental Assessment into the Plan. It is not the function of the EPA to either approve or enforce Plans or SEAs.

We focus our efforts and resources on reviewing and commenting on key national and regional plans within the planning hierarchy. For Local Authority land use plans at county and local level, we advocate a 'self-service approach' through use of this guidance document. This document is updated regularly.

State of the Environment Report – Ireland's Environment 2020

In preparing the *plan/programme/modification* and associated SEA, the recommendations, key issues and challenges described within our State of the Environment Report [Ireland's Environment – An Integrated Assessment 2020](#) (EPA, 2020) should be considered.

2. Key Environmental Recommendations to Consider

Drinking Water

In considering additional zoning/development and growth of settlements within the Plan area, it is critical that development be closely linked to the ability to provide a safe and secure supply of drinking water and related critical service infrastructure.

We have produced a series of drinking water quality reports, including the *Drinking Water Report for Public Water Supplies – 2020* (EPA, 2021), that should be consulted to ensure the relevant recommendations are implemented to improve drinking water quality. Key issues identified with particular supplies, including significant issues identified through (Irish Water) Drinking Water Safety Plans, should be highlighted for individual plans. We recommend including a commitment to collaborate with Irish Water and other relevant stakeholders in the Plan, to provide an adequate and appropriate drinking water supply.

A 'Remedial Action List' (RAL) of problematic drinking water supplies is released by the EPA on a quarterly basis. It is a dynamic list which records identified and reported issues. Once appropriate mitigation measures are established and implemented, supplies are removed from the RAL. You should consider including a commitment in the Plan to support Irish Water, in addressing issues where water supplies servicing the Plan area included on the RAL. Further information can be found at: <https://www.epa.ie/publications/compliance--enforcement/drinking-water/>.

Conservation of Water Resources

The Plan should include an Objective/Policy promoting the need for the conservation of water resources and also the need for detection/mitigation of infrastructural leakages. It may also be useful to consider developing a Water Conservation Strategy, in association with Irish Water and adjoining local authorities, where appropriate.

Waste Water

Our [Water Quality in Ireland 2013-2018](#) (EPA, 2019) highlights that one of the key causes of water pollution is from point sources including discharges from waste water treatment plants. The need to provide and maintain adequate and appropriate wastewater treatment infrastructure to service zoned lands and developments over the lifetime of the Plan should be included as a specific Policy/Objective in the Plan.

Agglomerations with no treatment or poorly performing (or at capacity) treatment plants are highlighted in the [Urban Waste Water Treatment in 2020](#) (EPA, 2021). A commitment to support the provision of appropriate measures to address these issues as a priority, in collaboration with Irish Water should be considered where relevant. Measures to ensure that combined storm water overflows, sewers and trade effluent in the area covered by the Plan is also managed properly should also be included as appropriate.

You should also consult our [2021 Code of Practice for Domestic Waste Water Treatment Systems](#), (EPA, 2021).

The [National Inspection Plan for Domestic Wastewater Treatment Systems 2022-2026](#) (EPA, 2021), and [Domestic Waste Water Treatment Systems 2020](#) (EPA, 2019) reports should also be considered, as appropriate.

Water Framework Directive

Protection of Surface and Ground Water Resources

Protecting our valuable surface and ground water resources is of vital importance to protect both human health and provide for a healthy environment. In this context, you should provide clear commitments in the Plan to protect surface water, groundwater and coastal/estuarine resources and their associated habitats and species, including fisheries within and adjacent to the Plan area. Where specific recommendations/concerns for water bodies within the Plan area are identified in EPA water quality reports, including the [Water Quality in 2020-An Indicators Report](#) (EPA, 2021) and [Water Quality in Ireland 2013-2018](#) (EPA, 2019), these should also be addressed/considered at an appropriate level in the Plan.

The Plan should also ensure that any specific relevant objectives and measures for individual water bodies, within the Plan area as set out in the existing relevant Water Framework Directive River Basin Management Plan, are provided for in order to ensure water quality is protected/improved/maintained. The Plan should also consider that subsequent water management plans (including catchment management plans) may arise out of current review of the second cycle of WFD River Basin Management Planning should be integrated as appropriate upon their adoption. The 'integrated catchment management' approach for protecting and managing water resources, should also be supported in the Plan. The EPA's www.catchments.ie website provides useful resources such as GIS mapping and related information that should be useful in preparing the Plan.

The [European Union \(Water Policy\) Regulations 2014](#) (S.I. No. 350 of 2014) sets out the roles and responsibilities of the various stakeholders and the associated requirements in relation to river basin management planning and should be integrated as appropriate. These responsibilities should be reflected in the Plan and the associated environmental monitoring.

Protection of Groundwater Resources

Groundwater aquifers form important sources of drinking water both locally and regionally. Much of the summer seasonal flow in many rivers is also derived from groundwater sources. To maintain high quality water resources within the Plan area, it is important that development is controlled and managed appropriately, in particular in areas of high groundwater vulnerability to avoid transmission of pollutants into important aquifers.

The Plan should include a clear Policy / Objective for the protection of groundwater resources and associated habitats and species. The Plan should also include a commitment to integrate any existing Groundwater Protection Schemes and Groundwater Source Protection Zones, as relevant and appropriate within the Plan area. The Plan should also include a commitment to comply with the [European Communities Environmental Objectives \(Groundwater\) Regulations 2010](#) (S.I. No. 9 of 2010).

Issues to consider relating to protection of groundwater include; *enforcement of planning conditions related to installation, operation and maintenance of on-site wastewater treatment / septic tank systems, connection of all remaining houses within settlement boundaries to wastewater treatment plant, the development of a wastewater leak detection programme* and the implementation and enforcement of the [European Communities \(Good Agricultural Practice for Protection of Waters\) Regulations 2009](#) and associated [European Union \(Good Agricultural Practice For Protection Of Waters\) Regulations 2017](#) (S.I. No 605 of 2017) and [European Union \(Good Agricultural Practice For Protection Of Waters\)\(Amendment\) Regulations 2018](#) (S.I. No 65 of 2018).

Protection and Management of Bathing Waters

The obligation to protect bathing waters within (and adjacent to) the Plan area should also be reflected in the Plan. Bathing Waters are afforded protection under Directive 2006/7/EC, known as the 'Directive on bathing water', which is transposed into National legislation by the [Bathing Water Quality Regulations 2008](#) (S.I. No. 79) of 2008. In addition, under the Water Framework Directive, recreational waters/bathing water areas are included on the Register of Protected Areas. The Plan should provide for the protection of any waters which are used for bathing within or adjacent to the Plan area.

The EPA's most recent report on bathing water quality [Bathing Water Quality in Ireland – A Report for the Year 2020](#), (EPA, 2021) sets out the status of Irish Seawater and Freshwater Bathing areas and should be integrated as appropriate. The EPA's available bathing water advice/guidance includes an online GIS resource beaches.ie, which should be considered.

Water Framework Directive & Biodiversity

Any sites of significant biodiversity value within or adjacent to the Plan area listed on the Water Framework Directive Register of Protected Areas, (such as Fresh Water Pearl Mussel Catchments, designated Salmonid waters, fisheries / shellfisheries), should be protected in preparing the Plan.

Marine Waters

Where the Plan might have an impact on the marine environment, the Plan should consider the requirements of the Marine Strategy Framework Directive and the environmental commitments set out in Ireland's National Marine Planning Framework, as appropriate and where relevant.

Flooding

The Plan should fully comply with [The Planning System and Flood Risk Management – Guidelines for Planning Authorities](#) (OPW/DEHLG, 2009). These Guidelines place requirements on planning authorities to carry out strategic flood risk assessments and also to ensure that development/zoning

of vulnerable land uses, in areas at significant risk of flooding (flood zones A and B) is avoided. In effect, only flood/water compatible uses should be built in flood plains. Where this is not possible, any proposal for development/zoning is required to include a 'Justification Test' in accordance with the Guidelines. Examples of vulnerable land uses include hospitals, residential developments and essential infrastructure such as transport and utilities (electricity generating power stations, water and sewage treatment) and potential significant sources of pollution (SEVESO sites, IPC sites).

In May 2018, the OPW launched a new website to access flood risk management plans, flood maps and information on flood risk management in Ireland. It can be consulted at: www.floodinfo.ie.

The Plan should include a commitment to carry out strategic flood risk assessments, in line with the Flood Risk Management Guidelines, to inform the development and implementation of the County Development Plan and lower level local area plans respectively.

A specific Policy should be included to provide for/promote appropriate flood risk assessments to be undertaken, where development / zoning is being proposed in the Plan area where there is significant risk of flooding, in accordance with the Guidelines referred to above.

The Plan should also promote the development, where appropriate, of adaptation measures to account for the likely increased risk of flooding due to climate change within the Plan area, including implementation of adequate and appropriate Sustainable Urban Drainage Systems. Additionally, the Plan should provide for protection, management, and as appropriate, enhancement of existing wetland habitats where flood protection/management measures are necessary.

Integrated Coastal Zone Management should also be considered as relevant and appropriate, to inform the preparation of coastal plans and programmes.

Climate Change / Climatic Factors

Urgent action is needed to address climate change and to move Ireland towards a low carbon, climate resilient economy and society. Climate change adaptation and mitigation measures should be included in the Plan as appropriate and the Plan should be consistent with the *National Policy Position on Climate Action and Low Carbon Development*¹, the *National Climate Action Plan 2021* and the *National Adaptation Framework*, as well as relevant sectoral, regional and local adaptation plans.

The Agency recently published *Ireland's Greenhouse Gas Emissions Projections for 2020-2040* (EPA, 2021) which should be taken into account in preparing the Plan, as appropriate and relevant.

The EPA has published an update of its existing good practice guidance note on how to incorporate climatic factors into plans and programmes falling under the remit of the SEA Directive – *Integrating Climatic Factors into the Strategic Environmental Assessment Process in Ireland* (EPA, 2019²). This guidance will dovetail with the DHLGH review of the Development Plan, Planning Guidelines for Planning Authorities (2007). The update and review of both these guidance documents will enhance linkages and create synergies between the plan-making and SEA processes. Key aspects to be considered in the Plan and SEA, where relevant, include:

- Direct and indirect impacts of the Plan on greenhouse gas emissions and removals (Mitigation)

¹ <http://www.dcae.gov.ie/en-ie/climate-action/publications/Pages/National-Policy-Position.aspx>

² <http://www.epa.ie/pubs/advice/ea/EPA%20SEA-Climatic-Factors-Guidance-Note.pdf>

- Direct and indirect impacts of climate change on the implementation of the Plan, e.g. the resilience of critical water service infrastructure to flooding and drought (Adaptation)
- The linkages between mitigation and adaptation (inter-relationships)

Mitigation

To fulfil national commitments on greenhouse gas emissions reduction, Ireland must effectively switch away from fossil fuel sources of energy by 2050. The Plan should reflect the need to reduce greenhouse gas emissions and to protect, maintain and enhance carbon stocks. The inclusion of specific policies/objectives which promote the integration of climate change mitigation measures at a regional and local level in land use planning within the Plan area should also be considered. In developing and implementing mitigation-related measures, opportunities should be sought to maximise the potential co-benefits of for the wider the environment and society, such as improvements in air quality, water quality, biodiversity, public amenity, renewable energy, tourism etc.

Adaptation

Climate change is already discernible in Ireland, especially within the temperature record, and projected climate change impacts include higher intensity rainfall events, more intense storms and storm surge, sea level rise, warmer temperatures and longer periods of low rainfall.

Under the National Adaptation Framework (DCCAE, 2018) a number of Government Departments are required to prepare sectoral adaptation plans in relation to the priority sectors they are responsible for. Local Authorities are also required to prepare local adaptation strategies. These plans and strategies will be reviewed at least once every five years in line with reviews of the Framework. The first round of adaptation plan and strategy development was completed in 2019. These sectoral adaptation plans and local authority strategies can be found at <https://www.climateireland.ie/#!/tools/adaptationStrategyExplorer>

These were prepared in line with DCCAE Guidelines to assist local authorities prepare adaptation strategies (DCCAE, 2018³) and the relevant sectors prepare sectoral adaptation plans. (DCCAE, 2018⁴). The local Guidelines were prepared building on earlier guidelines published by the EPA to support local authorities in developing local climate adaptation strategies (EPA, 2016).

In keeping with the approach of the National Adaptation Framework, the local Guidelines say that the local adaptation strategy should be used to mainstream adaptation over time into the plans and policies of the local authority (i.e. during the review of local authority development plan or other plans and policies).

It is noted that policy developments such as the Climate Action and Low Carbon Development (Amendment) Bill 2020, Climate Action Plans and Local Authority Climate Action Charter (DCCAE, 2019) place additional obligations on local authorities.

In preparing the Plan and associated SEA, the degree to which climate change impacts, individually and in combination, are likely to influence its implementation and operation and coherence with any relevant sectoral adaptation plans should be considered. Aspects to be considered include the resilience of existing and proposed infrastructure and systems to climate variability. This analysis may include an assessment of responses to recent extreme weather events and the adequacy of existing

³<https://www.dccae.gov.ie/en-ie/climate-action/publications/Pages/Local-Authority-Adaptation-Strategy-Development-Guidelines.aspx>

⁴<https://dccae.gov.ie/en-ie/climate-action/publications/Pages/Sectoral-Planning-Guidelines-for-Climate-Change-Adaptation.aspx>

systems and procedures. Other climate change impacts to be considered include changes in native species and habitats and the spread of invasive species, pests and pathogens. To minimise any adverse impacts identified in the SEA, the Plan should include appropriate climate change adaptation measures that can be implemented either directly or through relevant land use plans and/or specific plans e.g. Flood Risk Management Plans, Integrated Coastal Zone Management Plans etc.

The 'Climate Ireland' platform provides information, support and advice to help local authorities, sectors and government departments to adapt to climate change and includes a Local Authority Adaptation Support Wizard. It can be consulted at <http://www.climateireland.ie/#/>

Monitoring

The Plan and SEA should consider monitoring for both climate mitigation and climate adaptation monitoring aspects, where relevant and appropriate.

Role of the Office of the Planning Regulator (OPR) with respect to climate change

One of the statutory functions of the OPR is to evaluate and assess local authority development plans. Whilst neither an environmental authority under the SEA Regulations nor a decision-making authority, the OPR has an important role in ensuring that plans meet their legislative and policy requirements, which includes the requirement to undertake SEA.

As part of the plan evaluation role, the OPR reviews plans to ensure consistency with relevant national and regional policies; including the National Planning Framework and the Regional Spatial and Economic Strategies. The OPR also has a particular focus on climate change aspects of development plans.

The OPR has published a new Case Study Paper entitled '*Climate Action and the Local Authority Development Plan*'. The paper is available from the OPR website using the following link: <https://publications.opr.ie/view-file/89>. The paper demonstrates how local authority development plans have the potential to play a significant role, at local level, in supporting wider efforts to ensure that Ireland meets its ambitious climate mitigation targets.

Air

Air quality legislation in Ireland highlights the need "*to avoid, prevent or reduce harmful effects on human health and the environment as a whole*". In addition, it requires that Local Authorities where appropriate "*shall promote the preservation of best ambient air quality compatible with sustainable development*". These requirements should be incorporated by means of a specific plan objective / policy.

It is also worth noting that the [National Clean Air Strategy](#) (DCCA) is currently being prepared, with the intention of developing the necessary policies and measures to comply with new and emerging EU legislation, in addition to supporting climate change mitigation.

Recent [EPA reports on air quality](#) include the *Air Quality in Ireland 2020 Report* (EPA, 2021) which sets out the most recent status in each of the four air quality zones in Ireland. Where relevant, the EPA have also published [Urban Environmental Indicators for Nitrogen Dioxide levels in Dublin](#) (EPA, 2019) to also take into account.

The EPA manages the national ambient air quality monitoring network and measures the levels of a number of atmospheric pollutants. The pollutants of most concern are those whose main source is traffic such as Particulate Matter and Nitrogen Dioxide should to be taken into account. Information

in relation to these aspects is available at: <https://www.epa.ie/publications/monitoring--assessment/air/ambient-air-monitoring/>

Noise

In Ireland, the Environmental Noise Directive (END) is implemented through S.I. No. 549 of the Environmental Noise Regulations 2018, as amended in 2021^[1]. The END requires Member States to prepare and publish, every 5 years, strategic noise maps and noise management action plans for transport noise sources (roads, rail and airports) and industry. The aim of the END is to provide a common framework to avoid, prevent or reduce the harmful effects of exposure to environmental noise. In this context, as appropriate, the Plan should promote the implementation of the Environmental Noise Directive and associated national regulations.

<http://www.irishstatutebook.ie/eli/2018/si/549/made/en/print> & [S.I. No. 663/2021 - European Communities \(Environmental Noise\) \(Amendment\) Regulations 2021 \(irishstatutebook.ie\)](#)

The National Planning Framework <https://npf.ie/> recognises the significance of environmental noise and includes National Policy Objective 65 to '*Promote the pro-active management of noise where it is likely to have significant adverse impacts on health and quality of life and support the aims of the Environmental Noise Regulations through national planning guidance and Noise Action Plans.*' As part of the LA Performance framework (REMCI) reporting priorities, there are two new targets for noise in 2021 (i) NAPs Reporting Deadline, and (ii) Strategic Noise mapping data collection phase. A local authority WG are currently developing a 'Noise in Transportation - Planning Advice Note' which is expected to be finalised in May 2021⁵.

The noise action plans (NAPs) involve the identification of measures needed for the prevention and reduction of environmental noise. The LAs are now required to report progress (each year) on the implementation of their NAPs. The Noise Action Plans should be considered and reviewed by Local Authorities as required, to reflect the Plan period and associated development proposals. Consideration should be given to any relevant noise maps, and action plans. Strategic noise maps are designed to assess population noise exposure resulting from major roads, railways and airports. Noise action plans are designed to act as a means of managing environmental noise through land use planning, traffic management and control of noise sources. The fourth round of noise mapping is currently underway in Ireland and the maps should be completed in early 2023. <http://noise.eionet.europa.eu/help.html>.

For larger urban areas, the extra value placed on Quiet areas will be a key priority as part of noise action planning going forward. One of the key messages in the SOER 2020 Noise chapter is that '*LAs should promote the value of designating quiet areas in cities for health and wellbeing*'. <https://www.epa.ie/publications/monitoring--assessment/assessment/state-of-the-environment/irelands-environment-2020---chapter-4---environmental-noise.php/>. Separately, the SOER 2020 noise chapter also has three key messages around noise that could be relevant.

While there have been some positive developments around the designation of quiet areas, it's an area that could be promoted further. There might be opportunities to link to initiatives and research around green and blue spaces for health and wellbeing. Dublin City Council has designated eight Quiet Areas (QAs) while South Dublin County Council, Limerick City and County Council as well as

^[1] The Environmental Noise Regulations 2018 both revise and revoke the Environmental Noise Regulation 2006 and transpose the common noise assessment methods (CNOSSOS) Directive 2015/996.

⁵ The LA group is being led by Kildare Co Council (John O'Neill) and Limerick City & Co Council (Simon Jennings).

Kilkenny County Council are all doing some good work on the identification of quiet areas in their cities. Consideration should also be given to protect designated quiet areas in open country or along the coasts.

Waste Management

The Plan should promote the integration of land use zoning and development to existing and planned availability of waste management infrastructure and capacity. This includes the redevelopment of brownfield sites and management of contaminated soil. The Plan should also refer to and incorporate the relevant aspects of the [Waste Action Plan for a Circular Economy](#) (DECC, 2020) and the relevant Regional Waste Management Plan, along with recognition and provision for the beneficial management of materials that are prevented from becoming waste, or those waste materials that have achieved end-of-waste status.

In addition, the Plan should promote and incorporate the relevant recommendations in the following series of EPA reports including:

- Draft National Hazardous Waste Management Plan 2021-2027 (EPA, in preparation)
- EPA [National Waste Statistics](#)
- [National Waste Statistics Summary Report for 2019](#) (EPA, 2021)
- [Progress Report on the National Hazardous Waste Management Plan](#) (EPA, 2018)

These, and other resources are available at: <https://www.epa.ie/our-services/monitoring--assessment/assessment/irelands-environment/waste/>

Radon

Where significant concentrations of radon occur within the Plan area, these should be taken into account in the Plan or associated development control measures, as appropriate. Radon Maps are available at <https://www.epa.ie/environment-and-you/radon/radon-map/> which should be useful in identifying potential for significant radon accumulations within the Plan area. Reports on radioactivity monitoring of the Irish environment are also available at <https://www.epa.ie/environment-and-you/radon/>.

3. Wider Environmental Recommendations to Consider

Biodiversity

Biodiversity within the Plan area may include designated and undesignated sites, habitats, species and networks of importance at an international, national, regional or local level. The protection of ecological resources is a key consideration which needs to be addressed. In this regard, the Plan should include clear Policies/Objectives to conserve and protect all designated sites within, and in the vicinity of the Plan area (including the habitats and/or species for which they have been selected, or which they support), and should also promote the protection of undesignated sites and local biodiversity features.

The Plan should also promote the need to protect and where possible improve wider aspects of biodiversity including ecological corridors / linkages / green infrastructure, areas of important local biodiversity, the provision of buffer zones between developments and areas of significant biodiversity and ensuring appropriate control and management measures for invasive species.

Plans should be supported / informed by available habitat mapping (including wetland mapping) and other ecological surveys as relevant. The Plan should refer to and reflect the relevant commitments in Ireland's *National Biodiversity Action Plan 2017-21* (DCHG, 2017). Additionally, the NPWS have published the [Article 17 Report on the Status of EU Protected Habitats and Species in Ireland](#) (NPWS, 2019). Local Heritage/Biodiversity plans should be highlighted and should promote the implementation of key actions set out in these plans. Where not established, commitments should be included to prepare these plans.

Appropriate Assessment

The Plan should make reference to the DECLG Publication '[Appropriate Assessment of Plans and Projects in Ireland- Guidance for Planning Authorities](#)' (2009; revision 2010), in relation to the requirements of Article 6 of the Habitats Directive.

The Plan should refer to the need to comply with the requirements of Article 6 of the Habitats Directive. The Plan should, where relevant, be subject to the requirements of the Habitats Directive. It should include a clear policy/objective that sets out a requirement for AA Screening for new, reviewed or amended Plans and proposed projects, in relation to potential effects on European sites in view of their conservation objectives. Any potential for cumulative/in-combination effects associated with other relevant Plans/Programmes/Projects should be considered.

You should consult with the National Parks and Wildlife Service (NPWS) regarding screening of the *Plan* for Appropriate Assessment. Where Appropriate Assessment is required, any findings or recommendations should be incorporated into the SEA and the *Plan*, as appropriate.

Our AA GeoTool application has been developed in partnership with the NPWS. It allows users to select a location, specify a search area and gather available information for each European Site within the area. It is available at: <https://gis.epa.ie/EPAMaps/AAGeoTool>

Green & Blue Infrastructure

Where the development of new greenways and blueways is considered, these should look to support rather than replace existing green infrastructure. The EPA report '[Our Environment, Our Health, Our Wellbeing: Access to Blue/Green Spaces in Ireland](#)' and associated toolkit (EPA, 2021) explores the key forces and patterns at work in relation to access to blue/green spaces in Ireland and possible impacts in national, regional and local contexts through data analytics, visualisation and mapping.

Integrated Biodiversity Impact Assessment

In 2012, we published guidance on [Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes. Best Practice Guidance](#). This guidance aims to inform practitioners, plan/project proponents and consent authorities on integrating SEA, EIA and AA processes and requirements in order to streamline biodiversity considerations.

Energy Conservation & Renewable Energy

When considering energy conservation / renewable energy aspects of the Plan, where relevant, the [Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change](#) (DHPCLG, 2017) should be taken into account. The Government White Paper – *Ireland’s Transition to a Low Carbon Energy Future 2015-2030*, (DCENR) should also be considered.

The relevant renewable energy / energy conservation actions in the National Mitigation Plan should be integrated. Additionally, the Plan should, where relevant, include a commitment to prepare and implement an ‘Energy Conservation Strategy’ and associated awareness campaign within the lifetime of the Plan where feasible.

The Plan should also support and promote the need for energy conservation measures to be incorporated into buildings. Relevant guidance in this regard, can be found on the website of the Sustainable Energy Authority of Ireland: www.seai.ie.

There is merit in including a commitment where relevant and appropriate, to use energy derived from renewable energy systems (e.g. solar, wind, bioenergy, geothermal etc.) and energy storage networks and systems within the Plan area.

Landscape

The Plan should provide for the protection of designated scenic landscapes, scenic views, scenic routes and landscape features of national, regional, county and local value. The Plan should also take into account the landscape character adjoining the Plan area. Visual linkages between established landmarks and landscape features and views should be taken into account when land is being zoned and when individual development proposals are being assessed / considered. The *National Landscape Strategy* (DECLG, 2015) should be taken into account and integrated as appropriate into the Plan.

Geology / Geomorphology

The Plan should protect any designated Geological and Geomorphological NHAs/pNHAs, which may be present/designated within or adjacent to the Plan area in consultation with the Geological Survey of Ireland.

Human Health / Quality of Life

In addressing human health and quality of life, the Plan should consider the socioeconomic status of the population within the plan area and in particular should consider any socioeconomic inequalities. This is important to ensure that the Plan does not exacerbate any existing inequalities and ideally promotes and supports the balancing of existing socioeconomic inequalities.

The Plan should ensure provision of adequate and appropriate infrastructure and to serve both the existing community and likely future predicted increases in population within the Plan area. In preparing the Plan, there is merit in exploring current practice and opportunities with respect to promote the protection and, as appropriate, improvement of “Quality of Life”. Where relevant, the application of existing “Quality of Life Indices” would be considered in consultation with relevant statutory and non-statutory bodies/organisations. We also refer you to the relevant aspects already

referred to above under water, biodiversity, air, energy as the links between a high-quality environment and improved health and wellbeing are well established.

The EEA have published a report on the environment and health, that may be useful to consider. This report also highlights the importance of access to good quality green and blue space. It can be consulted at: <https://www.eea.europa.eu/publications/healthy-environment-healthy-lives>.

Transportation

The Plan should promote and as appropriate, provide for the provision of sustainable modes of transport. The Department of Transport Tourism and Sport '[Smarter Travel – A Sustainable Transport Future – Transport Policy for Ireland 2009-2020](#)' (DTTAS, 2009) should be referred to, in the context of possible initiatives which could be included as objectives within the Plan. The Plan should include and provide support for appropriate access to public transport, dedicated cycleways and pedestrian pathways, access to rapid charging infrastructure etc.

The transport-related actions in the National Mitigation Plan, Climate Action Plan 2019 (and 2021) and the National Planning Framework, should also be considered and integrated, as appropriate in the Plan. In seeking to support achieving a low carbon economy, it is important to consider and manage transport related emissions within the Plan area. In this regard the Plan should promote, and as appropriate provide for sustainable modes of transport.

Promoting the development of traffic management measures to reduce the potential for traffic congestion and associated vehicular emissions should be considered. In particular, it would be useful to prepare (and review existing) Integrated Traffic Management Plans, where relevant and appropriate, for the existing urban areas and proposed new urban developments to consider and address the short, medium and long-term traffic management requirements within the Plan area.

Infrastructure Planning

Where zoning/rezoning of lands and the introduction of new development is being proposed within the Plan area, the Plan should promote the need for an integrated planning approach to service any development proposed and authorised during the lifetime of the Plan in collaboration with key stakeholders.

The Plan should, (when considering additional development proposals), support and promote the provision of adequate and appropriate critical service infrastructure, surface and storm water drainage, public transport, waste management, community services and amenities etc. on a planned and phased basis. This is in the context of taking into account and addressing existing infrastructural inadequacies to meet the expected needs of predicted increases in population associated with the Plan implementation.

The potential impact on human health, habitats and species of ecological importance, flood risk and water quality should be taken into account in considering proposed additional infrastructure or in proposed upgrading of existing infrastructure.

Environmental Impact Assessment (EIA)

The Plan should highlight that, under EIA and Planning & Development legislation, certain projects arising during the implementation of the Plan may require an EIA. It should be noted that projects

may also need to take into account the requirements of the Habitats Directive and associated regulations. It should be noted that the EPA's role in relation to carrying out EIA relates only to activities which are licensable by the EPA, namely Industrial Emissions (IE), Integrated Pollution Control (IPC), and Waste Management Act activities and licensing of wastewater discharges.

Guidelines on information to be contained in Environmental Impact Statements and Advice Notes on Current Practice in preparation of EIS are available at the following link:

<https://www.epa.ie/publications/monitoring--assessment/assessment/guidelines-on-information-to-be-contained-in-environmental-impact-statements-ei.php>

[Draft Guidelines on information to be contained in Environmental Impact Assessment Reports](#) will have statutory footing once they are finalised.

Appendix 1a: Links to environmental guidance/reports

| | |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Air | https://www.epa.ie/publications/monitoring--assessment/air/ |
| Bathing Water | https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/ |
| Biodiversity | http://www.npws.ie/guidance-appropriate-assessment-planning-authorities http://www.npws.ie/publications |
| Climate Action | https://www.dccae.gov.ie/en-ie/climate-action/Pages/default.aspx https://www.epa.ie/publications/monitoring--assessment/climate-change/ https://www.climateireland.ie/ |
| Cumulative Effects Assessment | https://www.epa.ie/publications/monitoring--assessment/assessment/good-practice-guidance-on-cumulative-effects-assessment-in-sea.php |
| DHPLG Guidelines / Legislation | https://www.housing.gov.ie/planning/planning |
| Drinking Water | https://www.epa.ie/publications/monitoring--assessment/drinking-water/ |
| EIA | https://www.housing.gov.ie/planning/planning |
| Energy Conservation | www.seai.ie |
| Flood Risk | https://www.flooding.ie/Planning/ |
| Geology / Geomorphology | www.gsi.ie |
| Ground Water | https://www.epa.ie/our-services/monitoring--assessment/freshwater--marine/groundwater/ |
| Landscape Character Assessment | http://www.heritagecouncil.ie/ |
| Marine | https://www.marine.ie/Home/home |
| Noise | https://www.epa.ie/our-services/monitoring--assessment/noise/noise-mapping-and-action-plans/#d.en.86024 |
| Radon | https://www.epa.ie/our-services/monitoring--assessment/radiation/ |
| SEA EPA resources | https://www.epa.ie/publications/monitoring--assessment/assessment/Updated Draft SEA Guidelines (DHLGH, 2021) |
| State of Environment | https://www.epa.ie/our-services/monitoring--assessment/assessment/irelands-environment/state-of-environment-report/ |
| Surface Water | https://www.epa.ie/our-services/monitoring--assessment/freshwater--marine/# |
| Transportation | https://www.nationaltransport.ie/planning-policy/ https://www.tii.ie/technical-services/environment/ |
| Waste Management | https://www.epa.ie/our-services/monitoring--assessment/waste/national-waste-statistics/ https://www.epa.ie/our-services/monitoring--assessment/waste/ |
| Waste Water | https://www.epa.ie/environment-and-you/waste-water/ |

Note: The above list is indicative only; all of the above may not be relevant to a particular plan

Appendix 1b: Links to spatial environmental resources

| | |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Air | https://www.epa.ie/our-services/monitoring--assessment/air/# https://airquality.ie/ |
| Bathing Water | http://www.beaches.ie |
| Biodiversity | https://maps.biodiversityireland.ie/ https://www.birdwatchireland.ie/OurWork/PolicyAdvocacy/BirdSensitivityMapping/tabid/1312/Default.aspx https://www.npws.ie/research-projects/ecosystems-services-mapping-and-assessment http://www.wetlandsurveysireland.com/wetlands/map-of-irish-wetlands--/map-of-irish-wetlands---map/ |
| Drinking Water | https://www.epa.ie/our-services/monitoring--assessment/drinking-water/ |
| EIA | https://www.housing.gov.ie/planning/environmental-assessment/environmental-impact-assessment-eia/eia-portal |
| Flood Risk | www.floodinfo.ie |
| Geology / Geomorphology | http://www.gsi.ie/Mapping.htm |
| Ground Water | https://www.gsi.ie/en-ie/data-and-maps/Pages/Groundwater.aspx https://www.epa.ie/our-services/monitoring--assessment/freshwater--marine/groundwater/ https://epawebapp.epa.ie/hydronet/#Water%20Levels |
| Noise | https://gis.epa.ie/EPAMaps/ (Under Environment & Wellbeing) |
| Radon | https://www.epa.ie/environment-and-you/radon/radon-map/ |
| SEA EPA resources | www.enviromap.ie https://gis.epa.ie/EPAMaps/SEA (SEAGIS Reporting Tool) http://www.epa.ie/pubs/advice/ea/seaspatialinformationsourcesinventory.html |
| Spatial Planning GIS | www.myplan.ie https://www.epa.ie/our-services/monitoring--assessment/assessment/mapping/ http://gis.epa.ie/SeeMaps https://gis.epa.ie/EPAMaps/SEA https://www.enviromap.ie https://www.opr.ie/resources/ https://www.opr.ie/library/ |
| Surface Water | http://www.catchments.ie https://gis.epa.ie/EPAMaps/Water |

The Environmental Sensitivity Mapping (ESM) WebTool

The *Environmental Sensitivity Mapping (ESM) WebTool* is a decision support tool to assist SEA and planning processes in Ireland. The tool brings together over 100 datasets and allows users to create plan-specific environmental sensitivity maps. These maps can help planners examine environmental considerations, anticipate potential land-use conflicts, and help identify suitable development locations while also protecting the environment. It is available at www.enviromap.ie.

EPA SEAGIS Search and Reporting Tool

Our SEA WebGIS Tool has is publicly available at <https://gis.epa.ie/EPAMaps/SEA>. It allows users to produce an indicative report on key aspects of the environment in a specific geographic area It is intended to assist public authorities in SEA screening and scoping exercises.

The Office of the Planning Regulator (OPR)

As mentioned above in the Climate Change / Climatic Factors subsection, one of the statutory functions of the OPR is to evaluate and assess local authority development plans. A further statutory role of the OPR relates to research, training and public awareness. The relationship between SEA and plan-making is an area identified for further research and training, by both the EPA and OPR. The OPR works closely with the EPA and other agencies in driving innovation and learning in order to achieve shared objectives.

To that end, the OPR has developed a number of resources on their website including an online planning library, webinars and research papers. <https://www.opr.ie/research-and-training/>

Appendix II: Key national & regional plans and programmes⁶

| | |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| National | |
| <i>Planning</i> | <ul style="list-style-type: none"> - National Planning Framework (DHLGH) - Rural Development Programme (DAFM) - Urban Development & Building Heights Guidelines for Planning Authorities (DHLGH) |
| <i>Agriculture</i> | <ul style="list-style-type: none"> - CAP Strategic Plan 2023-2027 / FoodWise 2025 / Agri Food Strategy 2030 (DAFM) |
| <i>Biodiversity</i> | <ul style="list-style-type: none"> - National Biodiversity Plan (DHLGH) - National Peatland Strategy, SAC Raised Bog Management Plan (DHLGH) |
| <i>Climate</i> | <ul style="list-style-type: none"> - Climate Action Plan 2019 (DECC) - Sectoral Climate Change Adaptation Strategies and Low Carbon Roadmaps - National Mitigation Plan (DECC) - National Adaptation Framework (DECC) - National Policy Position on Climate Action and Low Carbon Development (DECC) - EU Climate Adaptation Strategy 2021 |
| <i>Communications</i> | <ul style="list-style-type: none"> - National Broadband Plan (DECC) |
| <i>Energy</i> | <ul style="list-style-type: none"> - National Renewable Electricity Policy Framework (in preparation DECC) - Grid 25 Implementation Strategy (Eirgrid) - Framework for Alternative Fuel Infrastructure in Transport (DoT) - Offshore Renewable Energy Development Plan (DECC) - National Bioenergy Plan (DECCE) |
| <i>Forestry</i> | <ul style="list-style-type: none"> - National Forestry Programme / Forestry Policy Review (DAFM) |
| <i>Landscape</i> | <ul style="list-style-type: none"> - National Landscape Strategy (DHLGH) |
| <i>Tourism</i> | <ul style="list-style-type: none"> - 10 Year Tourism Strategy (Fáilte Ireland) |
| <i>Transport</i> | <ul style="list-style-type: none"> - Smarter Transport / Strategic Framework for Integrated Land Transport (DoT) - National Greenway Strategy (DoT) |
| <i>National Overview</i> | <ul style="list-style-type: none"> - State of the Environment Report 2020 (EPA) |
| <i>Waste</i> | <ul style="list-style-type: none"> - Waste Action Plan for a Circular Economy (DECC, 2020) |
| <i>Water</i> | <ul style="list-style-type: none"> - Draft National Hazardous Waste Management Plan (EPA, in preparation) - National River Basin Management Plan for Ireland (DHLGH) - National Marine Planning Framework (DAFM) - Seafood Operation Programme / Strategic Aquaculture Programme (DAFM) - Harnessing Our Ocean Wealth (DAFM) - Water Services Strategic Plan (Irish Water) - Capital Investment Programme (Irish Water) - Draft Water Resources Management Plan (Irish Water) - National CFRAMS Programme (OPW) |
| Regional | |
| <i>Planning</i> | <ul style="list-style-type: none"> - Regional Spatial and Economic Strategies - Shannon Integrated Framework Plan |
| <i>Energy</i> | <ul style="list-style-type: none"> - County Renewable Energy / Wind Energy Strategies |
| <i>Forestry</i> | <ul style="list-style-type: none"> - Forestry and Freshwater Pearl Mussel Plan (DAFM, in preparation) |
| <i>Tourism</i> | <ul style="list-style-type: none"> - Wild Atlantic Way - County Tourism Strategies / Visitor Experience Development Plans |
| <i>Transport</i> | <ul style="list-style-type: none"> - Shannon Tourism Masterplan - Transport Strategy for Greater Dublin Area - National Investment Framework for Transport Investment - Metropolitan Area Transport Strategies |
| <i>Waste</i> | <ul style="list-style-type: none"> - Regional Waste Management Plans |
| <i>Water</i> | <ul style="list-style-type: none"> - Relevant CFRAMS Flood Risk Management Plans - Pollution Reduction Programmes for Shellfish Waters |

⁶ Plan-makers should identify key relevant plans/programmes/strategies in the SEA. The above list is indicative only; all of the above may not be relevant to a particular plan.

Appendix 1.3



Iascach Intíre Éireann
Inland Fisheries Ireland

Dr Tony Quinn
Braniff Associates
Chartered Town Planning Consultants
5 Windsor Avenue North
Malone Road

05 May 2022

RE: SEA Scoping Report for the proposed Beara Breifne Way Trail Plan
2021/2022

Dear Dr. Quinn,

Inland Fisheries Ireland (IFI) is a Statutory Body whose principal function is the protection, management and conservation of the inland fisheries resource. The fisheries resource includes the physical habitat upon which the fishery relies, the facilities and access, the quantity and quality of the water and the plant and animal life on which fish depend for shelter and food and the spawning areas where in fish deposit their eggs. The protective role of IFI relates to all aspects of the aquatic environment and all factors that influence the biotic communities within waters, which in any way relate to the propagation of fish stocks / populations.

It is imperative that any proposed works at or near watercourses are planned, designed and constructed in a manner that do not impact negatively on either the fishery resource itself or the stakeholder usage thereof. In this context IFI has developed “Guidelines on protection of fisheries during construction works in and adjacent to waters”.

<https://www.fisheriesireland.ie/media/guidelines-on-protection-of-fisheries-during-construction-works-in-and-adjacent-to-waters>

In general terms, IFI would ask that full cognisance is given to these Guidelines when planning future works.

IFI would ask to be consulted with design details for any specific proposals, to permit assessment of the potential impacts on fisheries.

Yours sincerely,

Michael Mc Partland.
Environmental Officer.



An Roinn Comhshaoil,
Aeráide agus Cumarsáide
Department of the Environment,
Climate and Communications



Dr Tony Quinn
Braniff Associates
5 Windsor Avenue North
Malone Road
Belfast BT96EL

02 June 2022

Re: SEA Scoping Report for the proposed Beara Breifne Way Trail Plan

Your Ref: n/a

Our Ref: 22/169 [c.f. 21/336]

Dear Dr. Quinn,

Geological Survey Ireland is the national earth science agency and is a division of the Department of the Environment, Climate and Communications. We provide independent geological information and advice and gather various data for that purpose. Please see our [website](#) for data availability. We recommend using these various data sets, when conducting the EIAR, SEA, planning and scoping processes. Use of our data or maps should be attributed correctly to 'Geological Survey Ireland'.

With reference to your email received on the 28 April 2022, concerning the SEA Scoping Report for the proposed Beara Breifne Way Trail Plan, Geological Survey Ireland would like to make the following additional comments since our last response 21/336.

Geoheritage

We note in Table 7, SEA Topic 'Soil/Geodiversity', two of the positive impacts of the Beara Breifne Way Trail Plan:

- Targeted walking routes with signage prevent widespread trampling
- Potential to improve educational awareness of geological features

During the planning and construction stages of the trail, we would recommend consultation of our Geological Heritage Sites online [Map Viewer](#) to ensure the recognition and appropriate protection of any County Geological Sites (CGSs) that are in the vicinity of the proposed trail. There may be potential impacts on the integrity of current CGSs envisaged by the proposed trail development, should these sites not be assessed as constraints.

We would be happy to assist with the geological content of any potential trail signage and we are available if you require any further information, or would like support in the future promotion of these sites through education, outreach or future tourism initiatives. Please feel free to contact Clare Glanville (Clare.Glanville@gsi.ie).

Groundwater

We note mention of 'High aquifer vulnerability' as one of the potential negative impacts in Table 7, SEA Topic 'Soil/Geodiversity'. We recommend the ongoing use and consultation of Geological Survey Ireland's Groundwater maps and datasets during the planning and construction phases of the trail plan. These maps and datasets are updated regularly and refined as new data becomes available, further information is available on our [Map viewer](#).

I hope that these comments are of assistance, and if we can be of any further help, please do not hesitate to contact me Clare Glanville, or my colleague Trish Smullen at GSIPlanning@gsi.ie.

Yours sincerely,

Clare Glanville
Senior Geologist
Geological Survey Ireland



Enc: Table - Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes.

Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes
following European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018
(S.I. No. 296 of 2018)

| Geological Survey Ireland Programme | Dataset | Relevant EIA Topic | Coverage | Description / Notes / Limitations | Link to Geological Survey Ireland map viewer |
|-------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Geohazards | Landslide: National landslide database and landslide susceptibility map | Land & Soil/Climate/Landscape | National | Associated guidance documentation relating to the National Landslide Susceptibility Map is also available. | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b68cf1e4a9044a5981f950e9b9c5625c |
| Geohazards | Groundwater Flooding (Historic) | Water | Regional | Provide information of historic flooding, both surface water and groundwater. [A lack of flooding presented in any specific location of the map only indicates that a flood has not been detected. It does not indicate that a flood cannot occur in that location at present or in the future] | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc |
| Geohazards | Groundwater Flooding (Predictive) | Water | Regional | Provides information on the probability of future karst groundwater flooding (where available). [The maps do not, and are not intended to, constitute advice. Professional or specialist advice should be sought before taking, or refraining from, any action on the basis of the flood maps] | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc |
| Geohazards | Radon Map | Land & Soils/Air | National | | http://www.epa.ie/radiation/radonmap/ |
| Geoheritage | County Geological Sites as adopted by National Heritage Plan and listed in County Development Plans | Land & Soils/Landscape | Regional | All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS. | https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0b2fbd2aaac3c228 |
| Geological Mapping | Bedrock geology: | Land & Soils | National | 1:100,000 scale and associated memoirs. | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&scale=0 |
| Geological Mapping | Bedrock geology: | Land & Soils | Regional | 1:50,000 scale | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&scale=0 |
| Geological Mapping | Quaternary geology: Sediments | Land & Soils | National | 1:50,000 scale | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&scale=0 |
| Geological Mapping | Quaternary geology: Geomorphology | Land & Soils | National | 1:50,000 scale | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&scale=0 |
| Geological Mapping | Physiographic units: | Land & Soils | National | Broad-scale physical landscape units mapped at 1:100,000 scale in order to be represented as a cartographic digital map at 1:250,000 scale | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=afa76a420f54877843aca1bc075c62b |
| Geological Mapping | GeoUrban: Spatial geological data for the greater Dublin and Cork areas | Land & Soils | Regional | Includes 3D models | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b794c16093bb2212a850c6e&scale=0 |
| Geological Mapping | Geotechnical database | Land & Soils | National | Digitised geotechnical and Site Investigation Reports and boreholes which can be accessed through online downloads | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a21718be1873d47a585a3f0415b4a724c |
| Goldmine | Historical data sets including geological memoirs and 6" to 1 mile geological mapping records | Land & Soils/Water | National | available online | https://secure.dcca.gov.ie/goldmine/index.html |
| Groundwater & Geothermal | Groundwater resources (aquifers) | Water | National | Data limited to 1:100,000 scale; sites should be investigated at local scale | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| Groundwater & Geothermal | Groundwater recharge. | Water | National | Data limited to 1:40,000 scale; sites should be investigated at local scale; long term annual average recharge | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| Groundwater & Geothermal | Groundwater vulnerability. | Water | National | Data limited to 1:40,000 scale; sites should be investigated at local scale | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| Groundwater & Geothermal | Group scheme and public supply source protection areas. | Water | National | Not all PWS / GWS have SPZ / ZOC. Check with IW / coco / NFGWS for private supplies. | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| Groundwater & Geothermal | Groundwater Protection Schemes | Water | National | Data is limited to scale of 1:40,000. Data does not include all of the source protection areas | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| Groundwater & Geothermal | Catchment and WFD management units. | Water | National | | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| Groundwater & Geothermal | karst specific data layers | water | National | For areas underlain by limestone, includes karst features, tracer test database; turf/lough water levels (gwlevel.ie) | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| Groundwater & Geothermal | Wells and Springs | Water | National | Not comprehensive, there may be unrecorded wells and springs | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef |
| Groundwater & Geothermal | Groundwater body Descriptions | Water | National | Not exhaustive; only those in designated SACs; could be other GWDTEs; for more information contact NPWS / EPA / site investigations Also, Roadmap for a Policy and Regulatory Framework for Geothermal Energy, November 2020 | https://www.gsi.ie/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx |
| Groundwater & Geothermal | Geothermal Suitability maps | Land & Soils/Water | National | | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9eae46bee08de41278b90a9916d0c0b9e |
| Marine & Coastal Unit | INFOMAR - Ireland's national marine mapping programme; providing key baseline data for Ireland's | Water | National | | https://secure.dcca.gov.ie/GSI/INFOMAR_VIEWER/ |
| Marine & Coastal Unit | CHERISH - Coastal change project (Climate, Heritage and Environments of Reefs, Islands, and Headlands) | Water | Regional | | http://www.cherishproject.eu/en/ |
| Marine & Coastal Unit | Coastal Vulnerability Index (CVI). | water / Land & Soils | Regional | Currently the project is being carried out on the east coast and will be rolled out nationally | https://www.gsi.ie/en-ie/programmes-and-projects/marine-and-coastal-unit/projects/Pages/Coastal-Vulnerability-Index.aspx |
| Minerals | Aggregate potential | Land & Soils/Material Assets | National | Consideration of mineral resources and potential resources as a material asset which should be explicitly recognised within the environmental assessment process | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956 |
| Minerals | Active quarries | Land & Soils | National | | https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956 |
| Minerals | Historic mines | Land & Soils/Cultural Heritage | National | Inventory and Risk Classification 2009. Environmental Protection Agency, Economic Minerals Division and Geological Survey Ireland (DECC). | https://gis.epa.ie/EPAMaps/default?zesting=7&northing=7&lid=EPA:LEMA_Facilities_Extractive_Facilities https://www.epa.ie/enforcement/mines/ |
| Tellus | Geochemical data: multi-element data for shallow soil, stream sediment and stream water | Land & Soils | Regional | A national mapping programme | https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754 |
| Tellus | Airborne geophysical data including radiometrics, electromagnetics and magnetics | Land & Soils | Regional | A national mapping programme | https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754 |
| Tellus | urban geochemistry mapping (Dublin SURGE project). | Land & Soils | Regional | | https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754 |

Notes:

- The maps and data listed above are available on the Geological Survey Ireland map viewer <https://www.gsi.ie/en-ie/data-and-maps/Pages/default.aspx>
- Please read all disclaimers carefully when using Geological Survey Ireland data
- Geological Survey Ireland and Irish Concrete Federation published guidelines for the treatment of geological heritage in the extractive industry in 2008.

Strategic Environmental Assessment Team
DAERA - NIEA
Klondyke Building
Cromac Avenue
Gasworks Business Park
Belfast
BT7 2JA

Dr Tony Quinn
Principal
Braniff Associates
Chartered Town Planning
Consultants
5 Windsor Avenue North
Malone Road

Email: SEATeam@daera-ni.gov.uk

6th June 2022

**Re: SEA Scoping Report for the proposed Beara Breifne Way Trail Plan
2021/2022**

Dear Mr Quinn,

The Department of Agriculture, Environment and Rural Affairs Northern Ireland (DAERA) and (supported with a service level agreement) DfC Historic Environment Division (HED), has considered the consultation and associated documents and our opinions are set out below.

General SEA Comments

Where the Republic of Ireland shares a border with Northern Ireland, there is the potential for transboundary impact. We would suggest that to ensure that there are no adverse environmental impacts on Northern Ireland that adequate mitigation and monitoring measures are highlighted in the Environmental Report.

We would like the SEA Environmental Report to contain a clear statement indicating the opinion (and the reasons for it), about whether or not the implementation of the Plan, in combination with any identified measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment, is likely to have a significant effect on Northern Ireland.

Water Management Unit Comments

The SEA should consider any potential transboundary issues relating to the aquatic environment, including the potential disturbance to/impact on NI/Rol



migratory/mobile species such as salmon. Such species rely and can be impacted by water quality and water resource issues.

Cross border river basins require special attention as ecological functionality cross jurisdictional boundaries. The SEA should consider all potential impacts including those which may impact Northern Ireland both directly and indirectly.

DAERA has published the Draft River Basin Management Plan for the 3rd cycle period which runs from 2021-2027 which should also be considered as part of the assessment. The draft plan provides an update on the health of Northern Ireland's water environment (the status of water bodies) and sets out our targets (objectives) and actions (programme of measures) on how we want to improve our water environment in the next six years. The draft plan covers the North Western, Neagh Bann and North Eastern river basin districts (RBD) and includes detailed status updates on each RBD.

The documents can be downloaded from the consultation webpage:

<https://www.daera-ni.gov.uk/consultations/consultation-draft-3rd-cycle-river-basin-management-plan-2021-2027>

It should be noted that the finalised 3rd Cycle River Basin Management Plans are due to be published later in 2022.

Natural Environment Division (NED) Comments

NIEA Natural Environment Division works to ensure that Northern Ireland's special natural environment, including its flora and fauna and landscapes, is conserved, enhanced and managed for the benefit of this and future generations, thereby contributing to sustainable development.

NED are content with the overall approach and scope of the SEA, objectives and the issues that will be addressed, this should also include potential impacts on NI.

A Habitats Regulations Assessment should be carried out in parallel to the SEA, this should also include designated sites within Northern Ireland. Appropriate Assessments should refer to the status of habitats and species in the relevant reports available on the JNCC website as follows: UK Article 17 report for the Habitats Directive <https://jncc.gov.uk/our-work/article-17-habitats-directive-report-2019/> and the UK Article 12 report for the Birds Directive <https://jncc.gov.uk/our-work/european-reporting/#birds-directive-reporting>



Please note following the decision of the United Kingdom to leave the European Union, the collective term of “Natura 2000” sites the network of European protected sites are now known as “National Site Network” sites within the United Kingdom, and is including Northern Ireland.

Relevant plans and programmes in Northern Ireland that may be worth including in your considerations are:

- The Strategic Planning Policy Statement (SPPS) for Northern Ireland
- Planning Policy Statements (PPS – in particular PPS2 and PPS18). It should be noted that the PPS’s will be superseded by Local Development Plans when they are adopted.
- Biodiversity Strategy for NI to 2020 <https://www.daera-ni.gov.uk/publications/biodiversity-strategy-northern-ireland-2020-0>
- Draft Environment Strategy <https://www.daera-ni.gov.uk/consultations/esni-public-discussion-document>
- The Draft NI peatland policy: <https://www.daera-ni.gov.uk/consultations/ni-peatland-strategy-consultation>.
- The Draft Green Growth Strategy [Consultation on the draft Green Growth Strategy for Northern Ireland | Department of Agriculture, Environment and Rural Affairs \(daera-ni.gov.uk\)](https://www.daera-ni.gov.uk/consultations/ni-peatland-strategy-consultation)
- Northern Ireland Energy Strategy 2050 [Northern Ireland Energy Strategy 2050 | Department for the Economy \(economy-ni.gov.uk\)](https://www.daera-ni.gov.uk/consultations/ni-peatland-strategy-consultation)

A number of useful information sources that highlight the current state of the environment in Northern Ireland at a regional level and which could be referenced include:

Northern Ireland State of the Environment Reports: <https://www.daera-ni.gov.uk/publications/state-environment-report-2013>

Northern Ireland Environmental Statistics Reports: <https://www.daera-ni.gov.uk/articles/northern-ireland-environmental-statistics-report>

Other relevant web-links are;

Designated Scientific Sites: www.daera-ni.gov.uk/landing-pages/protected-areas

Regional Landscape Character Map viewer: <https://www.daera-ni.gov.uk/services/regional-landscape-character-areas-map-viewer>



DAERA have a map browser for NI protected sites and known priority habitat:

www.daera-ni.gov.uk/services/natural-environment-map-viewer

Our natural environment datasets are available at the link below:

www.daera-ni.gov.uk/articles/download-digital-datasets

Marine and Fisheries Comments

The Marine Plan Team (MPT) DAERA – Marine & Fisheries Division welcome the opportunity to comment on the Scoping Report for the preparation of a Strategic Environmental Assessment (SEA) of the proposed Beara Breifne Way Trail Plan 2021/2022 to be developed by Fáilte Ireland, and in conjunction with Outdoor Recreation Northern Ireland (ORNI).

The MPT understand the proposal relates to the proposed upgrading of the The Beara Breifne Way (BBW), which is the longest waymarked trail in Ireland that extends for circa 700kms from Dursey Sound in Co. Cork to Blacklion in Co. Cavan. It is further understood that the proposal relates to the following trail improvements:

- Upgrades to existing Trail route, including new build on sections where there is no built trail, to enhance accessibility, safety, and experience;
- New build reroutes of Trail to facilitate off-road journeys and/or safeguard the more sensitive environmental aspects of the route; and
- Potential Trail links to other tourism assets.

To assist, the following specific points are provided for consideration in progressing the SEA Scoping Report to its respective final form.

Strategic Environmental Assessment Draft Scoping Report:

The MPT have reviewed the comprehensive Scoping Report for the proposal and note the inclusion of the Draft National Marine Planning Framework (DAFM) in Section 5.5 - Relationship with other Plans and Programmes pg 8. It is suggested that this should now be changed to the National Marine Planning Framework (DHLGH), as it was published in July 2021. To assist, should any of the future proposals be considered to have hydrological connections to the NI marine



environment it is suggested that the following NI relevant legislation and plans are included, for transboundary consideration, in the Regional NI section on pg 8 and in future iteration:

- the Marine and Coastal Access Act 2009;
- the Marine Act (Northern Ireland) 2013;
- the UK Marine Policy Statement (MPS); and
- the draft Marine Plan for Northern Ireland.

The [UK Marine Policy Statement 2011](#) and the [draft Marine Plan for Northern Ireland](#) published in April 2018 are both available on the DAERA website at: [Marine planning | Department of Agriculture, Environment and Rural Affairs \(daera-ni.gov.uk\)](#).

Inland Fisheries Advice:

DAERA Inland Fisheries, is a core branch within Marine and Fisheries Division of the Department of Agriculture Environment and Rural Affairs. It has a statutory remit for the conservation, protection, development and improvement of salmon and inland fisheries under the Fisheries Act (NI) 1966 (as amended).

DAERA Inland Fisheries is the implementing authority under the Convention for the Conservation of Salmon in the North Atlantic. This treaty requires signatory states to develop programmes of work to conserve, rationally manage and improve Atlantic salmon populations and their habitats within their jurisdiction. This work is scrutinised by the North Atlantic Salmon Conservation Organisation (NASCO). DAERA Inland Fisheries welcomes the opportunity to engage in the SEA Scoping Report for the proposed Beara Breifne Way Trail Plan 2021/2022

Inland Fisheries notes the SEA Scoping Report document provided and would have some recommendations in relation to the potential for impacts to fisheries interests in transboundary rivers and watercourses. Inland Fisheries notes that the potential for deleterious material (in the form of sediments and hydro-carbons etc.) to enter watercourses in the vicinity of any proposed works is to be addressed in the SEA, we would recommend that it should also consider the potential impacts of river/watercourse crossings to habitat fragmentation and fish passage. Whilst it is unclear how much of the proposed route of the path will require augmentation and difficult to ascertain the location of any crossing points and



subsequently any potential impacts at this stage there may be this potential. It is clear that the regions through which the path route is to be are not designated for any fish species and Inland Fisheries would recommend that when considering potential impacts all priority fish species as listed in the NIEA Priority Species list and their habitats are taken into account.

Inland Fisheries will continue to provide advice when required and also as a statutory consultee will assess any proposed development received through the planning system and comment on any potential impacts.

Climate Change Mitigation Branch

Climate Change Mitigation Branch refers Fáilte Ireland to the recently passed Climate Change Bill (Northern Ireland) 2022.

<http://www.niassembly.gov.uk/assembly-business/legislation/2017-2022-mandate/primary-legislation---bills-2017---2022-mandate/climate-change-bill/>

The UK Climate Change Committee (CCC) recently published its UK Climate Risk Independent Assessment 2021 which identifies the risk and opportunities posed by climate change over the next five years. A summary for Northern Ireland can be found below.

<https://www.ukclimaterisk.org/independent-assessment-ccra3/national-summaries/>

Please contact the SEA Team at seateam@daera-ni.gov.uk should you have any queries or require clarification.

Yours sincerely



Donna Whelan
Senior Scientific Officer
Countryside, Coast and Landscape
Northern Ireland Environment Agency







Historic Environment Division

Klondyke Building
Cromac Avenue
Gasworks Business Park
Malone Lower
BELFAST BT7 2JA

Telephone: (028) 90569840

Email : Liam.mcquillan@communities-ni.gov.uk
Naoimh.quinn@communities-ni.gov.uk

Date: 27/05/2022

HISTORIC ENVIRONMENT DIVISION COMMENTS RE: SCOPING REPORT FOR STRATEGIC ENVIRONMENTAL ASSESSMENT - BEARA BREIFNE WAY TRAIL PLAN 2021-22

DfC Historic Environment Division (HED) operate via a Service Level Agreement with colleagues in DAERA in relation to SEA, whereby, we provide authoritative comment and advice in relation to matters of Cultural Heritage including archaeological and architectural heritage. We make the following comments in respect of the documentation received by our office on 11/05/2022.

HED provided comment on the SEA Screening report for the Beara Breifne Way Trail Plan in October 2021. We welcome that our comments have been taken into account and that cultural heritage has been scoped in for assessment within the SEA.

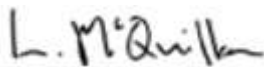
The intertwined relationship between the natural and historic environment is revealed in the landscape character of a place, enriched by heritage assets, which can often provide a habitats for biodiversity. A large number of heritage assets predate the border itself and transboundary qualities such as the inter-relationships of sites, buildings and places and their settings should be addressed in the plan. HED welcomes the potential of the trail to realise positive outcomes for the historic environment, namely through enhanced understanding by way of carefully designed and positioned interpretation and opportunities to enrich the experience and enjoyment of heritage assets and their settings through improved accessibility. Identified links to the Ulster Way, and transboundary heritage assets such as the Sligo to Enniskillen greenway, a former railway line, presents shared tourism opportunities particularly at Belcoo and around the Marble Arch Caves UNESCO Global Geopark. Management of increased visitors numbers and any associated development proposals e.g. for tourist accommodation at destination points, such as the Belcco area, should also be addressed in the plan and the SEA. At the project level, aligning new trail sections along historic routeways, townland borders, field boundaries, and retaining local features, such as gates and gate posts, presents further opportunities to conserve and enhance historic landscape character, and the inter-relationship of transboundary cultural heritage.

HED welcomes the sample objective *'to protect, conserve and enhance the historic environment, heritage assets and their settings'* as outlined in Table 1. Acknowledging the potential for transboundary impacts on cultural heritage, we advise that Table 7 should include, *'direct and indirect impacts on heritage assets and their settings'*, both designated and non-designated. Considering impacts only for those sites and structures which are 'protected', does not fully convey the likely significant effects on cultural heritage.

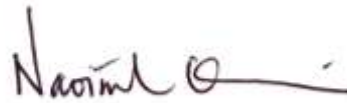
Our historic environment record includes both designated and non-designated heritage assets, which may inform understanding of the historic landscape context and should be used in this process of information gathering to understand where there is a likelihood or potential for transboundary impacts on cultural heritage, the associated constraints, and potential mitigation measures. Our datasets are available to download at [Historic Environment Digital Datasets | Department for Communities \(communities-ni.gov.uk\)](https://communities-ni.gov.uk/historic-environment-digital-datasets). We also attach a link to our historic environment map viewer [Historic Environment Map Viewer | Department for Communities \(communities-ni.gov.uk\)](https://communities-ni.gov.uk/historic-environment-map-viewer).

Should you have any queries in regard to the content of our response please contact us at the above address.

Yours sincerely



Liam McQuillan MCIfA
Senior Archaeologist



Naoimh Quinn RIBA
Senior Architect

HERITAGE RECORDS AND DESIGNATIONS BRANCH