

Preliminary Impact Analysis

Wild Atlantic Way Monitoring

A Report prepared for Fáilte Ireland

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1. Introduction	3
2. Survey Methodology	4
3. Results	4
3.1. Malin Head, Co Donegal.....	5
3.2. Slieve League, Co Donegal	7
3.3. Downpatrick Head, Co Mayo	9
3.4. Keem Bay, Achill Island	11
3.5. Cliffs of Moher	13
3.6. Mizen Head	15
3.7. Loop Head	16
3.8. Old Head of Kinsale	18
4. Key Impacts.....	20
5. Preliminary Conclusions.....	23

1. Introduction

The Wild Atlantic Way is located along the west coast of Ireland which contains Ireland's largest concentrations of sites that are designated for protection under the Habitats Directives.

A Strategic Environmental Assessment and an Appropriate Assessment [of effects on designated sites] pointed to the need to monitor the effects of the implementation of the Wild Atlantic Way Operational Programme – to ensure that unintended adverse effects would be identified and avoided. The monitoring also serves the purpose of establishing a baseline of existing effects – to help to identify any effects of increases or changes of effects due to the gradual establishment of the Wild Atlantic Way.

Survey work was carried out in 2015 which demonstrated that existing patterns of visitor activity generally cause very low levels of effect on the environment. However, the survey work did establish that there are some areas where impacts do occur.

This is a preliminary report that investigates the likely causes of effects that were recorded by monitoring of visitors and ecology at Discovery Points along the Wild Atlantic Way. The survey work in 2015 examined sites and their contexts – first to establish patterns of visitor activity and second to examine ecological effects in areas found to have been frequented by visitors.

The report concentrates on sites where High Levels of Impact [Category 3] were recorded at least once.

This report is an account of site visits to eight signature WAW sites. A brief site description is followed by an overview of the current and potential impacts at each site. Each of the sites visited was a tourism/recreation attraction prior to the development of the Wild Atlantic Way. As a result, many of the impacts identified have been developing over many years of visitor use. These impacts are from ongoing and pre-existing climatic/environmental impacts such as erosion and habitat development, impacts from agriculture and tourism/recreation impacts.

The objective of this preliminary report is to identify and report on existing, emerging visitor and/or other impacts.

2. Survey Methodology

In late June and July six of the sites were visited by the report authors each of whom had experience in the assessment of visitor impact assessment on soils and vegetation. The sites were walked, photographed and a preliminary assessment of vegetation, soils, and tracks were made. Existing tracks and desire lines on the site were examined to determine the range of impact types across the sites. A desire line can be a path created as a consequence of erosion caused by human or animal foot-fall or traffic. The path usually represents the shortest or most easily navigated route between an origin and destination. In December 2016 two further sites, Malin Head and Slieve League were assessed by one of the authors (KB).

The purpose of this survey was to establish categories of damage, natural erosion, vegetation trampling, vegetation loss, soil erosion and identify likely drivers of this damage. Impact levels were categorised as shown in below.

Low Impact (Category 1)	No impact or a discernible impact i.e. no significant, lasting damage is identified
Medium Impact (Category 2)	A short term, reversible effect that is intermittent but will have no significant, long term impact
High/Severe Impact (Category 3)	Severe effect that has potential to have a significant, long-term, irreversible or permanent impact

The work is a scoping assessment, the results of which will facilitate more focused damage assessment and site monitoring which in turn could inform any management plans that are developed in the future.

3. Results

Sites where High Levels of Impact [Category 3] were recorded at least once were;

- Malin Head
- Slieve League
- Downpatrick Head
- Keem Bay
- Cliffs of Moher
- Loop Head
- Mizen Head
- Old Head of Kinsale

The Killary harbour site was excluded from assessment as the High Impacts recorded were to the car park which was under construction at the time of the initial survey.

3.1. Malin Head, Co Donegal

Landscape Type: Rocky shore/peat/grassland in peninsular coastal context

Site Description

The site attracts visitors for being the most northerly point in the mainland of Ireland.

Malin Head is located within the North Inishowen Coast Special Area of Conservation (SAC) and is a proposed Natural Heritage area (pNHA). The site is an SAC for a number of habitats and species and the area is also of significant geological interest.

The Napoleonic tower and three concrete buildings located nearby were used as observation posts during both World Wars. These are listed buildings. The 'EIRE' sign made from concrete and rocks was constructed on the mainland to inform planes flying overhead during World War II that they were passing over the neutral state of Ireland.

The site comprises of two small car parks and a cliff top walk. Donegal County Council has approved Planning Permission for a new car park and toilet facility south of Malin Head at the lower car park.

The site is privately owned and is grazed by sheep. The landowner actively contributes to site maintenance.



The constructed trail at Malin Head with eroded peat soils above the trail. Vegetation loss on slopes can lead to rapid erosion of the shallow peat and mineral soils by runoff from heavy rainfall events. In recent years, the number of such rainfall events has increased at Malin.

Impacts identified

A number of trails extend from the car parks and generally follow the contour along the edge of the coast. A path has recently been developed and is finished to a high standard. The shallow soils in the area adjacent to the EIRE sign are generally eroded. Vegetation cover has been lost and the exposed soil is vulnerable to erosion from water runoff.

Sheep grazing in conjunction with trampling by visitors is an added pressure on vegetation at the site.

Visitors do not always remain on the main path. Informal trails cross the site and in time loss of vegetation and soil erosion will happen. An example of this can be seen in the area around the EIRE

sign. Fencing has focused damage on the fence perimeter as people walk to points where they can access the field and sign.

Key Impact Observations

The monitoring of visitor movement on the site could facilitate the control of damage associated with the developing network of trails at the site.

Impacts to vegetation and soils throughout the site can be limited with information on:

- a. Visitor movement along informal tracks and across vulnerable vegetation and soils
- b. Sheep grazing in areas of high visitor numbers
- c. Facility design, location of fencing, access to coastal track from car parks

3.2. Slieve League, Co Donegal

Landscape Type Montane/upland/peat in peninsular coastal context

Site Description

Slieve League cliffs are located on the north-west coast of Donegal approximately five kilometres from the town of Carrick. They are among the highest, accessible sea cliffs in Europe. Slieve League is located within the Slieve League Special Area of Conservation (SAC) and the West Donegal Coast Special Protection Area (SPA). The site is designated as an SAC for a number of habitats and species and as an SPA for the protection of endangered. The area is also of significant geological interest.

The site comprises of a lower car park and toilet block and an upper car park facilitating approximately 20 cars. There is a walking trail towards the summit of Slieve League at the site. Visitor facilities include a large viewing platform, interpretation panels, picnic benches and benches. A pitched pathway leads towards the peak of Slieve League. The entire site is grazed by sheep.



Slieve League trails. Damage is generally associated with the trail to the summit. Enhancement of the trail has the potential to bring many inexperienced walkers to higher ground and the dangers of exposure in suddenly changing weather conditions. In addition, movement off the trail to informal viewing points will lead to loss of cliff side vegetation and soil.

Impacts identified

This is an extensive site. Visitor activity that extends beyond the car park and formal viewing points is along the trail to the summit of Slieve League. The trail has been constructed over a number of years and has the advantage of focusing walkers to one durable surface. However, associated with the trail are informal trails and areas of vegetation and peat erosion. Networks of informal trails also take walkers from the main trail to the cliff edge and informal viewing points.

In addition to erosion that is driven by walkers there is natural erosion of peat on the higher ground. At the cliff edges this natural erosion could be accelerated by walkers using such places as informal viewing points.

The use of informal viewing points at the cliff edge is an issue that should be kept under review. The use of such sites is damaging to cliff edge vegetation and the possibility of landslides is a hazard for visitors.

The extension and upgrading of the trail to the summit of Slieve League could possibly bring inexperienced and poorly dressed walkers to high ground. It will also increase numbers of walkers on the higher ground exposing the soils and vegetation also the trail to greater damaging pressures.

Key Impact Observations

From an initial assessment of the site the following issues are prevalent on site.

- 1 Health and safety
- 2 Erosion and damage to vegetation adjacent to the trail
- 3 Erosion is in places near the summit a natural process but may be accelerated by trampling from walkers and sheep.

The monitoring of visitor movement on the site could facilitate the control of damage associated with the developing network of trails at the site.

Impacts to vegetation and soils throughout the site can be limited with information on:

- a. Visitor movement along informal tracks and across vulnerable vegetation and soils
- b. Sheep grazing in areas of high visitor numbers

3.3. Downpatrick Head, Co Mayo



Downpatrick Head

Source: <http://www.castlebar.ie/photos/muirisind/patrickhead/patrickhead.html>

Landscape Type: Rocky shore/peat/grassland in peninsular coastal context

Site Description

Downpatrick Head is a headland located north-east of the village of Ballycastle in Co. Mayo. It is noted for its cliffs, coastal features including blow holes and the sea stack (Dún Briste), and its megalithic and geological interest.

Downpatrick Head consists of a carpark with two smaller laybys south of the car park. The car park has capacity for approximately 30 cars. From here visitors can walk to Downpatrick Head. The site is grazed by sheep in all areas. The land is a privately-owned farm. The site has recently been developed to include a 'bund' and viewpoint around the larger of two blowholes. There is also glass panels and safety railing surrounding the blowhole. The smaller blowhole (near to the car park) has been covered by steel mesh allowing visitors to walk over it.

Impacts identified

Impacts to the habitat at Downpatrick head comes from grazing and trampling pressures from sheep and visitor effects. The vegetation on the site is dominated by cushions of Sea Pink/Thrift (*Armeria maritima*). Where eroded or overgrazed the cushions are beginning to disintegrate and underlying organic matter and soil is being exposed. In addition, a number of informal tracks/desire lines are evident throughout the site. Most of these tracks are evident because of vegetation changes, more resilient grass species. In time these tracks will widen. Vegetation loss may follow if walking pressure is ongoing in wet conditions.

There is also considerable erosion in the vicinity of manmade structures in the vicinity of the blowhole. Many of these arise on account of poor design – using excessive slopes and poorly considered details as well as poor consideration of patterns of visitor and animal movements – this leads to the establishment of desire lines that give rise to concentrations of movement and erosion.

Many visitors want to approach the cliff edge. This allows them to experience the height of the cliffs and the scale of the sea stack. Opportunities to observe feeding/ nesting sea birds, seals, dolphins and/or whales in the sea may also motivate visitors to approach the cliff edge. The concentration of trampling in a relatively confined area results in damage to vegetation and puts the visitor in danger of falling. From an ecological perspective impacts are occurring to habitats that to date were subject to grazing pressures only, from a health and safety perspective the cliff edges are areas where erosion and loss of soil or rock are to be expected. This type of damage and danger/health and safety issue is seen in other cliff environments along the Wild Atlantic Way.

Key Impact Observations

From an initial assessment of the site the following issues are prevalent on site.

- 1 Health and safety
- 2 Erosion and damage to vegetation throughout the site addressing
 - a. Visitor movement
 - b. Sheep grazing
 - c. Facility design

The monitoring of visitor movement on the site could facilitate the control of damage associated with the developing network of trails at the site.

Impacts to vegetation and soils throughout the site can be limited with information on:

- a. Visitor movement along informal tracks and across vulnerable vegetation and soils
- b. Sheep grazing in areas of high visitor numbers

3.4. Keem Bay, Achill Island



Landscape Type: Soft shore/beach in peninsular coastal context

Site Description

Keem Bay is a sheltered beach located at the western end of Achill Island, Co. Mayo. Keem Bay is located within the Croaghau Slievemore Special Area of Conservation (SAC). The site is a designated as an SAC for a number of habitats and species listed on Annex I and II of the E.U. Habitats Directive. Toilet and car parking facilities are located north of the site. There is a life guard hut, a van selling snacks and a container with facilities for kayaking present in the lower car park.

Impacts identified

At Keem bay visitors move from the car park to the beach or into the surrounding upland areas. A number of tracks can be identified that lead from the car park to the ridge west of the beach. The trails are currently distinguished by changes in vegetation from heathers to grasses. In time and with further visitor pressure erosion on these trails, particularly in sloping areas, will lead to soil loss and more severe and visible erosion. The upper ridge line is steeply sloping on the seaward side and consideration should be given to potential for soil slippage due to erosion.

A number of casual traders were operating at the site when visited in June, 2016. Consideration should be given to the potential for littering, noise and congestion that arise from this activity in a relatively confined site.

Key Impact Observations

From an initial assessment of the site the following issues are prevalent on site.

1. Health and safety
2. Erosion and damage to vegetation throughout the site addressing
 - a. Visitor movement
 - b. Sheep grazing
 - c. Facility design

The monitoring of visitor movement on the site could facilitate the control of damage associated with the developing network of trails at the site.

Impacts to vegetation and soils throughout the site can be limited with information on:

- a. Visitor movement along informal tracks and across vulnerable vegetation and soils
- b. Sheep grazing in areas of high visitor numbers

3.5. Cliffs of Moher



Cliffs of Moher

Landscape Type: Rocky shore/peat/grassland in peninsular coastal context

Site Description

The Cliffs of Moher in Co. Clare are located approximately six kilometres north of Liscannor. The cliffs are Ireland's most visited natural attraction. The Cliffs of Moher are located adjacent to the Cliffs of Moher Special Protection Area (SPA). The site is designated as an SPA for the protection of species of birds listed in the European Union Directive on the Conservation of Wild Birds. The Cliffs are also of significant geological and historical interest.

The site is highly managed with a visible staff presence, a visitor centre, a large car park across the road and coach parking. O'Briens Tower is accessible from the North Platform. From here, access can be gained to the northern part of the Coastal Walk trail. The South Platform allows access to the walk to Hag's Head along the southern section of the Coastal Walk trail. Observation was undertaken from between the Main Platform (near the visitor centre) and the North Platform.

This is an intensively managed site with very high visitor numbers, visitor car parks, visitor centre and access paths to the cliffs. It adjoins and is connected to cliff top paths that run to the north and south along the line of the cliffs. These areas have significantly lower quality of design, maintenance, supervision and maintenance. All of the significant adverse effects appear to occur in the area along the cliff top walks

Impacts identified

There is severe erosion of vegetation and soils along the cliff margins in the Secondary Areas. Most visitors observed in the vicinity of cliffs in this area are walking outside designated track. This activity prevents any regeneration of already damaged vegetation and is causing ongoing soil loss which will be further exacerbated by rainfall and movement of water leading to sheet erosion. In places, there is a path located between a field fence and the stone wall – but the path is too narrow and the wall is too tall to afford views of the cliffs. All erosion takes place in these un-managed areas.

Key Impact Observations

Visitor movement along the cliff paths and movement off the constructed tracks onto cliff top vegetation and exposed soils.

Impacts to vegetation and soils along the cliff top trails can be limited with information on:

- a. Visitor movement along tracks and across vulnerable vegetation and soils
- b. Visitor use of informal viewing points at cliff edge

3.6. Mizen Head



Mizen Head, visitor management



Mizen Head, geology and cliff habitats

Site Description

Mizen Head Signal Station is Ireland's most south-westerly point. It is located at the end of the Mizen Peninsula. The site consists of a car park, visitor centre and walkways that cross an arched bridge to the Signal Station. The site is highly managed and has a constant presence of staff on the site. It is an example of best practice visitor management. The site is fenced off controlling visitor flow in all areas. Visitors have no option other than to remain on the pathways and viewing points.

Mizen Head is located within the Three Castle Head to Mizen Head Special Area of Conservation (SAC) and within the Sheep's Head to Toe Head SPA Special Protection Area (SPA). The site is a designated as an SAC for a number of habitats and species listed on Annex I and II of the E.U. Habitats Directive. The site is also designated as an SPA for the protection of endangered species of birds listed in the European Union Directive on the Conservation of Wild Birds. It is also of significant geological interest. Interpretive material was

The site is robust and management currently confines visitors to designated tracks. Management at the site prevents access to sensitive habitat and on to dangerous slopes.

Impacts identified

Access to the site is strictly confined to pathways that link the Mizen Head Signal Station buildings and associated infrastructure. There are therefore no evident impacts on soils or vegetation at the site.

Key Impact Observation

No evidence of impacts at this site. Access is to the built element of the landscape at Mizen Head and visitor's activity is monitored by guides and interpreters throughout the site.

3.7. Loop Head



Sea stack at Loop Head

Landscape Type: Rocky shore/peat/grassland in peninsular coastal context

Site Description

Loop Head is located on a Peninsula north of the mouth of the River Shannon in Co. Clare. Loop Head Lighthouse is one of 70 lighthouses in Ireland that is operated by the Commissioner of Irish Lights. The lighthouse is open to the general public for tours and is managed by Clare County Council. The headland west of the lighthouse contains an 'EIRE' sign which was used during World War II to alert pilots that they were flying over Ireland.

Loop Head is located within the Loop Head Special Area of Conservation (SAC) and adjacent to the Loop Head Special Protection Area (SPA). The site is designated as an SAC for a number of habitats and species listed on Annex I and II of the E.U. Habitats Directive. The site is also designated as an SPA for the protection of endangered species of birds listed in the European Union Directive on the Conservation of Wild Birds.

The site comprises of a car park for approximately 30-40 cars. The lighthouse is enclosed by a wall and is accessible to the public. Damage to the habitats at Loop head is currently minor.

Impacts identified

A number of tracks/desire lines are evident throughout the site and where the vegetation on the site is dominated by cushions of Sea Pink/Thrift (*Armeria maritima*) erosion of the cushions is leading to exposure of underlying soils. Most of the tracks are evident because of vegetation changes, more resilient grass species. On some sloping areas of the site vegetation and soil loss is evident, increasing visitor traffic and rainfall will lead to further soil loss.

As at other cliff sites many visitors want to approach the cliff edge. This allows them to experience the height of the cliffs and the scale of the coastal structures. Feeding and nesting sea birds and the possibility of observing seals, dolphins or whales in the sea may also motivate visitors to approach the cliff edge. At Loop Head the visitor can get very close views of cliff nesting birds at several locations throughout the site.

Impacts from visitors on the habitats of Loop Head are an added pressure to those associated with low intensity grazing. From a health and safety perspective the cliff edges are areas where erosion and loss of soil or rock are to be expected. This type of damage and danger/health and safety issue is seen in other cliff environments along the Wild Atlantic Way.

Key Impact Observations

From an initial assessment of the site the following issues are prevalent on site.

- Health and safety
- Erosion and damage to vegetation throughout the site
- Visitor movement and access to cliff edge vegetation

The monitoring of visitor movement on the site could facilitate the control of damage associated with the developing network of trails at the site.

Impacts to vegetation and soils throughout the site can be limited with information on:

- a. Visitor movement along informal tracks and across vulnerable vegetation and soils
- b. Sheep grazing in areas of high visitor numbers

3.8. Old Head of Kinsale



Old Head of Kinsale

Landscape Type: Rocky shore/grassland in peninsular coastal context

Site Description

Old Head of Kinsale is a headland situated south of the town of Kinsale in Co. Cork. It is located adjacent to the Old Head of Kinsale SPA Special Protection Area (SPA). The site is designated as an SPA for the protection of endangered species of birds listed in the European Union Directive on the Conservation of Wild Birds. Old Head of Kinsale is privately owned with an onsite golf links and accommodation. The golf links and the lighthouse are inaccessible to visitors.

The candidate Signature Discovery Point is a lay-by located south of the Old Head Signal Tower. The site is of historical interest for when the RMS Lusitania sank off the coast of Old Head in the early 20th Century. The Old Head Signal Tower has been refurbished and was opened in May 2015. It has a car park and is free for visitors to enter. The Old Head Signal Tower site consists of road access, parking for 18 cars and 2 buses, a flag and ball signalling system with a mast 15 metres high, and the signal tower which is open to visitors.

Future works proposed include a Lusitania memorial garden consisting of garden infrastructure including; footpaths, steps, disabled access ramp, seating, signage, viewing area, iconic artefact/sculpture memorial features and all associated utility & landscaping works. The proposed development is located within the current site boundary.

Impacts identified

The Wild Atlantic Way visitor point is at a distance from the coastal plant communities that are of concern. Visitor access to cliff areas is restricted and therefore impacts are concentrated. As at other cliff sites management issues relate to dangers to visitors from erosion of cliff edge soils and rock falls and damage to cliff edge vegetation and soils.

Tracks, vegetation change, vegetation loss and soil erosion are all evident at points where visitors access the cliff edge.

Key Impact Observations

From an initial assessment of the site the following issues are prevalent on site.

- 1 Health and safety
- 2 Erosion and damage to vegetation throughout the site
- 3 Visitor movement and access to cliff edge vegetation

The monitoring of visitor movement on the site could facilitate the control of damage associated with the developing network of trails at the site.

Impacts to vegetation and soils throughout the site can be limited with information on:

- a. Visitor movement along informal tracks and across vulnerable vegetation and soils
- b. Sheep grazing in areas of high visitor numbers

4. Key Impacts



There is significant overlap between Health & Safety and ecological protection at key cliff-top sites. The sites surveyed have erosion and safety issues that are concentrated on the cliff edges in habitats and on soils that are fragile and vulnerable to erosion. The key impacts observed by the surveys indicate high incidents of damage to vegetation, erosion of soils and access issues to areas where there is the danger of soil slip or rock falls.

The future quality of the Wild Atlantic Way can be protected¹ through educating and encouraging land owners and site managers to engage in ongoing programme of soil, vegetation and visitor monitoring that provides data to relevant authorities.






Three Examples

Three examples (Table 4.1) illustrate the types of vegetation and soil impact occurring at sites visited are shown below. The impacts identified are ongoing and have evolved in years prior to the establishment of the Wild Atlantic Way.

Table 4.1 Examples of impacts occurring at sites surveyed with comments

Example 1 Old Head of Kinsale, Co Cork			
Survey Photo	Site	Impact	Comment
	Old Head of Kinsale, Co Cork	Vegetation change, erosion, soil erosion and visitor access to cliff edge. Impact is caused by long established patterns of visitor activity. No other cause was evident	This site is part of a secondary Zone and is not at the location of the signage
	Old Head of Kinsale, Co Cork	Vegetation and soil loss movement of rainwater causing gully erosion, creating uneven surface. Impact is caused by long established patterns of visitor activity. No other cause was evident	This site is part of a secondary Zone and is not at the location of the signage
Example 2 Cliffs of Moher, Co Clare			
Survey Photo	Site	Impact	Comment

¹ Note; Failte Ireland do not own or otherwise control any sites along the Wild Atlantic Way. The overwhelming majority of routes and stops are parts of long-established touring routes and destinations.

	Cliffs of Moher, Co Clare	Soil erosion, natural slippage/movement of soil and erosion of vegetation and soil on track. Impact is caused by long established patterns of visitor activity. No other cause was evident.	This site is part of a secondary Zone and is not at the location of the signage.
	Cliffs of Moher, Co Clare	Naturally occurring erosion, adjacent to cliff top walk Impact is caused by long established patterns of visitor activity. No other cause was evident.	This site is part of a secondary Zone and is not at the location of the signage.
Example 3 Loop Head, Co Clare			
Survey Photo	Site	Impact	Comment
	Loop Head, Co Clare	Cushions of <i>Armeria maritima</i> sea pink/thrift. Flowering plants in areas subjected to less walking pressure. Impact is mainly caused by visitor activity. There may be rabbit grazing.	Though not at or adjacent to the location of the WAW sign, this location can be considered to be part of the core site.
	Loop Head, Co Clare	Cushion of <i>A maritima</i> stems and underlying organic matter exposed, trampling pressure, Loop Head. Impact is mainly caused by visitor activity. There may be rabbit grazing.	Though not at or adjacent to the location of the WAW sign, this location can be considered to be part of the core site.
	Loop Head, Co Clare	Path evolution, vegetation change, loss, exposure of underlying soil, widening of track. Impact is mainly caused by visitor activity. There may be rabbit grazing.	Though not at or adjacent to the location of the WAW sign, this location can be considered to be part of the core site.



	Loop Head, Co Clare	Exposed organic matter adjacent to track at Loop Head. Impact is mainly caused by visitor activity. There may be rabbit grazing.	Though not at or adjacent to the location of the WAW sign, this location can be considered to be part of the core site.
	Loop Head, Co Clare	Moving stones at Loop Head, site of EIRE sign at Loop Head, similar activity at Downpatrick Head and Malin Head.	

Table 4.2 summarises the likely causes of the impacts.

Table 4.2 Summary of Sites visited, general condition of site and proposed measures.

Site	Condition			Likely Causes of Observed Effects
	Poor	Fair	Good	
Malin Head				Visitor movement from car parks to formal and informal trails and to EIRE sign. Movement and grazing by sheep. Runoff from heavy rainfall events
Slieve League				Walkers along trail to summit. Movement and grazing by sheep. Accessing informal viewing points along the trail to the summit.
Downpatrick				Unconfined grazing, poor design, poor management
Keem				Sensitive, lightly loaded, Potential for near-term pressure
Cliff of Moher				Core areas approaching saturation Secondary areas overwhelmed Original core design fair Secondary Area edge design poor
Mizen Head				Evidence of best practice ecological and safety protection Design poor and obtrusive
Loop Head	-		-	Emerging pressures from visitor use
Old Head of Kinsale				Core Area [at car park] is satisfactory Significant damage and high levels of safety risk induced in secondary area

Impacts to vegetation and soils in these sites can be limited with information on:

- a. Visitor movement along informal tracks and across vulnerable vegetation and soils
- b. Sheep grazing in areas of high visitor numbers

A summary of the findings is presented in

Table 4.3.

Table 4.3 summary of the likely causes of the effects observed at sites.

Site	Condition			Likely Causes of Observed Effects					Potential solutions		
	Poor	Fair	Good	Visitors	Grazing	Natural Erosion	Poor Management	Poor Design	Management Plan	Redesign	Monitoring
Malin Head		Yellow		Blue	Blue		Blue		Blue		Blue
Slieve League		Yellow		Blue	Blue		Blue		Blue		Blue
Downpatrick	Orange			Blue	Blue		Blue		Blue		Blue
Keem			Green								Blue
Cliff of Moher	Orange			Blue		Blue	Blue	Blue		Blue	Blue
Mizen Head			Green								
Loop Head		Yellow		Blue	Blue	Blue					Blue
Old Head of Kinsale	Orange					Blue	Blue	Blue	Blue	Blue	Blue

5. Preliminary Conclusions

Table 4.3 summarises the condition and likely causes of the observed effects at each site. It also summarises measures which could help address these issues.

Broadly the impacts to vegetation and soils are limited in extent at all sites. The impacts identified in site visits fall into a broad category of informal trail development that results from trampling of vegetation and, over time, exposure and erosion of exposed soils. These impacts have generally evolved over a number of years.

Further assessment of the current state of track/trail development at Malin Head, Slieve League, Downpatrick, Keem Bay, Loop Head and The Old Head of Kinsale could provide more detailed information on the movement of people around sites and the intensity of grazing pressure at these sites. This could also inform on how impacts to habitats and soils could be addressed. In the future on site monitoring could be facilitated through community participation to compliment expert

monitoring of the sites; this would promote the community engagement element of the Wild Atlantic Way Operational Program to facilitate sustainable tourism.