

# Visitor Management Proposal

## Slieve Carran



**GeoparkLIFE:**  
Tourism for Conservation

### INTRODUCTION

Pressures on heritage attractions are increased through visitor promotion in tourism destinations.

Changes occur in visitor numbers, popularity of sites and pressures on attractions over time.

Good management must be able to recognise and measure these changes and adapt appropriately to implement effective conservation practice while ensuring visitor satisfaction.

Only through understanding all the pressures that impact on an attraction can effective management actions be designed and implemented.

Initial management decisions are often made with a degree of uncertainty as to the future impact of the action proposed. Adaptive management is a structured process which can reduce this uncertainty over time through continuous monitoring, reviewing of the changes and adaptation of actions where required. Through the implementation of this process the management team become very familiar with all the integrated aspects of the site and can adapt their actions quickly to address negative changes.

The Burren & Cliffs of Moher GeoparkLIFE programme developed a set of guides, toolkits and case studies to facilitate tourism destination managers to reconcile tourism development with the conservation of the natural and cultural heritage. Included in the toolkits are a Heritage Site Visitor Management Plan Template and a Heritage Site Monitoring app and portal website.

<http://www.burrengeopark.ie/geopark-life/guides-and-toolkits/>

The Heritage Site Visitor Management toolkit development was based on practical application at seven demonstration sites within the Burren region. This document has been compiled to illustrate the practical use of the toolkit for the Slieve Carran Nature Reserve demonstration site and to provide a Visitor Management Planning Proposal for the attractions located within this site.

**Zena Hctor**

**GeoparkLIFE Sites and Monuments Co-Ordinator**

**May 2018.**

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## SECTION ONE: SITE IDENTIFICATION

### 1.1. Name and Location

Name	Slieve Carran Nature Reserve
Townland	Keelhilla
ITM E	533072
ITM N	703331
OS Discovery Series Sheet No.	52
OS 6 - inch Series Sheet No.	CL006

There are two sections of state owned land at the Slieve Carran site. Both are managed as part of the wider Burren National Park. A third-class road, running in a northeast-southwest direction, connecting Carran Village to Kinvara, divides the two sections. Located on the west side of the road is the officially designated Slieve Carran Nature Reserve. For the purposes of this visitor management plan both sections of land are included and being labelled as ‘Slieve Carran Nature Reserve’

### Site Location Map



Map 1: Location Map – Slieve Carran Nature Reserve indicated with pink mark.

## SECTION TWO: SITE SIGNIFICANCE

### 2.1 Site type and features

Slieve Carran Nature Reserve was declared under the Nature Reserve (Keelhill, Slievecarran) Establishment Order of 1986 by the Minister for Tourism, Fisheries and Forestry, *'so that it can be managed in such a way as to ensure the conservation of the woodland, grassland and pavement ecosystems which it constitutes'*. Covering a total area of 190.5 hectares (includes both sections of land for the purposes of this plan), it consists of karst topography containing three distinct vegetation communities i.e. woodland, scrub grassland and pavement and is classified as a Category 4 Nature Reserve. The Nature Reserve lands at Slieve Carran are state owned and managed by the National Parks and Wildlife Service (NPWS) and are accessible to the public.

Located in the Nature Reserve is the site of an early medieval ecclesiastical settlement, associated with St Colman MacDuagh. Within the site are several associated archaeological monuments. They include a double walled circular enclosure, a stone oratory, graveyard, a cave, a holy well, a bullaun stone and two penitential stations. Within the wider surrounding landscape of the Reserve, there are other associated and unassociated archaeological monuments including two fulacht fiadh (Bronze Age cooking sites), 'the saint's grave' and a number of possible penitential stations.

Two waymarked looped walking trails have been laid for visitor access around the Reserve.

### 2.2. Specific features of Visitor Interest

Slieve Carran Nature Reserve attracts specialist and academic tourists who have an in-depth interest in the area or are pursuing a specialised activity, such as studying Burren flora or spiritual pilgrimage. Many others are casual visitors, walking the designated trails and viewing the landscape.

The site consists of a mosaic of habitats including the European 'Priority Habitats':

- Orchid rich Calcareous (lime rich) Grassland
- Limestone Pavement
- Petrifying springs

Other habitats include

- Species rich neutral grassland (the meadows)
- Ash/Hazel woodland
- Scree slopes.

Choughs and peregrine falcons are often seen along the high ground and cliff face. A large herd of feral goat also graze the area.

The best known and most visited of the archaeological sites within the Reserve are the cluster of monuments associated with the Early Medieval Ecclesiastical hermitage of St Colman MacDuagh. The associated folklore story of *Bothar na Mias* (see below) is well-known and attracts many visitors to the site. The archaeological features at Slieve Carran indicate an early hermitage site, possibly dating to the seventh century, which had become a place of pilgrimage by the nineteenth century. The monastic site has increasingly attracted spiritual tourists in recent years.





Photograph 1: The ruins of St Colman MacDuagh's oratory Slieve Carran

The two designated walking trails within the Reserve attract walking tourists.

The 'Brown Trail' is located on the land to the west of the road. It is a 2.5km route, with a climb of 30 metres, which is graded moderate and has an estimated walking time of 1 hour and 30 minutes. Features along the trail include open limestone pavement, a small area of mature oak/ash/hazel woodland, views of Eagle's Rock cliff, the stone oratory, cave and holy well associated with St. Colman MacDuagh and Bothar na Mias.

The 'Yellow Trail' is located on the land to the east of the road. It is 2km in distance, has a climb of 20m, a walking time of 1 hour and is graded moderate. Features along the route include limestone pavement and orchid-rich grasslands, a Fulacht Fiadh (Bronze Age cooking site) and hazel woodland.

### 2.3. Regional Context of the Site

The area is characterised by stunning Burren karst landscape, narrow roads, unspoilt upland regions, the National Park, a wide range of natural and cultural sites with little or no visitor facilities and a very small number of tourist attractions and services mainly located close to the village of Carran.

The Slieve Carran site exhibits a complex of Burren habitats and it is also part of the spiritual story of the Burren being an important early medieval monastic site and a location for pilgrimage from at least the 19<sup>th</sup> century.

### 2.4. Associated local Folklore and /or Traditions

Tradition states that St Colman lived in a small cave in the cliff face of Slieve Carran for seven years with his servant, fasting and mediating. One day his servant complained of hunger and St Colman replied that God would provide. At the same time a banquet was taking place in nearby Kinvara in the castle of King Guaire. The dishes of food suddenly rose from the table and floated out the window towards Slieve Carran. The King and his soldiers followed on horseback. However, when they came close to the site of the hermitage, their horse's hooves became embedded in the rocks. St Colman performed a miracle and freed them. Meanwhile the servant was eating the food and as he was used to such meagre rations, the overindulgence killed him. The archaeological sites associated with this story include the church (oratory), cave, holy well, the saint's grave and trackway (known as *Bothar na Mias* – the Road of the Dishes).

### 2.5. Associated Placenames and their meanings

Keelhill – *Cill h-Aille* – the Church in the Cliff

Eagle's Rock – the cliff at Keelhill is known locally as Eagle's Rock and the belief is that eagles once nested here.

*Bothar na Mias* – the Road of the Dishes

### 2.6. Social and Cultural History of the site

The two most important ecclesiastical sites in the north Burren area associated with Colman Mac Duagh. They are the hermitage at Slieve Carran Nature Reserve and the monastery Colmán is alleged to have founded at Kilmacduagh after his 7 year period in the hermitage. The monastery is located about 5 miles south-east of the hermitage. Some of the older residents in this region refer to an unmarked route that extends from Kilmacduagh to Slieve Carran as "St Colman's Way" and it is believed to be an ancient pilgrimage route. Possible pilgrimage associated features close to the hermitage may include Bóthar Na Mias (site of the miracle of Mac Duagh), the man servant's grave (a funerary monument to the Colman's servant) and a penitential station. If this is a medieval pilgrim route, these features may have been the focus of ritual along "the Way".

The oratory site at Slieve Carran and its associated holy well remain a focus of spirituality today. Mass is celebrated here on an annual basis, organised by the local parish priest. In recent years the deposition of 'votive offerings' on a large number of trees centred on the well has occurred. This practice is common at some historic ecclesiastical sites where there is a long tradition of pilgrimage. Usually rags are hung from a tree close to a holy well, by people who believe that if a piece of clothing from someone who is ill, or has a problem of any kind, is hung from the tree the problem or illness will disappear as the rag rots away. However, this practice is not known as a traditional local practice at Slieve Carran and appears to have developed in recent years with an increase in the number of tourists to the site.

### 2.7. Reports/Research

CAAS Ltd. 2015 *'Pilot Visitor Observation Studies of Environmental Impacts at the Burren & Cliffs of Moher Geopark, Co. Clare'*. GeoparkLIFE project, Burren and Cliffs of Moher Geopark, Clare County Council.

Hector Z. 2014 'Slieve Carran Site Assessment Report' Burren & Cliffs of Moher GeoparkLIFE  
<http://www.burrengeopark.ie/wp-content/uploads/2016/05/Slieve-Carran-Site-Assessment-Report.pdf>

Kirby T., 2016 'Votive Offerings deposition at St Colman Mac Duagh's Hermitage Eagle's Rock, Keelhillia' Burren & Cliffs of Moher GeoparkLIFE Project <http://www.burrengeopark.ie/wp-content/uploads/2016/09/Votive-Offerings-Deposition-at-St-Colman-Mac-Duaghs-Hermitage-Keelhillia-Tony-Kirby-April-2016.pdf>

Millward Brown 2015 *'Burren & Cliffs of Moher GeoparkLIFE programme Visitor Survey'*  
<http://www.burrengeopark.ie/wp-content/uploads/2015/03/Milward-Brown-Visitor-Survey.pdf>

UaCróinín, Risteard 2014 'Measured Survey and Architectural Heritage Appraisal of St. Colmán Mac Duach's Oratory, Keelhillia, (*Cill h-Aille – The Church in the Cliff*), Carran, Co. Clare'. GeoparkLIFE, Burren & Cliffs of Moher Geopark.

<https://www.npws.ie/nature-reserves/clare/keelhillia-slieve-carran-nature-reserve>

<http://www.burrennationalpark.ie/walking-trails>



## SECTION THREE: BASELINE SITE CONDITION ASSESSMENT

The site condition data presented in this section has been compiled through the GeoparkLIFE baseline survey of Slieve Carran Nature Reserve in 2014. <http://www.burrengeopark.ie/wp-content/uploads/2016/05/Slieve-Carran-Site-Assessment-Report.pdf> and is presented here in the format developed for the GeoparkLIFE Heritage Site Visitor Management Plan template.

### 3.1. Approach to the site



Photograph 2: Approach road to Slieve Carran

The site can be approached via two roads, one leading to a parking area outside the west portion of the site and one to a parking area at the eastern edge of the site. They are both designated third class roads and are narrow and winding. Cars approaching each other have difficulty in passing and there are several small areas where cars pull in to allow passage by others. The roads are unsuitable for coach traffic. Encroaching roadside vegetation in sections increases difficulty with sightlines.

Is there directional road signage to the site?

Yes ☐ No ☒

If yes, enter the ITM co-ordinates for its location

[Click here to enter text.](#)

What is the condition of the signage?

[Choose an item.](#)

Timescale for action required

[Choose an item.](#)

Is there a roadside site name sign present?

Yes ☐ No ☒

If yes, enter the ITM co-ordinates for its location

[Click here to enter text.](#)

What is the condition of the signage?

[Choose an item.](#)

Is the sign damaged?

Yes ☐ No ☐

If yes, describe the damage and its cause

[Click here to enter text.](#)

Timescale for action required

[Choose an item.](#)

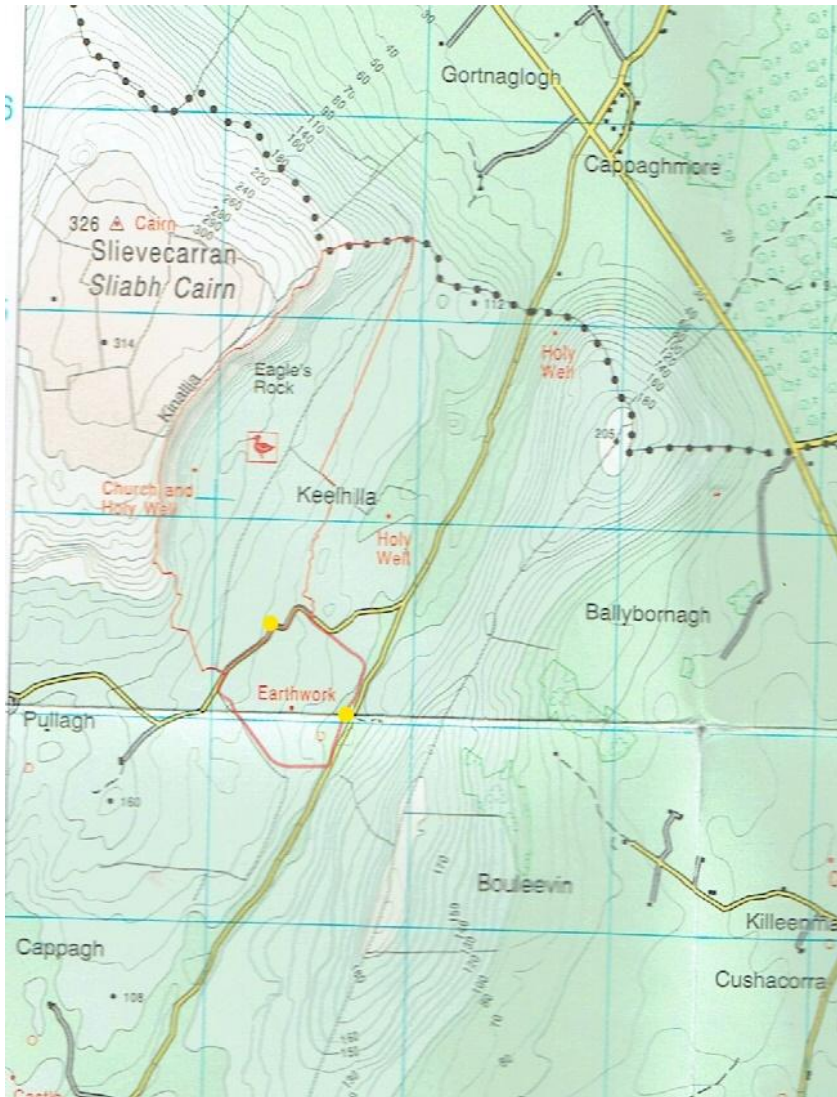
Are there parking facilities available at the site?

Yes ☒ No ☐

If yes, is it

Official ☒ Unauthorised ☐

## Visitor Management Proposal



Map 2: Slieve Carran site outlined in red. Upper and lower car park locations indicated with yellow circle

How many spaces are currently available?

20 car spaces in the upper parking area if parked linear and five in the lower parking area

How many spaces are reserved for disabled visitors?

0

Enter the number of spaces reserved for

Coaches 0

Cars 25

Motor Bikes 0

Push bicycles 0

Are the current parking facilities adequate?

Yes ☒ No ☐

## Visitor Management Proposal

If no, what is the estimated number of spaces  
required for

[Coaches](#) [Click here to enter text.](#)

[Cars](#) [Click here to enter text.](#)

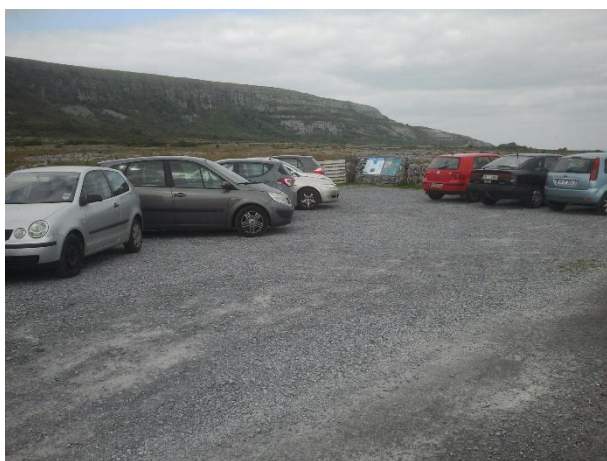
[Motor Bikes](#) [Click here to enter text.](#)

[Push bicycles](#) [Click here to enter text.](#)

### Additional Comments re Approach to Site

A small gravelled car park is located outside the entrance to the Nature Reserve on the upper road. It consists of a pull in area within the bell mouth of the gateway. There are no marked parking spaces and parking can be haphazard. The area can accommodate approximately 20 cars if parking is orderly with all vehicles parked parallel with ends into the boundary wall. On occasion when an organised event is taking place, such as a guided walk, large numbers of vehicles are present at the site, parking extends along the roadside and can result in traffic disruption and ecological damage to the grass verge vegetation. This may occur once or twice a year. Coaches do not generally use this road nor do bus tours visit this site due to the narrow approach roads. A small parking area which is located at the eastern boundary of the site on the lower road can accommodate 5 cars. This road is extremely narrow and very little traffic uses this parking area.

Through the GeoparkLIFE working group consultative process, it was agreed by the site managers that the site should not be signposted as this could lead to increased visitor traffic along narrow approach roads leading to congestion and attract coach tourism. Due to the sensitivity of the landscape, the current condition of the important archaeological monuments at MacDuagh's hermitage site and the already high visitor numbers, it was decided that promotion of the site at this time is not desirable.



Photographs 3 & 4: Parking at the upper car park during an organised event.



## 3.2. Site Entry

Select the site entrance type

Gate	Stile	Gap in wall	Other
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		If other, please specify

Is there an access Path?

Yes ☒ No ☐

If yes, specify

the surface covering

Grass and rock outcrop

the incline

Level

Are there steps present?

Yes ☒ No ☐

If yes, specify how many



astical  
s of

fallen rocks which are set in a step like manner.

This area can be very slippery with mud cover during wet weather.

Are there designated resting points along the path? Yes ☐ No ☒

If yes, specify the type and number

[Click here to enter text.](#)

Are th

Yes ☒ No ☐

Photograph 5: Entry point to MacDuagh's ecclesiastical site

Additional Information re path condition:

As part of the GeoparkLIFE/CAAS Visitor Observation Study (<http://www.burrengeopark.ie/wp-content/uploads/2015/03/CAAS-Monitoring-Report.pdf>), EirEco Environmental Consultants were commissioned to carry out vegetation monitoring at the GeoparkLIFE demonstration sites between October 21, 2014 and December 2, 2014. Vegetation was analysed in 1m<sup>2</sup> quadrats at pre-selected locations identified by CAAS in each site.

Ten quadrat surveys were conducted at the Slieve Carran Nature Reserve as illustrated in Figure 1.

The following extract from the ecological survey report describes the condition of the path at Slieve Carran Nature Reserve (EirEco 2014):

*'The main trail is a well-defined track that leads across limestone pavement where vegetation is primarily confined to within the grikes. Some compaction of vegetation and bare soil is evident along the trail though elsewhere there is no evidence of impact on the vegetation by visitors.'*

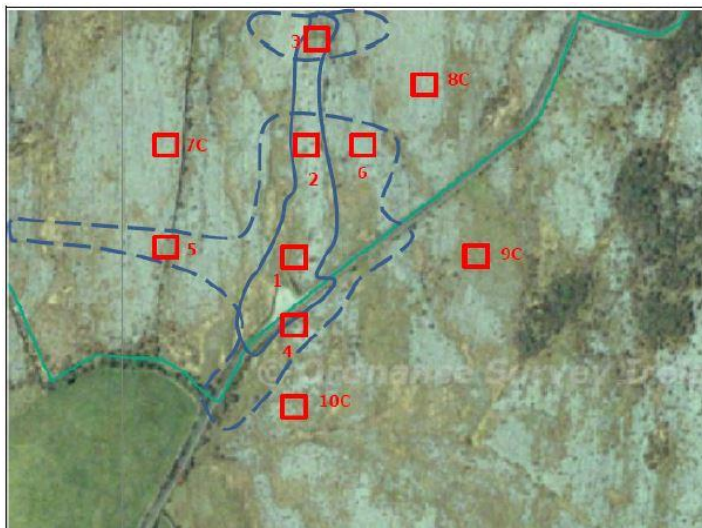


Figure 1: Location of quadrats for ecological sampling at Slieve Carran Nature Reserve (EirEco 2014)



Photograph 6: Graveling of path completed in 2011/12

Conservation Ranger of the trail condition in 2010/11 indicated the need for gravel infill in certain points along trail where rutting had occurred. An identified area that was particularly prone to damage was an area of grassland known as 'the meadow'. The path across the meadows is used by cattle in winter as well as providing visitor access to Mac Duagh's oratory site. Due to this continuous usage the path had extended in width as visitors walk on the grass verges to avoid muddy sections. The NPWS gravelled about two thirds of the track in 2011/12 and the site managers' state that this has resulted in a decrease in impact of trampling by visitors and cattle along this access trail. However no baseline information is available by which to measure this improvement.

In 2013 and 2014, the NPWS Conservation Ranger carried out path condition inspections at Slieve Carran using fixed point photography and path width measurement technique to provide baseline data against which future monitoring could be measured. Photographs are printed and kept on file



along with descriptions of each point on Microsoft word documents. Each time an inspection is undertaken the file must be brought to the field and monitoring points identified using the photo file. This system has proved to be very cumbersome and time consuming.

The overall result to date indicate that due to livestock movement in the winter months areas along the trails can become muddy. However these areas usually recover during the drier months and there is likely to be no long term ecological damage. The site must be grazed by livestock to maintain the unique Burren flora and the management approach adopted it that the Reserve if foremost an ecological reserve and secondly a visitor attraction.



Photograph 7: Evidence of usage of paths by livestock

### 3.3. Way Finding

#### 3.3.1. Site Signage



## Visitor Management Proposal

Specify the type of **on-site signage** present

Directional	Interpretive	Health & Safety	Fógra	Private Property	Environmental Information	Other
✓	✓					If other, please specify

Note any signs that may be damaged and their location and fill in the following table

Type of sign	Location (ITM E; ITM N)	Damage description	Source of Damage	Action Required	Timescale for Action
Interpretive (Burren National Park panel) in upper car park	533073 703344	The sign is cracked and text is difficult to read in places	Unknown	Removal and replacement with updated signage	2-6 months
Interpretive (Slieve Carran Geology) in upper car park	533073 703344	The information is outdated and the sign is faded and damaged at the edges.	Natural	Removal and replacement with updated geology information	2-6 months
Interpretive (BurrenLIFE project) in lower car park	533142 703081	The panel insert has been removed and all that remains is the frame and supports.	Unknown	Removal of structure. The BurrenLIFE project is now complete.	Immediate Phtotogrpha



Photograph 8: Damaged and outdated interpretive panels in upper car park at Slieve Carran (August 2014)



Photograph 9: Damaged BurrenLIFE interpretive panel in lower car park.(August 2014)



### Additional Comments re on-site signage

Directional signage along the designated walking trail needs to be reviewed. In some areas, signage is not inter-visible and the walker can stray off the track. The type of signage used can vary in some locations. All signage should be uniform in design to prevent confusion. Trail information signage should be placed at the trail head (i.e. the car park) providing information on the length of trail, terrain conditions and difficulty of access.



Photograph 10: Directional signage on the Yellow Trail (August 2014)

A BurrenLIFE Farming for Conservation information panel is located inside the stile entrance to the section of land on the east side of the road opposite the main parking area. This LIFE project is now complete and the panel should be removed or updated. A similar panel is located on the lower road at the parking area.

There are five interpretive panels currently (February 2015) at this site. Reduction in the number of panels at this site should be considered, without the loss of important information. This could be achieved through the review of duplication, compaction and simplification of the information provided (at present there is a lot of specialist jargon used on some of the panels)



Photograph 11: Redundant BurrenLIFE interpretive panel (August 2014)

## 3.3.2. Restrictions to Visitor Access

Description of Restriction	Location (ITM E; ITM N)	Difficulty caused	Action Required	Timescale for Action
Entry stiles from parking areas and between fields.	Various	On occasion the field gates can be locked and entry is only available via the narrow stepped stone stiles. This can cause difficulty for the less abled bodied.	Provide stiles which allow access while preventing passage by livestock	6 months – 1 year
Entrance to oratory over collapsed medieval enclosure wall.	532886 704256	The oratory is accessed by climbing over a collapsed section of the medieval wall boundary. This area is shaded by trees and can become very muddy and slippery after wet weather causing hazardous conditions for the less abled bodied.	Discussion with National Monuments Service as to possible solutions to access which do not interfere with archaeological structures.	6 months- 1 year
A wooded area along the brown walking trail can become very muddy during wet weather.	533002 704369	This wet area can cause access problems for all users.	Improvement to track surface for all weather conditions.	6 months- 1 year
An elevated area of limestone outcrop along the brown trail including a steep climb and pitted karst underfoot.	533086 704350	Track users must climb onto the elevated area and move over karst rock which is rough underfoot.	This area and the difficulty of access should be highlighted on track information signage at trail head and on the immediate approach to this section.	6 months- 1 year



Photograph 12: Gate and adjoining stile entry point on brown trail (August 2014)





Photograph 13: Muddy pathway entrance to  
Photograph 14: Steep climb onto higher ground on  
Brown Trail (August 2014)

### Additional Comments re restrictions to visitor access

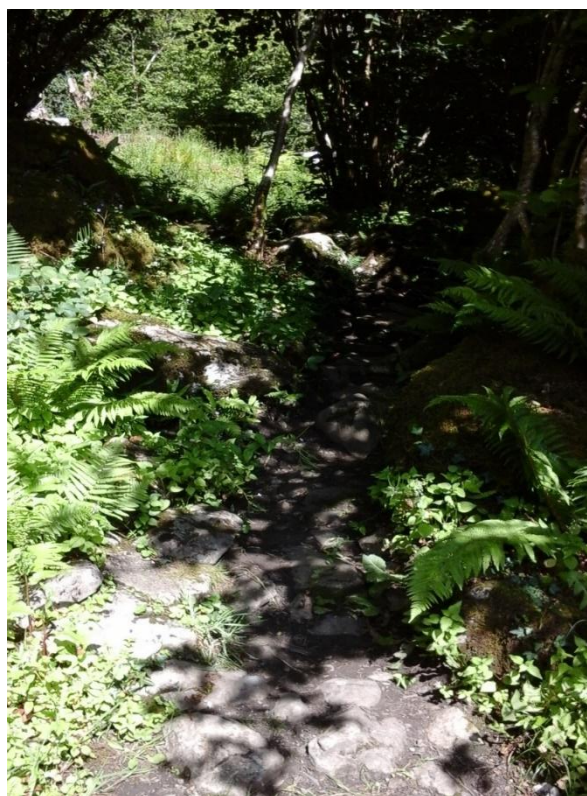
A 'Pilgrimage in the Burren' Workshop was organised by GeoparkLIFE in Carron on Saturday October 18, 2014. The purpose of the workshop was to explore good practice around the development and promotion of sites and routes associated with pilgrimage in the Burren. One of the sites under consideration was Mac Duagh's Oratory at Slieve Carran and a field trip was led to this site, as part of the workshop, to discuss attitudes to the use of the site as a visitor attraction and the practice of depositing votive offerings at the site.

The following opinions on site access were expressed by the attendees during the field trip:

- Access to the site (over stile) is difficult for some. This could be improved.
- With regard to the immediate access to the church site, there were differing opinions as to balancing the improvement of access in terms of the wet underfoot conditions and maintenance of the atmosphere of the site provided by its closed in nature. Some felt the trees provided a closed peaceful atmosphere while others saw the benefit of improving the safety of the entrance path and opening out the view as was more likely the situation in the past. Safety was not thought to be a major problem – as the pilgrims are used to visiting old ruined sites and have an awareness of the hazards.
- It was generally felt that the building could do with some consolidation but overall its condition added to the atmosphere of the site and should not be sanitised.

Overall it was felt that this was a very special site and should not be over promoted nor should access be made very easy. The site should not be over sanitised

(A full report of the Workshop proceedings is contained in Appendix I)



Photograph 15: Muddy underfoot conditions at entrance to oratory (August 2014)

## 3.3.3. On Site Visitor Facilities

List any **on-site visitor facilities**

Guides	Site Warden	Toilets	Coffee Shop	Viewing Platform	Designated walking Trails	Other
					✓	If other, please specify

Note any damage to any facilities and take photographs. Provide written detail in the table below.

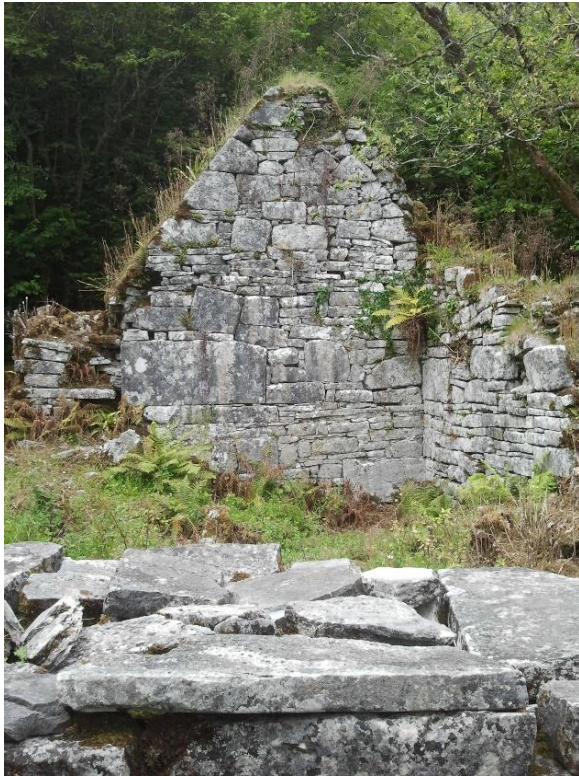
Facility type	Location (ITM E; ITM N)	Description of damage	Action Required	Timescale for Action

## Additional Comments re on-site visitor facilities

Comments with regard to the condition and maintenance of walking trails has been detailed in Section 3.2.



### 3.4. Structural Condition of Oratory



Photograph 16: West gable and remaining north wall of MacDuagh's Oratory (August 2014)

St Colman MacDuagh's oratory (10.6m E/W by 5.3m N/S) consists of the ruins of a small church with west gable (height 4.5m. Pitch 53 degrees) and about half of the original north wall (height 2.5m) intact. The line of the original foundations of this building are visible on the ground. It contains few features with the exception of the remnants of a small splayed window on the north wall and well cut barge stones on the gable, which appears to have been crudely raised in the past.

The masonry of the church comprises roughly dressed, limestone, field stones in a lime mortar, finished to a smooth surface on their outer faces. They are set in irregular and erratic courses, using small pinnings in narrow joints, as is the practice in early Christian Churches. One large, thin flagstone, in the interior leaf of the gable, is standing on its edge and supporting most of the gable, above it. All the material behind it has been taken out, leaving the structure in a very precarious condition.



Photograph 17: Supporting flagstone on interior leaf of gable (August 2014)



There are dressed stones and architectural fragments strewn around, including a window cill and a door jamb with a cut recess for an iron gudgeon, to carry the iron door pintle or hinge. There are a pair of almost square, dry-stone altars, one within the church and one without, to the north, comprised of cuboids of dry-stone blocks, probably built from collapsed masonry rubble, during the 17<sup>th</sup> or 18<sup>th</sup> centuries.



Photograph 18: Drystone altar at MacDuagh's oratory (August 2014)

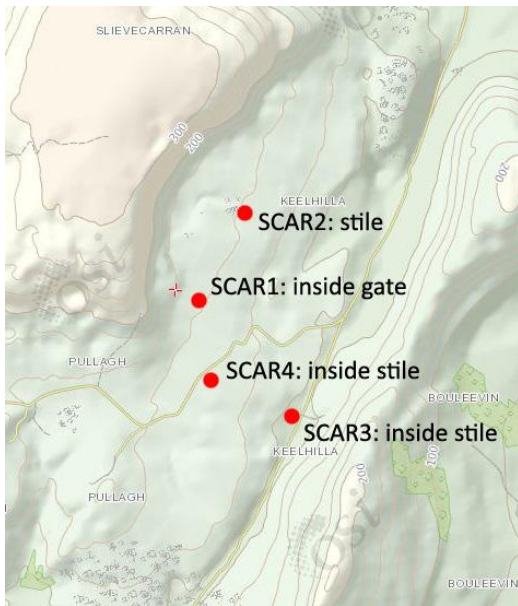
The rear wall of the gable is covered with moss obscuring any features that may exist. To the north, beside a stream, at about 20m. distant, is a sub-circular holy well with dry-stone wall and a flagstone lintel over the entrance. The church site contains mounds of masonry rubble from various collapses. Due to the distance from the road it is likely that most of the original building stone remains on site.

(UaCróinín, Risteard 2014 – full report Appendix II)



Photograph 19 : Drystone well enclosure at Colman MacDuagh's oratory (August 2014)

## 3.5. Visitor Numbers



Through the GeoparkLIFE initiative four footfall counters were installed on September 11, 2014 along the two designated walking trails at Slieve Carran. Two were placed on the brown trail (SCAR 1 and SCAR 2) and two on the orange trail (SCAR 3 and SCAR 4) to measure visitor numbers and times of visit.

Data is collected and analysed on a regular basis by GeoparkLIFE staff and shared with the NPWS site managers. An estimated 8,500 to 9,000 people visit Slieve Carran annually. (Detailed figures in Tables 1-4 page 37 and 38)

Figure 2: Location of footfall counters at Slieve Carran Nature Reserve

## 3.6. Visitor Attitudes

A Visitor Survey was conducted at Slieve Carran Nature Reserve as part of the GeoparkLIFE project in September 2014. The purpose of this survey was to record Visitors attitudes to the infrastructure at the site and to the Burren region in general. Analysis of the data gathered indicated:

- 51% of visitors interviewed gave a rating of between 8-10 for signposting to the site (1 being poor and 10 high):
- 61% rated physical entry between 8 and 10
- 87% rated parking facilities between 8 and 10
- 81% arrived by car to the site and 9 % by bicycle. 12 % arrived on a coach day tour.
- 86% noticed the information; 68% read them entirely and 16% partially; of those that read the boards 97% felt that they added to their understanding of the Burren.
- 67% were very satisfied with the site and the remaining 28% were satisfied. The remaining 5% were neither satisfied nor dissatisfied.

(Appendix III).

## 3.7. Visitor Behaviour and Impacts

Visitor observations were carried out at Slieve Carran in July and September 2014 under the GeoparkLIFE project to determine visitor movement around the site and how visitor behaviour is impacting on the site.

Results from observations undertaken on 25 July and 7 August 2014 indicate:

- 68% of visitors arrived by car; 26% on push bike and 6% (i.e. 1 visitor) on motorbike. No coaches/buses were observed
- 100% of visitors were involved in low impact activities (i.e. activity for which the site was intended) - Walking (35%) Photography (27%) Viewing landscape (18%) Picnicking (9%)



## Visitor Management Proposal

- Effects observed: 1 Car parked on grass verge (14% of car owners) 1 couple went off designated trail to sit on rock (approx. distance 20m)
- The average time spent on site was 1 hour 30 minutes.

(Appendix IV).

On Sept 6, 2014 further Visitor Observations were carried out at Slieve Carran, as part of the GeoparkLIFE/CAAS Ltd. study to develop a survey methodology for assessing environmental impacts at sites. The results of the survey indicate

- 30% of visitors arrived by car and 38% by bus
- 32% read the information boards
- 98% were involved in low impact activities
- 36% of visitors had no impact on the site and 62% left trails newly visible on the grass; 2% were involved in the removal of material (stones, rooted vegetation, fauna)

(Source: CAAS, 2015)

A recent increase in the deposition of so-called 'votive offerings' on the trees surrounding the holy well at Mac Duaghs oratory was noted during GeoparkLIFE monitoring of the site. Such depositions are generally associated with a tradition of pilgrimage to 'holy' sites in Ireland and would generally be left by the 'pilgrim' while undertaking a 'pattern' at the site perhaps once a year, on the Saints Day or an annual festival day. However, recently, such 'offerings' as rags, toys and personal items are being tied to the trees at the site throughout the year. Due to the increase in numbers and the nature of these 'offerings', they are causing a litter issue.

Whether these items are genuine votive offerings or a new spiritual tourism phenomenon needs to be determined. If they are being deposited by 'tourists' to the site, the issue needs to be tackled in terms of awareness raising and the Burren & Cliffs of Moher GeoparkLIFE's 'Leave No Trace' policy and code of conduct.

During the field trip to MacDuaghs oratory as part of the 'Pilgrimage in the Burren' Workshop organised by GeoparkLIFE on Saturday October 18, 2014, the attendees were asked how they felt about the practice of leaving votive offerings at the well and on surrounding trees

A local landowner stated that the votive offerings around the well were not present up to about 10 years ago and that they have no relevance and should be removed. Others commented that there may be genuine reasons for the leaving of offerings and this must be respected.

(A full report of the Workshop proceedings is contained in Appendix I)



Photograph 20: Votive offerings on tree at MacDuagh's oratory site (August 2014)

## SECTION FOUR: SITE MANAGEMENT

### 4.1. Ownership

Name of Site Owner(s)

Department of Culture, Heritage and the Gaeltacht

Name of Site Manager(s)

National Parks and Wildlife Service (NPWS)

### 4.2. Legal Properties

Are there any Rights of Way on the site?

Yes ✓ No ☐

Provide detail

The Nature Reserve is state owned land with public access rights

Are there any Legal Burdens on the site?

Yes ✓ No ☐

Provide detail

The portion of land on which MacDuagh's Early Medieval site is located is omitted from the Nature Reserve boundary maps. Ownership of this parcel of land and its exact area is uncertain. It has a separate Folio Number from the remainder of the Reserve Lands which are held by the State.

### 4.3. Protective Designations

Is the site a designated National Monument?

Yes ☐ No ✓

If yes, what is its Monument Number?

[Click here to enter text.](#)

If yes, what is its status?

[Choose an item.](#)

Are any feature(s) of your site recorded in the:

(a)Record of Monument and Places (RMP)

Yes ✓ No ✓

If yes, insert its Registration Number

Church (CL006-023001)  
Graveyard (CL006-023002)  
Penitential Station (CL006-023003)  
Cave (CL006-023004)  
Ritual Site – Holy well (CL006-023005)  
Bullaun Stone (CL006-023006)  
Fulacht Fiadh (CL006-023007)  
Penitential Station (CL006-023009)  
Road/Trackway (CL006-024)  
Ritual Site – Holy well (CI006-025001)  
Penitential Station (CI006-025002)  
Penitential Station (CI006-025003)  
Fulacht Fiadh (CI006-068001)



## Visitor Management Proposal

(b) Record of Protected Structure (RPS)

Yes ☐ No ☒

If yes, insert its Registration Number

[Click here to enter text.](#)

(c) National Inventory of Architectural Heritage (NIAH)

Yes ☐ No ☒

If yes, insert its Registration Number

[Click here to enter text.](#)

Is the site located within an Architectural Conservation Area (ACA)?

Yes ☐ No ☒

If yes, insert the name of the ACA

[Click here to enter text.](#)

If your site contains natural heritage features are they within the following designated areas?

(a) Special Area of Conservation (SAC)

Yes ☒ No ☐

If yes, insert the Site Name and Code

East Burren Complex SAC  
Site Code: 001962

(b) Special Protection Area (SPA)

Yes ☐ No ☒

If yes, insert the Site Name and Code

[Click here to enter text.](#)

(c) Natural Heritage Area (NHA or pNHA)

Yes ☐ No ☒

If yes, insert the Site Name and Code

[Click here to enter text.](#)

### 4.4. Current Visitor Management Structure

The Slieve Carran Nature Reserve is managed as part of the Burren National Park by the National Parks and Wildlife Service (NPWS). The NPWS is the organisation within the Heritage Division of the Department of Culture, Heritage and the Gaeltacht which has responsibility for the protection and conservation of Ireland's natural heritage and biodiversity at national government level.

The archaeological monuments in the Reserve listed on the statutory Record of Monuments and Places are protected under section 12 of the National Monuments (Amendment) Act 1994. Any work being undertaken in the vicinity of a Monument must receive consent from the National Monuments Service. At present ground maintenance work in the vicinity of the monuments is carried out under the NPWS management regime. They are not responsible for any physical conservation maintenance of the monuments.

The National Monument Service advises the Minister for Culture, Heritage and the Gaeltacht on legislative and policy issues relating to the archaeological heritage and has responsibility for the maintenance of the Record of Monuments and Places (RMP). The NMS however is not responsible for any physical conservation maintenance of the monuments.

Both the NPWS and the NMS operate within the Heritage Division of the Department of Culture, Heritage and the Gaeltacht.

When a monument is designated as a National Monument in State care, the conservation and provision of visitor services at these monuments is the responsibility of the Office of Public Works. The Office of Public Works (OPW) is a government office within the Department of Public Expenditure and Reform. Its primary function is to support the implementation of Government policy and provide ministerial advice in the disciplines of property (including heritage properties) and flood risk management.

None of the recorded monuments at Slieve Carran are designated National Monuments and so are not within the OPW portfolio for conservation and maintenance.

The habitats in the Reserve are managed, through grazing (predominantly by cattle), manual cutting and treatment of encroaching hazel and scrub to maintain the habitat and species diversity. The grazing is leased to a member of the Burren Farming for Conservation Programme (BFCP).

Manual maintenance work at the site is carried out by General Operatives employed by the NPWS on a seasonal basis between April and October. The NPWS Conservation Officer (whose remit is the East Burren) inspects the site on a regular basis and reports back to the Regional Office in Ennis. The brown and yellow walking trails are monitored by the Conservation Ranger at regular intervals and maintained by the NPWS general operatives.

Visitor orientation and information provision present at the site has been supplied by NPWS, the former Burren LIFE programme and the Burren & Cliffs of Moher Geopark.

#### 4.5. Potential Future Visitor Management Issues

The Slieve Carran Nature Reserve is believed to have experienced an increasing number of visitors in recent years. Visitor numbers to the site were not recorded officially prior to installation of footfall counters under the GeoparkLIFE project and the reported increase was based on the site manager's impressions. As numbers may increase further into the future, the archaeological monuments that form MacDuagh's oratory are likely to be impacted upon. The current structural condition of these monuments is of concern and immediate conservation work is required. The ownership of the portion of land on which the monuments are located is in question, although it is completely surrounded by state owned land. It is vital that this ownership issue is resolved and that an integrated management structure incorporating the NPWS and NMS (both already operating under the Heritage Division of the same Government Department) and potentially the OPW is agreed.

## SECTION FIVE: SUMMARY OF SITE VISITOR MANAGEMENT ISSUES

Through the GeoparkLIFE project baseline studies (2014) and working group consultation, the following visitor management issues at Slieve Carran Nature Reserve were identified in 2015.

	Issue	Detail
1	Future management of the Early Medieval Monastic site and ownership of this site	Through the GeoparkLIFE project the issue of the future integrated management of the early medieval ecclesiastical site at Slieve Carran was raised as critical. Responsibility for the consolidation and future management of the archaeological monuments at this site needs to be determined and consideration given to the current protective status of the site. The structural condition of the oratory is critical and in need of immediate attention. At present the site is managed by the NPWS who have no remit for archaeological monuments. Both the NPWS and the National Monuments Service operate within the same Government Department. However the legal ownership of the parcel of land on which MacDuagh's Early Medieval site is sited was highlighted by GeoparkLIFE. This area has a separate Folio Number from the remainder of the Reserve Lands which are held by the State. Until this issue is resolved there can be no approach to an integrated management system between the two agencies as recommended by GeoparkLIFE. GeoparkLIFE, through its working group and steering group has been highlighting the need for interdepartmental talks to solve this issue since September 2015.
2	Deposition of 'Votive offerings' on site	A recent increase in the deposition of so-called 'votive offerings' on the trees surrounding the holy well at Mac Duaghs oratory was noted during GeoparkLIFE monitoring of the site. Due to the increase in numbers and the nature of these 'offerings', they are causing a litter issue. Whether these items are genuine votive offerings or a new spiritual tourism phenomenon needs to be determined. If they are being deposited by 'tourists' to the site, the issue needs to be tackled in terms of awareness raising and the Burren & Cliffs of Moher GeoparkLIFE's 'Leave No Trace' policy and code of conduct. Awareness of the litter issue needs to be created for all visitors to the site.
3	Damaged, outdated and duplicated site interpretation	There are 5 interpretive panels currently on site some of which are damaged and all carry outdated and duplicated information. Signage needs to be replaced and information provided amalgamated.
4	Monitoring of trail condition	Currently the NPWS Conservation Ranger carries out path condition inspections using a fixed point photography and path width measurement technique. Photographs are printed and kept on file along with descriptions of each point on Microsoft word documents. Each time an inspection is undertaken the file must be brought to the field and monitoring points identified using the photo file. This system has proved to be very cumbersome and time consuming.
5	Lack of on-site trail information	There is no trailhead information for the designated walking trails. Directional signage along the trails is non-uniform and confusing at times. A review of directional signage is needed. Trail information with regard to the length, type of terrain, difficulty or points of interest on the trail should be provided at the trailhead (car park) for each of the designated walking trails.
6	Restrictions to visitor access	<p>(A) The oratory and associated monuments are accessed by stepping over a collapsed section of the outer medieval wall boundary and passing along a short grass path shaded by hazel trees before climbing over the collapsed inner wall boundary into the centre of the site. This area becomes very muddy and slippery after wet weather causing hazardous conditions for the less abled bodied.</p> <p>(B) Potential erosion due to trampling of the habitat and avoiding muddy areas along the designated trails by visitors needs to be monitored. A wooded area along the brown walking trail can become very muddy during wet weather.</p> <p>(C) On occasion the field gates can be locked and entry is only available via the narrow stepped stone stiles. Climbing through the narrow stone stiles can cause difficulty for the less abled bodied.</p>
7	Monitoring visitor numbers	Visitor numbers to the site have been monitored since September 2014 when the GeoparkLIFE footfall counters were installed. However, there have been some aberrations in the data with large numbers occurring on one occasion at 3am. This has been interpreted as a herd of feral goats passing by the counter. Because of the nature of the site this event is likely to re-occur and analysis of data must allow for such random events.

## SECTION SIX: ACTION AGREEMENTS AND IMPLEMENTATION

The following section details the actions agreed through the GeoparkLIFE project to address the issues identified at the Slieve Carran site in 2015; how and when those actions were implemented through GeoparkLIFE between 2015 and 2017 and who was responsible for their implementation.

<b>Issue 1</b>	<b>Ownership of area surrounding MacDuagh's Oratory and future management of Early Medieval Monastic site</b>
Agreed Action	The NPWS regional manager agreed to explore this issue with the Department to seek a resolution. When the ownership of the area in question in which this site is located is resolved, it was agreed that discussions would take place between the National Monuments Service and NPWS to determine a plan for the future conservation and visitor management of this site.
Tasks	<ol style="list-style-type: none"> <li>1. Resolve ownership issue</li> <li>2. Agree integrated management strategy (NPWS and NMS) for management of MacDuagh's oratory site</li> <li>3. Carry out a detailed assessment of the recorded monuments and any previously unrecorded monuments that may be present at the site using fixed point photography for individual monuments to assist a methodology for future monitoring.</li> <li>4. Develop a scaled plan of the monument group, to include detailed plans of individual monuments.</li> <li>5. Carry out a photogrammetric survey of the upstanding church walls</li> <li>6. Discuss with OPW possibility of upgrading of monuments to National Monument status based on above assessments</li> <li>7. Develop a conservation plan and method statement for works required</li> <li>8. Complete appropriate assessment (AA) screening to determine ecological impacts and full AA study if required</li> <li>9. Carry out conservation works and improved visitor access requirements</li> <li>10. Develop a monitoring programme for the site.</li> </ol>
Responsible person/group	NPWS, NMS and OPW
Date Action Completed	Ongoing
Results	The GeoparkLIFE project has brought this crucial issue to the table providing a very good case study of how the lack of integrated management between government agencies and departments can result in the deterioration of a publically accessible, culturally important archaeological site due to lack of clarity with regard to ownership and responsibilities for conservation.

<b>Issue 2</b>	<b>'Votive Offerings' Littering Leave No Trace</b>
Agreed Action	Undertake research to obtain baseline data with regard to the number of 'offerings', their type and location deposited at this site. Examine the evidence for Colman MacDuagh's oratory being a site of pilgrimage in the past and whether this is an ancient or recent activity. Create awareness around the principles of 'Leave NO Trace' to visitors and tour guides.
Tasks	<ol style="list-style-type: none"> <li>1. Field survey to record the number, type and location of offerings present on the site</li> <li>2. Desk research on the tradition of pilgrimage at the site and the practice of 'votive offerings'</li> <li>3. Community consultation to determine local knowledge of a traditional practice</li> <li>4. Compilation of report of findings with photographic and written descriptive inventory of all 'offerings'</li> <li>5. Development of 'Leave No Trace in the Burren' specific code incorporating the deposition of votive offerings.</li> </ol>
Responsible person/group	Tony Kirby (local guide) and GeoparkLIFE

## Visitor Management Proposal

Date Action Completed	June 2017
Results	<p>The Votive offerings report completed March 2016 indicated that the deposition of votive offerings is a recent activity and not connected to any ancient pilgrimage tradition. The majority of the items identified during the research were of a non-religious type and were located over a large portion of the site.</p> <p>All 'offerings' were removed from the site in May 2016. No objections were received from the public. Any depositions which occur are now monitored and removed on a regular basis by NPWS staff.</p> <p>A "Leave NO Trace in the Burren" leaflet was produced under the GeoparkLIFE project in June 2017 which specifically refers to the practice of leaving 'offerings' on trees and other places around the Burren and requesting that the visitor refrain from this activity.</p>

<b>Issue 3</b>	<b>Damaged, outdated and duplicated site interpretation</b>
Agreed Action	Review signage, agree design and content for new signage, remove old signage and install new.
Tasks	<ol style="list-style-type: none"> <li>1. Carry out review of present signage in terms of content of information and condition of sign</li> <li>2. Propose new uniform interpretive signage design for all Burren sites with site managers</li> <li>3. Compile bi-lingual text, photographs and illustrations for sign in conjunction with site managers</li> <li>4. Design layout and agree with site managers</li> <li>5. Manufacture signs</li> <li>6. Remove old signage</li> <li>7. Install new signage</li> </ol>
Responsible person/group	GeoparkLIFE and NPWS
Date Action Completed	October 2017
Results	New GeoparkLIFE/NPWS interpretive panel installed October 2017.

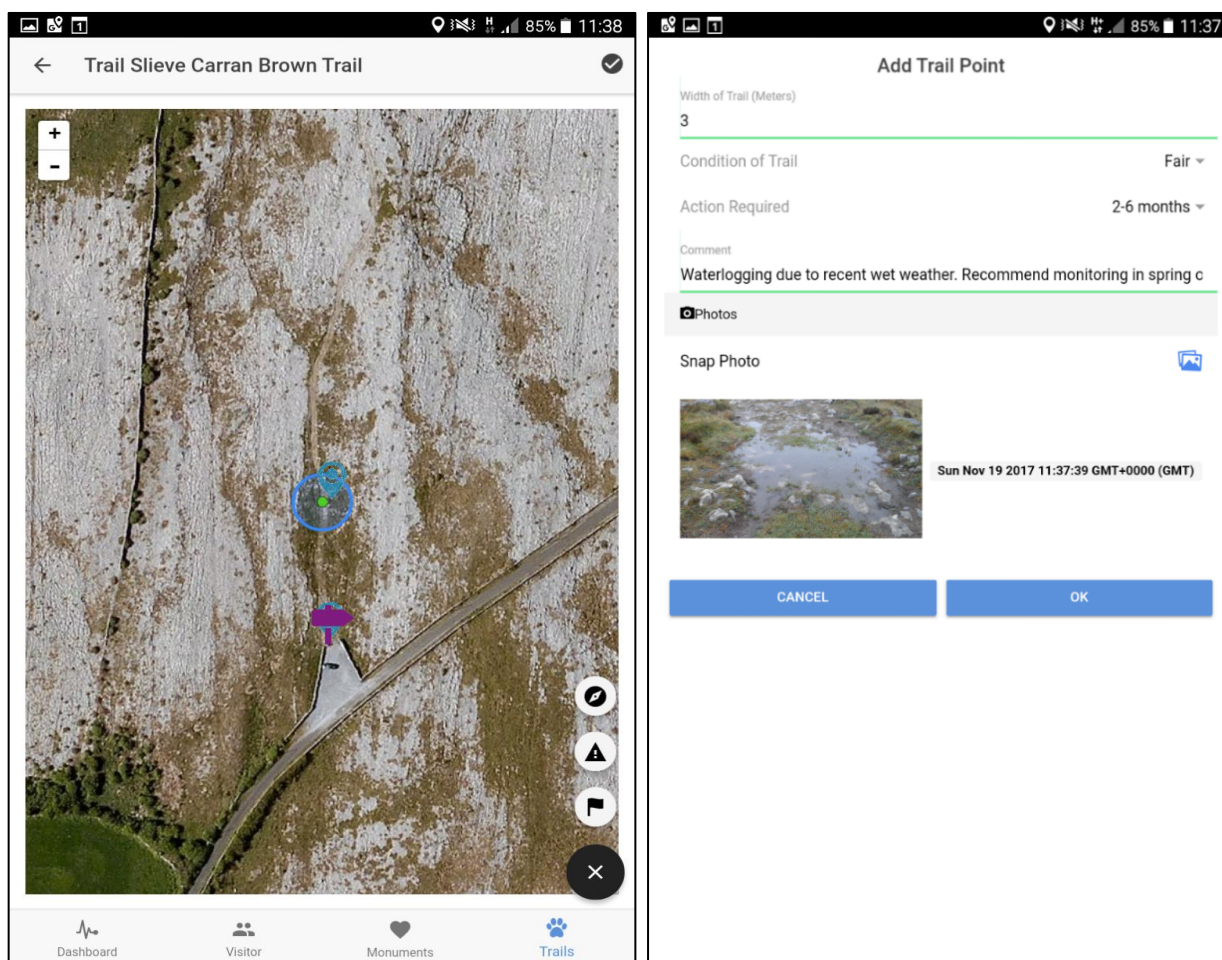


Photograph 21: GeoparkLIFE and NPWS integrated interpretive panel installed at Slieve Carran October 2017



## Visitor Management Proposal

<b>Issue 4</b>	<b>Monitoring of trail condition</b>
Agreed Action	Develop a digital monitoring app for collection and analysis of data with regard to the condition of the trails to replace paper based system currently in use by NPWS Conservation Ranger
Tasks	<ol style="list-style-type: none"> <li>1. Agree specification for app development to allow collection of trail data as monitoring point location (GPS), fixed point photography and descriptive text</li> <li>2. Identify and supply functional requirements for the app</li> <li>3. Field test prototype with NPWS conservation ranger</li> <li>4. Refine as required</li> <li>5. Field test and refine</li> </ol> <p>Develop web portal for viewing of uploaded data to agreed specification</p>
Responsible person/group	GeoparkLIFE and NPWS
Date Action Completed	Site monitoring app and web portal completed November 2017.
Results	<p>The trail monitoring section of the app and portal were completed to the agreed specification for the GeoparkLIFE project and demonstrated at the end of project Conference in November 2017. Data collected during the testing phase for the Slieve Carran Brown Trail is uploaded to the portal.</p> <p>Agreements are now required as to the future management of this tool in terms of use by the NPWS and storage of data.</p>



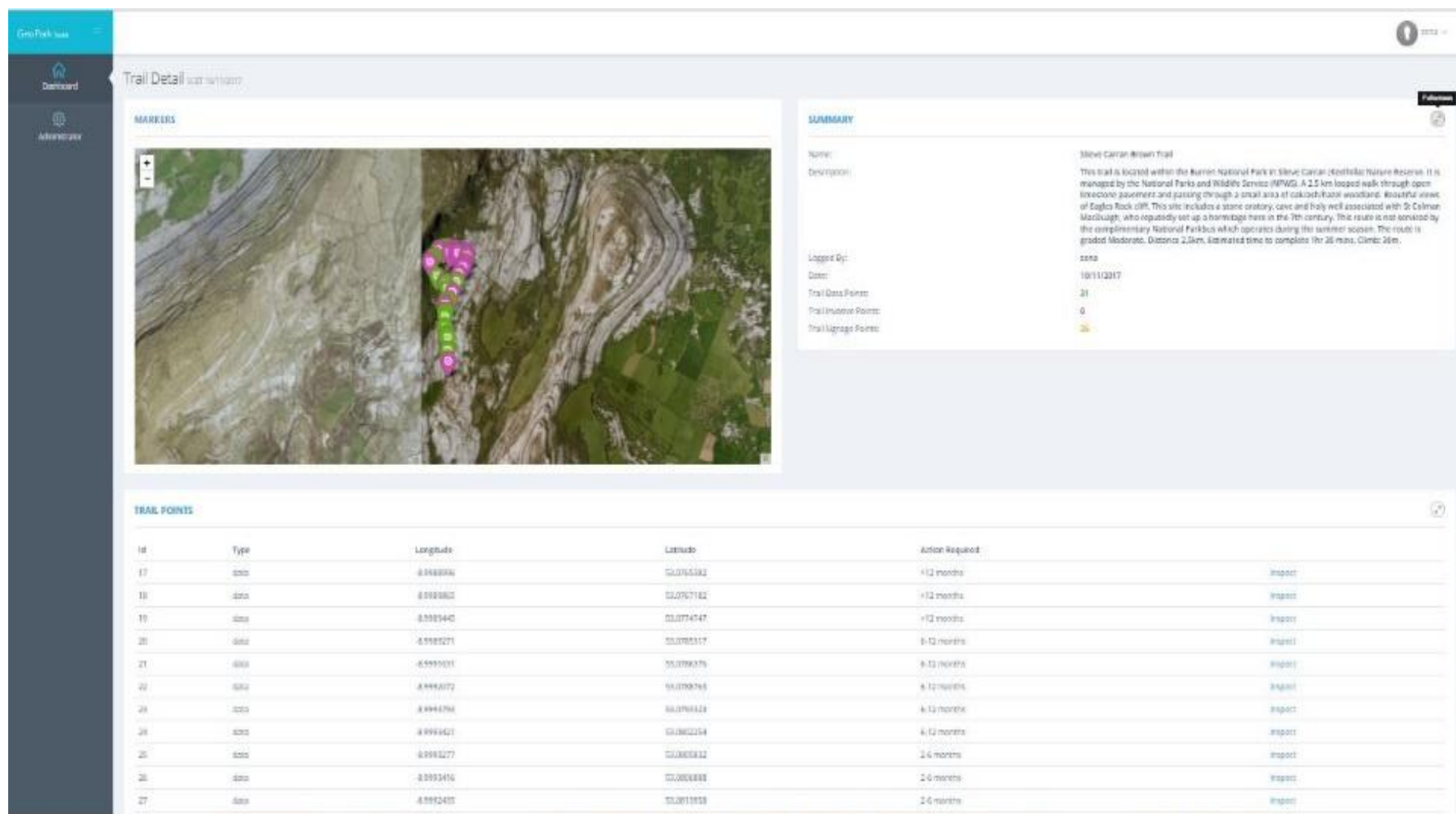
Photographs 22 & 23: Screenshots from trail monitoring app showing selection of monitoring point and inputting of trail point data



## Visitor Management Proposal

<b>Issue 5</b>	<b>Lack of on-site trail information</b>
Agreed Action	Carry out review of brown trail and identify information required for NPWS to deliver updated signage
Tasks	<ol style="list-style-type: none"> <li>1. Survey trail recording location, photographs and descriptive text with regard to condition of all signage on the route using the GeoparkLIFE trail monitoring app.</li> <li>2. Provide NPWS conservation ranger with app software to test and carry out own review.</li> </ol>
Responsible person/group	GeoparkLIFE and NPWS
Date Action Completed	August 2017
Results	Trail information and damaged signs recommendations were uploaded to the GeoparkLIFE heritage site monitoring web portal where they can be accessed by the NPWS site managers.

## Visitor Management Proposal



**Trail Detail** 10/11/2017

**MARKERS**

**SUMMARY**

Name: Slieve Carran Brown Trail

Description: This trail is located within the Kesh National Park in Slieve Carran (Geopark) Nature Reserve. It is managed by the National Parks and Wildlife Service (NPWS). A 2.5 km looped walk through open limestone pavement and passing through a small area of oak/hazel woodland. Beautiful views of Eagle's Rock cliff. This site includes a stone oratory, cave and holy well associated with St Colman MacLuagh, who reputedly set up a hermitage here in the 7th century. This route is not serviced by the complimentary National Parkbus which operates during the summer season. The route is graded Moderate. Distance 2.5km, Estimated time to complete 1hr 25 mins, Climb 26m.

Logged By: zana

Date: 10/11/2017

Trail Data Points: 21

Trail Inspect Points: 0

Trail Signage Points: 2

**TRAIL POINTS**

ID	Type	Longitude	Latitude	Action Required
17	data	-8.546896	55.076538	>12 months <a href="#">Inspect</a>
18	data	-8.548882	55.076718	>12 months <a href="#">Inspect</a>
19	data	-8.548540	55.077477	>12 months <a href="#">Inspect</a>
20	data	-8.548527	55.078317	6-12 months <a href="#">Inspect</a>
21	data	-8.549101	55.079637	6-12 months <a href="#">Inspect</a>
22	data	-8.549177	55.079795	6-12 months <a href="#">Inspect</a>
23	data	-8.549176	55.079812	6-12 months <a href="#">Inspect</a>
24	data	-8.549142	55.080214	6-12 months <a href="#">Inspect</a>
25	data	-8.549277	55.080832	2-6 months <a href="#">Inspect</a>
26	data	-8.549346	55.080888	2-6 months <a href="#">Inspect</a>
27	data	-8.549240	55.081018	2-6 months <a href="#">Inspect</a>

Photograph 24 : Screenshot from GeoparkLIFE site monitoring web portal showing data recorded and uploaded for the Brown Trail at Slieve Carran. Each of the trail points listed in the lower section can be expanded for more detail (photographic and descriptive) or the same data can be retrieved by tapping on one of the trail points in the map.

## Visitor Management Proposal

GeoPark Tools
Dashboard
Administrator

Trail Data Detail
data

### TRAIL POINT

### SUMMARY

Reference:	SCBT-2
Trail Width:	2.5
Condition:	Fair
Action Required:	>12 months
Latitude:	53.0767182
Longitude:	-8.9989865
Comment:	Recent heavy rain has led to water lodging in ruts in trail.

Photograph 25: Screenshot of individual trail point data on trail monitoring portal



## Visitor Management Proposal

Issue 6 (A)	Restrictions to visitor access to oratory site
Agreed Action	A staged approach was agreed to address the issue of visitor access at the oratory site where the path can be hazardous during wet weather conditions. Each stage (as detailed in tasks section below) would be implemented and monitored to determine whether the impact of footfall has been lessened and whether there is a need to move onto the next stage. If the first stage does not improve the situation departmental approval must be obtained before progressing to stage 2.
Tasks	<ol style="list-style-type: none"> <li>1. Cut back the hazel on either side of the pathway to let light and air in to dry out the soil</li> <li>2. Monitor site over 1 year and if no improvement is evident obtain departmental approval and move to task 3</li> <li>3. Install a narrow path (1 metre wide) with geotextile base and gravel top layer</li> <li>4. Monitor and if visitors are moving beyond the limit of the path causing erosion move to task 5</li> <li>5. Widen path if necessary.</li> <li>6. Monitor site</li> </ol>
Responsible person/group	GeoparkLIFE/NWS
Date Action Completed	2017 and ongoing
Results	The hazel trees were cut back in March 2015. Monitoring through the summer showed that the condition of the path had improved. Regrowth was cut back again in 2017 and the path is showing continuing improvement. It is agreed that there is no need at present to move to task 3.



Photograph 26 & 27: Condition of entrance to oratory March 2015 prior to cutting back of hazel trees.



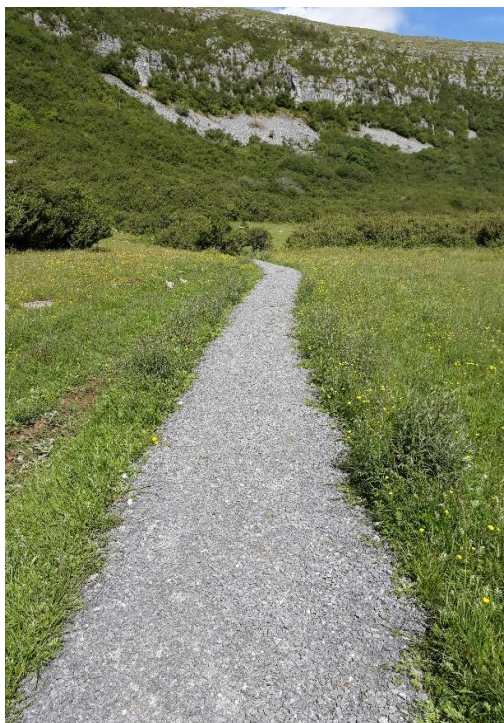
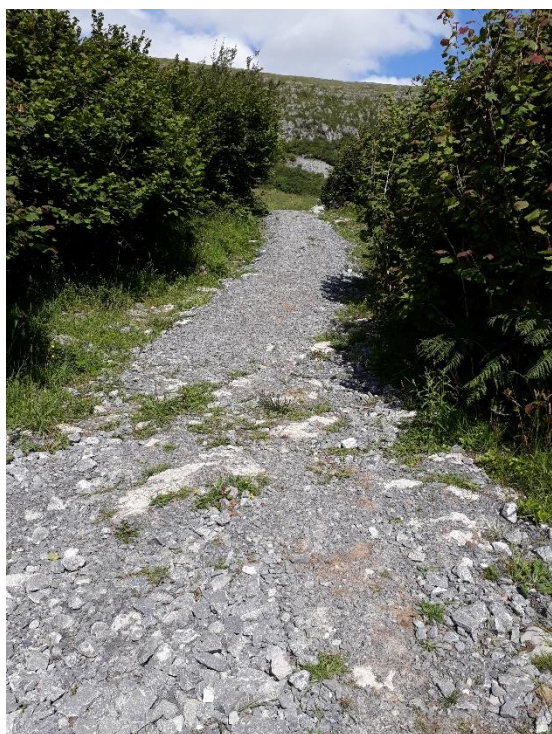
Photograph 28: Entrance to oratory July 2017

<b>Issue 6 (B)</b>	<b>Restrictions to visitor access in wooded area of brown trail</b>
Agreed Action	Two areas which were noted to be prone to erosion due to footfall were the grass pathway through the meadow and the wooded area along the brown walking trail. A gravel overlay would be applied to the grass approach pathway to and through the wooded area
Tasks	Lay gravel
Responsible person/group	NPWS
Date Action Completed	Maintenance work on brown trail pathway was completed in November 2016.
Results	Both these areas identified as vulnerable to erosion were gravelled in November 2016 by the NPWS to provide a firmer underfoot surface and prevent walkers straying off the designated pathway to avoid muddy areas. These areas will continue to be monitored using fixed point photography and width measurements. Use of the GeoparkLIFE Monitoring app will allow this work to be undertaken in a comprehensive and efficient manner. The area has shown improvement and will continue to be monitored.





Photographs 29 & 30: Entrance to wooded area and track through meadow



Photographs 31 & 32: Entrance wooded area and track through meadow July 2017.



## Visitor Management Proposal

<b>Issue 6 (C)</b>	<b>Restrictions at site entry from parking areas for less abled bodied</b>
Agreed Action	Leave gate unlocked.
Tasks	
Responsible person/group	NPWS
Date Action Completed	2015
Results	A new entrance gate was installed by the NPWS in October 2015 which is left unlocked to permit least restrictive access to the site.



Photograph 33: Burren National Park gate installed at Slieve Carran entrance (photo taken April 216)

## Visitor Management Proposal

Issue 7	Monitoring Visitor Numbers
Agreed Action	Regular data collection and analysis from the four footfall counters installed at the site in 2014 will be carried out by GeoparkLIFE staff and results shared with the site managers.
Tasks	Collect and analyse data from counters on a three month basis
Responsible person/group	GeoparkLIFE
Date Action Completed	Numbers collected up to December 2017. Collection and analysis to continue.
Results	Results contained in Tables 1-4 below. All data is shared with the site managers.

	Roadside entry to west section to Nature Reserve			
	2014	2015	2016	2017
January		458	917	385
February		332	877	141
March		347	931	412
April		859	1003	923
May		938	1533	1102
June		1045	829	822
July		1502	1320	1303
August		1840	1798	1505
September	396	964	471	711
October	428	642	628	568
November	323	281	479	227
December	469	628	603	310
	<b>1616</b>	<b>9836</b>	<b>11389</b>	<b>8409</b>

	Entry from first to second field in west section of Nature Reserve			
Month	2014	2015	2016	2017
January		70	93	81
February		150	127	69
March		148	197	66
April		233	123	179
May		297	250	398
June		251	144	273
July		368	182	242
August		365	231	262
September	64	208	109	151
October	49	156	154	76090*
November	281	191	75	21305*
December	138	123	143	61
	<b>532</b>	<b>2560</b>	<b>1828</b>	<b>99177</b>

	Lower road entrance to east section			
Month	2014	2015	2016	2017
January		41	34	118
February		78	45	21
March		66	104	74
April		117	177	142
May		149	111	26
June		97	59	38
July		106	84	48
August		119	72	86
September	71	83	65	64
October	91	93	82	41
November	133	63	66	58
December	39	36	85	54
	<b>334</b>	<b>1048</b>	<b>984</b>	<b>770</b>

	Entry from upper road to east section
--	---------------------------------------

## Visitor Management Proposal

Month	2014	2015	2016	2017
January		49	51	103
February		31	72	48
March		160	159	139
April		247	409	306
May		264	655	319
June		395	506	338
July		578	466	350
August		567	459	541
September	201	229	175	227
October	158	252	231	100
November	117	110	98	66
December	60	22	101	38
	<b>536</b>	<b>2904</b>	<b>3382</b>	<b>2575</b>



## SECTION SEVEN: MONITORING PROPOSAL

The following proposal details where future monitoring is required to inform the ongoing adaptive visitor management of Slieve Carran Nature Reserve.

Issue	Action taken	Monitoring data to be collected	Monitoring tool to be used	Frequency of monitoring	Responsibility for monitoring
Deposition of votive offerings at MacDuagh's oratory site	Research study to determine the number, location and nature of depositions at the site in 2015	Number, location and type of new depositions	GeoparkLIFE monitoring app	annually	NPWS
Damage to interpretive panels	New signage was installed in October 2017	Condition of signage	GeoparkLIFE monitoring app	Annually	NPWS
Erosion to designated walking trails due to footfall	Gravel laid at pressure points; hazel removed over entrance pathway to oratory	Condition of all walking trails at the site through fixed point photography, width measurement and descriptive text.	GeoparkLIFE monitoring app	Annually	NPWS
Increasing visitor numbers to site	Four Footfall counters installed September 2014	Visitor numbers to site	GeoparkLIFE footfall counters	Continuous automatic monitoring data collection and analysis at three month intervals	Burren & Cliffs of Moher Geopark/NPWS

### SECTION EIGHT: ADAPTIVE VISITOR MANAGEMENT PLANNING

To ensure that the site visitor management process is ‘adaptive’ the results of site assessments and monitoring sessions must be evaluated and management actions adjusted on the basis of what is learnt.

ACTION	METHODOLOGY	RESPONSIBILITY
Analysis and Evaluation of Data collected	All data with regard to the condition of the site and its trails can be stored on the GeoparkLIFE monitoring app web portal	Burren & Cliffs of Moher Geopark/Clare County Council
Data Storage	It is recommended that data collected be stored on the GeoparkLIFE monitoring app web portal as it currently exists. Access and management agreements for the data need to be made with the NPWS and NMS.	Burren & Cliffs of Moher Geopark/Clare County Council
Feedback to Management Group	It is recommended that site details and monitoring activity be made available through the GeoparkLIFE Burren Map Viewer created in conjunction with and hosted by the Heritage Council and the NPWS Burren National Park website with responsibility assigned within these organisations for updating when required.	Burren & Cliffs of Moher Geopark/Clare County Council and NPWS
Review of effect of actions taken by Management Group	It is recommended that the site managers of NPWS and NMS meet on an annual basis for review of monitoring results, any resulting actions required and future planning.	NPWS and NMS
Agree strategy for adjustment of actions when and where required	A strategy to be agreed	NPWS and NMS





## APPENDIX I



### TITLE 'Pilgrimage in the Burren' Workshop Report

Date  
18-10-14

### 1. Introduction

The 'Pilgrimage in the Burren' Workshop took place in the Michael Cusack Centre, Carron on Saturday October 18, 2014 between 9am and 4pm. Its purpose was to explore good practice around the development and promotion of sites and routes associated with pilgrimage in the Burren.

Invitations to attend were sent to groups and individuals interested in the development of pilgrimage as a tourism experience in the Burren. Land owners, guides, researchers and promoters of pilgrimage locations were among the invitees.

### 2. Programme of Events

The day began with registration and introductions at 9am followed by three presentations on aspects of pilgrimage and its promotion/development as a of tourism enterprise. A facilitate discussion was then held which was further developed during the afternoon field trip to the nearby pilgrimage site of St MacDuaghs Oratory at Slieve Carran.

9.00 -9.30	Coffee, Registration and Introductions	Carol Gleeson, Manager of GeoparkLIFE
9.30 -10.15	The historical practice of pilgrimage	Louise Nugent, Archaeologist and researcher on pilgrimage in Ireland
10.15 – 11.00	Pilgrim Paths Ireland; a reawakening	John G. O'Dwyer, Chairman of Pilgrim Paths Ireland and author of "Pilgrim Paths In Ireland - a Journey from Slieve Mish to Skellig Michael."
11.00 – 11.15	Coffee break	
11.15 – 12.00	Developing trails and access in the Burren	Eoin Hogan, Rural Recreation Officer, Clare Local Development Company
12.00 – 1.00	Discussion groups/feedback/next steps	Facilitated by Dr Gabriel Cooney (UCD) and Zena Hctor, Heritage Consultant

## Visitor Management Proposal

<b>1.00 – 1.45</b>	<b>Lunch</b>	
<b>1.45</b>	Bus to Slieve Carran Nature Reserve	
<b>2.00 -4.00</b>	Walk to St. MacDuach's Church and Well; Applying the morning's discussions to a pilgrimage site.	Facilitated by Zena Hctor and Carol Gleeson

### 3. Feedback Session

The objective of the workshop was to investigate, discuss and agree good practice which addresses the sensitivities and practicalities surrounding the promotion and development of pilgrimage as a tourism enterprise. A discussion to explore these topics was facilitated by Dr Gabriel Cooney and recorded by Zena Hctor. The following is a compilation of the issues raised during the discussion.

#### 3.1. Management Issues

- Genuine pilgrims sometimes feel they are on show for tourists – how can this be managed?
- Pilgrimage tourism has the potential to increase visitor numbers and disturb the peacefulness and sense of a holy place.
- The idea of a pilgrim's path is about moving towards a destination. Does tourism destroy what attracted in the first place? It must be managed in a very sensitive way e.g. how we bring people in and in what numbers.
- Invest in the locals who love their landscape and will act to protect it. Spread the route with points where there is a person as well as a place. Local voices telling the story.
- If you develop in this way and are successful, outside tour operators will come in and replicate your methodology – how do we manage this?
- Interfering with the landscape - for example Slieve Carran is on NPWS land – gravel paths are taking from the landscape as does the boardwalk at Cahercommaun.
- But we must be aware of health and safety – where do we find the balance?
- At Mullaghmore sections of the trail are eroding.
- Great view of the Mullaghmore from Lough Avalla - therefore maybe it's best to market the Lough Avalla walk and take some of the visitor pressure from Mullaghmore.
- Unless there are real dangers do we need interventions? Take the genuine pilgrims experience. There is minimum intervention. Use of a pilgrim's passport would spread the load.
- Must monitor to get the balance right between promotion and protection of the environment. More research needed with regards to stiles and path types. Keep numbers small. No large buses.
- Need conservation for local people who have connections to the sites and for visitors with perhaps spiritual reasons.

- Scrub encroachment needs clearance – but herbicides such as ‘Round – Up’ should not be used. This is currently being used on the Burren by certain agencies and its use should be banned to protect the environment and most especially the groundwater.
- Votive offerings – remove all of them (Leave No Trace policy)
- Adopt – A – Monument – use this process to involve the local community
- Must decide on management before promotion. Very useful expertise already exists here on the Burren for proper management.
- Sensitivity is key/ Already have a number of sacrificial sites.
- Small groups are key. Will control access, peace etc.
- **A Cuimhneamh an Chláir** recording tells of a woman who was the caretaker of a holy well. She held responsibility for cleaning it out and taking care of the statues. She had a great knowledge of the ecology and awareness of the spirituality of the site. This could be the way to manage such sites.

### 3.2 Existing trails

- Clare Pilgrims Way already has a route established from West Clare up around Kilmacduagh to Kilfenora. Have been at it for 3 years. Need help with mapping, signage etc. Usually cater for groups of 10-15 for 2-3 days. The motivation is to explore where and how the church evolved in County Clare. Incorporates theology and ecology. Desire to dig into human history. Tourism is not the major concern.

### 3.3 Developing New Trails and Sites

- The high Crosses at Kilfenora – could there possibly be replicates placed on the landscape to replace the originals which are now housed in the Cathedral?
- Possibility of developing a Pilgrims path across the Burren from the Aran Islands to Kilmacduagh, incorporating MacDuaghs Church, Oughtmama and Corcomroe.
- Aran Islands community being part of the Pilgrims route – maybe get away from commercialism?
- The question of insurance – self guided walk or guided require different types of insurance.
- Many of the sites are on private land therefore there is limited access.
- There are enough trails in the Burren – why develop more? To develop a new route you need to do historical research to show that it’s a genuine pilgrims route and negotiate with landowners for access to land. There could be several landowners and community groups involved – this is a massive hurdle. It would involve huge commitment and resources. There is a very serious Appropriate Assessment (AA) process to be undertaken and planning permission to be obtained for new trails. Future maintenance and monitoring programmes also have to be developed and implemented. If the route is to be guided – how does this affect the landowner – do they benefit? Recommendation: try a pilot – road test a small section first.
- A pilgrimage doesn’t have to be a long journey – it can be short and local.
- Local guiding is best as opposed to Apps/maps etc.
- There is room for both – different markets must be catered for.

### 4. Discussion at Slieve Carron

The discussion continued as the workshop participants visited the pilgrimage site of St. MacDuagh's Oratory. Zena Hoctor led the walk through the site asking the following question on the issues of access and management:

- How difficult do you find access to this site?
- Would you bring a group here?
- If yes – are there any safety issues that may affect you and your group?
- What negative impacts do you think leading groups of people to and into this site may have?
- What do you think of the overall condition of the site; including the condition of the monuments and the practice of leaving votive offerings at the well and on surrounding trees
- Would you like to see it improved and if yes, how?
- How do you think this site should be maintained and managed into the future?

The discussion covered the following points:

- Access to the site (over stile) is difficult for some. This could be improved.
- With regard to the immediate access to the church site, there were differing opinions as to balancing the improvement of access in terms of the wet underfoot conditions and maintenance of the atmosphere of the site provided by its closed in nature. Some felt the trees provided a closed peaceful atmosphere while others saw the benefit of improving the safety of the entrance path and opening out the view as was more likely the situation in the past. Safety was not thought to be a major problem – as the pilgrims are used to visiting old ruined sites and have an awareness of the hazards.
- A local landowner stated that the votive offerings around the well were not present up to about 10 years ago and that they have no relevance and should be removed. Others commented that there may be genuine reasons for the leaving of offerings and this must be respected.
- It was generally felt that the building could do with some consolidation but overall its condition added to the atmosphere of the site and should not be sanitised.
- The clearance of scrub through the application of herbicides (Round-up) was again raised and there was a strong opposition voiced against its use.
- Overall it was felt that this was a very special site and should not be over promoted nor should access be made very easy. The site should not be over sanitised.

### 5. Wrap-up

The workshop ended with several participants expressing their interest in continuing the process of discussion and exploration around the topic at a future workshop.



## Appendix II

### Measured Survey and Architectural Heritage Appraisal

#### of St. Colmán Mac Duach's Oratory,

#### Keelhilla, (*Cill h-Aille – The Church in the Cliff*), Carran, Co. Clare.

Mon. No. CL006-02301-, 006/07/6, 13289/20420, Keelhilla, (1916), OD 400' – 500', St. MacDuagh's Church (in ruins).

The little church, which is situated under a limestone cliff, and accessed from a long, soled pathway which may be medieval in origin, is part of an archaeological complex: Mon. No. CL006-023. This complex contains no fewer than eight recorded monuments within a 100m. radius. This survey covers only the church / oratory. The other monuments are covered by another report.

The little oratory (10.6m E/W by 5.3m N/S) consists of the ruins of a small church with west gable (height 4.5m. Pitch 53 degrees) and about half of the original north wall (height 2.5m) intact. The line of the original foundations of this building are visible on the ground. It contains few features save the remnants of a small splayed window on the N wall and well cut barge stones on the gable, which appears to have been crudely raised in the past.

The masonry of the church comprises roughly dressed, limestone, field stones in a lime mortar, finished to a smooth surface on their outer faces. They are set in irregular and erratic courses, using small pinnings in narrow joints, as is the practice in early Christian Churches. One large, thin flagstone, in the interior leaf of the gable, is standing on its edge and supporting most of the gable, above it. All the material behind it has been taken out, leaving the structure in a very precarious condition.

There are dressed stones and architectural fragments strewn around, including a window cill and a door jamb with a cut recess for an iron gudgeon, to carry the iron door pintle or hinge. There are a pair of almost square, dry-stone altars, one within the church and one without, to the north, comprised of cuboids of dry-stone blocks, probably built from collapsed masonry rubble, during the 17<sup>th</sup> or 18<sup>th</sup> centuries.

The rear wall of the gable is covered with moss obscuring any features that may exist. To the north, beside a stream, at about 20m. distant, is a sub-circular holy well with dry-stone wall and a flagstone lintel over the entrance. The church site contains mounds of masonry rubble from various collapses. Due to the distance from the road it is likely that most of the original building stone remains on site.

### Recommendations:

The little oratory is in need of remedial works to conserve the ruin and reduce the risk of collapse and loss of historic, masonry fabric. A method statement should be prepared, to ensure that works are carried out to the highest standards of conservation practice. The following works are recommended:

- (1) The area behind the vertical flagstone in the east gable should be filled with stone bedded in a hydraulic lime (3.5NHL) mortar to support the weight of the gable.
- (2) The dislodged stone on the exterior of the north wall should be re-set.
- (3) The gable and remaining wall should be re-pointed in hydraulic lime mortar and wall tops consolidated in disguised limecrete.
- (4) Architectural fragments should be collected under archaeological supervision and left together. There is no great risk of theft due to the distance of the site from the public road.

(This report is accompanied by a site map, photographic record and measured survey. A method statement for the above works can be provided on request).

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Architectural Conservation Officer / Archaeologist

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Date: 13<sup>th</sup> October 2014

## APPENDIX III

### VISITOR ATTITUDES SURVEY Slieve Carran 2014 (MWB)

1. How long do you intend visiting this site?

Less than 1 hour	1-2 hours	3-4 hours	5-6 hours	Full day
35	19	35	7	5

2. How would you rate the signposting for directions to this site on a scale of 1-10 (1=poor; 10=very good)

1	2	3	4	5	6	7	8	9	10
5	7	5	7	14	5	7	23	12	16

3. How would you rate the physical entry to this site (including stiles and footpaths)

1	2	3	4	5	6	7	8	9	10
0	0	2	0	5	7	26	23	26	12

4. How would you rate the parking facilities at this site? (Scale 1-10)

1	2	3	4	5	6	7	8	9	10
2	0	0	2	2	2	5	40	19	28

5. Have you noticed any information boards at this site/location?

Yes	No
86	14

6. Have you read the information on them?

Yes	Partially	No
68	16	16

7. Did the information add to your understanding of the Burren?

Yes	No
97	3

8. How would you rate your overall satisfaction with your visit to this site?

Very dissatisfied	Dissatisfied	Neither satisfied or dissatisfied	Satisfied	Very satisfied
0	0	5	28	67

9. What is the main type of transport you are using to travel within the Burren?

Own car	Hired/rented	Public transport	Motorbike	Coach day tour	Coach guided tour	Private chauffeur tour	Bicycle	Other
51	30	0	0	12	0	0	9	0

## APPENDIX IV

### VISITOR OBSERVATIONS AT SLIEVE CARRAN

(Zena Hctor)

#### 1. Survey Detail

Site Id : SIC	Date Of Survey	Day of Week	Duration of Survey	Weather	No of people observed
	25-7-14	Friday	10am-5pm (7 hours)	Hot and Sunny	13
	7-8-14	Thursday	2pm-5pm (3 hours)	Hot and Sunny	6

#### 2. Number of Observations, gender and group breakdown

Number of people observed	Total number of females	Total number of males	Number of observations	Average group size
19	8	11	11	2

Comment: Group size did not exceed 2.

#### 3. Age demographic

All adults

#### 4. Mode of transport

Car	Coach	Push Bicycle	Motorbike	Motorhome
13	0	5	1	0

#### 5. Mode of transport, Time Spent on Site and Main activity type based on group and age demographic

Date of observation	Obs group id	Time spent on site (hours:minutes)	Group type	Age demographic	Mode of transport	Main activity
25-7-14	SIC1	4:00	M/F	20-25	Car	Long distance walking
25-7-14	SIC2	0:22	M/F	35-40	Car	Photography and viewing landscape
25-7-14	SIC3	2:08	M/F	40-45	Car	Photographing vegetation
25-7-14	SIC4	0:27	F/F	40-45	Car	Picnic
25-7-14	SIC5	0:02	M/F	45-55	Car	Quick photograph
25-7-14	SIC6	1:15	F	65-70	Car	Walking
25-7-14	SIC7	0:01	M	25-30	Push bike	Pauses as cycles by
25-7-14	SIC8	1:00	M	45-50	Motorbike	Walking
7-8-14	SIC9	1:10	M/M	40-45	Car	Walking
7-8-14	SIC10	0:01	M/M	25-30	Push bikes	Pause as cycle by
7-8-14	SIC11	0:15	M/F	40-45	Push bikes	Reading panels and viewing landscape

Average time spent on site: 1 hour 60 mins.

#### 6. Level of Activity

Walking (35%)

Comment: a larger sample size will allow sub division of this category down into distance walked (short/medium/long for example)



## Visitor Management Proposal

Photography (27%)

Viewing landscape (18%)

Picnicking (9%)

### 7. Time spent reading Information Boards

Obs group ID	SIC1	SIC2	SIC3	SIC4	SIC5	SIC6	SIC7	SIC8	SIC9	SIC10	SIC11
Time spent reading panels (mins:secs)	02:00	01:40	01:30	00:30	00:00	03:00	00:00	00:30	00:00	00:00	09:00

Average time spent reading panel: 2.5 minutes

### 8. Effects Observed

1 Car park on grass verge (14% of car owners)

1 couple went off designated trail to sit on rock (approx. distance 20m) – (2 out of six walkers: 33%)

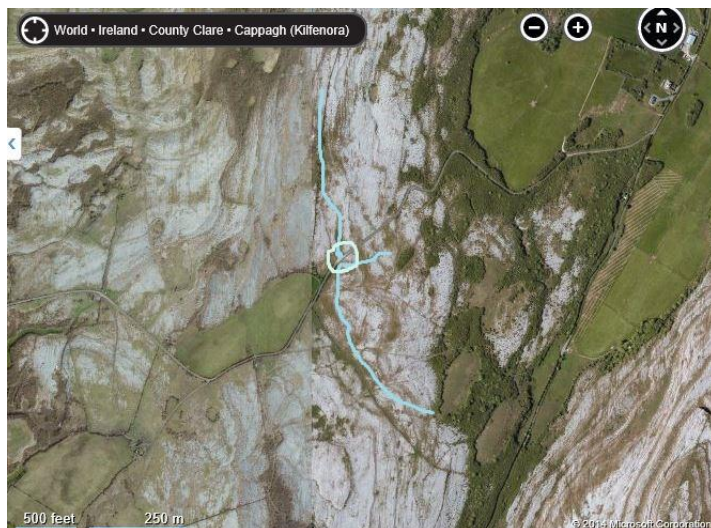
Comment: Sample size is too small to use percentage as result.

### 9. Time of day of arrival at site

		Observer group ID										
		SIC1	SIC2	SIC3	SIC4	SIC5	SIC6	SIC7	SIC8	SIC9	SIC10	SIC11
Time of arrival	25-7-14	11.40	11.43	12.23	13.45	15.47	16.00	12.05				
	7-8-14								14.16	14.45	15.15	15.34

This will provide an indication of the main times of impact at the site

### 10. Visitor Movement Pattern



Observed movement patterns

Most activity occurred in the central area.