Burren National Park





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 Burren National Park demonstration site and to provide a Visitor Management Planning Proposal for the attractions located within this site.

Zena Hoctor

GeoparkLIFE Sites and Monuments Co-Ordinator

May 2018.

SECTION ONE: SITE IDENTIFICATION



1.1. **Site Name and Location**

Site Name **Burren National Park**

Townland Carrownamaddra, Rinnamona, Poulnlour, Glenquin, Gortlecka,

Knockaunroe, Cooloorta, Creehaun, Aughrim, Carrownagoul,

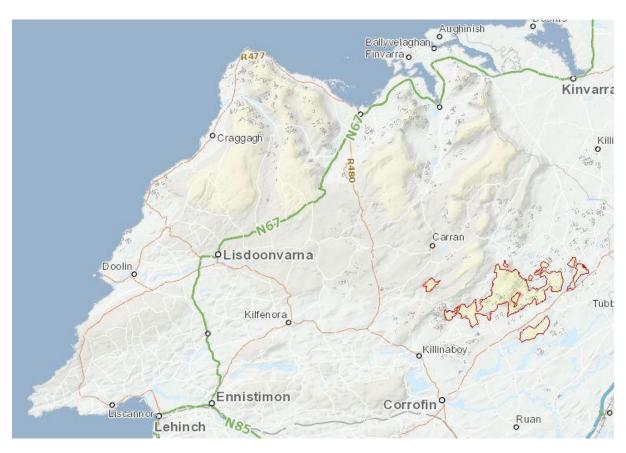
Rockvale, Kylecreen and Culleen.

ITM E **Several locations**

ITM N Several locations

OS Discovery Series Sheet No. 51 and 52

OS 6 - inch Series Sheet No. CL010



Map 1: Site Location of Burren National Park outlined in red.

SECTION TWO: SITE SIGNIFICANCE

2.1. Site type and features

The Burren National Park covers approximately 2,013 hectares in eight separate blocks of land. The main body of the Park lies within the townlands of Carrownamaddra, Rinnamona, Poulnlour, Glenquin, Gortlecka, Knockaunroe, Cooloorta, Creehaun, Aughrim, Carrownagoul, Rockvale, Kylecreen and Culleen to the north-east of the villages of Corofin and Killinaboy.

These lands were acquired on behalf of the State by the Office of Public Works (OPW) and are managed by the National Parks and Wildlife Service (NPWS), with the aim of providing information on the National Park and to promote conservation through awareness and education.

All the site is located within the East Burren Complex Special Area of Conservation (SAC 001962) and has public access.

The Burren National Park contains examples of all the major habitats found within the Burren region: limestone pavement, calcareous grassland, hazel scrub, ash/hazel woodland, turloughs, lakes, petrifying springs, cliffs and fen. Approximately 75% of plant species found in Ireland are represented within the habitats of the Burren, including 23 of Irelands 27 native orchid species.

Plants normally associated with sub-arctic conditions such as Mountain Avens, are found growing alongside southern European species, such as Bloody Cranesbill and the dense-flowered orchid whose distribution is centred on the Mediterranean. In addition, plants ordinarily associated with acidic conditions such as heathers grow abundantly on the alkaline limestone and plants typical of woodland flora commonly grown in open conditions. This diversity attracts botanists from all over the world to the Burren and the National Park.

Among the seven species of bats that inhabit the Park is the Lesser Horseshoe Bat, a species that is endangered in an international context. This Bat is confined in its distribution to the Western counties of Mayo, Galway, Clare, Limerick, Kerry and West Cork. The small caves in the Park provide hibernation sites for this threatened species.

Ninety-five species of bird have been recorded within the Park, at least fifty of which have used the Park for breeding. They include Ravens, Peregrine Falcons, Kestrels, Merlin, and in the winter, Hen Harriers. There is also a good representation of the smaller songbirds.

Two reptile species are found in the park; the native Common or Viviparous Lizard and introduced Slow Worm. Twenty-seven of Ireland's thirty-three resident and regular migrant butterflies have been recorded here and the area around Mullaghmore is believed to be the richest butterfly site in Ireland. Five of the butterfly species recorded in the Park are deemed endangered or vulnerable and a further four are considered to be under threat.

The mosaic of interconnected habitats in the Burren support a vast number of different lichen species some of which are only found in the Burren Region.

The highest point in the park is Knockanes (207 metres) which continues as a curving terraced ridge to Mullaghmore to the south. East of this ridge is an area of extensive, low lying limestone pavement containing several semi-permanent lakes. West of this ridge the pavement sweeps down to partially drift-covered ground which gradually rises again to reach the foot of a rocky escarpment. To the





south of the Park the limestone bedrock disappears under a layer of glacial till. This till area is intensively managed for pasture and silage.

The area in which the main section of the National Park is located is the only part of the Burren that has been subjected to any major tectonic disturbance. Substantial folding of the rock may be observed at Mullaghmore where anticlinal and synclinal folding are evident. Elsewhere the limestone beds are flat except for a very slight tilting to the south west. The area of the Park surrounding Mullaghmore Mountain is deemed of International importance in the Clare County Geological Site reports and is proposed for Natural Heritage Area (NHA) designation under the Irish Geological Heritage (IGH) Programme 1 Karst theme.

Mushroom stones at Gortlecka are among only 63 mushroom stones known in the country and are a recorded site under the County Geological Survey. The site report includes the following statements:

'.....as they are within the Burren National Park they are the least vulnerable to damage or loss. They are potentially worthy of specific attention on interpretative panels, guidebooks etc.'

2.2. Specific Features of Visitor Interest

The Burren National Park attracts specialist and academic tourists who have an in-depth interest in the area or are pursuing a specialised activity, such as studying the Burren flora. It also attacts the more casual visitor interested in the landscape and scenery. School tours are common in the May-June period, while many visitors come to view the flora during the spring and early summer. A large number of visitors use the designated walking trails within the Park, both long and short distance options.

Within the Burren National Park boundary there are 33 archaeological monuments recorded on the National Monuments Service Record of Monuments and Places. These include nine hut sites, two enclosures, two caves, five fulacht fia, six unclassified cairns, one wedge tomb and Cahercommaun cashel with its associated house sites and souterrains. The most visited archaeological monument within the Park is Cahercommaun Cashel, a designated National Monument in State care. This triple walled stone cashel is situated on the NW facing edge of a deep ravine with spectacular vistas of the surrounding countryside. The main occupation is dated to the second half of the first millennium AD but earlier activity on the site is likely and the site is believed to have been in use up to the late 9th-early 10th century. The site is open to the public, signposted and a designated trackway leads from the road up to the cashel.

2.3. Regional Context of the Site

The Burren National Park is characterised by stunning landscape, narrow roads, unspoilt upland regions and a wide range of natural and cultural heritage 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 and the town of Corofin. The Burren National Park Information Point is located in Corofin and is open on a seasonal basis from April to September.





2.4. Associated Place names and their meanings

Gortlecka – the field of the flag or iris

Knockaunroe - little hill in the red place

Coolorta - the meaning has not been defined but the prefix 'Cool' 'cúil' means corner

2.5. Social and Cultural History of the site

In April 1991, the Minister of State of the Department of Finance announced a plan for the construction of a Burren National Park interpretative visitors' centre at Mullaghmore by the Office of Public Works (OPW).

The proposal resulted in both opposition and support from a number of local groups and individuals. The Burren Action Group (BAG) was formed to oppose the centre and present an alternative. The Burren National Park Support Association formed to emphasise the economic potential of the OPW proposal for the region.

In June 1991, the protests obtained National and European recognition when the WWF UK and An Taisce (the Irish National Trust) lodged a complaint against the project with the European Commission stating that the project would be in violation of Community Law regarding the protection of groundwater. In February 1992, the OPW published an environmental impact assessment, at the request of the Commission.

In early 1992 a car park was cleared at the site, sewage works commenced and foundations for the centre were constructed.

In October 1992, the European Commission stated that it would not initiate a procedure against the Irish government on this issue.

By November 1992 BAG had sought an injunction at the Irish High Court against the construction work. This argued that the OPW's exemption from the need for planning permission was unconstitutional and that the OPW lacked the statutory power to build the visitor centre.

In December 1992, the WWF and An Taisce brought an action at the European Court of Justice, claiming that 2.7 million Irish pounds of Community funds allocated to the project should be suspended. The Court dismissed the application.

In early 1993, the High Court found that the OPW had unconstitutionally and illegally initiated construction as they lacked the relevant statutory power. OPW appealed, but the injunction was upheld and work at the site ceased.

However, in June 1994 the High Court found that the OPW had the right to resume work under the State Authority Management Act. The then Minister for Arts, Culture and the Gaeltacht, Michael D. Higgins nevertheless stopped the project.

By March 1995 the State had abandoned plans to complete the centre and the OPW application for construction was withdrawn. This resulted in heavy criticism from those who had been in favour of the project.

In the late 1990s, the OPW applied for planning permission to Clare County Council to proceed with a scaled down version of the proposal consisting of an entry point to the park, toilets, ranger accommodation and a roofed area on the site of the originally planned interpretive centre, a car park for 76 cars and retention of an existing water treatment facility on the site of a nearby quarry. This application was refused planning by Clare County Council in 1999.





The result was challenged by the then Minister for the Arts, Gaeltacht and the Islands, Sile De Valera and the OPW claiming that the centre would have minimal visual impact and no significant adverse effects on the area. An Taisce and the Burren Action Group objected arguing that the centre's concept was fundamentally flawed and not environmentally sustainable.

In 2000 An Bord Pleanála confirmed the ruling by Clare County Council stating that the centre would involve unacceptable damage to the environment and to the fragile local ecology, detracting from the scenery and rural character of the area.

In 2001 existing structures at the site were demolished.

The controversy divided the local community at the time and still emerges as a topic of discussion and discontent when any projects are planned with the National Park.

(Further actions taken since 2012 are contained in Section page)

2.6. 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.

Hoctor Z. 2014 'Burren National Park Site Assessment Report' Burren & Cliffs of Moher GeoparkLIFE http://www.burrengeopark.ie/wp-content/uploads/2016/05/Burren-National-Park-Site-Assessment-Report.pdf

McGrath, B. & Associates 'Draft Burren National Park Management Plan 2017-2030' http://www.burrennationalpark.ie/images/downloads/1ExecutiveSummary.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

Saunders, J. 2015 'Buses in the Burren 2014 – A study of the Impacts and Issues' Burren & Cliffs of Moher Geopark http://www.burrengeopark.ie/wp-content/uploads/2015/03/Burren-Coach-Tourism-Study-Final-Report.pdf

http://www.burrennationalpark.ie





SECTION THREE: BASELINE SITE CONDITION ASSESSMENT

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

3.1 Approach to the Site

The Burren National Park is intersected by several public roads. The most utilised access point is at a small crossroads in the townland of Gortlecka where two small parking lay-bys are located. This is the most popular visitor location within the Park as it includes the iconic Mullaghmore Mountain which is the most highly recognised feature of the National Park. The crossroads at Gortlecka is approached from the south-west by a third-class road from Killinaboy Village; from the north-east by a third-class road from Kinvara/Gort and from the east by a third-class road, known locally as 'the Crag Road' which branches off the R460 between Corofin and Gort. The fourth 'road' at the cross is a 'green road' (i.e. not open to public vehicular access). The green road is part of a designated public walking trail and provides access to a private entrance roadway to a farm.

All three approach roads are narrow and winding and in some places only wide enough for the passing of one car. In general, they are not suitable for coach traffic.

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	There are Burren National Park nameplates on various gates and entrance stiles throughout the park
What is the condition of the signage?	Good
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 ✓
How many spaces are currently available?	15 official





How many spaces are reserved for disabled visitors? 0

Enter the number of spaces available for Coaches 0

Cars 15

Motor Bikes 0

Push bicycles 0

Are the current parking facilities adequate?

Yes □ No ✓

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

Two small official parking areas are located at Gortlecka Crossroads. They consist of a roadside lay-by on the third-class approach road from Killinaboy Village and a second smaller lay-by on the Crag Road at the entrance to the designated Green Nature Trail. There is space to accommodate approximately 10 cars at the former and approximately five at the latter. However, parking can be haphazard and can extend along the grass verges of the roadway in each direction and onto the 'green road' opposite at peak times. During the busiest days in the summer season, there can be severe traffic congestion at the crossroads with demand for parking greatly exceeding supply and on occasion, large coaches manoeuvring through the area and attempting turnarounds at the crossroads.

Unofficial road verge parking occurs further along the Crag Road throughout the year as people seek access to the walking trails at Mullaghmore. The NPWS wish to discourage parking along the Crag Road as much as possible due to the sensitive nature of this landscape.



Photographs 1-2: Parking at Gortlecka crossroads (June 2014)





3.2. Site Entry

There are no official entry points or gateways into the Burren National Park.

Seven way-marked walking routes have been designated and way marked for visitors use. Their starting point is at Gortlecka Crossroads. Six have been developed by the NPWS, while the seventh is a National Looped Walk developed by Fáilte Ireland in partnership with a private landowner. The long distance way marked Way walking route: the Burren Way, also traverses the area (Figure 2).

The National Park routes are colour coded as illustrated in Figure 1 and consist of two short distance and four long distance routes. The National Looped Walk, known as the Lough Avalla Looped Walk is illustrated in Figure 2.



Figure 1: Burren National Park designated walking trails

A small pedestrian gate allows access to the start of the six NPWS designated walking trails from the trailhead at Gortlecka Cross.

The orange trail remains within this area; while the remaining five are brought on-road approximately 500m from the entry point. The green nature trail goes off road again immediately opposite this point while the four other long distance routes continue along the Crag Road and go off road again just below Mullaghmore Mountain. The entry point off the road for the long distance routes is via a stone stile.

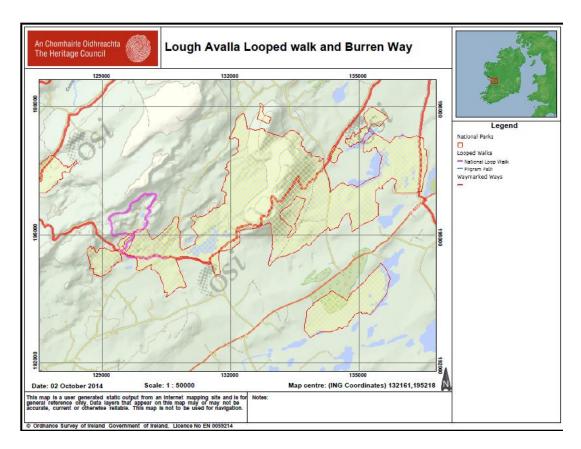


Figure 2: Lough Avalla Looped Walk (purple loop) and the Burren Way (red line)

Is there an access Path?	Yes ✓ No □
If yes, specify	
the surface covering	Grass and limestone pavement
the incline	The incline varies along the route with medium incline on the orange route and the nature trail; and steep for the green, blue and red.
Are there steps present?	Yes ✓ No ✓
If yes, specify how many	There are areas of rock outcrop along all routes where the walker must climb up terraced areas.
Are there resting points along the path?	Yes □ No ✓
If yes, specify the type and number	Click here to enter text.
Are there areas of erosion along the path/trail?	Yes ✓ No □

The NPWS Conservation Range has been monitoring the walking trails within the Burren National Park since 2012 using fixed point photography and path measurement at fixed points along each trail. As four of the trails are long distance, there are a large number of monitoring points. Results





are recorded manually at each point and later entered onto a computer WORD file. As only one member of staff is responsible for this work, the process is extremely laborious and slow. Attempts have been made by the Conservation Ranger to carry out the monitoring on an annual basis but this is not always feasible due to other work commitments. The existing paper records are held by the NPWS.

Additional Comments re Site Entry

As part of the 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 demonstrations sites between October 21, 2014 and December 2, 2014. Vegetation was analysed in 1m² quadrats at pre-selected locations identified by CAAS in each site. Fourteen quadrat surveys were conducted in the Burren National Park along the designated walking trails centred on Gortlecka and the Crag Road as illustrated in Figure 3.

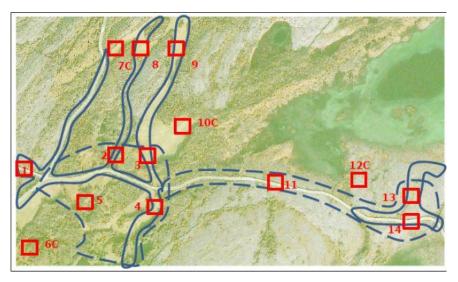


Figure 3: Location of quadrats for ecological monitoring at Burren National Park (EirEco Ltd. 2014)

The following is an extract from the ecological survey report for Burren National Park demonstration site (EirEco 2014):

'The visual effect of tourist activity on the vegetation at this site is evident along the various trails, especially where they occur on grassland habitat and close to the trail head. In some areas the trails are defined within grassland by mowing of the grass along the trail. The NPWS vary the trails in certain locations by mowing a new trail when vegetation is showing signs of wear on the existing trail. Where there is exposed limestone visitors walk preferentially on the exposed limestone. Carparking facilities at the trail head are limited and consist of unofficial lay-by's on the road margin. This results in significant compaction of the vegetation and a considerable amount of bare ground. There is evidence of some surface limestone being removed from areas of karst close to the road. Small amounts of litter are also evident adjacent to the road.'

3.3. Way Finding

3.3.1. Site Signage

Specify the type of on-site signage present

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

Interpretive Panels

At the lay-by at Gortlecka Cross a large interpretive panel mounted on a limestone plinth contains a map showing the Burren National Park boundary and descriptions of numbered ecological points of interest within the Park.



Photograph 3: Interpretive panel at Gortlecka Crossroads BNP



At the entrance to the green road at Gortlecka is a BurrenLIFE panel providing information with regard to the now completed Burren LIFE Farming for Conservation programme; the use of this parcel of land as a demonstration site for that project, the Natura 2000 network of sites and the ecological and archaeological features of interest present are indicated on a map of the site. Adjacent to it is a Trail head sign for the Lough Avalla walking route.

Photo 4: BurrenLIFE panel at Gortlecka





Directional Signage

A trailhead panel for the designated walking trails within the Park is also located at Gortlecka Crosroads parking layby. It illustrates the walk routes and provides information regarding length, terrain and difficulty. Similar trails panels are located at the entrance to the Green Nature Trail and the Red, Blue and Green routes on the Crag Road at Mullaghmore. All of these panels are mounted on steel lectern style mountings.

Along the route of each designated walking trail arrow signs are coloured coded to each trail e,g, blue, red and green.

Damaged Signs

Type of sign	Location	Damage description	Source of	Action Required	Timescale
	(ITM E; ITM N)		Damage		for Action
Interpretive	530342	The Burren National Park	Natural	Removal and	6-12 months
	694491	interpretive panel at		replacement with	
		Gortlecka is faded and		updated	
		cracked in some sections		interpretation	

3.3.2. Restrictions to Visitor Access

Description of restriction to access	Location (ITM E; ITM N)	Difficulty caused	Action Required	Timescale for Action
Each of the roadside	Various	The narrow	Research possible	1-2 years
entry points along the		nature of	alternative stile	
designated walking		these stiles is	entrance type for	
trails is a stone gap stile		difficult to	the shorter trails to	
		access for the	make them more	
		less abled	universally	
		bodied	accessible	

3.3.3 On-Site Visitor Facilities

List any on-site visitor facilities

Guides	Site Warden	Toilets	Coffee Shop	Viewing Platform	Other
√ (seasonal)					√ (see below)

Seasonal Visitor Facilities include a Visitor Information Point, a free hop-on hop-off bus service and free guided walks during the summer months.

Visitor Information Point

The Burren National Park Information Point is based in the nearby town of Corofin, approximately 7km from Gortlecka. It has operated on a seasonal basis since 2012. Managed by the NPWS, it is open to the public between April and September each year. Information is provided on the formation, management and wildlife of the Park and the attractions and activities available in the Burren in general. Within the Information Centre is an interactive exhibition interpreting the geology and wildlife of the Burren.

Free Bus Service



To help alleviate the traffic and parking pressures, the NPWS has operated a free 'hop-on' and hop-off' bus service for visitors on a loop system from the Park Information Point in Corofin Village to the exit and entry points of the designated walking trails since 2013. Operating from May to August (inclusive), seven days a week between 10.15am to 18.00pm, there are seven departures per day from the Information Point. The delivery of this bus service is uncertain from year to year as it is decided on an annual basis dependant on the available budget.

Photo 4: Bus stop sign

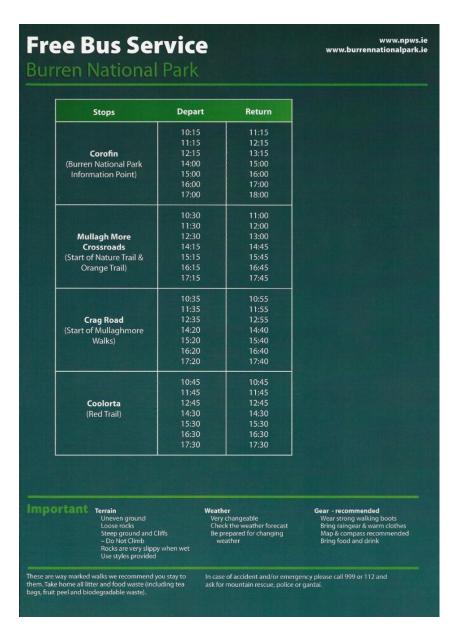


Figure 6: Free Bus Service timetable leaflet

Bus stop signs within the Park consist of a bus symbol and the road name. The timetable is available through the Burren National Park (BNP) website or on a leaflet which can be collected in the BNP Information Point in Corofin. It is not posted on the bus stop signs. Therefore, if walkers wish to use the bus from the Park into Corofin they may not know when the bus will arrive at their chosen stop.

Guided walks





The NPWS offer free guided walks along the walking trails of the National Park covering topics which include flora and fauna, geology and management practices. These walks are organised on a regular basis between April and September. Children's' activities such as art in the park and bug hunts etc. are also organised.

Private walking guides also operate guided tours within the park under permit.

An interactive tour App of the Green Nature Trail within the Park is available for iPhone and iPad and can be downloaded from the App Store or iTunes.

3.4 Structural Condition

There are no built visitor structures on the site.

3.5. Visitor Numbers

There are no exact figures available for the number of people who visit the Burren National Park each year. This is due to the nature of the Park, as it does not have an official exit or entry point at which numbers could be calculated.

3.5.1. Information Point Visitor Numbers

Since its opening in 2012, the following visitor numbers have been recorded at the Burren National Park Information Point in Corofin. However these numbers only record the visitors who visit the Information Point and attend National Park organised events. They do not represent the much larger volume of visitors who move through the Park without going to the Information Point.

Year	Visitor Numbers to Burren National Park Information Point and attending BNP organised
	events
2012 (4-5-12 to 30-9-12)	4180
2013 (5-4-13 to 30-9-13)	6905
2014 (6-4-14 to 28-9-14)	9282
2015	10818
2016 (7-4-16 to 29-9-2016)	10928

Table 1: Recorded visitor numbers to BNP Information Centre 2012-2014

3.5.2. Burren National Park Bus Numbers

Attempts have been made to record the numbers using the free National Park bus service since its inception in 2013, but the results have been haphazard as they are dependent on the driver filling out the record on a continuous basis and some returns were found to be unreliable. However the recording of numbers improved during the 2015 and 2016 seasons. Estimates for 2015 are 1,689 persons and for 2016 it was 2363 persons.

3.5.3. Footfall Counters



Through the GeoparkLIFE initiative six footfall counters were installed along the designated walking trails within the Park. On September 11, 2014, a footfall counter was installed inside the stile entrance to the Nature Trail; inside the road entry point to the Mullaghmore trails (Crag Road) and on the Orange Nature Trail. This was followed on November 5, 2014 by the installation of three counters at the lake (start of blue, green and red Mullaghmore walking trails) and further along on the blue and red walking trails. The counters will remain in place for the duration of the GeoparkLIFE project and results will be collected and analysed by the GeoparkLIFE team and shared with the NPWS.

(Appendix 1 detail of the numbers recorded between September 2014 and December 2017)

3.6. Visitor Attitudes

A Visitor Survey was conducted at Gortlecka crossroads on seven days between 5th September and 11th October 2014 as part of a wider survey of the GeoparkLIFE demonstration sites by Millward Brown Ltd. A surveyor was placed at the parking lay-by at Gortlecka crossroads. Sixty-nine interviews were conducted at this site. The purpose of this survey was to record Visitors attitudes to the infrastructure at these sites and to the wider Burren region. The results indicate:

- 40% of visitors interviewed gave a rating of between 8-10 for signposting to the site (1 being poor and 10 high):
- 77% rated physical entry between 8and 10
- 59% rated parking facilities between 8 and 10
- 91% arrived by car to the site
- 87% noticed the information; 72% read them entirely and 23% partially; of those that read the boards 95% felt that they added to their understanding of the Burren.
- 62% were very satisfied with the site and the remaining 38% were satisfied.

The full results of the interviews at the Burren National Park are contained in Appendix II.

3.7. Visitor Behaviour and Impacts

Two sets of Visitor observations were carried out at the site

- On September 6th and 7th 2104 visitor observations were carried out by CAAS Ltd. ¹ as part of a project commissioned by Fáilte Ireland to assist GeoparkLIFE in developing a survey methodology for assessing visitor movement around a site and how visitor behaviour is impacting on the site. Within the Burren National Park the observation study took place on Sunday Sept 7th from three locations. One observer was located at Gortlecka Crossroads; a second was located approximately 500m along the Green Nature Trail from the road entrance; while the third was located approximately 500m in from the Crag Road entrance point to the Mullaghmore walking trails. A total of 205 visitors were observed at the sites during the study. The results indicate that
 - 43% read the information boards
 - 87% of visitors were involved in low impact activities
 - 64% of activities had no effect on the environment; 16% were nonnoticeable wear and tear; 11% were light littering while the remaining 8% involved movement of material (stones, rooted vegetation, fauna)

¹ CAAS Ltd. 2015 'Pilot Visitor Observation Studies of Environmental Impacts at the Burren & Cliffs of Moher Geopark, Co. Clare'.





On September 16, 2014 further visitor observations were carried out by GeoparkLIFE between 10am and 2.30pm. The purpose of this exercise was to determine the movement of people around the site from the parking area at Gortlecka crossroads and how feasible it was for one observer to track a group of visitors and monitor their behaviour and direction of movement using the template developed for the CAAS study, in order to inform future monitoring at this site. The exercise showed that to monitor this site into the future using the visitor observation template being developed a number of well instructed observers would have to be deployed during the same time period. The data sheet of observational findings is contained in Appendix III.





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 National Park lands are state owned with legal public access
Are there any Legal Burdens on the site?	Yes □ No □
Provide detail	Unknown
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 the Registration Number	CL010- 080 Fualcht fia CL010-081 Fulacht fia CL010-223 Cairn CL010-221 Cairn CL010-220 Cairn CL010-214 Cairn CL010-109 Wedge tomb CL010-226 Cairn CL010-227 Cairn CL010-168 Fulacht fia
(b) Record of Protected Structure (RPS)	Yes □ No ✓



If yes, insert its Registration Number



Click here to enter text.

	(c)Nat	ional Inventory of Architectural Heritage (NIAH)		Yes 🗆	No ✓	
	If yes,	insert its Registration Number		Click he	ere to enter tex	ιt.
Is the	site loca	ted within an Architectural Conservation Area (A	CA)?	Yes □	No ✓	
If yes,	insert th	ne name of the ACA		Click he	ere to enter tex	ct.
If you	r site cor	ntains natural heritage features are they within th	e follow	ing desig	gnated areas?	
	(a)	Special Area of Conservation (SAC)		Yes ✓	No □	
	If yes,	insert the Site Name and Code		ırren Coı de: 0019	mplex SAC 926	
	(b)	Special Protection Area (SDA)	Yes □	No 🗸		
	(b)	Special Protection Area (SPA)	res 🗀	NO ¥		
	If yes,	insert the Site Name and Code	Click he	ere to er	iter text.	
	(c) Nati	ural Heritage Area (NHA or pNHA)	Yes □	No ✓		
	If yes,	insert the Site Name and Code	Click he	ere to er	nter text.	

4.4. Current Visitor Management Structure

The Burren National Park is one of six designated National Parks in Ireland. It is in State ownership and managed by the National Parks and Wildlife Service (NPWS), part of the Heritage Section of the Department of Culture, Heritage and the Gaeltacht.

The policy of the park is to abide by the criteria and standards for National Parks as set out by the International Union for the Conservation of Nature (IUCN) in 1969. Grazing is leased out to local farmers by the NPWS.

The maintenance of the public roads that intersect the Burren National Park are a function of Clare County Council under the Roads Act of 1993.

4.5. Potential Future Visitor Management Issues

In 1992, the Government Department in which the National Parks and Wildlife Service operates, commenced work on the construction of a large interpretive facility and car park in the townlands of Gortlecka and Knockaunroe, to service the Burren National Park. As this was being carried out by a Government Department, no planning permission was required at that time for such a project. Ancillary works for the development, including effluent treatment works and an overflow car park were constructed. The project led to major community protests and after a major legal challenge to the development, both at National and European level, all constructions were removed and the





lands re-instated. The controversy divided the local community at the time and still emerges as a topic of discussion and discontent when any projects are planned with the National Park.

In October 2012, a planning application was made to Clare County Council by the National Parks and Wildlife Service for the development of a visitor car park and all associated services, in the townland of Knockaunroe on the area of land previously disturbed for construction of an overflow car park in 1992. This area is 280m east of Gortlecka crossroads where major traffic congestion can occur during peak season. The proposed car park would occupy 0.3ha and have 27 spaces, a one-way access system, a bicycle rack and pedestrian access pathway. The application resulted in submissions being received from An Tasice (a national conservation organisation) and the Burren Action Group (a local lobby group which formed during the 1992 controversy). Clare County Council requested further information from the applicants which included an audit of all visitor facilities and transport options in the area and detail on visitor numbers and traffic generation. The application was withdrawn by the NPWS in March 2013 and no further action was undertaken.

If any progress is to be made with regard to traffic congestion within the National Park, a traffic management plan will need to be agreed by all parties.





SECTION FIVE: SUMMARY OF SITE VISITOR MANAGEMENT ISSUES

Through the GeoparkLIFE project baseline studies (2014) and working group consultations, the following visitor management issues were identified at the Burren National Park in 2015.

	Issue	Detail
1	Traffic Congestion	The lack of official and adequate parking facilities within the Gortlecka -Crag Road area of the Burren National Park is causing severe congestion during the busy summer period. This is causing difficulties for residents and is a serious safety issue at times.
2	Current Monitoring	Numbers appear to be increasing to the BNP on an annual basis (based on the numbers recorded at the Visitor
(a)	system of walking trail	Information Point: Table 1) . From the initial visitor observations undertaken (September 2014), most visitors come to
	condition	the Park to observe the landscape and to walk along the designated trails. Considering the potential future increase in
		walkers along the trails, footfall impact on the trails must be continuously monitored in order to record and manage any
		negative impacts that may occur.
2	Ecological impact of	At present parking occurs in several areas along the grass verge. This is impacting on the roadside vegetation and the
(b)	verge parking	limestone pavement especially in areas along the Crag Road.
3	Underutilisation of free	Although a seasonal, daily, free bus service is provided by the NPWS from its Visitor Information Point at Corofin on a
	bus service	looped system to the designated walking trail entry and exit points, this service would appear to be underutilised by
		visitors to the park.
4	Large guided groups	There are currently three licensed operators offering public walks within the BNP. At times, some groups have operated without a license. At times the number of participants on walks can be in the region of 30-40. This can cause problems with traffic congestion and large numbers of people impacting on the landscape, visually and physically at any one time.

SECTION SIX: ACTION AGREEMENTS AND IMPLEMENTATION

The following section details the actions agreed through the GeoparkLIFE project to address the issues identified in the 2014 baseline assessment of the Burren National Park; how and when those actions were implemented through GeoparkLIFE between 2015 and 2017 and who was responsible for their implementation.

Issue 1	Traffic Congestion		
Agreed Action	Explore with Burren National Park management the feasibility of developing the required information for the development of a traffic management plan for the Park with the aim of providing suitable parking facilities in agreement with all vested interests.		
Tasks	 Complete traffic count for all approach roads to Gortlecka crossroads Carry out parking survey at Gortlecka Crossroads and along the Crag road Record numbers of visitors using the Burren National Park walking trails 		
Responsible person/group	GeoparkLIFE and NPWS		
Date Action Completed	September 2016		
Results	A brief for the development of a Traffic and Visitor Management Plan for the Burren National Park was discussed between GeoparkLIFE and the NPWS. The request for tender for completion of the Plan was prepared and circulated by NPWS (August 2016).		
An automated traffic count was completed in August 2016 as a joint commission between GeoparkLIFE and NPWS.			
	A parking survey was completed in August 2017 by combined GeoparkLIFE and NPWS staff.		
	Six footfall counters were installed along the designated walking trails in September 2014.		
	Traffic, parking and visitor numbers data collected through the above GeoparkLIFE/NPWS initiatives were used as baseline information for the development of an initial draft 'Traff Visitor Management Plan for the Burren National Park'.		
	As an outcome of the community consultation process undertaken with the first draft of this plan it was decided by the NPWS to expand the brief to the development of a full Park Management Plan.		
	This management plan is currently in draft form and includes recommended traffic management measures. Public consultation with regard to the draft plan was undertaken from October – November 2017. One of the issues identified by Clare County Council with regard to the proposed development of a car park close to Gortlecka crossroads is the need for a full Strategic Appropriate Assessment process to be undertaken before a planning application is made. The draft plan can be viewed at http://www.burrennationalpark.ie/events/119-burrennational-park-management-plan-for-consultation		



Issue 2	Current Monitoring system of walking trail condition and ecological impact of verge				
	parking				
Agreed Action	Develop a digitally based monitoring system to complement and improve the paper				
	system currently being used by the BNP Conservation Ranger to measure changes in the				
	path condition on the designated walking trails and along roadside verges.				
Tasks	1. Agree specification for app development to allow collection of trail data and to				
	operate in both online and offline scenarios				
	2. Identify and supply functional requirements for the app to technical consultants				
	(MAC Ltd)				
	3. Field test prototype				
	4. Refine as required				
	5. Field test and refine				
	6. Develop web portal for viewing of uploaded data to agreed specification				
Responsible person/group	GeoparkLIFE, NPWS Conservation Ranger, Technical designer (MAC Ltd)				
Date Action Completed	November 2017				
Results	The working 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 orange trail in the Burren National				
	Park is uploaded to the portal.				
	Agreements must now be finalised between Clare County Council and NPWS as to the				
	future management of this tool in terms of trail management within the Burren National				
	Park and the future storage of data.				

Issue 3	Underutilisation of free bus service				
Agreed Action	To promote and improve the bus service				
Tasks	 Promote bus service through the Burren Ecotourism Network's sustainable transport working group. 				
	2. Provide the bus timetable below the bus symbol on the bus stop signage.				
	Carry out user survey on bus (numbers, origin of passengers, reason for trip and source of info about service).				
Responsible	GeoparkLIFE/NPWS				
person/group					
Date Action Completed	2016				
Results	Information with regard to the BNP free bus service route is carried on the Burren Ecotourism Networks website http://www.burren.ie/getting-here/travel-around-the-burren/ A bus user survey was completed by the BNP information centre staff in 2015 and 2016. In 2017 the number of bus trips per day from the BNP Information centre was doubled from 7 to 14.				

Issue 4	Large guided groups
Agreed Action	To increase awareness of the fact that to operate a commercial service within the Park an
	operating licence must be obtained from the NPWS.
Tasks	Develop a set of guidelines and checklist for operators of public walks within the BNP and a template for recording activities and visitor numbers to be reported to BNP management on an annual basis.
	Define a carrying capacity for the most popular walking routes within the Park and determine a suitable number that must not be exceeded on publicly advertised walks.
Responsible person/group	NPWS
Date Action Completed	2016
Results	Burren Ecotourism Network have agreed to operate to a maximum number of 15-20 on walking tours





SECTION SEVEN: MONITORING PROPOSAL

The following proposal details where future monitoring is required to inform the ongoing adaptive visitor management of the Burren National Park.

Issue	Action taken	Monitoring data to	Monitoring tool to	Frequency of	Responsibility for
		be collected	be used	monitoring	monitoring
Walking Trail Condition	Digital app trail monitoring system developed in conjunction with NPWS Conservation Ranger and tested on designated walking trails within the Burren National Park	Trail condition through fixed point photography, width measurement and descriptive text.	GeoparkLIFE trail monitoring app	Annually	NPWS
Increasing numbers visiting the Burren National Park	Footfall counters installed along the designated walking trails.	Numbers of walkers using the trails	GeoparkLIFE footfall counters	Footfall counters: Continuous automatic monitoring data collection and analysis at three month intervals	Burren & Cliffs of Moher Geopark/NPWS
	Visitor numbers to National Park Information Point recorded	Numbers of visitors using the Information Point	Manual count by office staff	Daily count in Information Point during seasonal opening times	Burren National Park Information Point staff
Traffic Congestion	Traffic, parking and visitor numbers data collected through the GeoparkLIFE project was used as a baseline for the development of an initial 'Traffic and Visitor Management Plan for the Burren National Park'. As this plan was being developed it was decided to expand the brief to develop 'The Burren National Park Management Plan'. This plan is currently in draft form and includes recommended traffic management measures. The plan is currently undergoing public consultation.	Impacts of agreed traffic management measures implemented as result of the recommendations of the 'Burren National Park Management Plan'	Traffic counts and parking surveys as per methodology used in GeoparkLIFE baseline count and surveys	Bi-annually	NPWS
Free Bus Service	During the 2017 summer season the bus service was operated on a half hourly basis increasing the number of trips per day from 7 to 14	Numbers of visitors using the bus	Manual count	Daily per trip	NPWS employed bus driver

SECTION EIGHT: ADAPTIVE MANAGEMENT PLANNING

To ensure that 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 between Burren and Cliffs of Moher Geopark, Clare County Council and NPWS	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 NPWS and Clare County Council meet on an annual basis for review of monitoring results with regard to traffic management within the Burren National Park, any resulting actions required and future planning.	NPWS and Clare County Council
Agree strategy for adjustment of actions when and where required	A Strategy to be agreed – this should be an outcome of the Burren National Park Management Plan which is currently under development	NPWS

APPENDIX I

Visitor Numbers on the Burren National Parks walking trails recorded by the GeoparkLIFE footfall counter

Geoparke				.11
			ature Tra	III
Month	2014	2015	2016	2017
January		131	173	271
February		169	234	185
March		270	744	368
April		556	701	1056
May		811	1706	1390
June		987	2100	1789
July		1396	1877	2649
August		1622	1915	2720
September	437	728	819	1163
October	299	395	564	640
November	136	167	266	281
December	96	178	194	238
	968	7410	11293	12750

	Yellow Trail					
Month	2014	2015	2016	2017		
January		0	139	228		
February		93	159	146		
March		216	421	218		
April		250	351	355		
May		403	671	563		
June		544	590	607		
July		726	821	1005		
August		848	860	1003		
September		348	401	419		
October		242	362	259		
November		150	334	339		
December		90	248	136		
		3910	5357	5278		

2014	, p	Combined blue, red and green trails at entry point off the Crag road					
2014	2015	2016	2017				
	641	310	1075				
	440	350	620				
	484	1119	821				
	969	915	2171				
	388	1761	2649				
	629	1650	6995				
	1026	2908	3474				
	2223	3116	3799				
1003	1041	1771	1852				
498	959	1454	1210				
380	484	708	636				
412	137	1048	539				
2293	9421	17110	25841				
	498 380 412	440 484 969 388 629 1026 2223 1003 1041 498 959 380 484 412 137	440 350 484 1119 969 915 388 1761 629 1650 1026 2908 2223 3116 1003 1041 1771 498 959 1454 380 484 708 412 137 1048				

	Combined blue, red and green Trails					
		at Mullag	hmore Lake	е		
Month	2014	2015	2016	2017		
January		891	132	1081		
February		651	335	661		
March		872	768	833		
April		1532	1380	2127		
May		1547	2308	2539		
June		1790	2031	2511		
July		2392	2757	3705		
August		3170	3416	4056		
September		1294	1774	310		
October		888	1230	0		
November	354	474	693	0		
December	634	257	913	0		
	988	15758	17737	17823		





	Blue Trail					
Month	2014	2015	2016	2017		
January		1	38	633		
February		185	57	428		
March		427	205	582		
April		688	482	1468		
May		360	950	1623		
June		425	778	1492		
July		293	1328	2373		
August		401	1411	2446		
September		271	852	220		
October		346	679	0		
November		56	418	0		
December		36	842	0		
		3489	8040	11265		

	Red Trail					
Month	2014	2015	2016	2017		
January		544	314	495		
February		532	309	312		
March		530	396	505		
April		957	906	817		
May		952	819	732		
June		1113	527	1055		
July		1032	595	1247		
August		0	548	1201		
September		500	387	19		
October		320	515	0		
November	329	274	526	0		
December	224	383	315	0		
	553	7137	6157	6383		



APPENDIX II

VISITOR ATTITUDES SURVEY Burren National Park 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
10	42	48	0	0

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
12	9	3	7	7	7	14	17	14	9

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	0	0	0	1	22	19	29	29

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

	1	2	3	4	5	6	7	8	9	10
Ī	0	0	4	4	3	4	25	28	17	14

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

Yes	No
87	13

6. Have you read the information on them?

Yes	Partially	No
72	23	5

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

Yes	No
95	5

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	0	38	62

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
58	33	0	1	Λ	1	1	1	4



APPENDIX III

VISITOR OBSERVATION STUDY AT BURREN NATIONAL PARK (ZH)

1. Survey Detail

Site Id : BNP Gort	Date Of Survey	Day of Week	Duration of Survey	Weather	No of people observed
	16-9-14	Tuesday	10am-2.30pm (4.5 hours)	Dry and Cloudy	12

2. Number of Observations, gender and group breakdown

Number of people observed	Total number of females	Total number of males	Number of groups	Average group size	
12	8	4	7	2	

3. Mode of transport, Time Spent on Site, Main activity, 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	Observed impacts
16-9-14	BNPGort 1	00:51	1M:1F	M:50 years F: 8years	Car	Walking/picnic Nature Trail	None
	BNPGort 2	00:53	1M:1F	65-75	Car	Walking Lough Avalla Route	None
	BNPGort 3	02:45	1F	40-45	Car	Walking Lough Avalla Route	None
	BNPGort 4	01:10	1M	50-55	Car	Walking Lough Avalla Route	None
	BNPGort 5	02:10	2F	35-40	Car	Walking Lough Avalla Route	None
	BNPGort 6	1:07	1M:2F	M: 20-25 F: 50-55 F: 15-18	Car	Photogrpahs; walking Nature Trail	None
	BNPGort 7	01.32	1F	60-65	Car	Walking Nature Trail	None

Summary

Main Activities undertaken by observed visitors:

- Walking (35%)
- Photography (27%)
- Viewing landscape (18%)
- Picnicking (9%)

Mode of transport:

Car 64%

Push bike 27% Motorbike: 9%

Average time spent on site: 1 hour 60 mins.

Observed Impacts:



1 Car parked 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%)

Conclusions: It is hard for one observer to observe any impacts along walking routes.

Average time spent on site: 1 hour 30 minutes

4. Time spent reading Information Boards

Observation group Id	Time spent reading information boards (mins:secs)
BNPGort 1	0
BNPGort 2	0
BNPGort 3	0
BNPGort 4	0
BNPGort 5	01:00
BNPGort 6	0
BNPGort 7	00:45

Average time spent reading panel: 15 seconds

5. Impacts Observed

None. Due to the stationary position of the observer, it is difficult for one observer to observe any impacts along walking routes as they are largely out of view.

6. Time of day of arrival at site (observation study duration: 10.00-14.30 hours)

Observer Group ID	Time of Arrival at site
BNPGort 1	11.15
BNPGort 2	10.31
BNPGort 3	10.15
BNPGort 4	12.01
BNPGort 5	12.05
BNPGort 6	12.54
BNPGort 7	12.58

7. Visitor Movement Pattern



Observed movement patterns – dark blue line show core movement area; lighter blue peripheral area.

