

2017 Visitor Observation Study Results

ENVIRONMENTAL SURVEYING AND MONITORING

OF THE

WILD ATLANTIC WAY OPERATIONAL PROGRAMME

for:

Fáilte Ireland

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Section 1 Introduction

This document details the results of the 2017 Visitor Observation Study carried out as part of the Environmental Surveying and Monitoring for the Wild Atlantic Way (WAW) Operational Programme. It has been undertaken by CAAS Ltd. on behalf of Fáilte Ireland.

The purpose of the monitoring strategy is to:

- Ensure that the effects of the implementation of the Operational Programme are understood and acted upon; and
- To ensure that there will be no delays in identifying existing or emerging activities that could threaten the environment.

The Environmental Surveying and Monitoring of the WAW is intended to describe the existing conditions of sites with a view to:

- Contributing to Visitor Management Strategies;
- Contributing to future editions of Fáilte Ireland's WAW Operational Programmes and Guidelines;
- Identifying remedial action/works required;
- Assessing the capacity for future loadings; and
- Integrating site management with future European site Management Plans.

There are three separate components to the Monitoring Strategy:

1. The Macro Monitoring examines individual sites as well as larger-scale and regional indicators. Helps develop baseline data;
2. The Visitor Monitoring (this report) forms the second stage, examining the types, spatial patterns and intensity of existing visitor activities at 15 Discovery Points. Each site chosen to be examined is selected based on the proximity to a European designated site along with inputs from relative members of the WAW Monitoring Committee. (Table 1.1);
3. The Ecological Survey examines the areas receiving maximum, moderate, minimum and no loading. Particular regard is given to specific conservation objectives of relevant European sites.

1.1 Monitoring Site Selection Rational

Each year the rational for sites Selection was based on relevant input from members of the WAW Monitoring Committee:

- In 2015 all of the 'Signature Discovery sites' were selected to be monitored as these were the flagship sites of the WAW brand. These sites were expected to receive the largest number of visitors per year;
- For the 2016 monitoring a long list of all Discovery Points along the WAW was considered, it was determined that a focus on sites with potential for disperse impacts was required. Visitor interactions on Beaches were expected to be dispersed in nature and therefore a short list of beach sites as prepared. Following a further discussion with the Monitoring Group it was proposed to include Island sites that would also fit the criteria of dispersed impact potential;
- The 2017 Monitoring selection was focused on avian species as indicator species for ecological integrity. Attention was placed on Estuarine sites which have complex ecological processes present as well as sites within or adjacent to Special Protected Areas (SPA's). A long list of discovery and embarkation points was assessed following this a brief from which a short list of sites was selected; and
- Dursey Sound (formally referred to in previous years as Garnish Point) is used as a **control site** each year.

Table 1.1 Observation Study sites including Natura 2000 Data and I-WeBs Data

No.	Name	County	Relevant cSACs	Distance km	Relevant SPA	Distance km	I-WeBS site
156	Galley Head	Cork	Kilkeran Lake and Castlefreke Dunes	3	Galley Head to Dooneen Point	Within	Within 3km 0L918
154	Lough Hyne	Cork	Lough Hyne Nature Reserve and Environs	Within	Sheep's Head to Toe Head SPA	Adjacent	Within 3km 0L474
EP16	Dursey/Garnish Point	Cork	Kenmare River	0.1	Beara Peninsula	0.8	0L470 is >10km east
135a	Teach Dhoire Fhionáin (Derrynane House)	Kerry	Iveragh Peninsula	0.4	Kenmare River	Within	No, within 1km 0K410
117	Ballyheigue Beach	Kerry	Akeragh, Banna And Barrow Harbour	1.5	Tralee Bay Complex SPA	1.5	0K411
114	Carrigafoyle Castle	Kerry	Lower River Shannon	Within	River Shannon and River Fergus Estuaries SPA	Within	0K492
110a	Cappagh Pier	Clare	Lower River Shannon	Within	River Shannon and River Fergus Estuaries SPA	Adjacent	0H497
94	Ballyvaughan Pier	Clare	Galway Bay Complex	Within	Inner Galway Bay SPA	Within	0H448
89	Trá na gCeann	Galway	Galway Bay Complex	Within	Inner Galway Bay SPA	Within	0G031
78	Omev Island	Galway	Omev Island Machair SAC	Within	Inishbofin, Omev Island and Turbot Island SPA	Within	0G903
56	Oileán Chloigeann	Mayo	Mullet/Blacksod Bay	Within	Blacksod Bay/Broadhaven SPA	Within	0D493, 0D494
40	Strandhill	Sligo	Unshin River SAC	0.337	Ballysadare Bay SPA Cummeen Strand SPA	0.332 0.337	0C926, 0C459, 0C470
34	Murvagh Beach	Donegal	Donegal Bay (Murvagh) SAC	Within	Donegal Bay SPA	Within	0A479, 0A421
EP1	Cé Mhachaire Uí Rabhartaigh (Embarkation Point for 20,21)	Donegal	Ballyness Bay	0.05	Falcaragh to Meenlaragh	Within	0A412
10	Inch Island	Donegal	Lough Swilly	Within	Lough Swilly SPA	Within	0A462, 0A483, 0A499, 0A484

Section 2 Methodology

The Visitor Observation Survey methodology allowed for the examination of patterns of visitor behaviour at sites along the WAW.

Visitor Observation Survey:

- Tool used to collect systematic data about visitor behaviour at a site of interest.

Methodology:

- Watching and collecting information on how visitors interact with the site, as well as studying activities and flows of movement

Aim:

- To collect evidence of stay duration, activities undertaken, locations and direction of excursions from vehicles. Methodology is reinforced using evidence-based model to identify the current state of the site and existing contributions before establishing the behaviour of visitors and the likely nature of impacts.

Effective methods for visitor observation have been designed and tested using Pilot Visitor Observation Studies at the Burren and Cliffs of Moher Geopark in Co. Clare. The studies were carried across a full spectrum of types of circumstances that range from small spatially-concentrated areas to large diffuse sites. The study sites had a range of existing management regimes that ranged from those that are complex and highly structured, private enterprises to the simpler smaller sites.

The method had a simple, replicable template that allowed easy identification patterns of visitor activity, movement and behaviour using a standardised visitor observation and tracking methodology for a range of types. The sites chosen for monitoring were fifteen Discovery Points along the WAW. The Discovery Points ranged from having complex and highly structured existing management regimes to existing roadside laybys with little or no management. The candidate Signature Discovery Points and Control sites represent the 4 different habitats/landscape types.

1. Rocky Shores
2. Soft Shores/Beaches/Dunes
3. Montane/Upland/Peat
4. Marine areas (sea, estuaries, salt marsh)
5. Improved Grassland (Farm Land)

2.1 Development of Activities, effects and their Categories

A list of general activities and effects was developed to assist in the categorisation of visitor behaviour. While generic to all sites, the list is non-exhaustive and can be expanded depending on the individual site or emerging trends. Activities and effects are categorised depending on their severity to guide accurate reporting in an effective, efficient and easily replicated manner (see Table 2.1 and Table 2.2)

Table 2.1 Description of the activity levels used for the catagorising

Activities	
Low Level	Activity for which the site is intended
Medium Level	Activities, often incidental, depending on site management, whereby the visitor engages in behaviour that may result in an effect
High Level	Activity where visitors engage in behaviour that is likely to have an effect on the site but may not be directly linked to a high impact

Table 2.2 Description of effect levels used for categorising

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

2.2 Methodology for Visitor Observation Survey

1. Prepare survey materials to include digitised (Survey 123; ERSI Collector) standard observation sheets, maps and a briefing document.
2. Carry out a pre-planning site visit using the guidance included in Section 2.3.1 below.
3. Provide surveyors with materials in advance of survey date.
4. Carry out a site visit on the day of the survey to ensure familiarity and note any change in conditions or health and safety issues.
5. Provide surveyors with a health and safety briefing, high-visibility vests, name tags and in depth briefing on objectives and methods.
6. Carry out a site-specific briefing to highlight individual site complexities before commencement of survey.
7. Commence survey and record the nature, duration and extent of activities by visitors for at least eight hours.
8. Present results of the surveys in report format detailing the methodology applied, the results of the survey in a tabulated format by site, maps showing core movement areas and the breakdown of activities and impacts recorded onsite. Include a brief overview of each site and present a summary of the results including a comparison between the core, secondary and control areas.

2.3 Guidelines for undertaking Visitor Observation Survey

The recommended time of year to undertake visitor observational surveys is from the beginning of tourist season to the end of July to allow sufficient time for undertaking of subsequent ecological surveys. Preparation of survey materials and site visits should be undertaken well in advance to increase efficiency of the monitoring programme during the tourist season.

2.3.1 Survey Planning

- In advance of undertaking a Visitor Observation Study, an initial desk-based study is required to assess available baseline information of the site and to compile maps and other available documentation.
- Obtain Survey materials - including digitised observation sheets
- Maps and briefing documents-to be compiled advance of study
- The optimum route to the site should be identified in advance.
- In the case of numerous sites being surveyed simultaneously, establish the time needed to travel between sites in advance of the survey
- The suitability of positioning the surveyor in a fixed position should also be confirmed. The survey location is not fixed.
- The surveyor may be required to move around the site when observing visitor behaviour to ensure all activities are recorded in full.

Note: It should also be noted where recommendations are executed by the relevant authority at site level as a result of this monitoring programme that compliance with Article 6 (3) of the Habitats Directive must be adhered to.

Section 3 Presentation and Analysis of Results

This section of the report is an account of the site visits to each of the Discovery Points selected for 2017. The surveys were carried out from a period between the 1st of June and the 16th of July 2017. For optimum results each site was surveyed at the same time on each survey day. Surveyors were on site at 08.30 and concluded observations at 17.30, spending a duration of approximately 9 hours at each site. Appendix IV contains photographs of each monitoring point.

3.1 Galley Head

Site Name: Galley Head	Date Surveyed: 1st June 2017
County: Cork	Landscape Type: Rocky Headland
Total no. of People: 191 Male: 103 Female: 88	Average Duration on of visitors on site: 00:44 Minutes
Site Description: The Discovery Point is situated by an old Norman wall which separates Galley Head from the mainland. Elevated over 100m above the sea the rocky headland offers a great vantage point overlooking two exceptional beaches with expansive coastal views. The lighthouse dominates the headland with Irish Landmark Trust owning the two adjacent lighthouse keeper’s cottages. The site consists of coastal grasslands and heath overlooking rugged rocky shore habitats, sink holes and marine waters There is limited signage or interpretive materials on site for visitors. Beyond the main visitor car parking are farmhouses, farmland with some hedges and gardens. Most of the site is underlain by Devonian sandstone, siltstone and mudstone.	

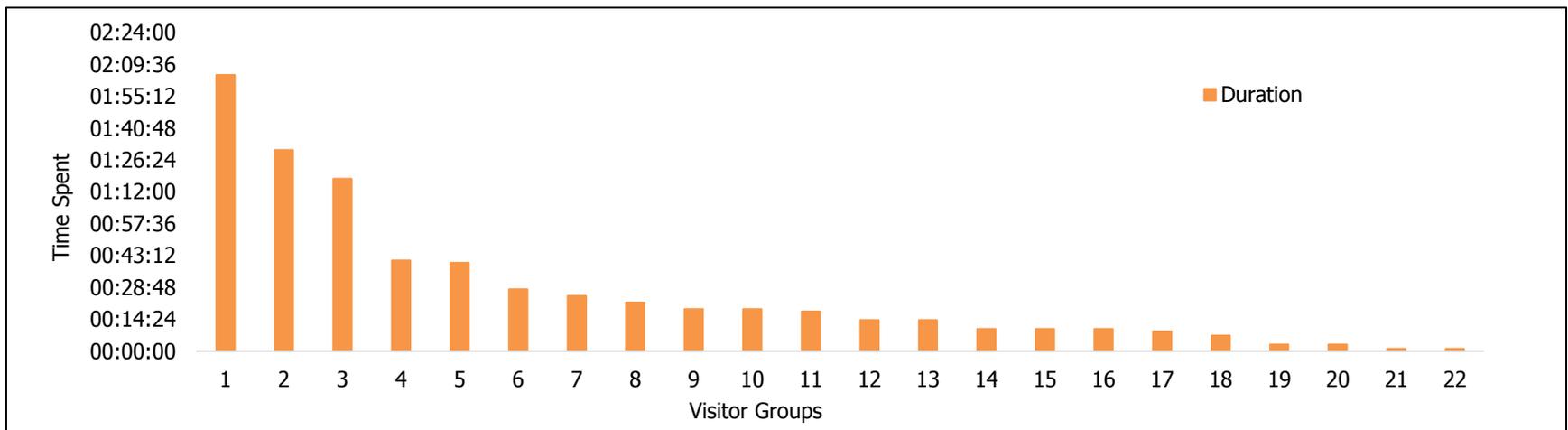


Figure 3.1 Duration Spent at Galley Head

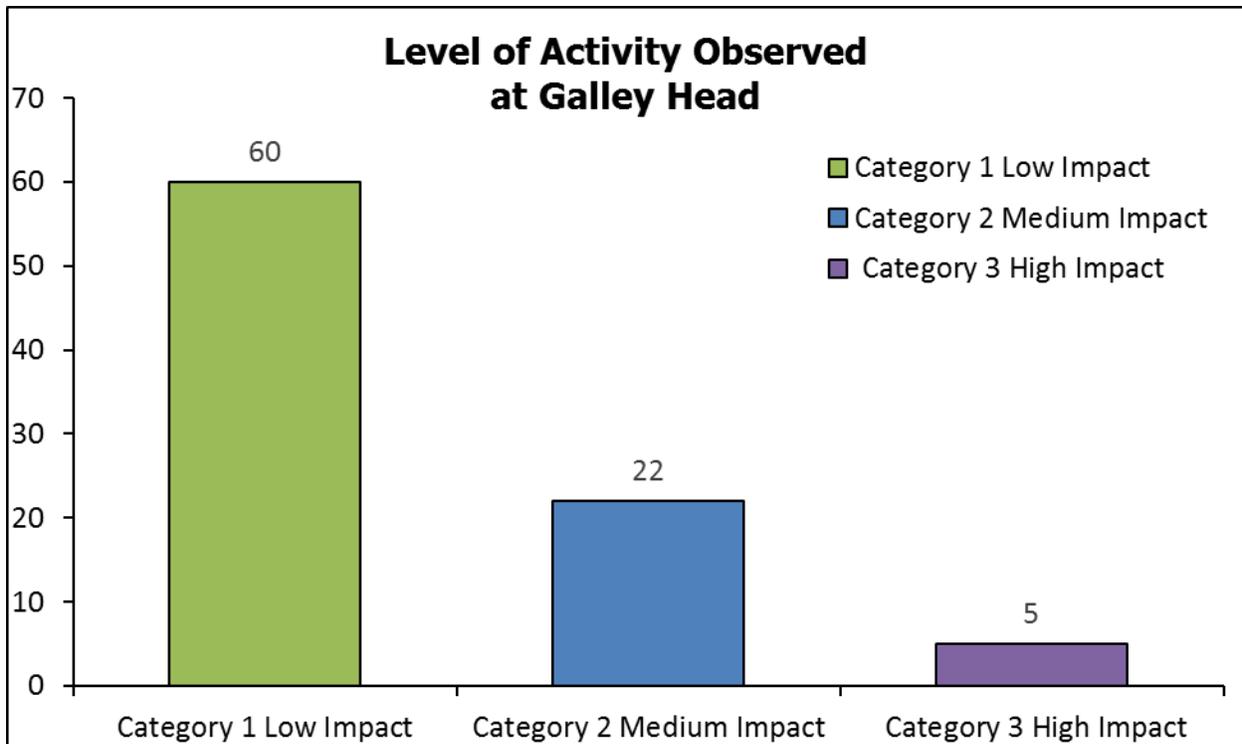


Figure 3.2 Level of Activity Observed at Galley Head

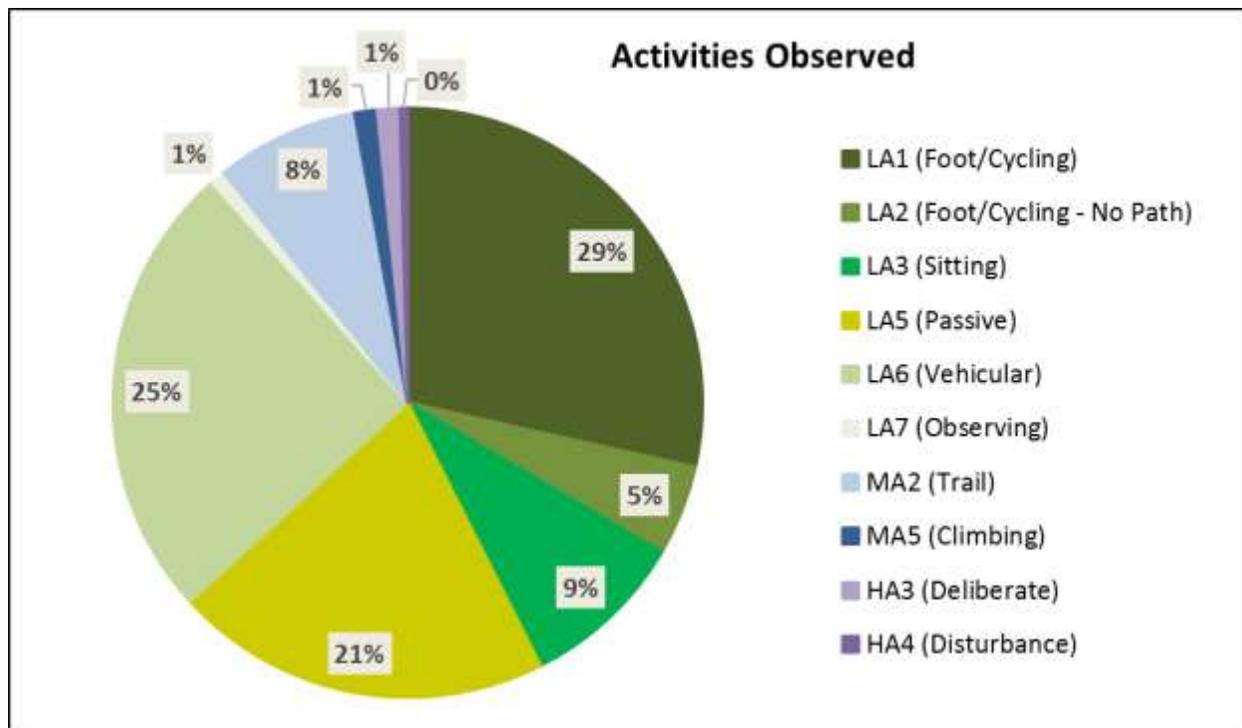


Figure 3.3 Range of Activities Observed at Galley Head

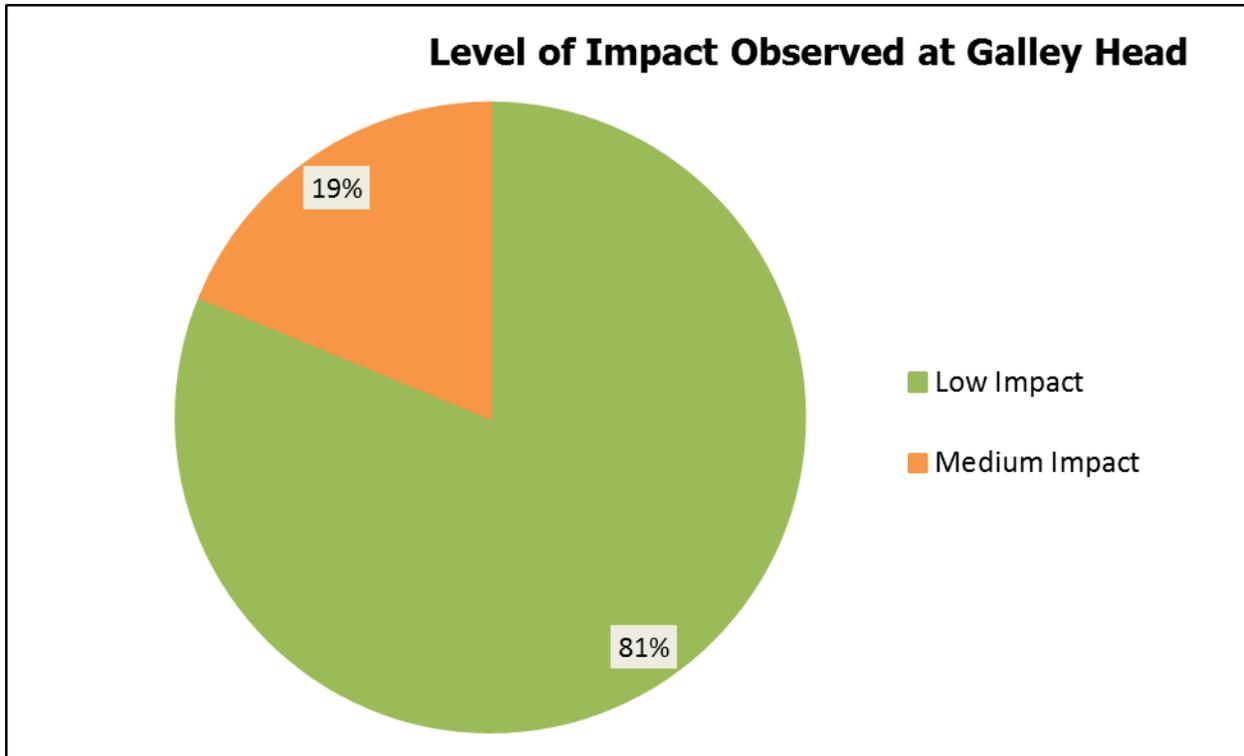


Figure 3.4 Level of Impact Observed at Galley Head

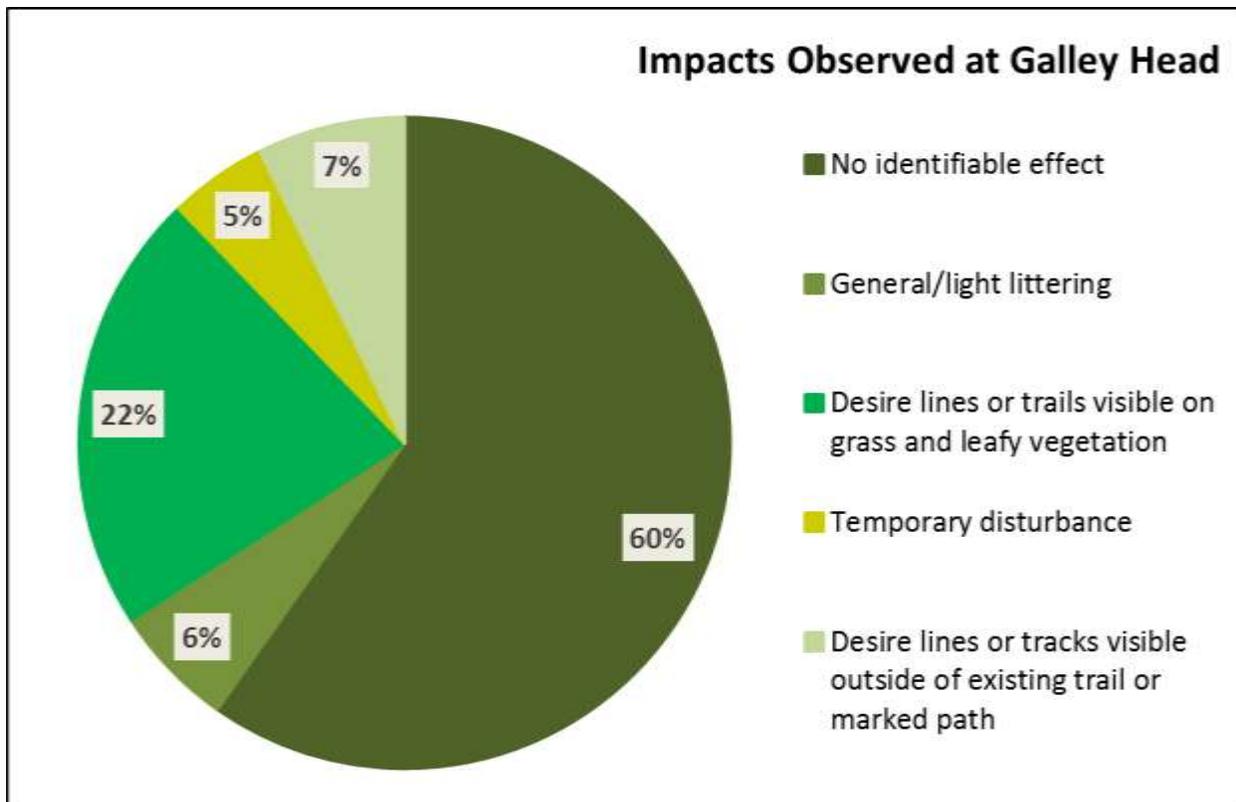


Figure 3.5 Impacts Observed at Galley Head

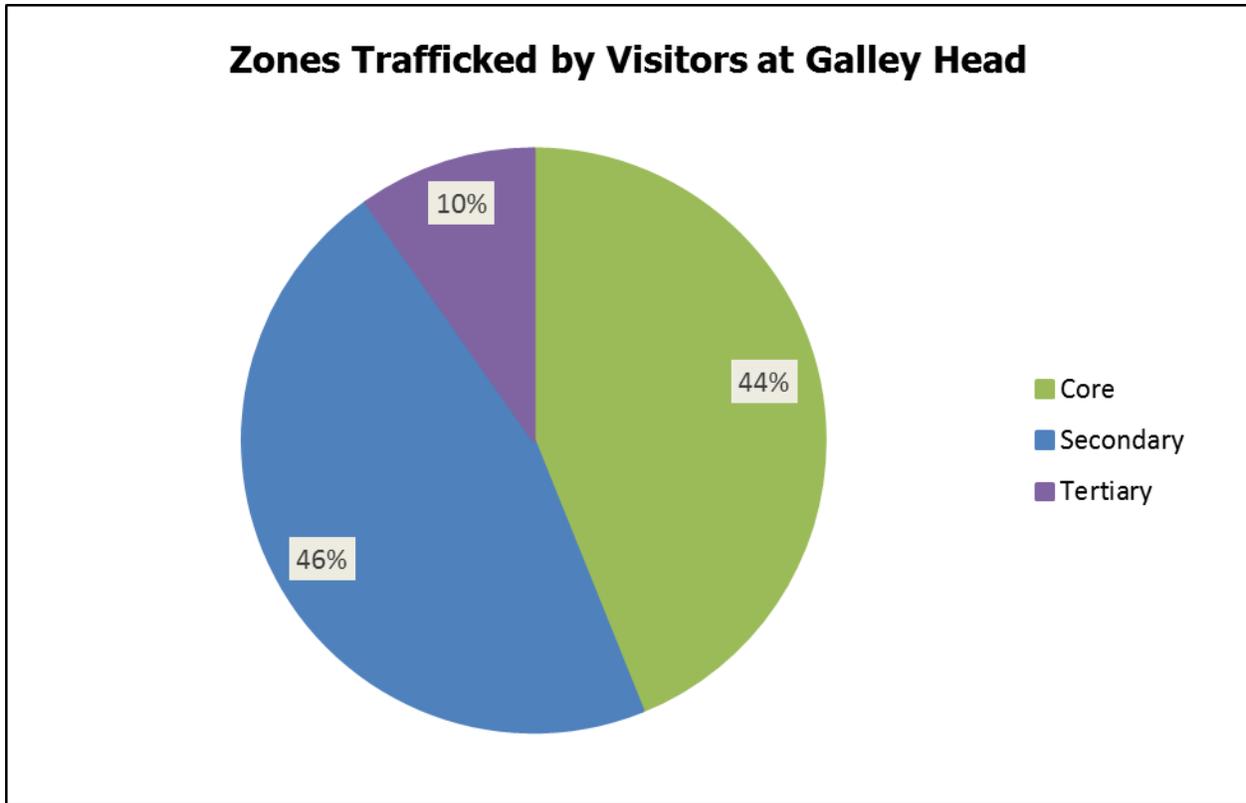


Figure 3.6 Zones trafficked by visitors at Galley Head

Table 3.1 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.
Tertiary Zone	Areas where no car park, paved areas, marked pathways, trails, tracks and managed grassland are identifiable and beyond the immediate boundaries of the site.

3.1.1 Recommendations and Analysis of Results and Visitor Movement Patterns

60% of visitors to Galley Head had no identifiable effect on the site. Access to Galley Head Lighthouse is currently restricted. As a result of this 46% of visitors left the core zone to get to better viewing points. 10% of visitors ventured to the tertiary zone to fish.

Current parking facilities at the site only allow for a capacity for around 10 cars, an increase in visitor number would require a review of these parking facilities.

Overall (81%) visitors did not engage in any activities that would have adverse effects on the environment.



Figure 3.7 Visitor Movement Zones at Galley Head

3.2 Lough Hyne

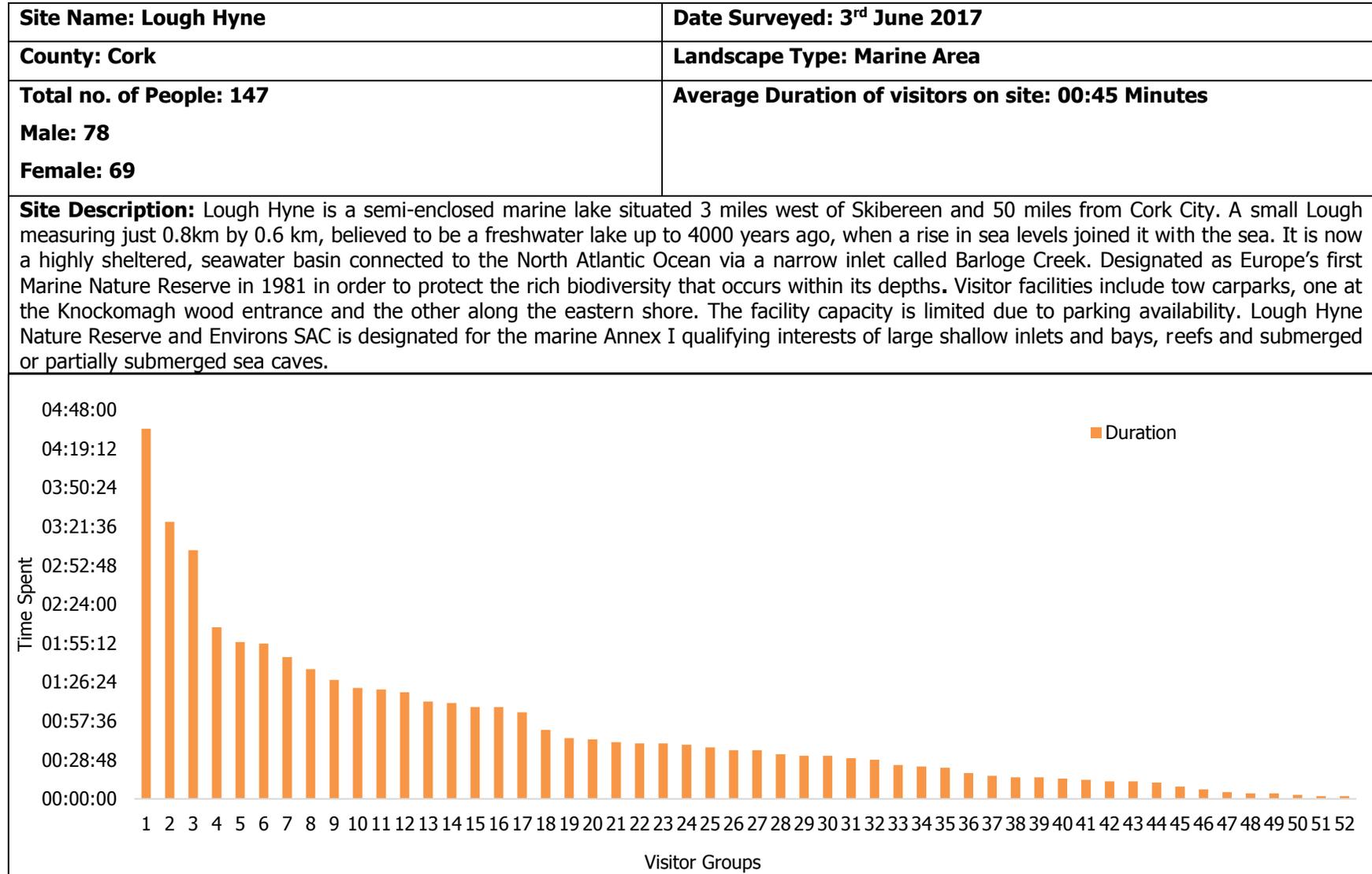


Figure 3.8 Duration Spent at Lough Hyne

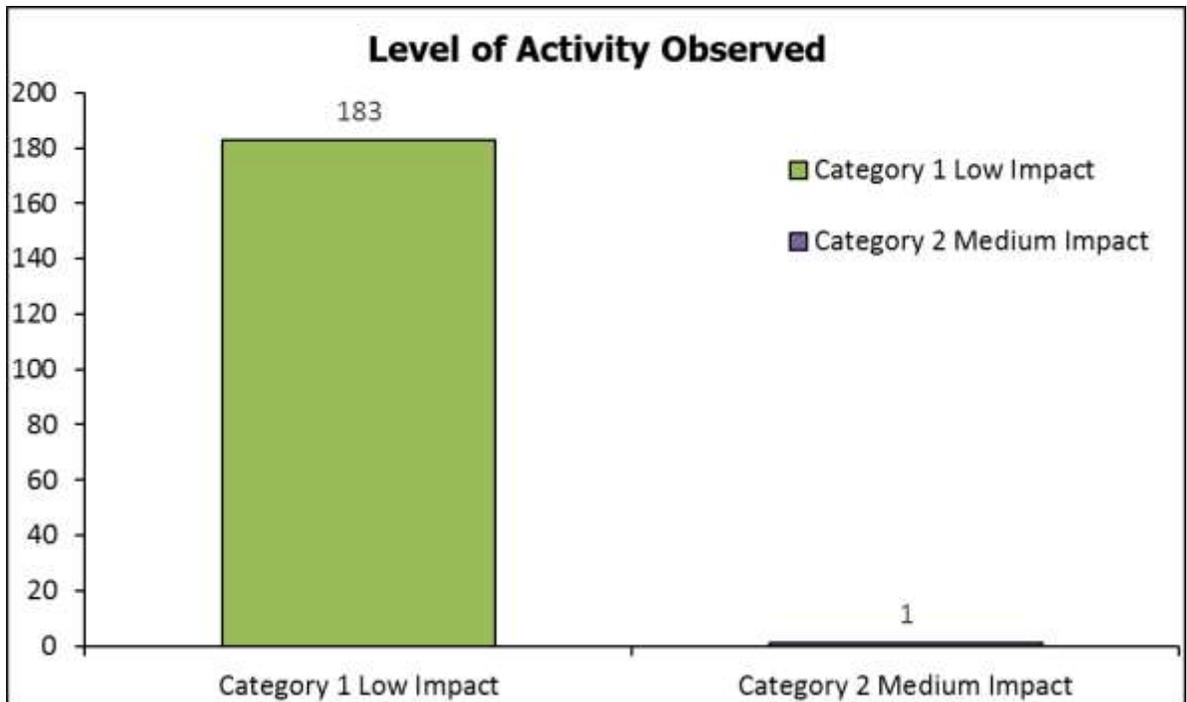


Figure 3.9 Level of Activity Observed at Lough Hyne

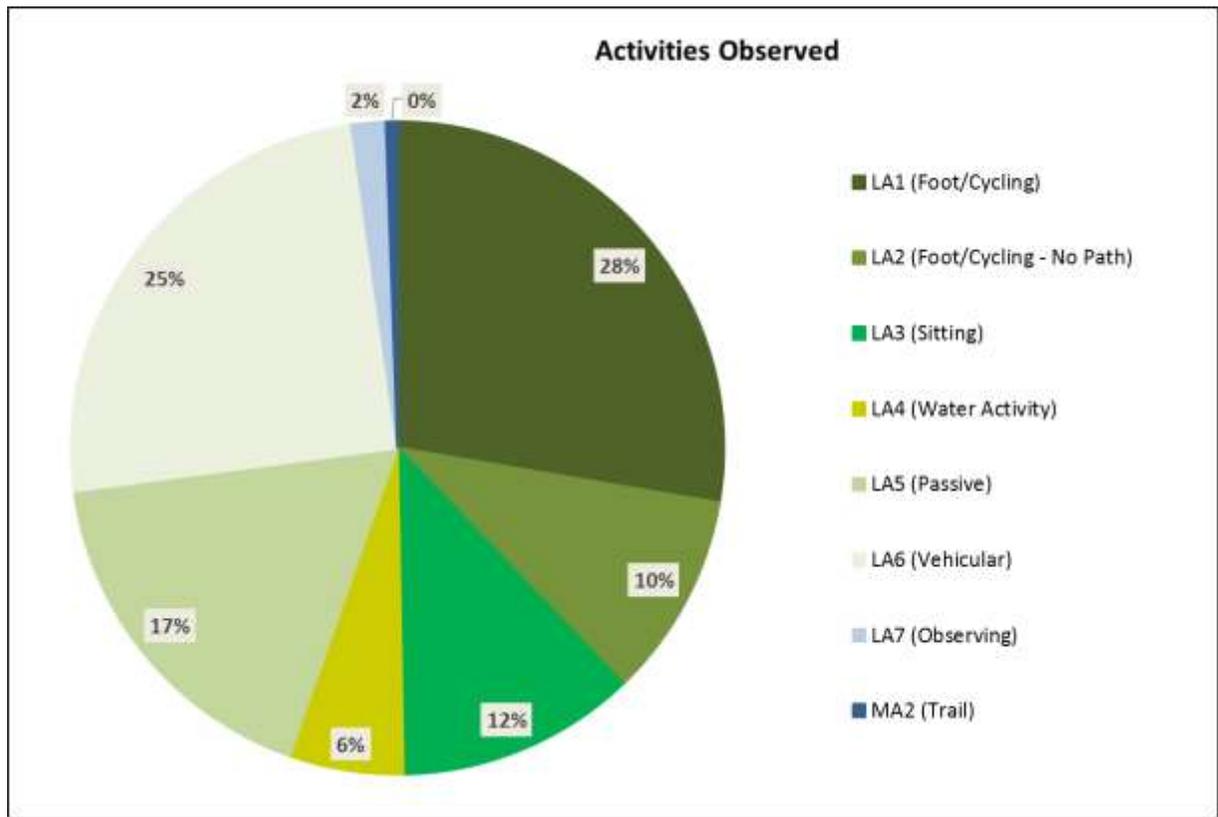


Figure 3.10 Range of Activities Observed at Lough Hyne

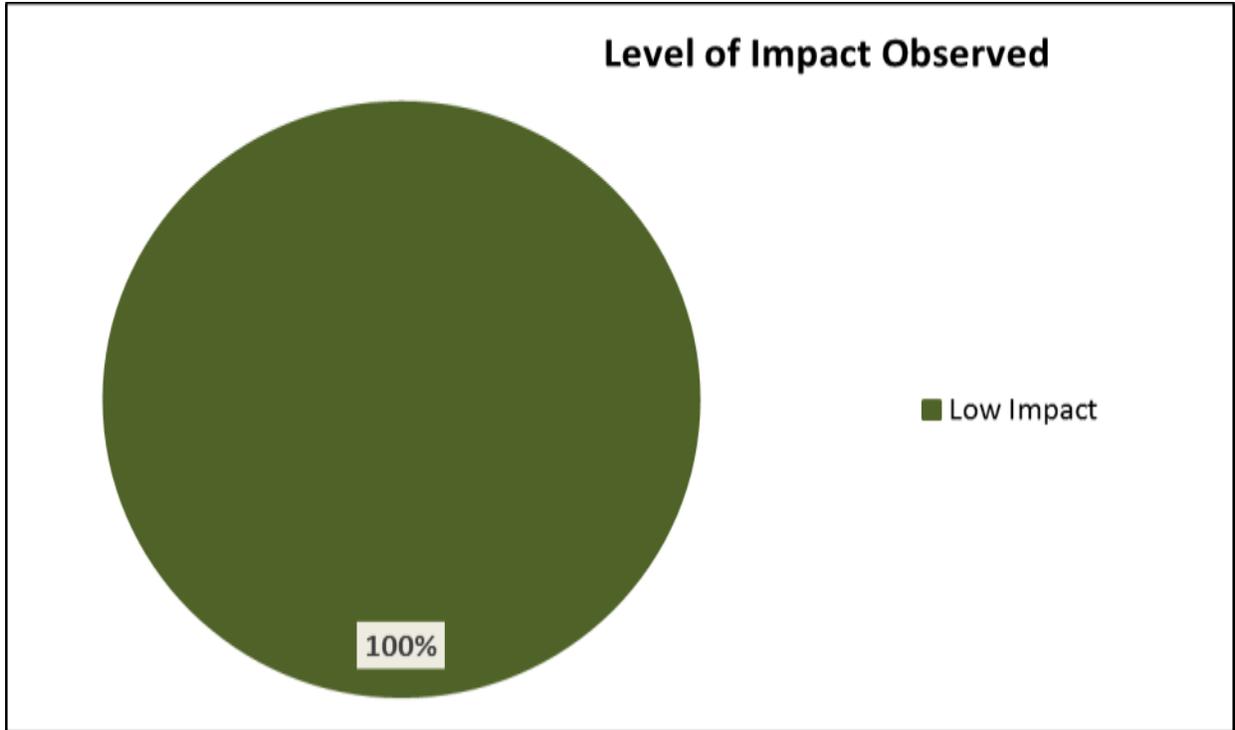


Figure 3.11 Level of Impacts observed at Lough Hyne

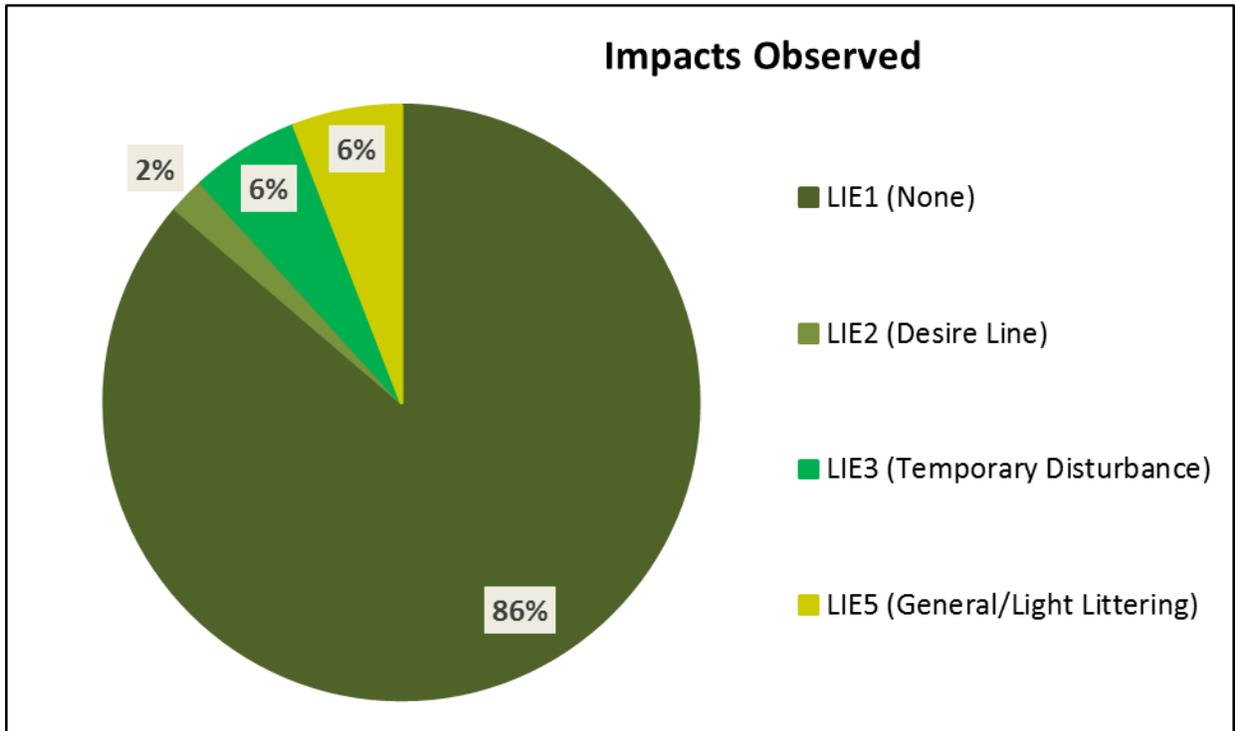


Figure 3.12 Impacts Observed at Lough Hyne

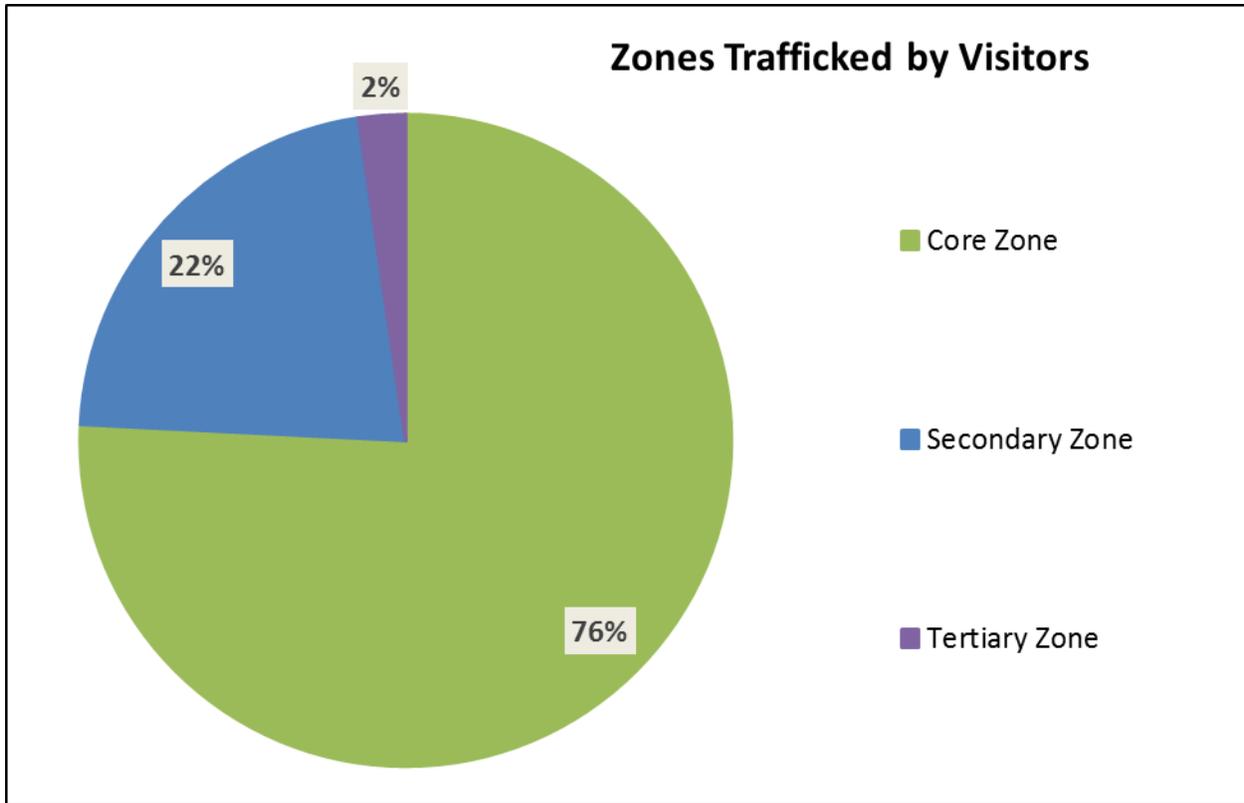


Figure 3.13 Zones trafficked by visitors at Lough Hyne

Table 3.2 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.

3.2.1 Recommendations and Analysis of Results and Visitor Movement Patterns

The above results show that the majority of visitors (86%) had no identifiable effect to the site. On arrival to the site evidence of dumping (6%) was visible, this mainly composed of glass bottles and aluminium cans in black refuse sacks.

73% of visitors stayed within the core zone of the site, parking and walking along the edge of the water bank. The 27% that went into the secondary zone where using the lake to train for a triathlon.

A growth in visitor numbers would require a review of the current parking and visitor facilities.



Figure 3.14 Visitor Movement Zones at Lough Hyne

3.3 Dursey Sound (formerly referred to as Garnish Point)

Site Name: Dursey Sound (Control site)	Date Surveyed: 19th June 2017
County: Cork	Landscape Type: Rocky Shore/Peat/grassland in a peninsular context
Total no. of People: 130 Male: 64 Female: 66	Average Duration of visitors on site: 01:30:00 Minutes
Site Description: Dursey Sound is located opposite the famous Dursey Island; it is situated about 35 metres above sea level. Dursey Sound is separated from Dursey Island by a narrow sound known for its strong tides. Dursey Island is accessed by Irelands only cable car, it runs about 250m above sea level. There is a car park, ticket office and toilet facilities at this point, as well as interpretative signs. Dursey Sound is located within the Kenmare River SAC and the Beara Peninsula SPA. The site is an SAC for a number of habitats and species listed on Annex I and II of the Habitats Directive.	

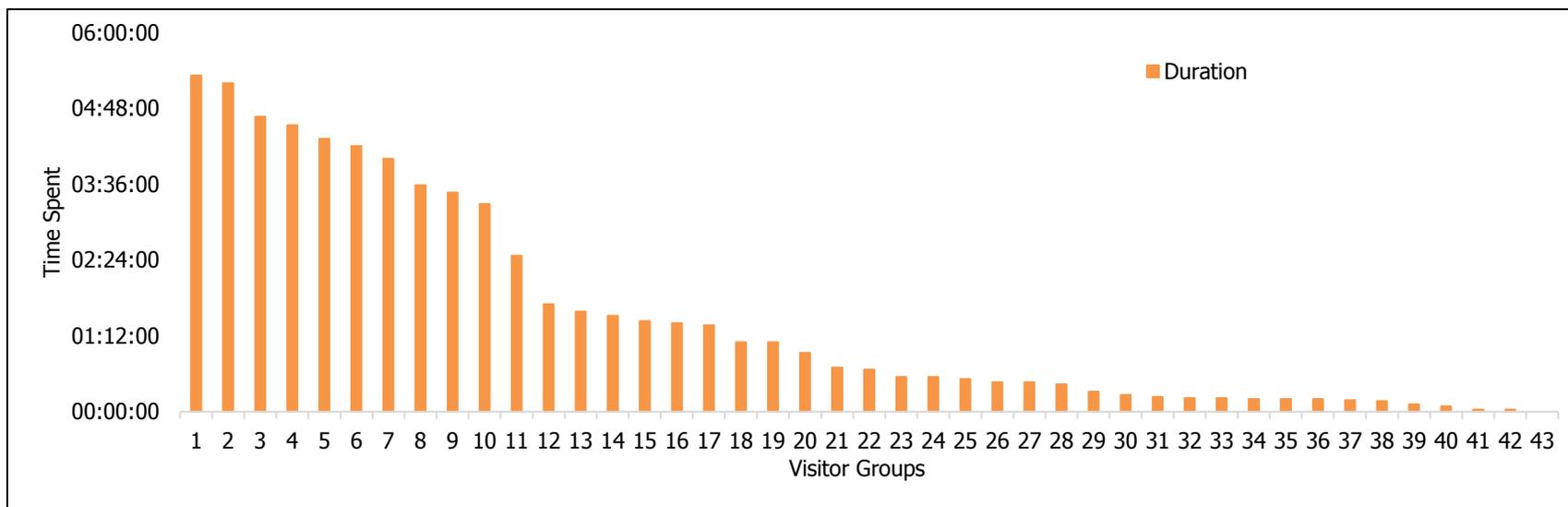


Figure 3.15 Duration Spent at Dursey Sound

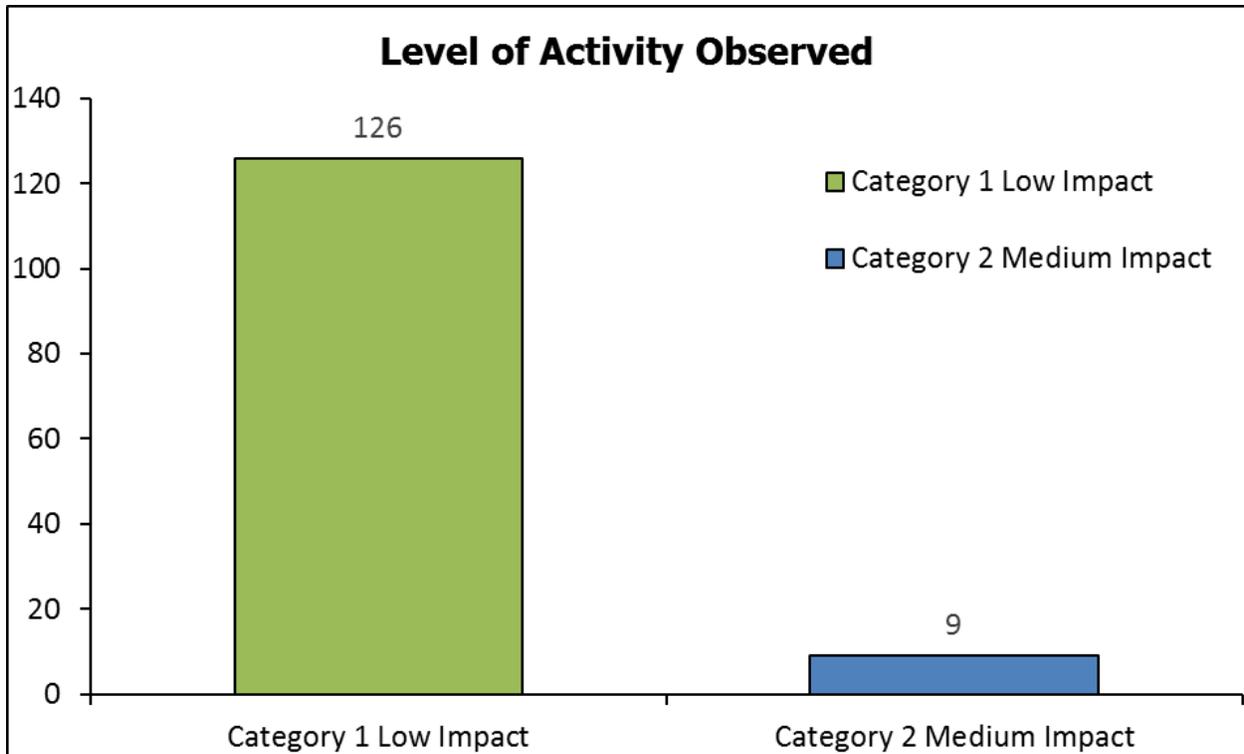


Figure 3.16 Level of Activity Observed at Dursey Sound

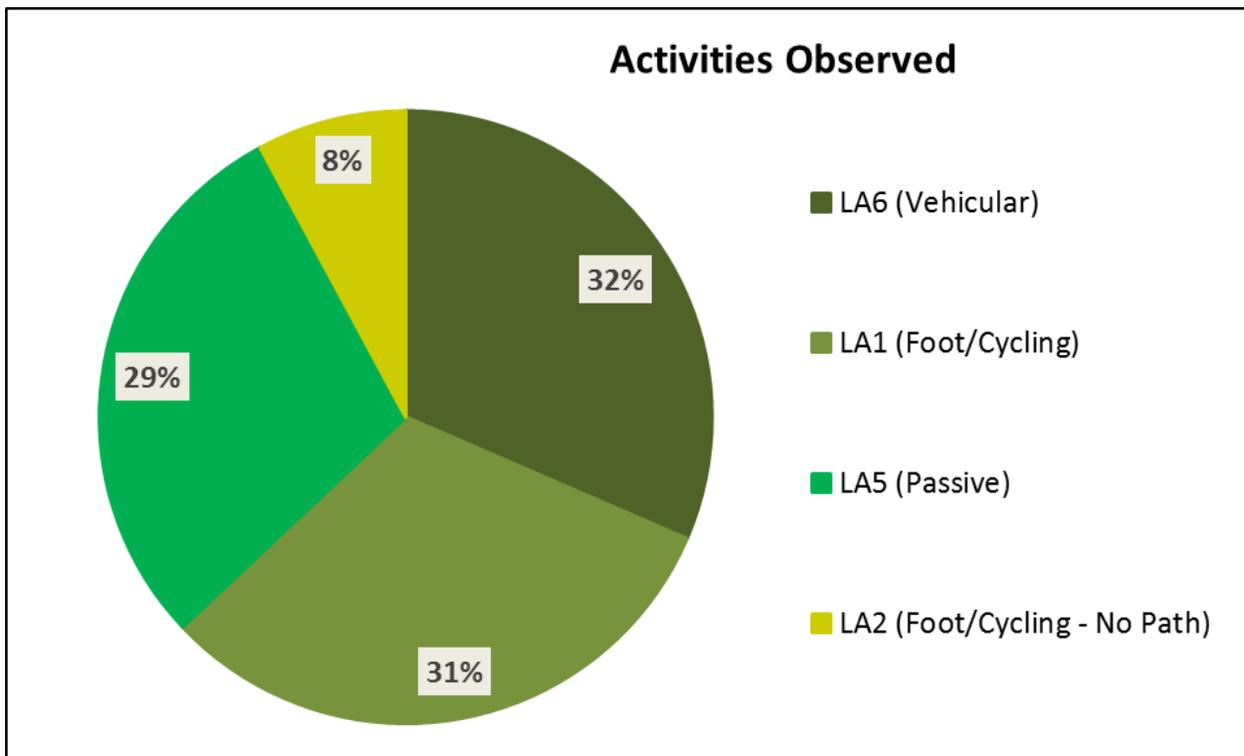


Figure 3.17 Range of Activities Observed at Dursey Sound

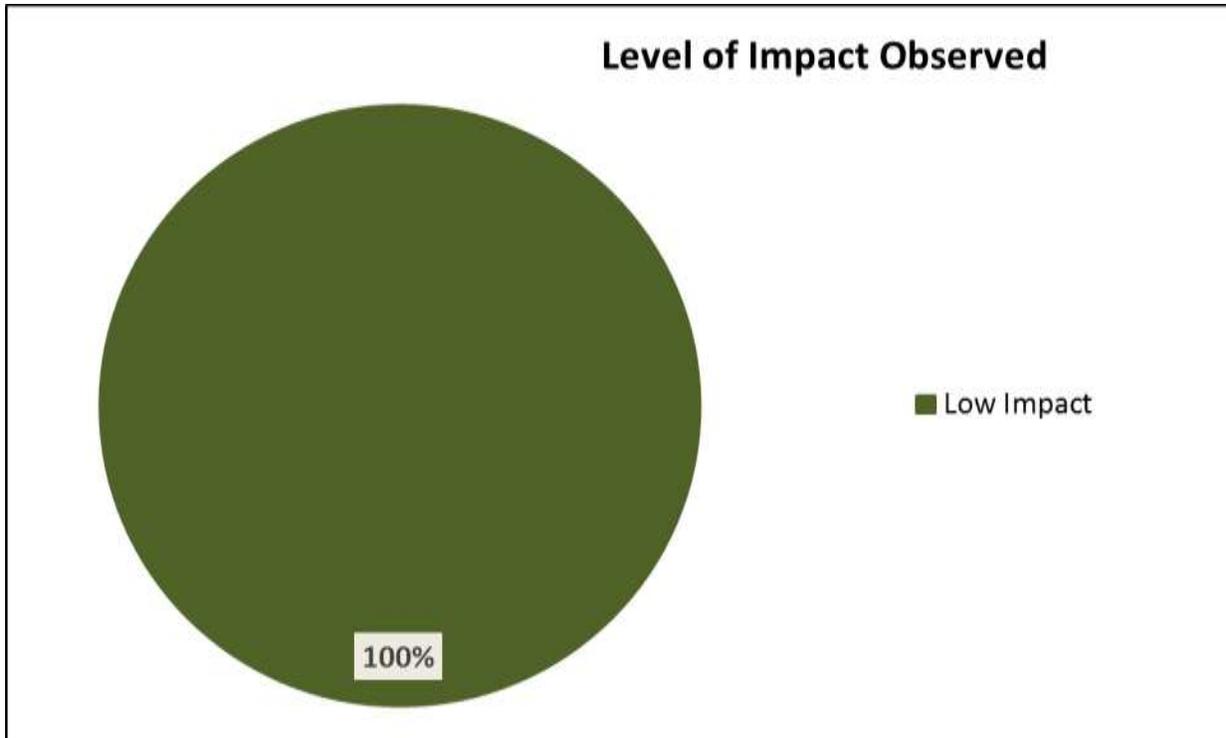


Figure 3.18 Level of Impact Observed at Dursey Sound

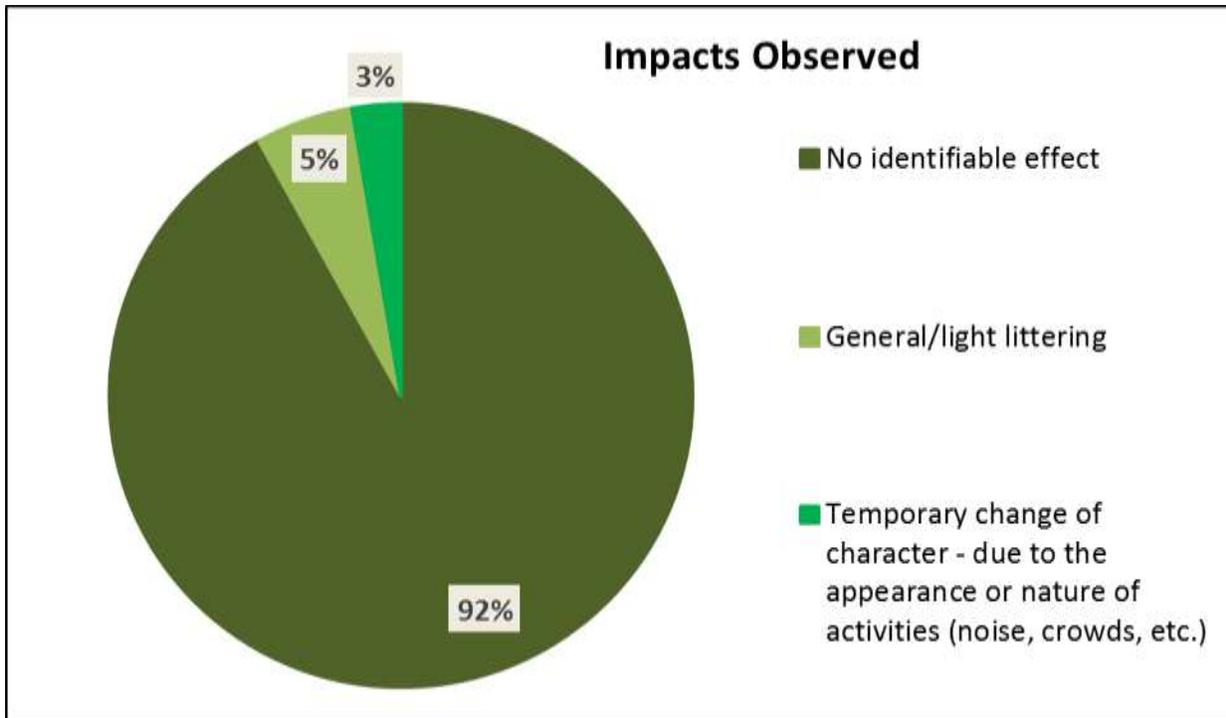


Figure 3.19 Impacts Observed at Dursey Sound

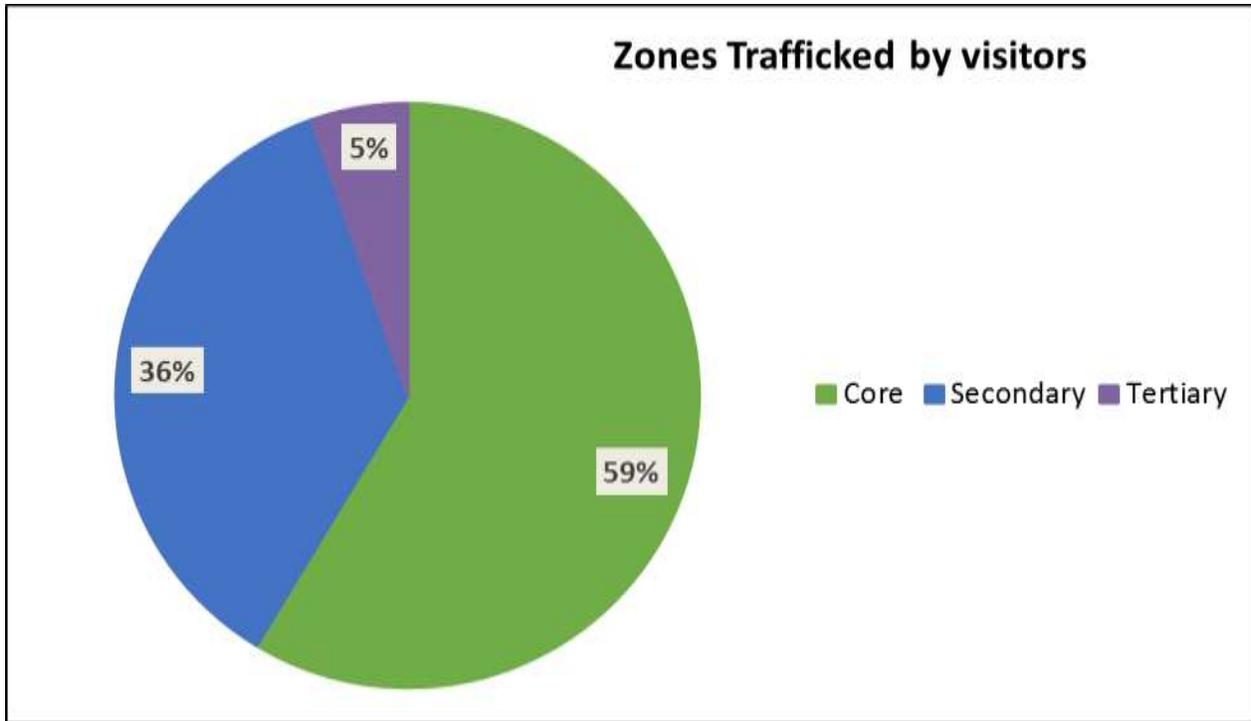


Figure 3.20 Zones trafficked by visitors at Dursey Sound

Table 3.3 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.
Tertiary Zone	Areas where no car park, paved areas, marked pathways, trails, tracks and managed grassland are identifiable and beyond the immediate boundaries of the site.

3.3.1 Recommendations and Analysis of Results and Visitor Movement Patterns

92% of visitors to Dursey Island/Garnish Point had no identifiable effect on the site.

59% of visitors stayed within the core area of the carpark and marked trails, 5% were observed to make their way off the marked trails across bare rock and vegetation to take photographs and site see.

A growth in visitor number would result in a review of the current access to the site. The roads from Allihies village to Castletownbere is extremely narrow and difficult for camper vans and large vehicles to pass through.

Concurrent with the previous observation surveys carried out in 2015 and 2016, the 2017 Observational Survey concluded that visitors had no identifiable effect on the site.



Figure 3.21 Visitor Movement Zones at Dursey Sound

3.4 Teach Doire Fhíonaín (Derrynane House)

Site Name: Teach Doire Fhíonaín (Derrynane House)	Date Surveyed: 10th June 2017
County: Kerry	Landscape Type: Managed Grassland
Total no. of People: 306 Male: 148 Female: 158	Average Duration of visitors on site: 01:02:00 Minutes
Site Description: Derrynane House in Irish 'Teach Dhoire Fhionáin' was the ancestral home of the famous Irish politician and statesman, Daniel O'Connell. The house is now an Irish National Monument and part of the 320-acre Derrynane National Park. The dunes and coastal area are of great ecological value and form part of two Natura Designations of international significance- the Kenmare River SAC and the Iveragh Peninsula SPA. The surrounding area is particularly rich in archaeological sites. The site is part of Kenmare River SAC including the significant vegetated sea cliffs in the Derrynane area. The site includes areas of coastal dry heath. There is a carpark and general signage at this site indicating the history of the site and also the importance of the site for birds including seabirds and other wildlife in the area	

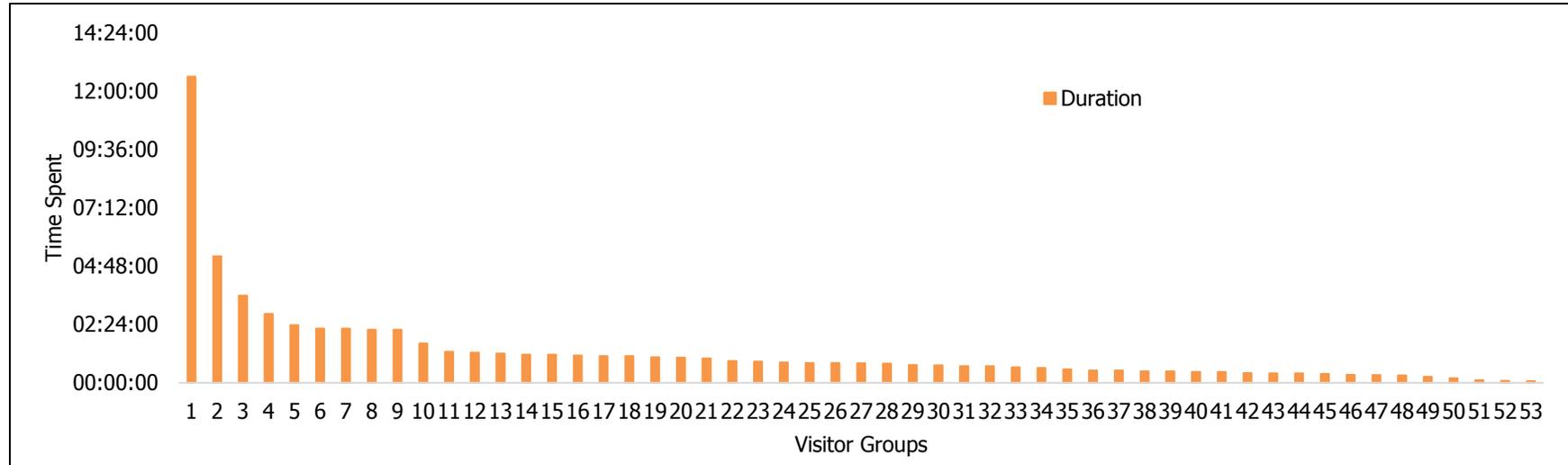


Figure 3.22 Duration Spent at Teach Doire Fhíonaín (Derrynane House)

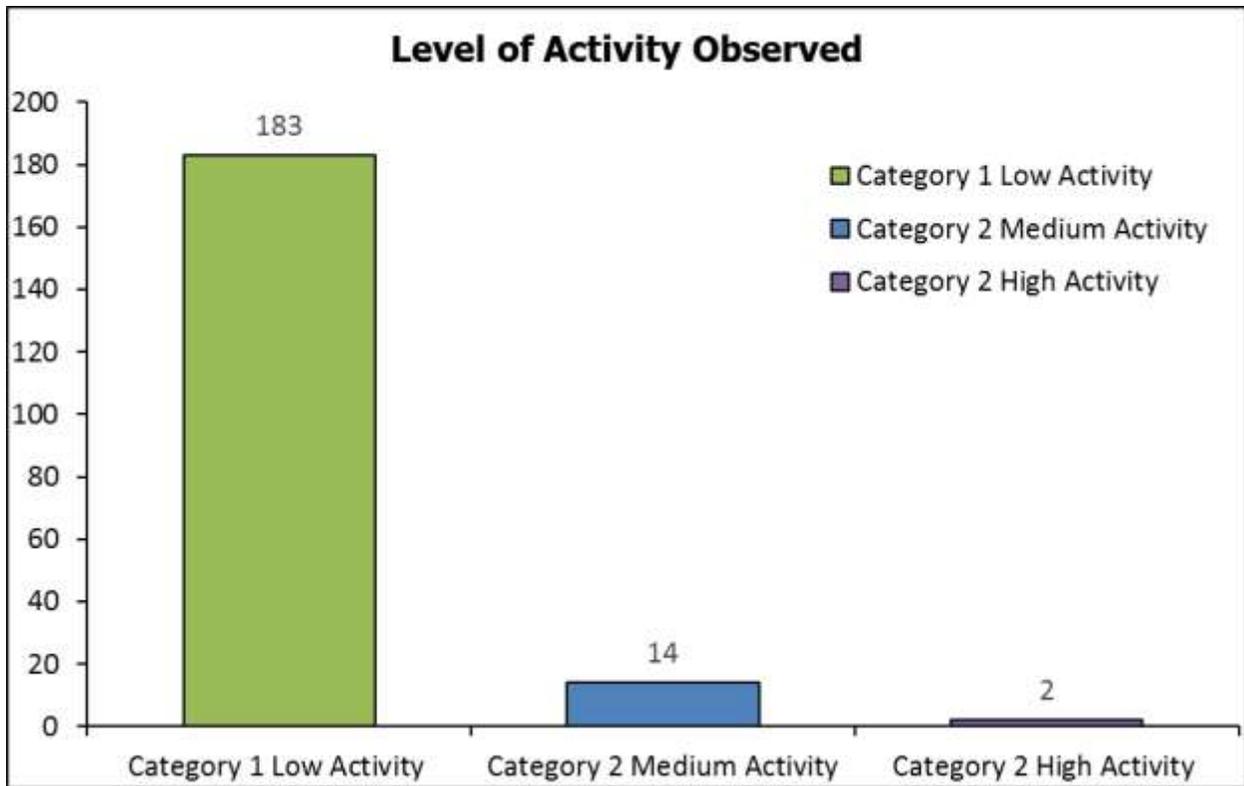


Figure 3.23 Level of Activity Observed Teach Doire Fhionain (Derrynane House)

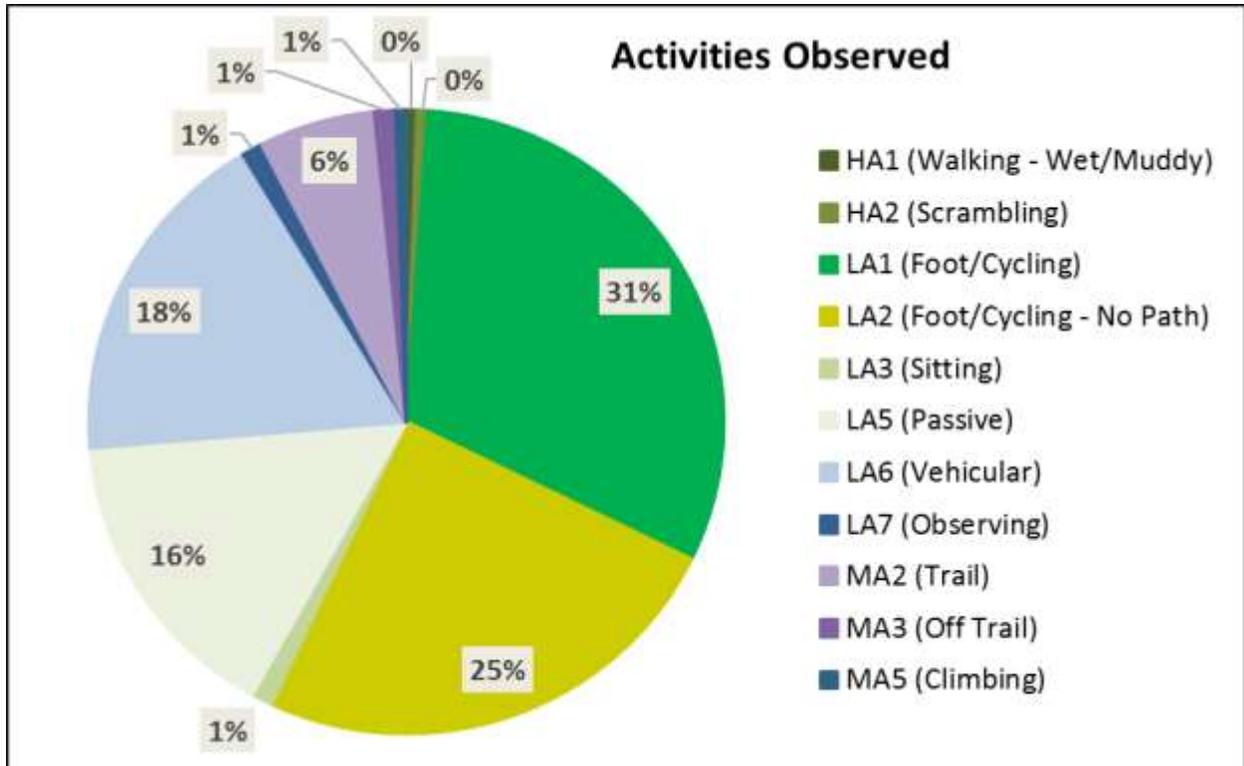


Figure 3.24 Range of Activities Observed at Teach Doire Fhionain (Derrynane House)

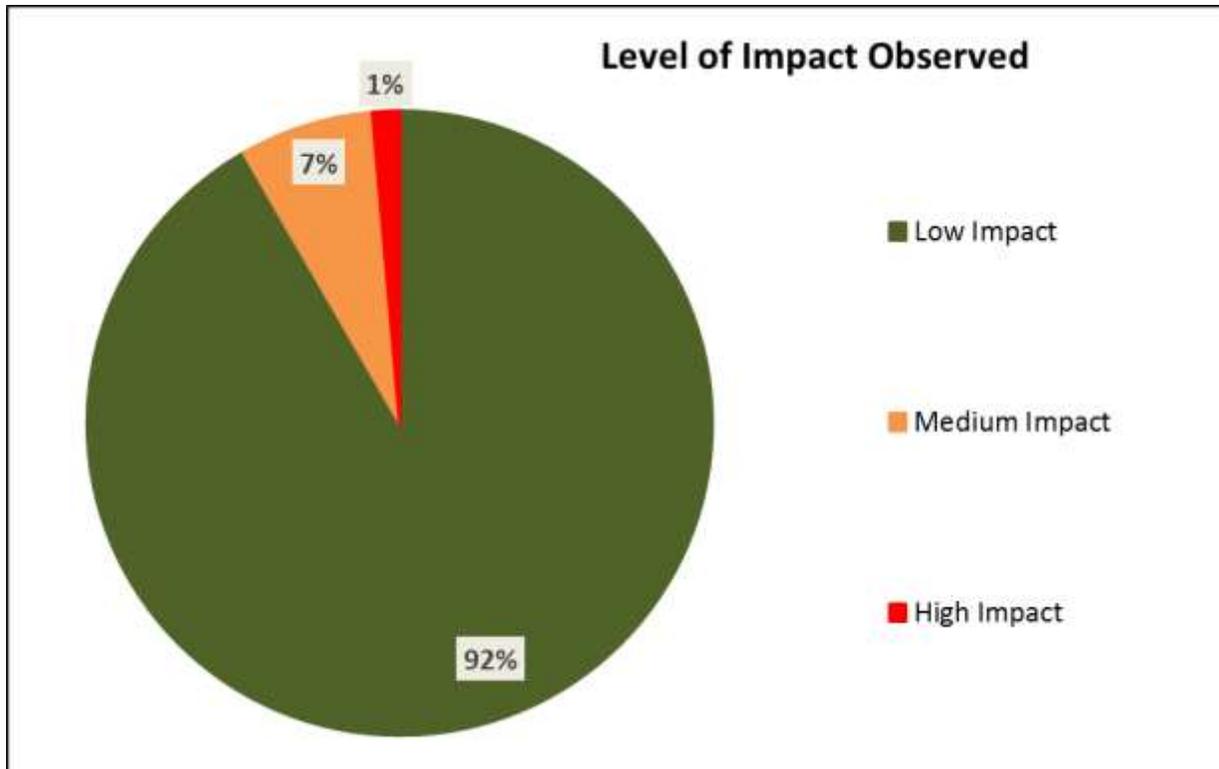


Figure 3.25 Level of Impacts observed at Teach Doire Fhíonaín (Derrynane House)

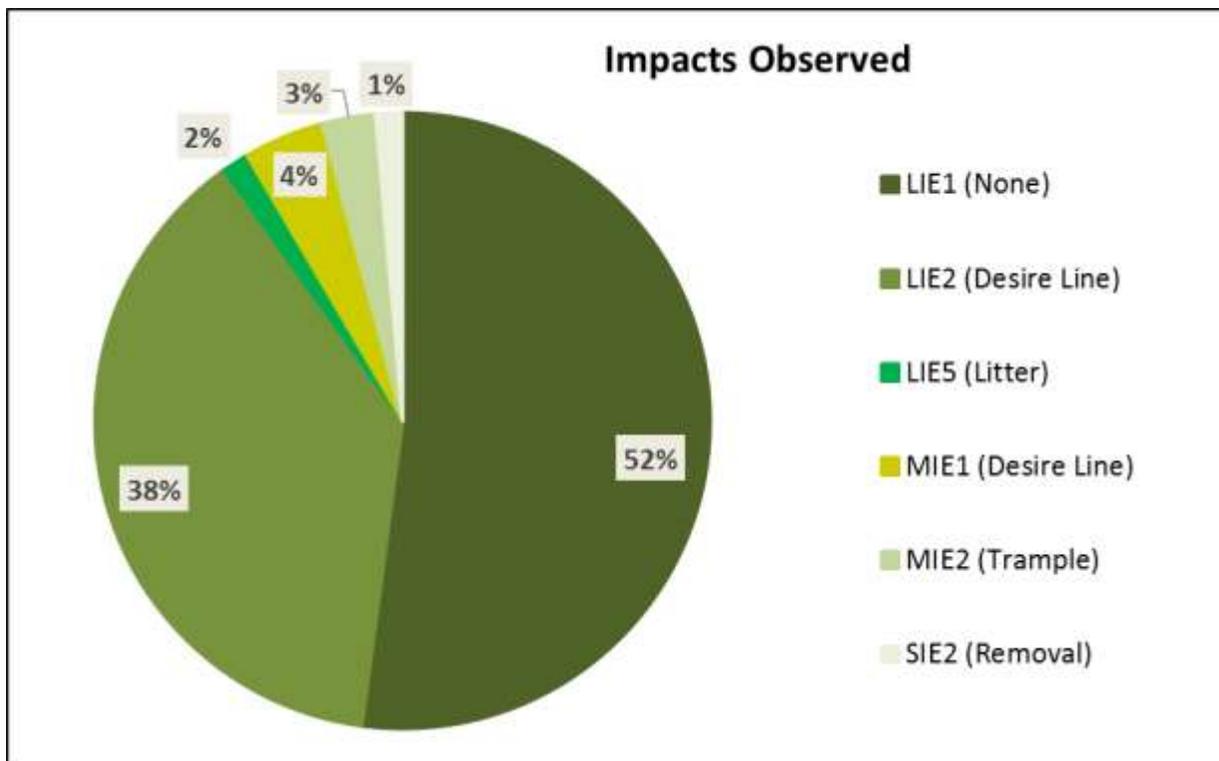


Figure 3.26 Range of impacts observed at Teach Doire Fhíonaín (Derrynane House)

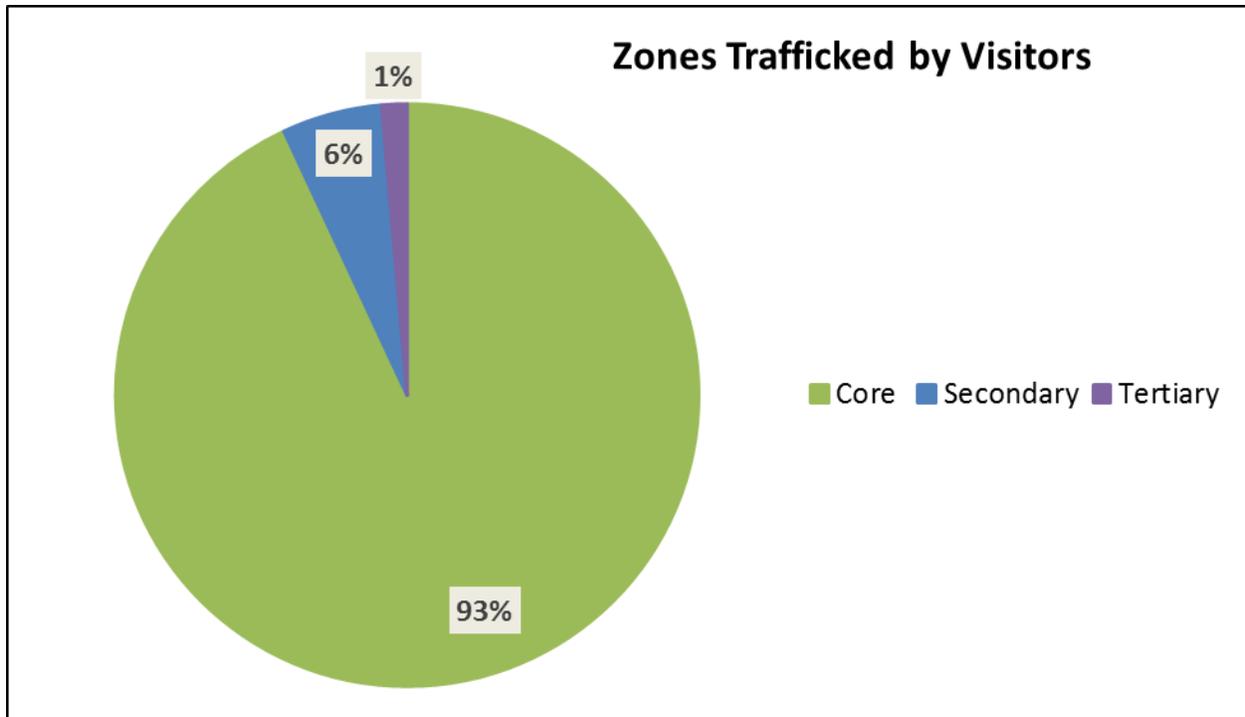


Figure 3.27 Zones trafficked by visitors at Teach Doire Fhíonaín (Derrynane House)

Table 3.4 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.
Tertiary Zone	Areas where no car park, paved areas, marked pathways, trails, tracks and managed grassland are identifiable and beyond the immediate boundaries of the site.

3.4.1 Recommendations and Analysis of Results and Visitor Movement Patterns

52% of people had no identifiable effect on the site. Desire lines were visible (38%) in the Dunes as a result of people horse-riding, reaching the dunes from a separate carpark located adjacent to the beach.

The majority of visitors (93%) stayed within the core areas of the Beach and the marked trails of Derrynane house. 6% of people trafficked the secondary zone and were observed to throw matter (stones, bricks) into the water.

As there is access to the Dunes from both the beach and the car park, measures should be put in place to ensure visitors are aware of the sensitivity of the surrounding landscape and stick to marked trails and paths.



Figure 3.28 Visitor Movement Zones at Teach Doire Fhionain (Derrynane House)

3.5 Ballyheigue Beach

Site Name: Ballyheigue Beach	Date Surveyed: 30th June 2017
County: Kerry	Landscape Type: Soft Shores/Beaches/Dunes
Total no. of People: 126 Male: 68 Female: 58	Average Duration of visitors on site: 00:44:00 Minutes
Site Description: Ballyheigue is a coastal village 12 miles north of Tralee with miles of beaches that connect to Barna Strand south and Kerry Head to the North. The beach is lifeguard patrolled during the bathing season and more information can be found on the notice board located at the beach. The beach has received the International Blue Flag award for 2017. The dunes that run along the shore have small sheltered alcoves cut into them, intended for picnicking and amenity use. There are toilet facilities for visitors along with a recycling hub to deter from littering. Ballyheigue has an extensive sandy beach with a designated SAC. Tralee Bay Complex SPA is located 1.5km from Ballyheigue Beach. The beach runs from Ballyheigue south for over 2 miles to the Black Rock and to the outlet from Lough Akeragh. Lough Akeragh is one of the best sites in Europe for migrating American waterfowl. Ballyheigue Beach is part of the larger Akeragh, Banna and Barrow Harbour Special Area of Conservation (SAC).	

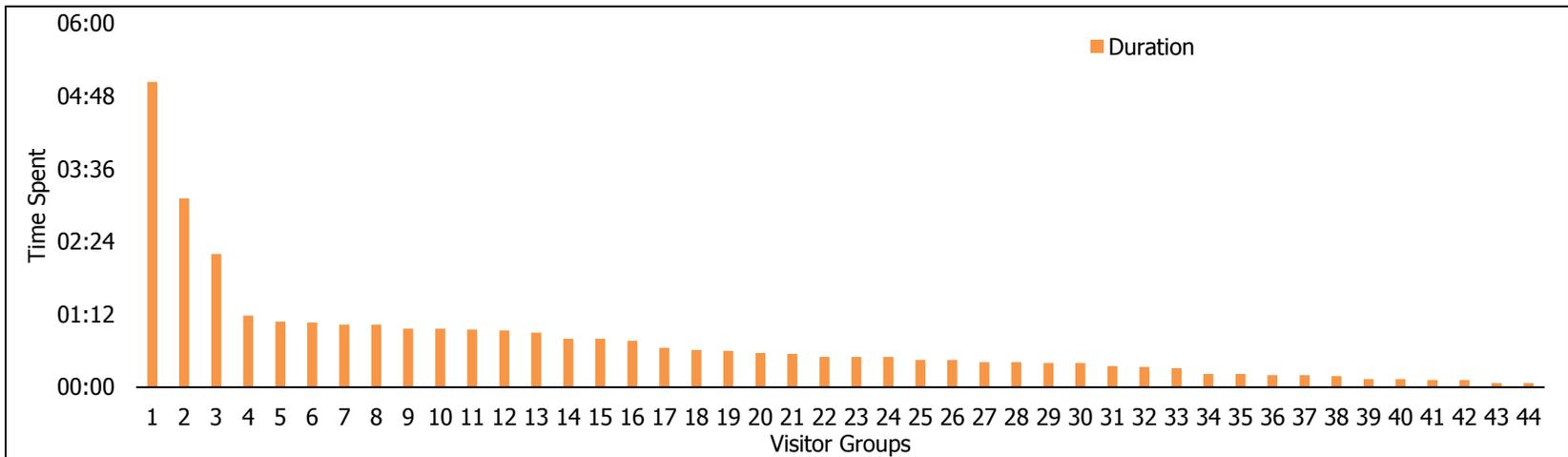


Figure 3.29 Duration Spent at Ballyheigue Beach

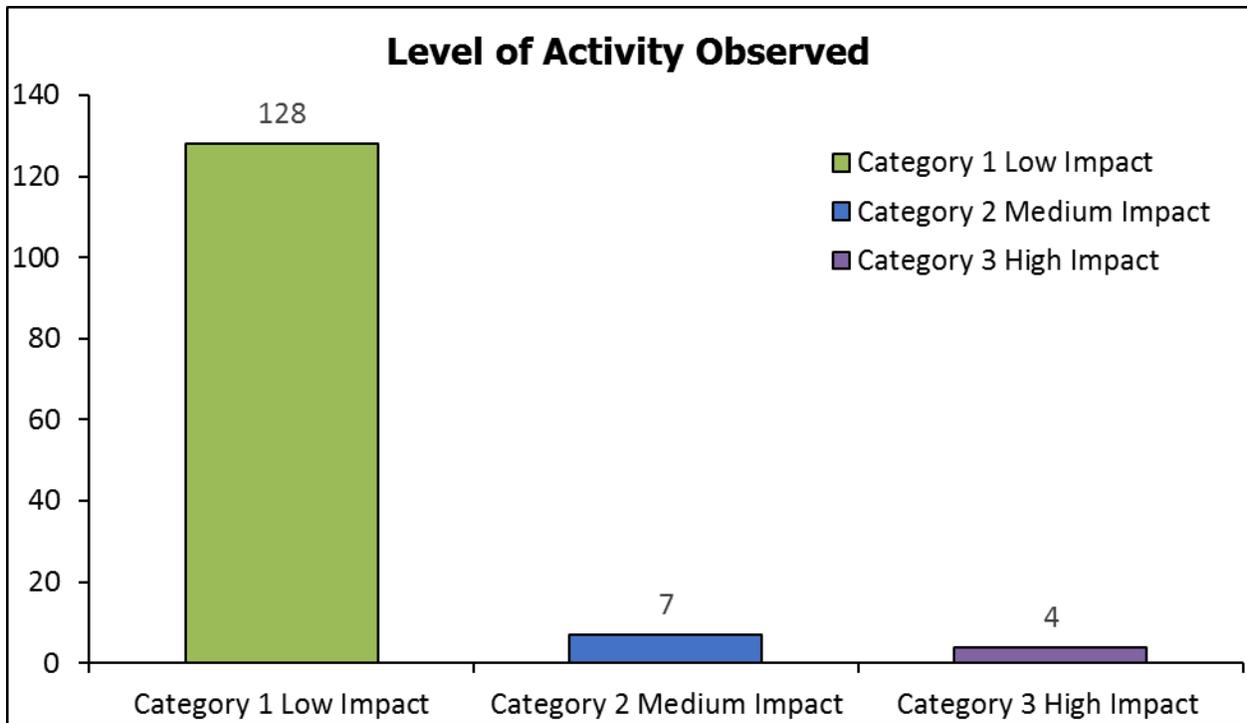


Figure 3.30 Level of Activity Observed at Ballyheigue Beach

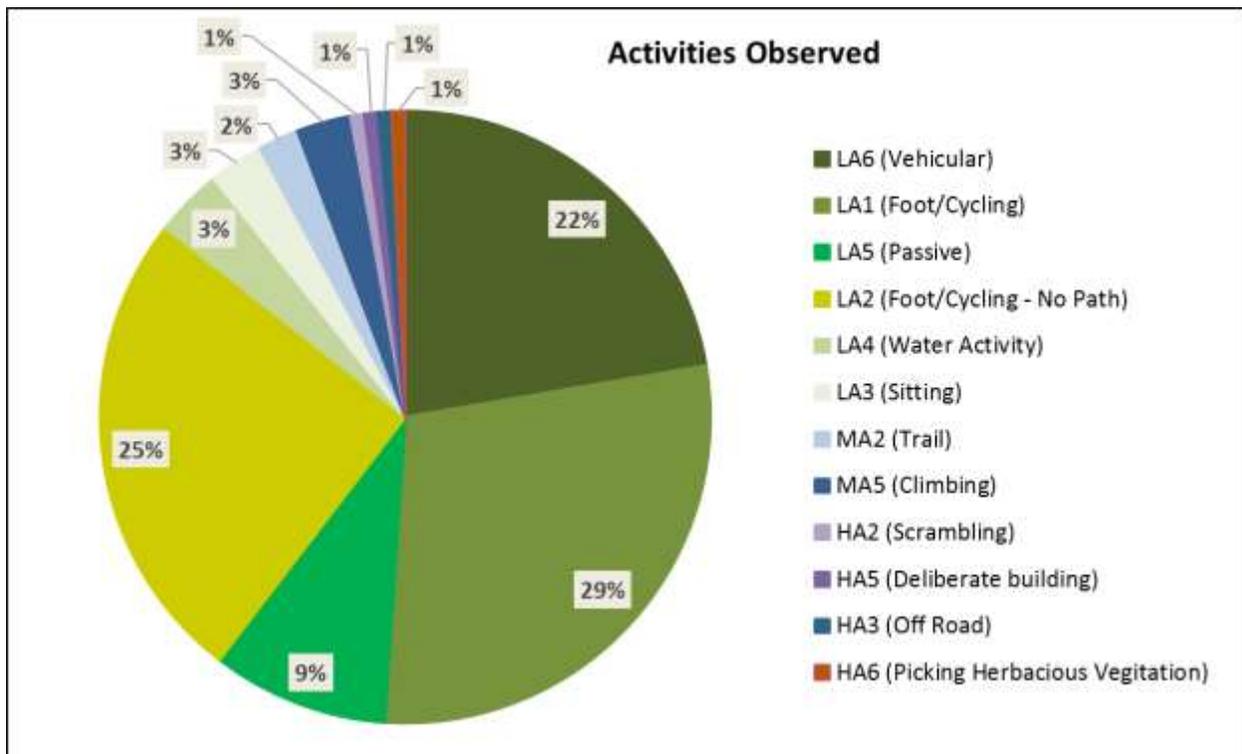


Figure 3.31 Range of Activities Observed at Ballyheigue Beach

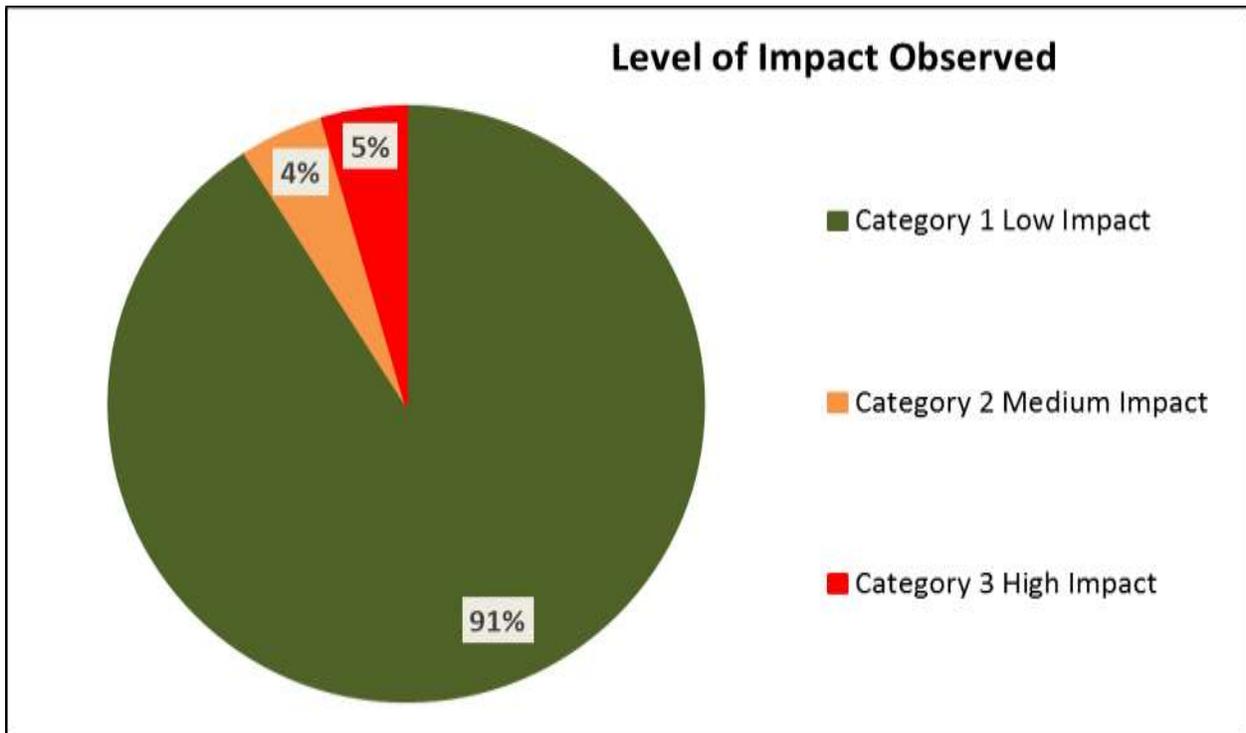


Figure 3.32 Level of Impact Observed at Ballyheigue Beach

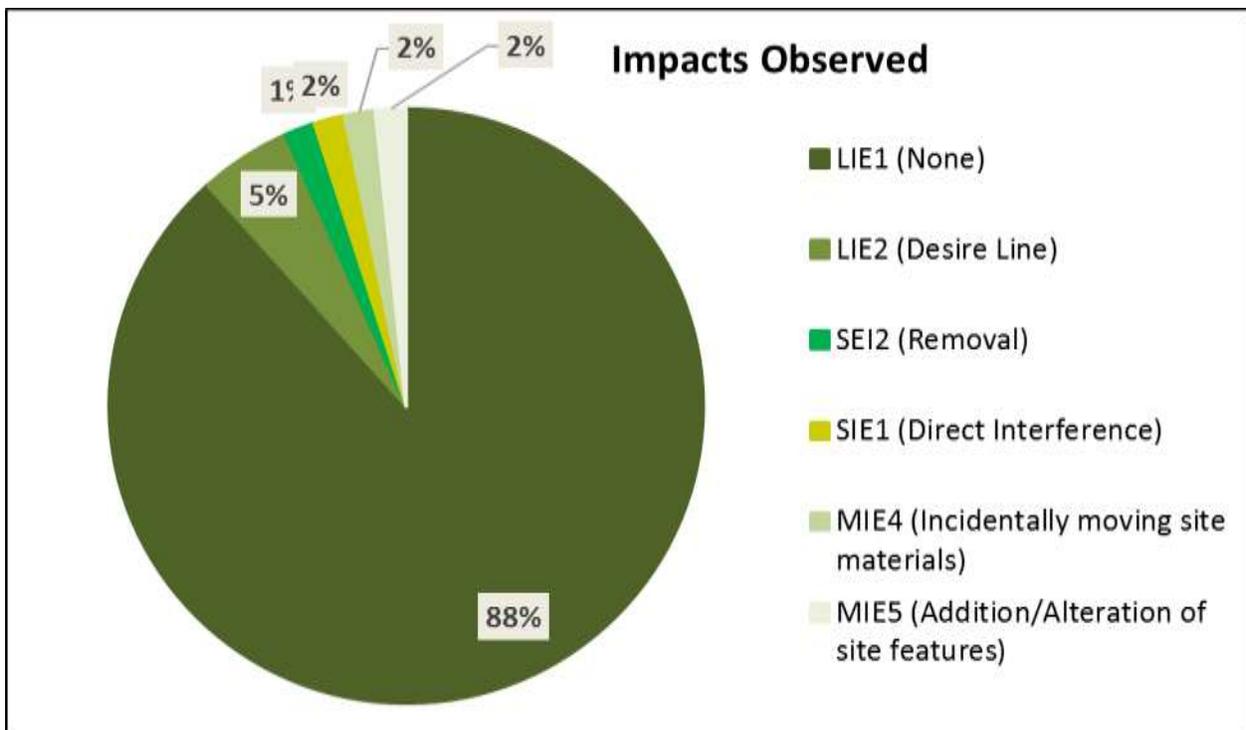


Figure 3.33 Range of Effects Observed at Ballyheigue Beach

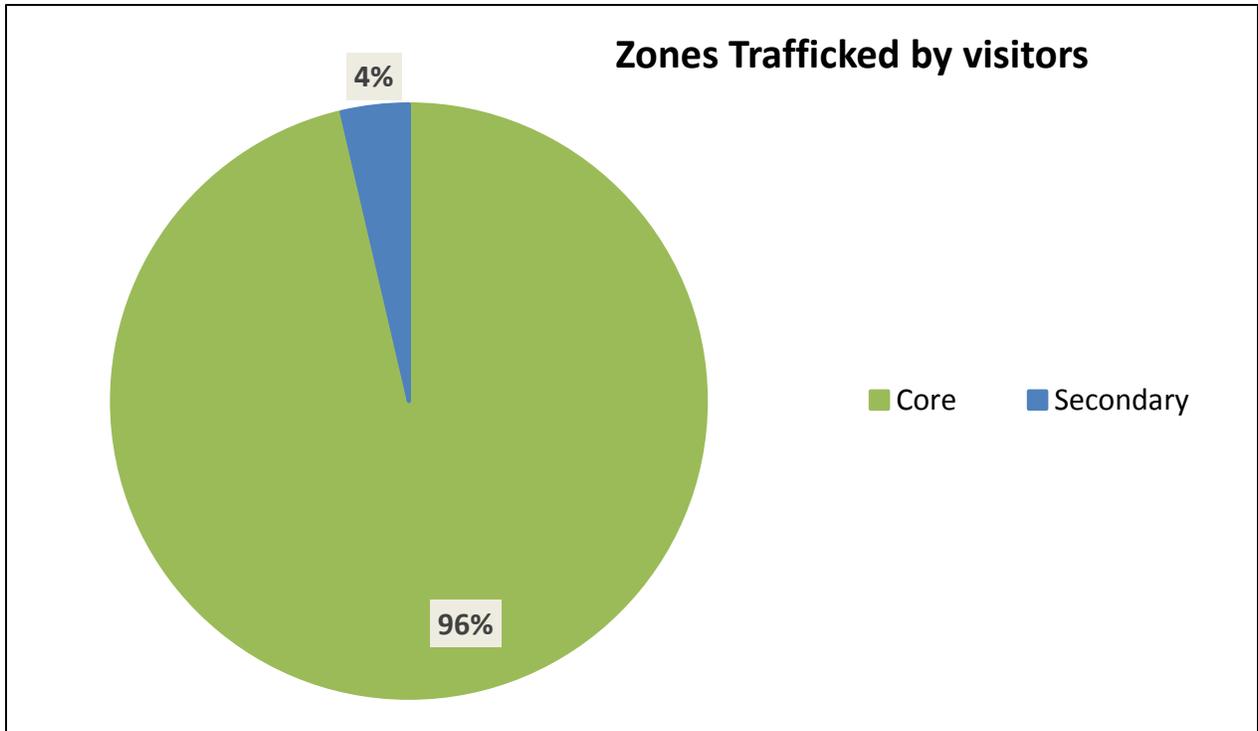


Figure 3.34 Zones trafficked by visitors at Ballyheigue Beach

Table 3.5 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.

3.5.1 Recommendations and Analysis of Results and Visitor Movement Patterns

The majority of visitors (86%) had no identifiable effect on the site. Due to the large visitor carpark and the additional car park and access road, visitors are able to access the beach through the designated paths and walkways.

96% of visitors stayed within the core areas of the car park and beach., however it became apparent that a number of locals (4%) use the dunes as a means of accessing the beach.

The beach is of high value and importance for recreation for residents and holiday-maker, while it is evident that the majority of visitors are aware of the sensitivity of the site, there may be need for guidance to walkers on the value of the dunes.



Figure 3.35 Visitor Movement Zones at Ballyheigue Beach

3.6 Carrigafoyle Castle

Site Name: Carrigafoyle Castle	Date Surveyed: 1st July 2017
County: Kerry	Landscape Type: Marine Areas
Total no. of People: 48 Male: 25 Female: 23	Average Duration of visitors on site: 00:13:44 Minutes
Site Description: Carrigafoyle Castle can be found 2 miles north of Ballylongford on the south side of the River Shannon. It is situated in a channel between the mainland and Carraig Island on the very South West tip of Ireland. The Castle is accessed by a raised stone pathway which becomes inaccessible during very high tides. The castle is adjacent to the roadside and has a carpark associated with it. The castle has detailed historical signage and is managed by the local county council, there are no visitor facilities at this site. Carrigafoyle is part of the Lower River Shannon Estuary CSACs as well as many of the smaller bays and inlets along both sides of the estuary in Counties Kerry, Limerick and Clare. Three Annex I saltmarshes are found at this site, all of which are qualifying interests for this site.	

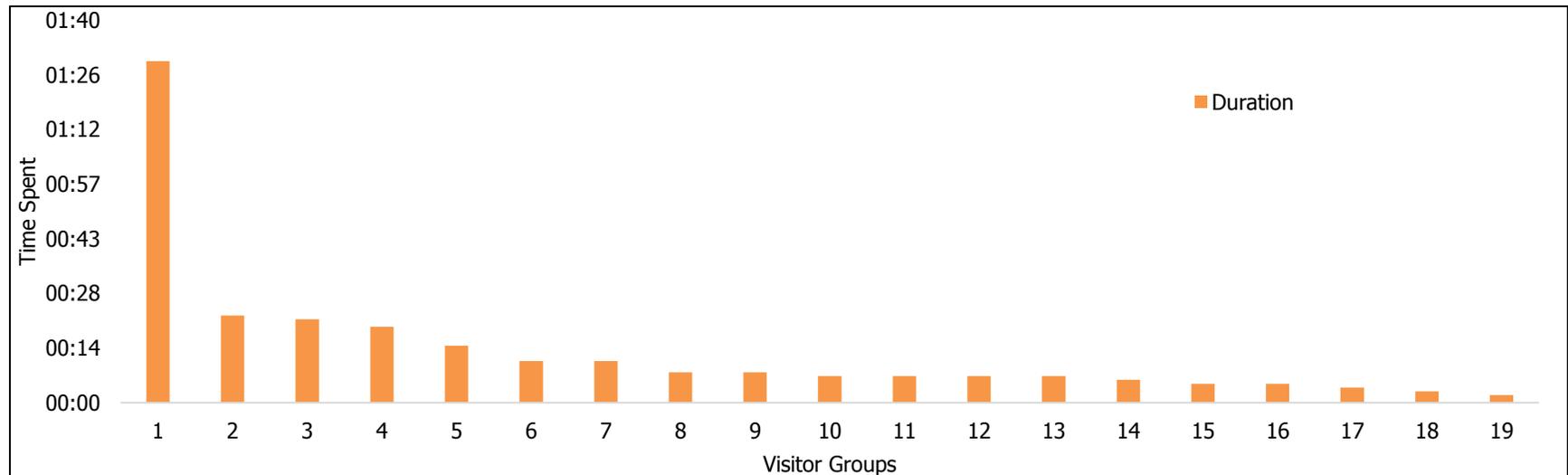


Figure 3.36 Duration Spent at Carrigafoyle Castle

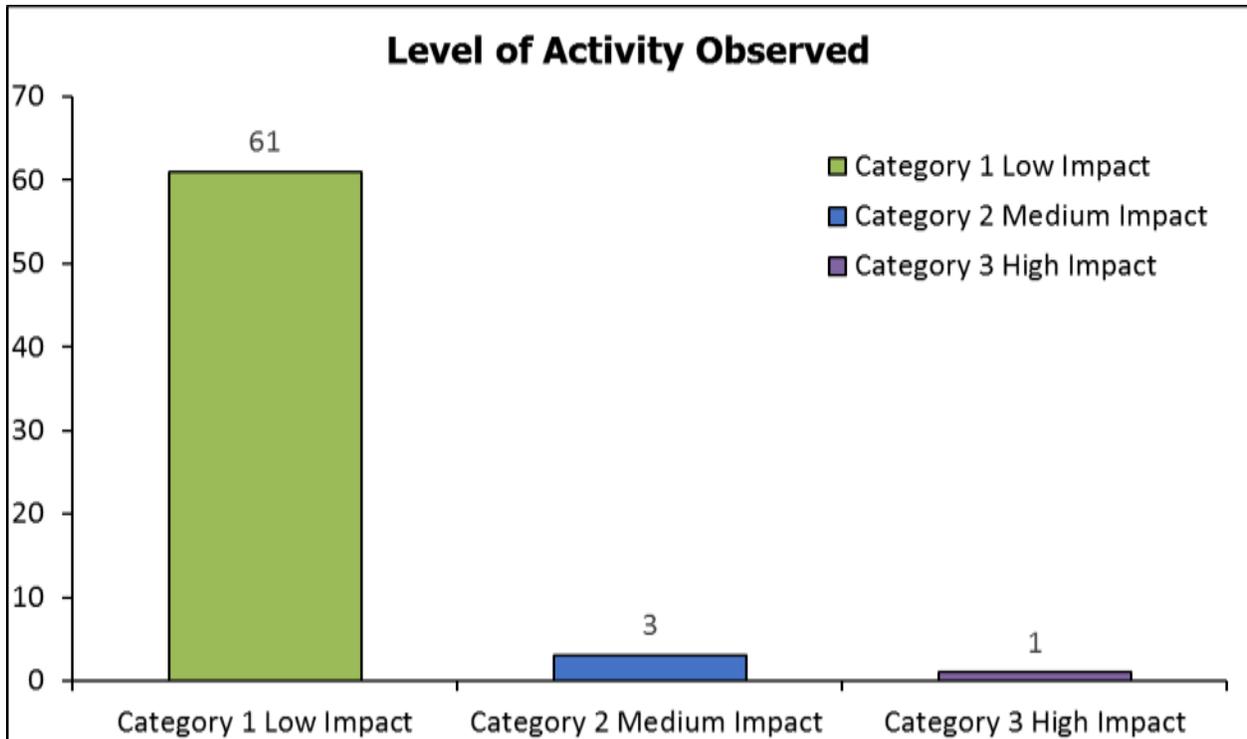


Figure 3.37 Level of Activity Observed at Carrigafoyle Castle

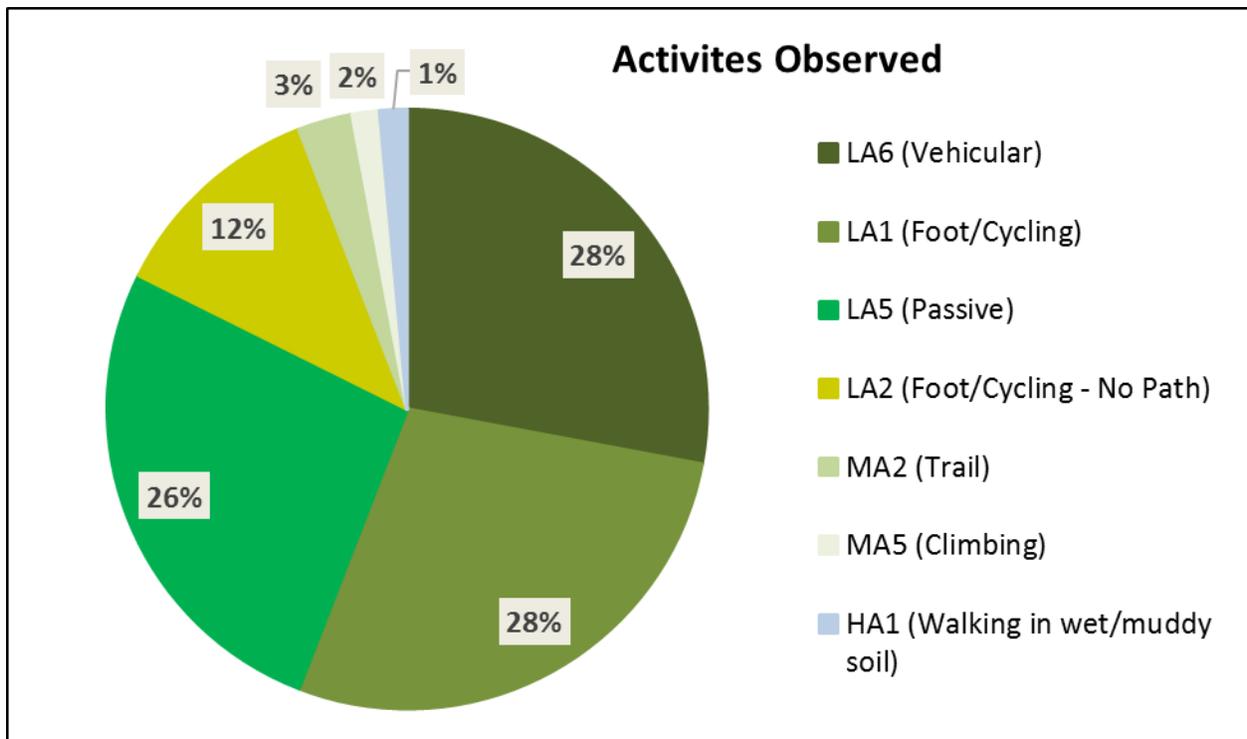


Figure 3.38 Range of Activities Observed at Carrigafoyle Castle

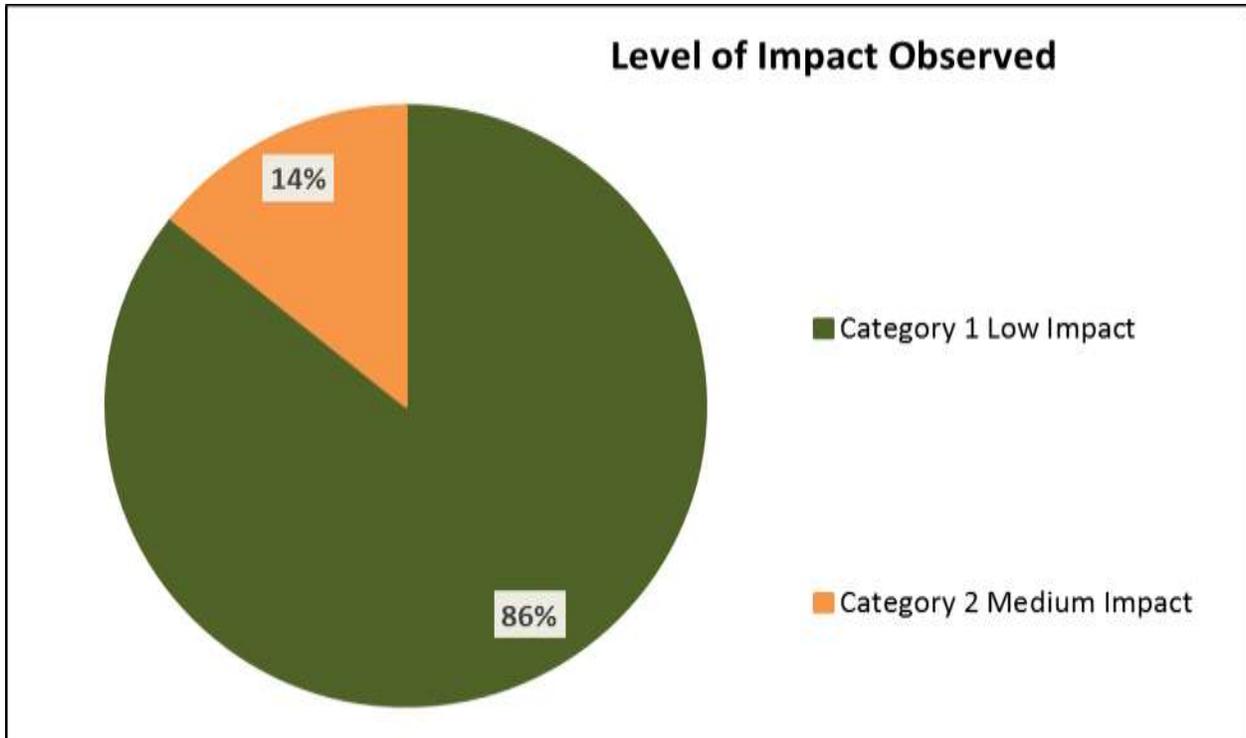


Figure 3.39 Level of Impact Observed at Carrigafoyle Castle

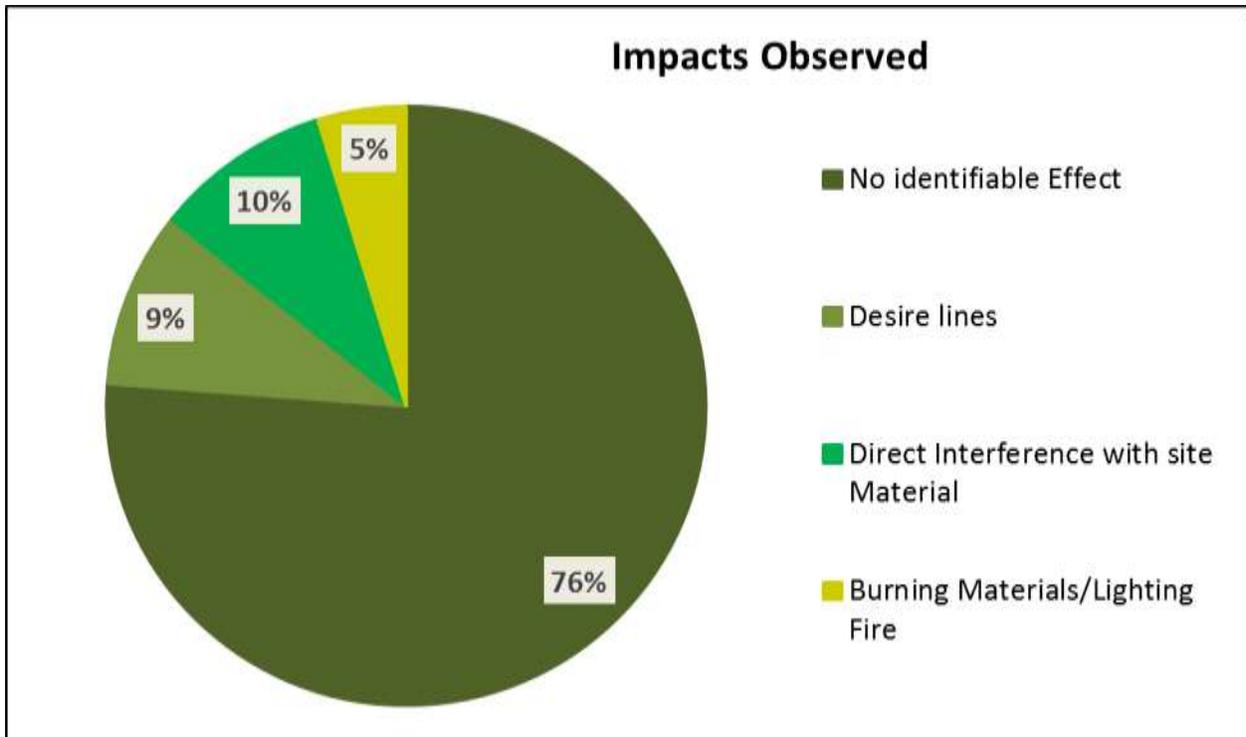


Figure 3.40 Impacts Observed at Carrigafoyle Castle

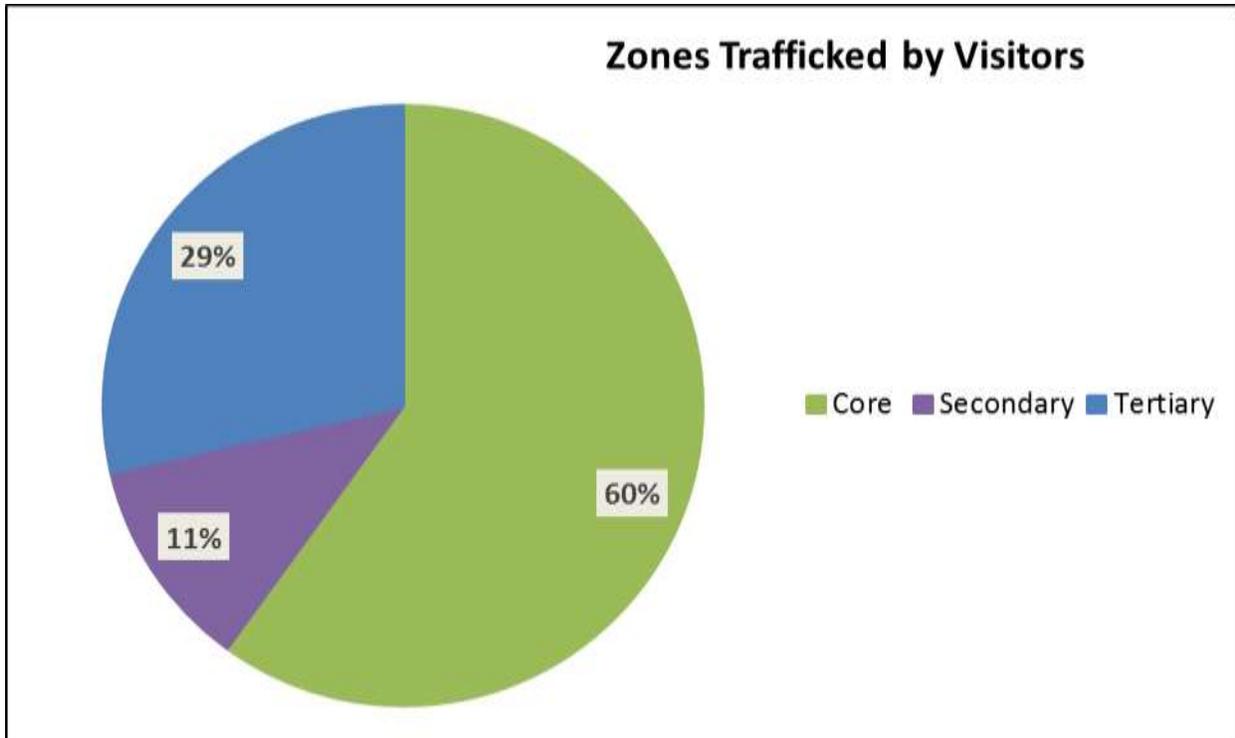


Figure 3.41 Zones trafficked by visitors at Carrigafoyle Castle

Table 3.6 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.
Tertiary Zone	Areas where no car park, paved areas, marked pathways, trails, tracks and managed grassland are identifiable and beyond the immediate boundaries of the site.

3.6.1 Recommendations and Analysis of Results and Visitor Movement Patterns

76% of visitors had no identifiable effect on the site.

On observation, it appears that the site only receives a small number of visitors per day. The adjacent car park is small with enough capacity to hold the level of footfall the site receives.

The majority of visitors (60%) stayed within the core zones of the car park and the surrounds of the castle. On the day of the survey the Castle ruin was closed due to nesting swallows which resulted in visitors leaving the core zones and trafficking between the secondary (11%) and Tertiary (29%) to take photographs.

Overall visitors had a low impact on the site.



Figure 3.42 Visitor Movement Zones at Carrigafoyle Castle

3.7 Cappagh Pier

Site Name: Cappagh Pier	Date Surveyed: 2nd July 2017
County: Clare	Landscape Type: Marine Areas
Total no. of People: 93 Male: 47 Female: 46	Average Duration of visitors on site: 00:26:00 Minutes
Site Description: Cappagh Pier was one of the most important factors in the development of Kilrush. The oldest section near the shore was built in 1764. Previously used as a facility for landing passengers from the steam vessels which piled regularly between west Clare and Limerick. The main pier car park (small) is adjacent to the pier from which boat tours of the Shannon Estuary depart in peak season. There is interpretive material available for visitors along with toilet facilities. Cappagh Pier is located within the Lower River Shannon SAC which stretches along the Shannon valley from Killaloe in Co. Clare to Loop Head/Kerry Head. Cappagh Pier is also located adjacent to the River Shannon and River Fergus SPA.	

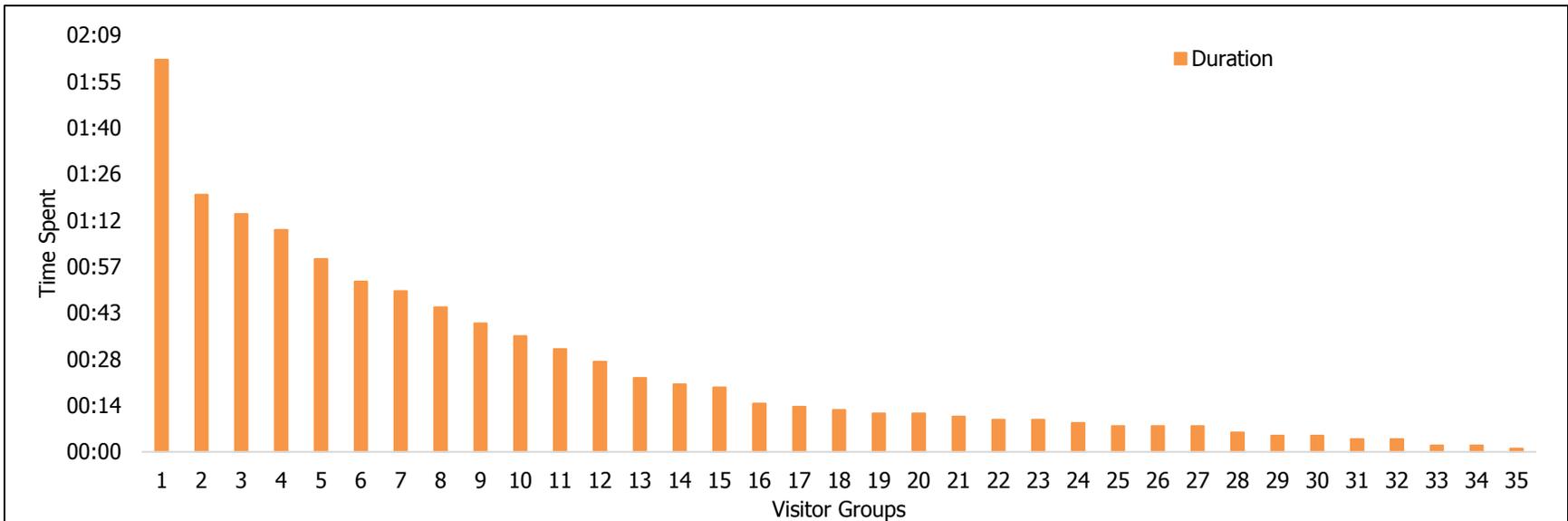


Figure 3.43 Duration Spent at Cappagh Pier

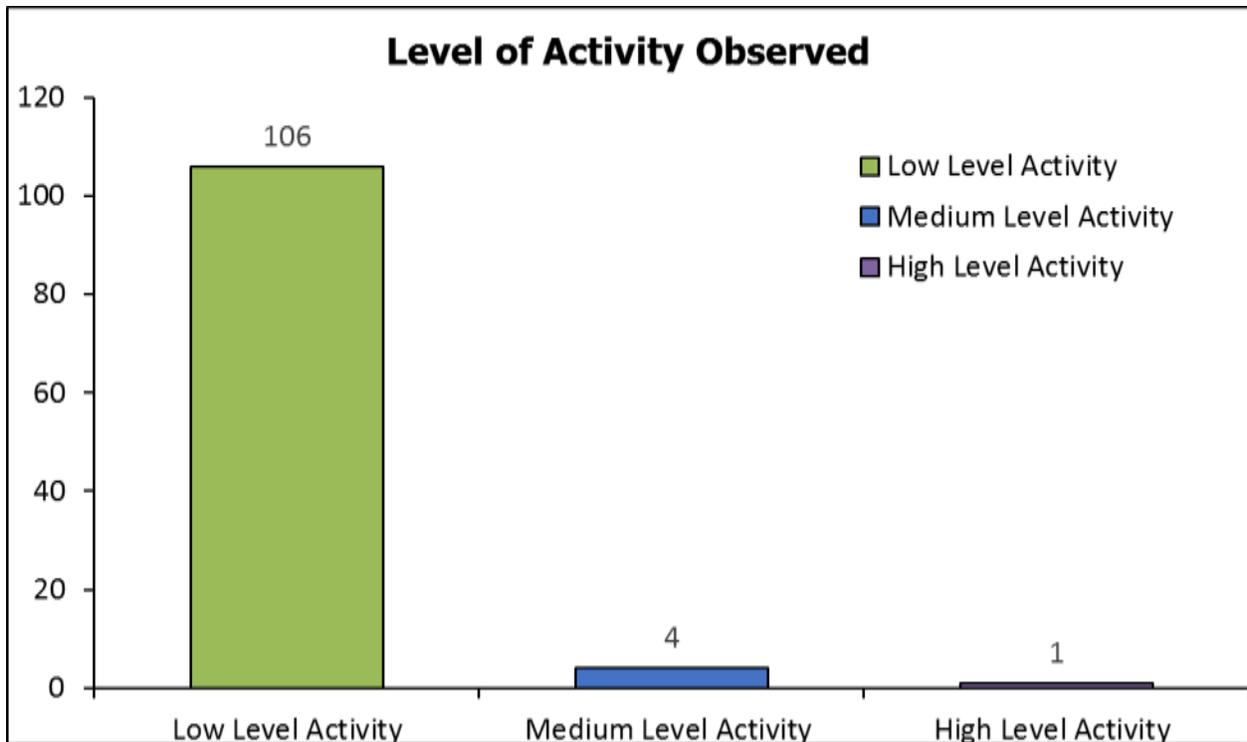


Figure 3.44 Level of Activity Observed at Cappagh Pier

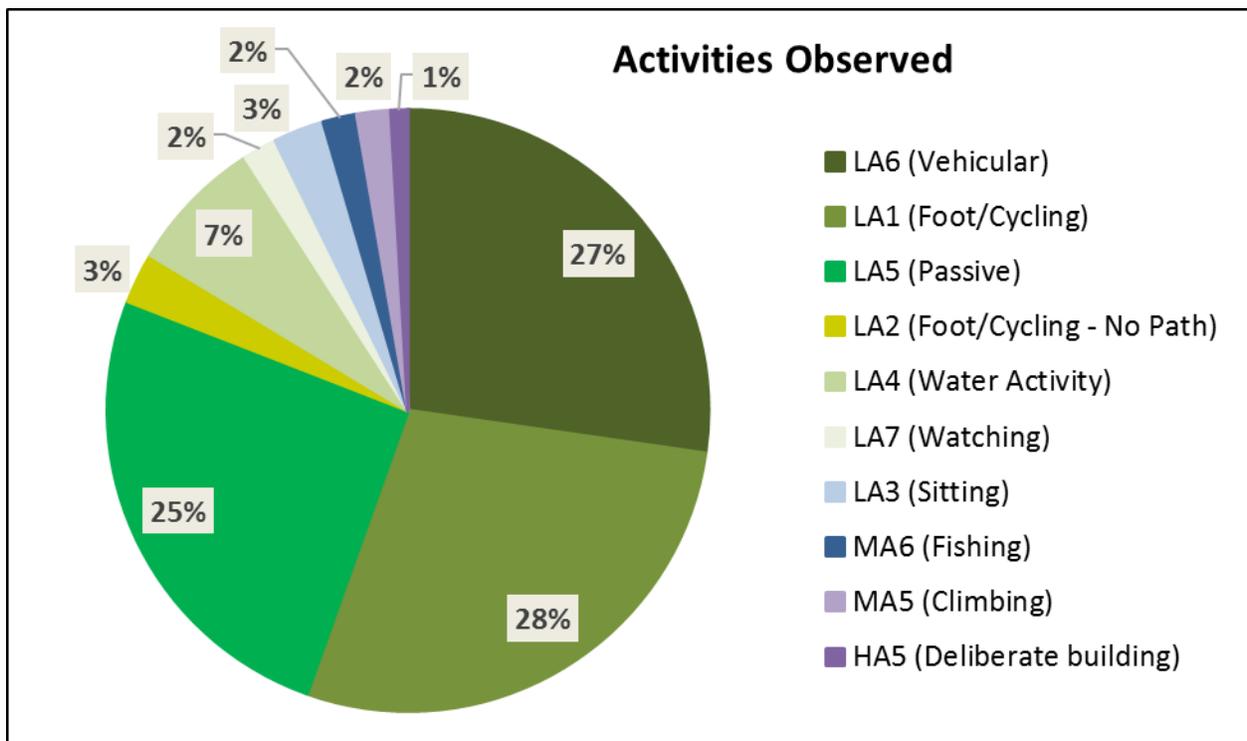


Figure 3.45 Range of Activities Observed at Cappagh Pier

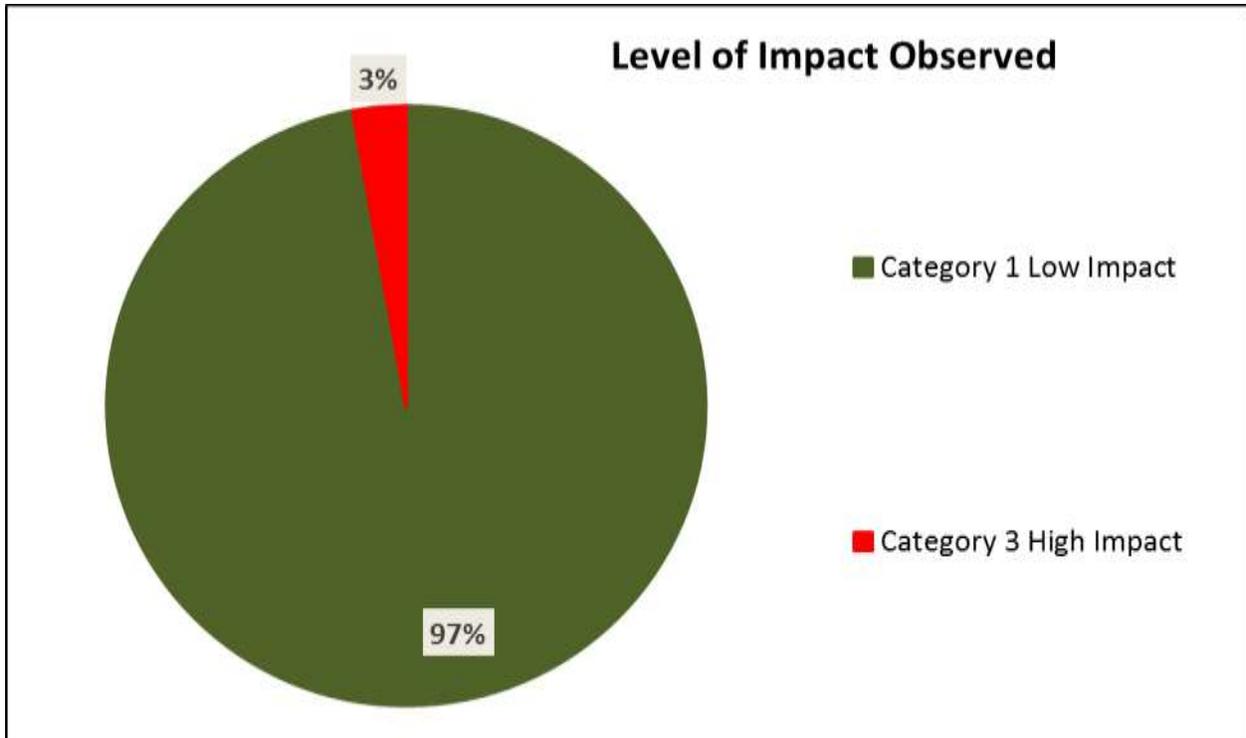


Figure 3.46 Level of Impact Observed at Cappagh Pier

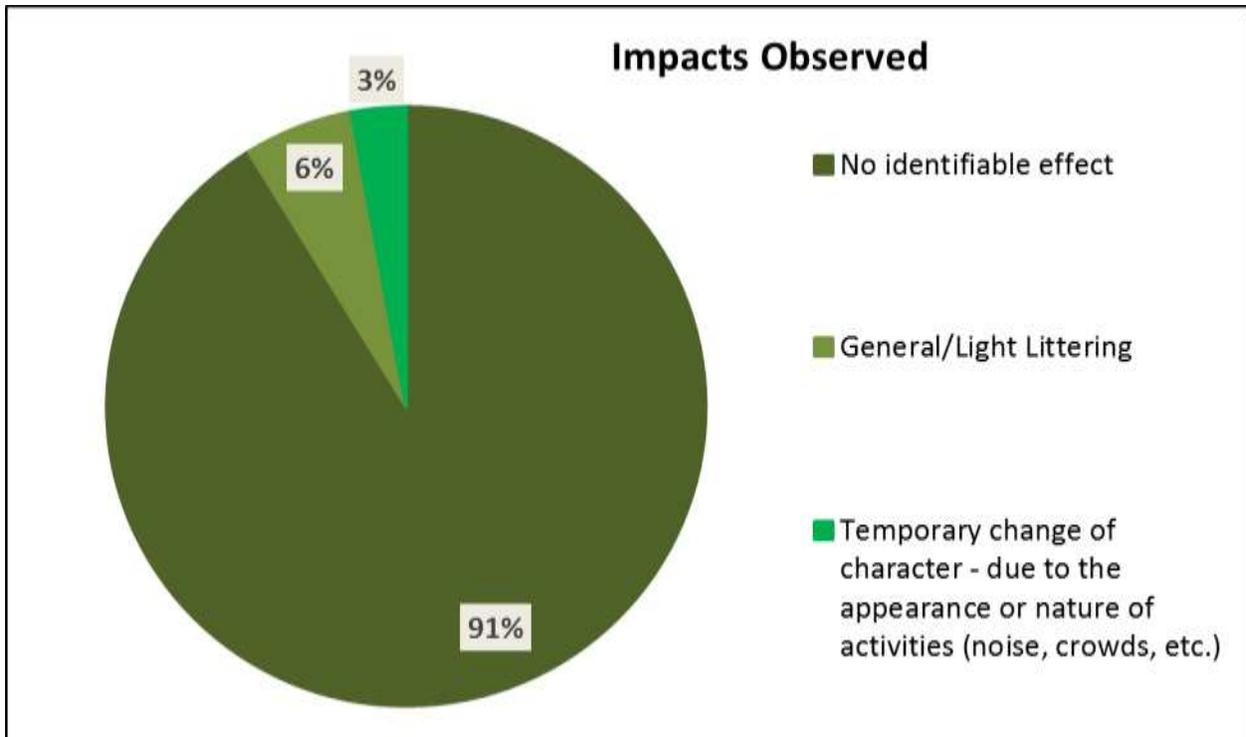


Figure 3.47 Impacts Observed at Cappagh Pier

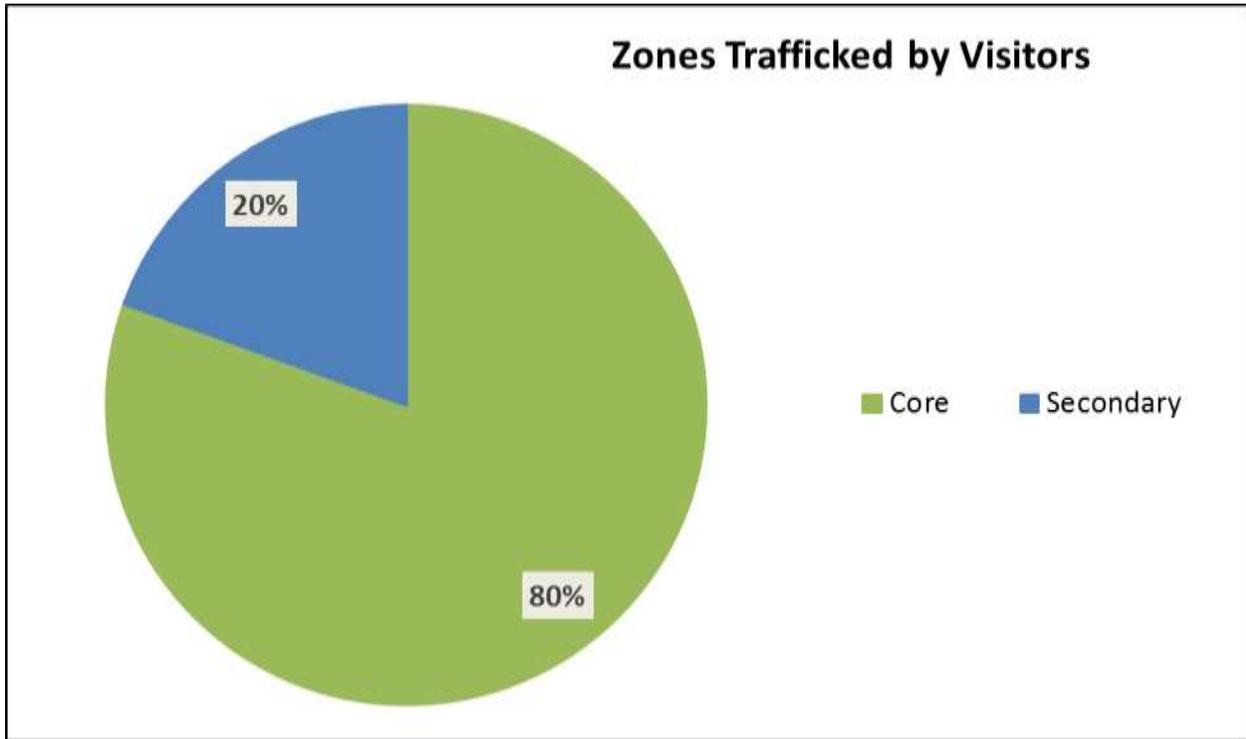


Figure 3.48 Zones trafficked by visitors at Cappagh Pier

Table 3.7 Visitor Movement Zones Description

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.

3.7.1 Recommendations and Analysis of Results and Visitor Movement Patterns

The majority of visitors (91%) had no identifiable effect to the site. 2% of visitors were observed to remove large rocks from the beach and throw them to the other side of the beach.

The main use for this site is recreation, 80% of all visitors stayed within the core zones of the beach and the paths which leads to a small playground. 20% of visitors left these areas to get access the different boat tours that leave from the pier.

Overall visitors did not take part in any activity that would jeopardise the value of the site.



Figure 3.49 Visitor Movement Zones at at Cappagh Pier

3.8 Ballyvaughan Pier

Site Name: Ballyvaughan Pier	Date Surveyed: 17th July 2017
County: Clare	Landscape Type: Marine Areas
Total no. of People: 26 Male: 15 Female: 11	Average Duration of visitors on site: 00:19:40
Site Description: Ballyvaughan Pier is located in the northwest corner of The Burren, considered too many to be a unique landscape. Ballyvaughan village is nestled within the furthest corner of the south shores of Galway Bay under the high ridge of Gleninagh Mountain. The roadside has an abundance of parking available and the site has a public bicycle repair station for cyclists. Ballyvaughan Pier is located within the Galway Bay Complex cSAC and the Inner Galway Bay SPA.	

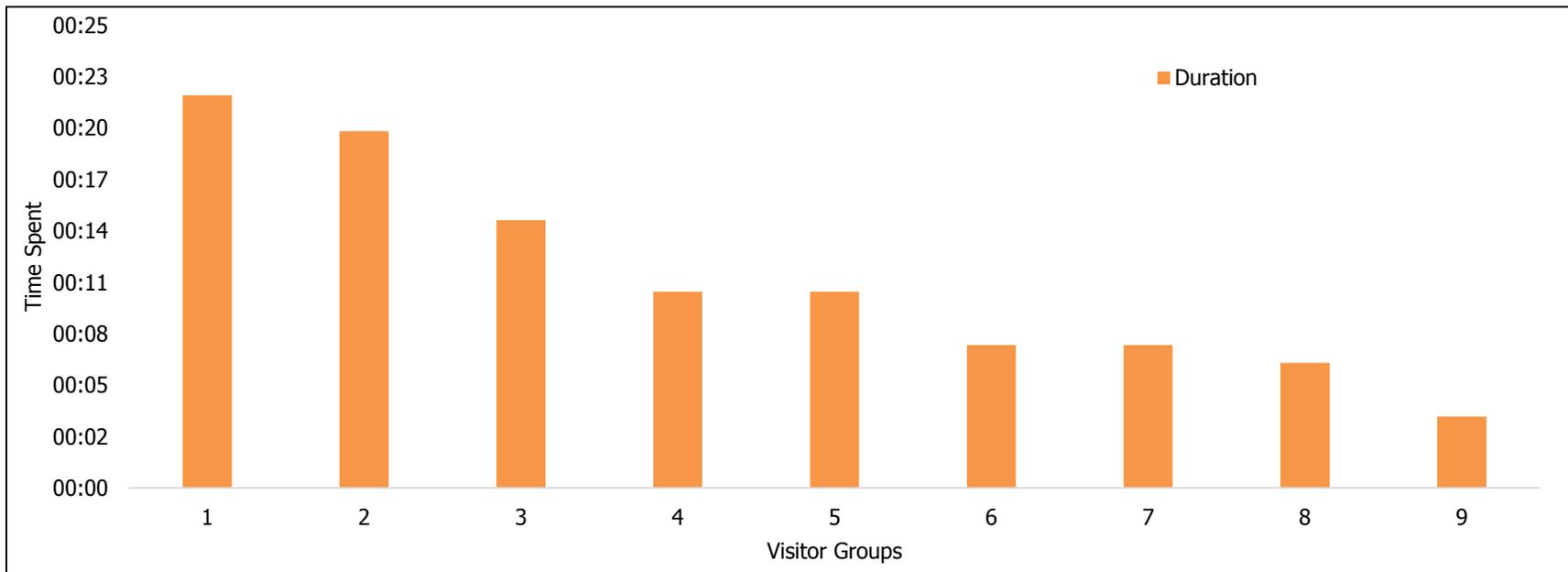


Figure 3.50 Duration Spent at Ballyvaughan Pier

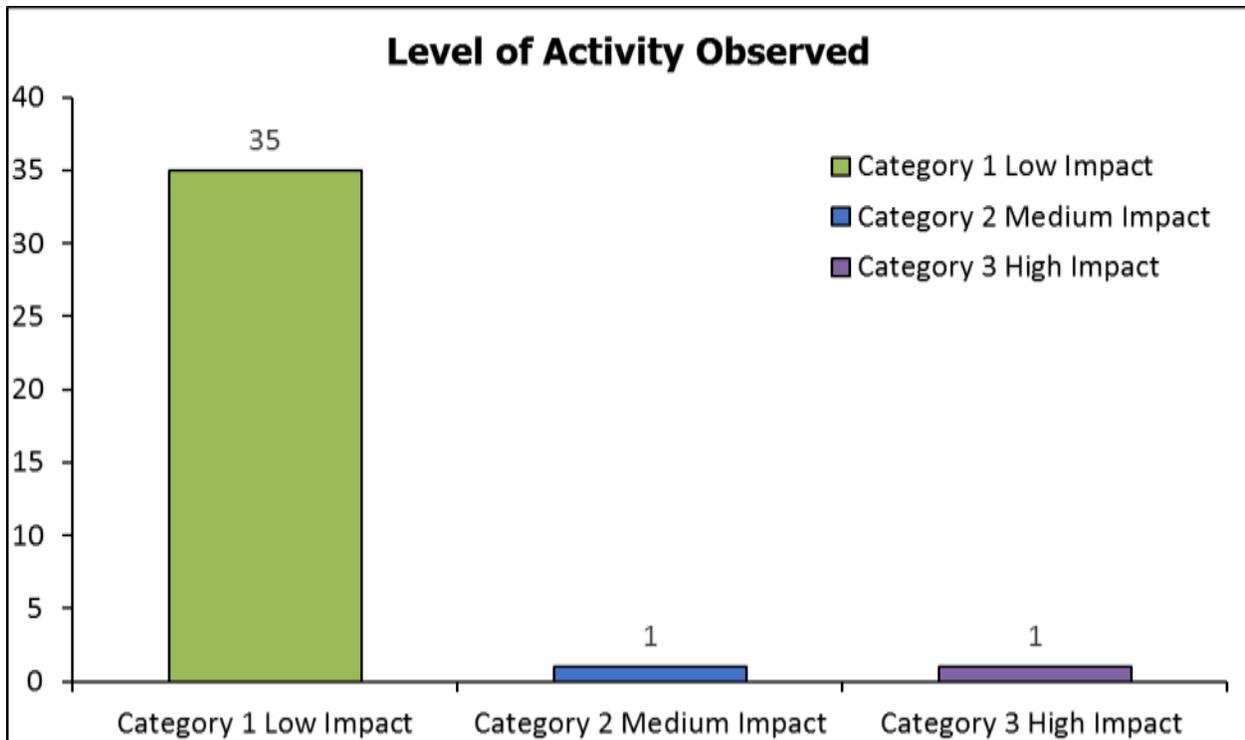


Figure 3.51 Level of Activity Observed at Ballyvaughan Pier

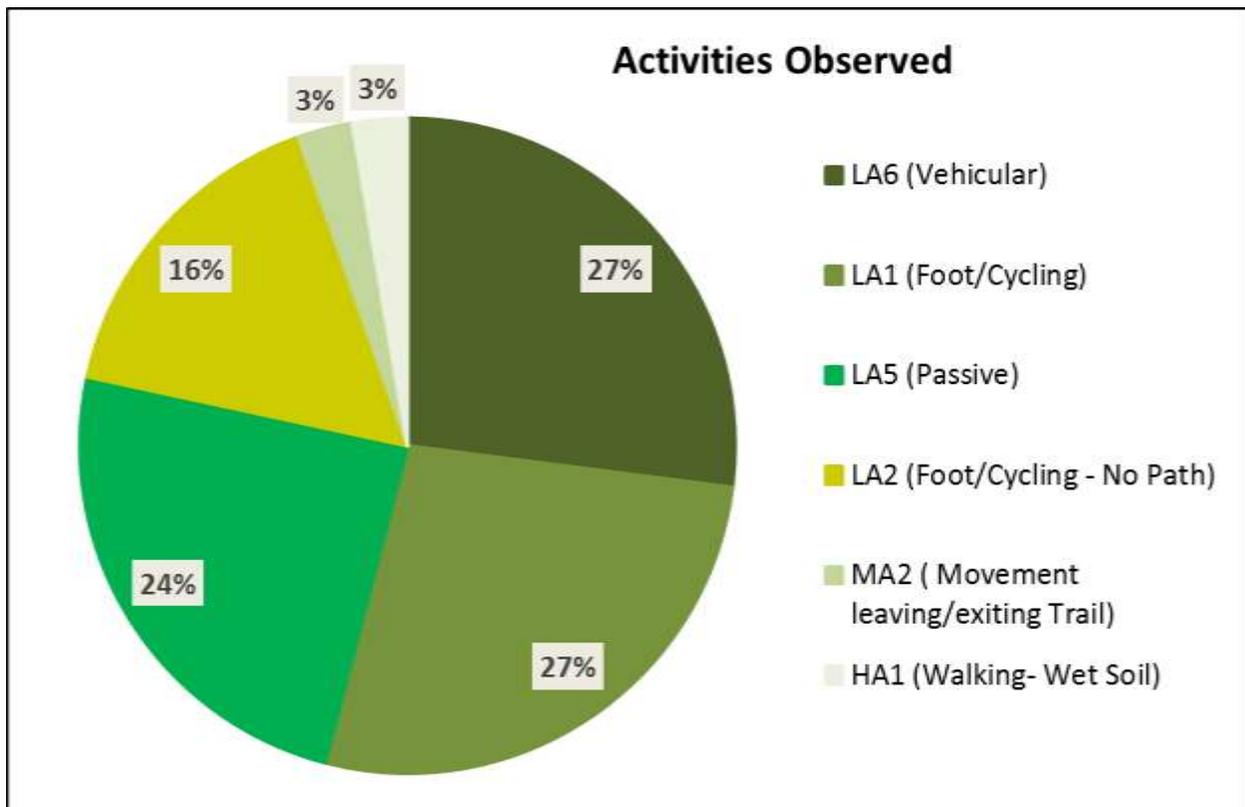


Figure 3.52 Range of Activities Observed at Ballyvaughan Pier

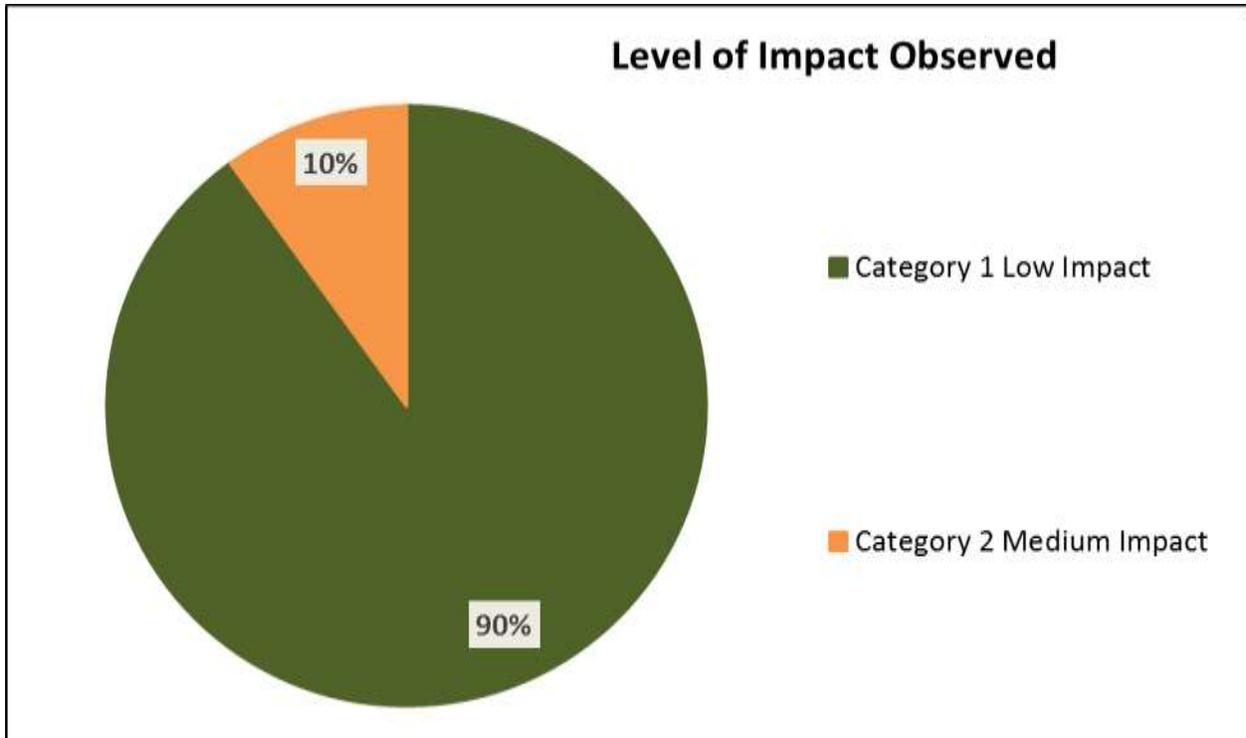


Figure 3.53 Level of Impact Observed at Ballyvaughan Pier

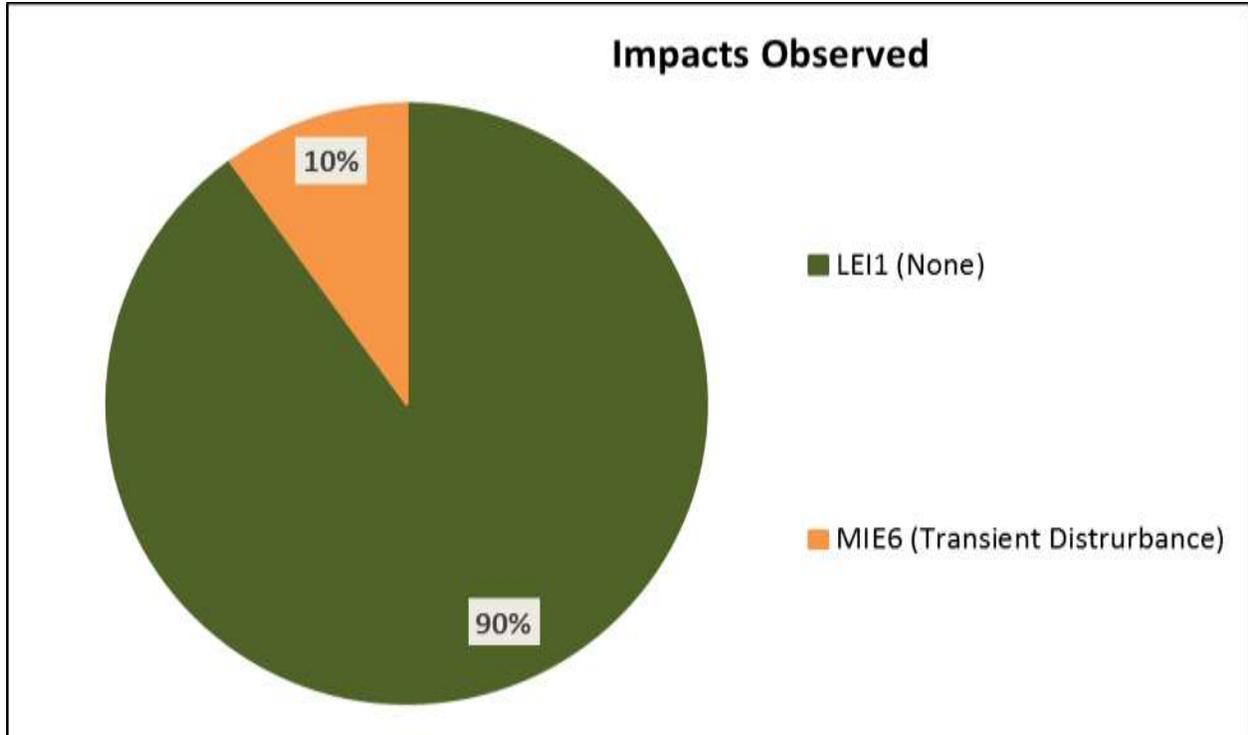


Figure 3.54 Impacts Observed at Ballyvaughan Pier

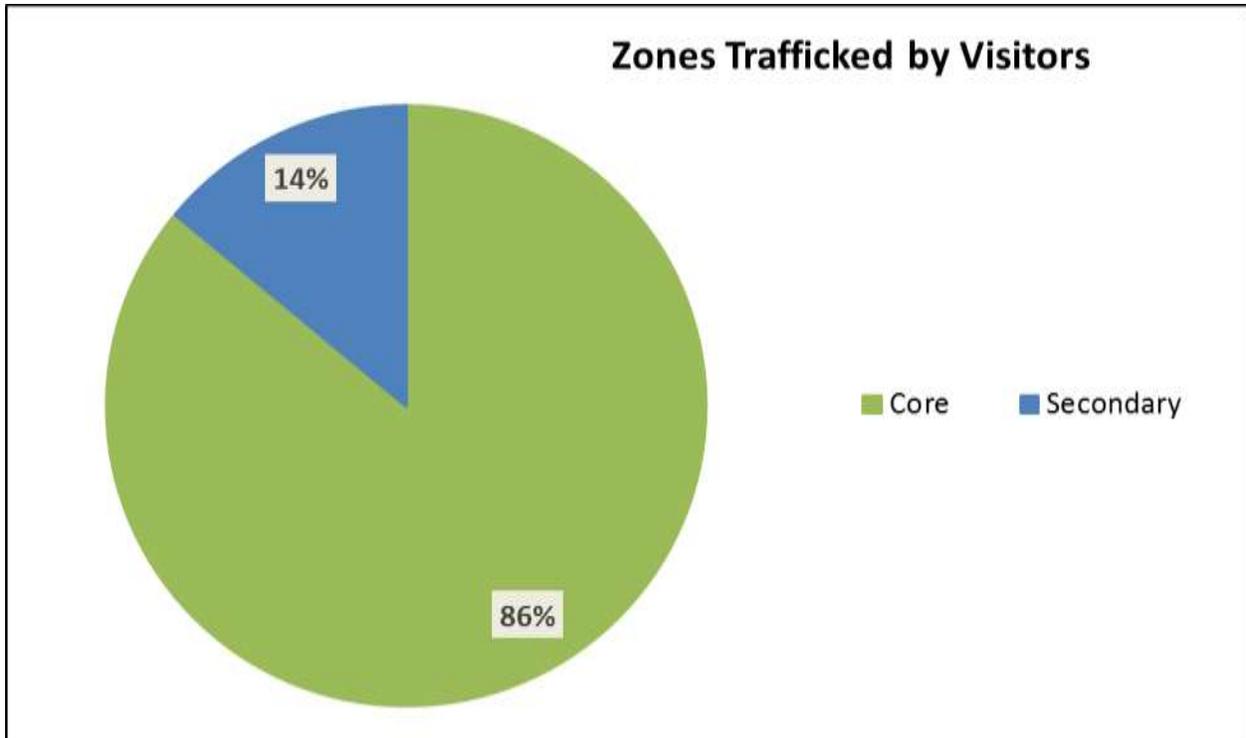


Figure 3.55 Zones trafficked by visitors at Ballyvaughan Pier

Table 3.8 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.

3.8.1 Recommendations and Analysis of Results and Visitor Movement Patterns

90% of visitors had no identifiable effect on the site.

The majority of visitors (86%) stayed within the core zones of the car park and the pier, walking to the end for photographs. 14% of visitors were recorded to enter the water from the pier.

There is limited signage at this site to inform visitors of the nearby woodland walk, amenities such as, would aid in educating visitors about the importance of the site and its surrounds.

Overall visitors had no discernible effects on the site.



Figure3.56 Visitor Movement Zones at Ballyvaughan Pier

3.9 Trá na gCeann (Silver strand)

Site Name: Silver Strand	Date Surveyed: 16th June 2017
County: Galway	Landscape Type: Soft Shores/Beaches/Dunes
Total no. of People: 117 Male: 65 Female: 72	Average Duration of visitors on site: 00:37:00
Site Description: Trá na gCeann (Silverstrand) is a shallow, sandy beach of approximately 0.25km, bounded at one side by a cliff and the other by rocks. Silverstrand is located within both the Galway Bay Complex cSAC and the Inner Galway Bay SPA. Silverstrand hosts a promenade along with parking capacity for around 60 vehicles. It is lifeguarded during summer months. The beach is well served with visitor amenities including a large car park, lifeguard hut and visitor toilets.	

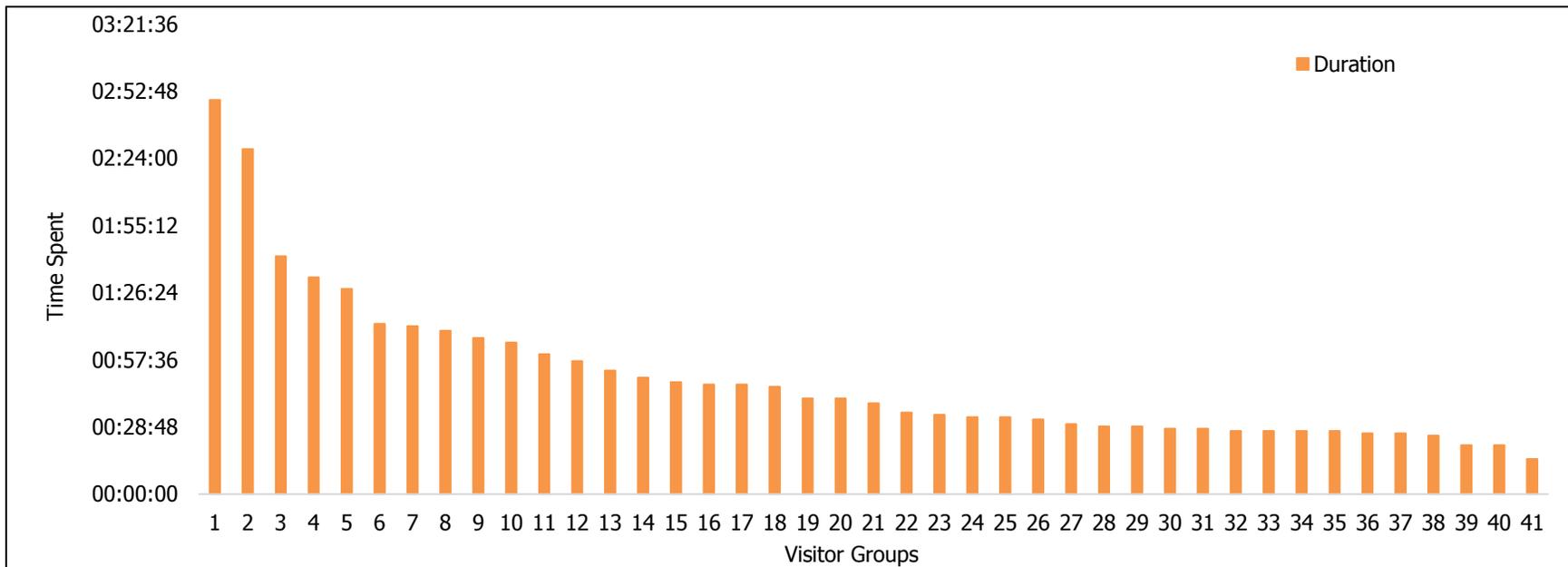


Figure 3.57 Duration Spent at Trá na gCeann (Silverstrand)

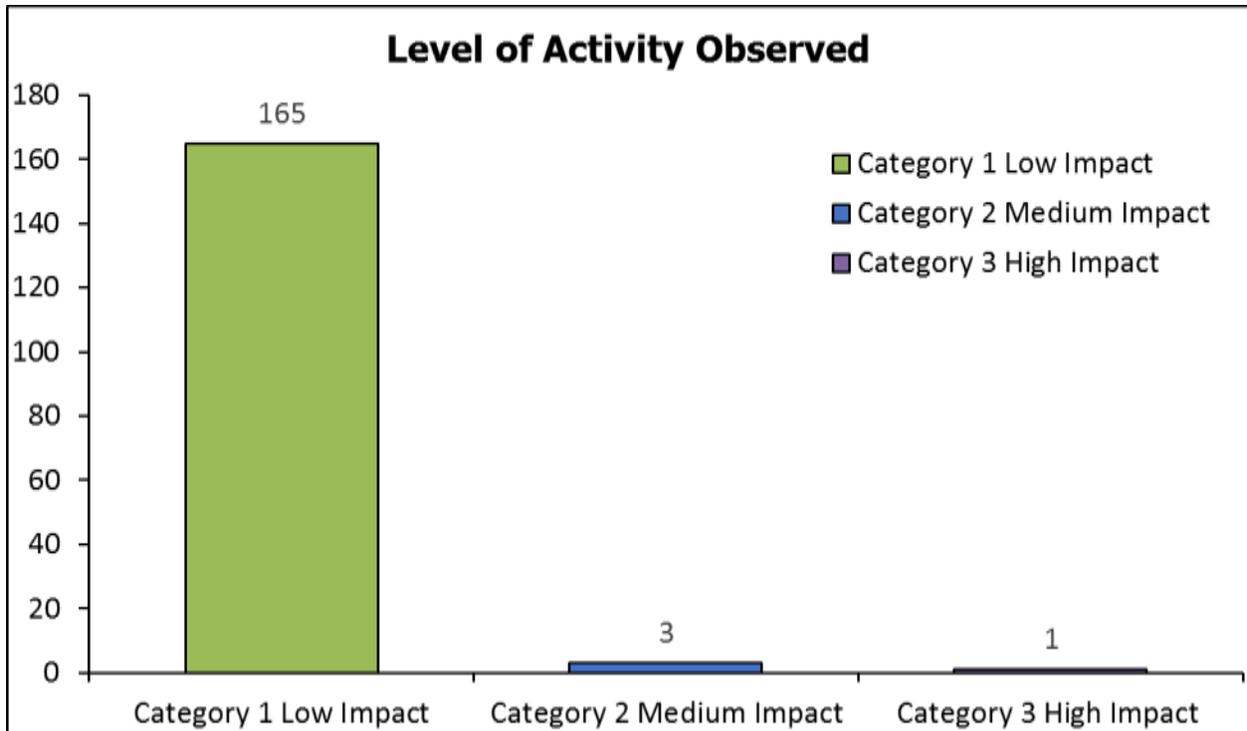


Figure 3.58 Level of Activities Observed at Trá na gCeann (Silverstrand)

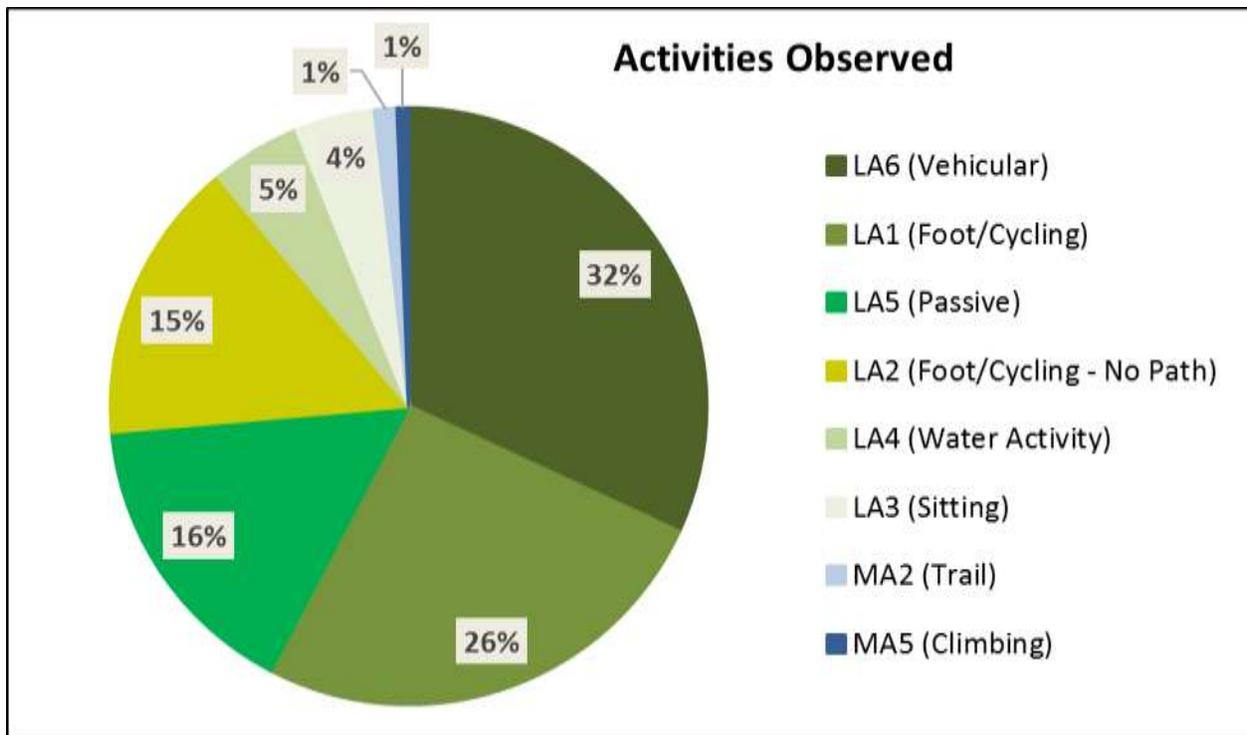


Figure 3.59 Range of Activity Observed at Trá na gCeann (Silverstrand)

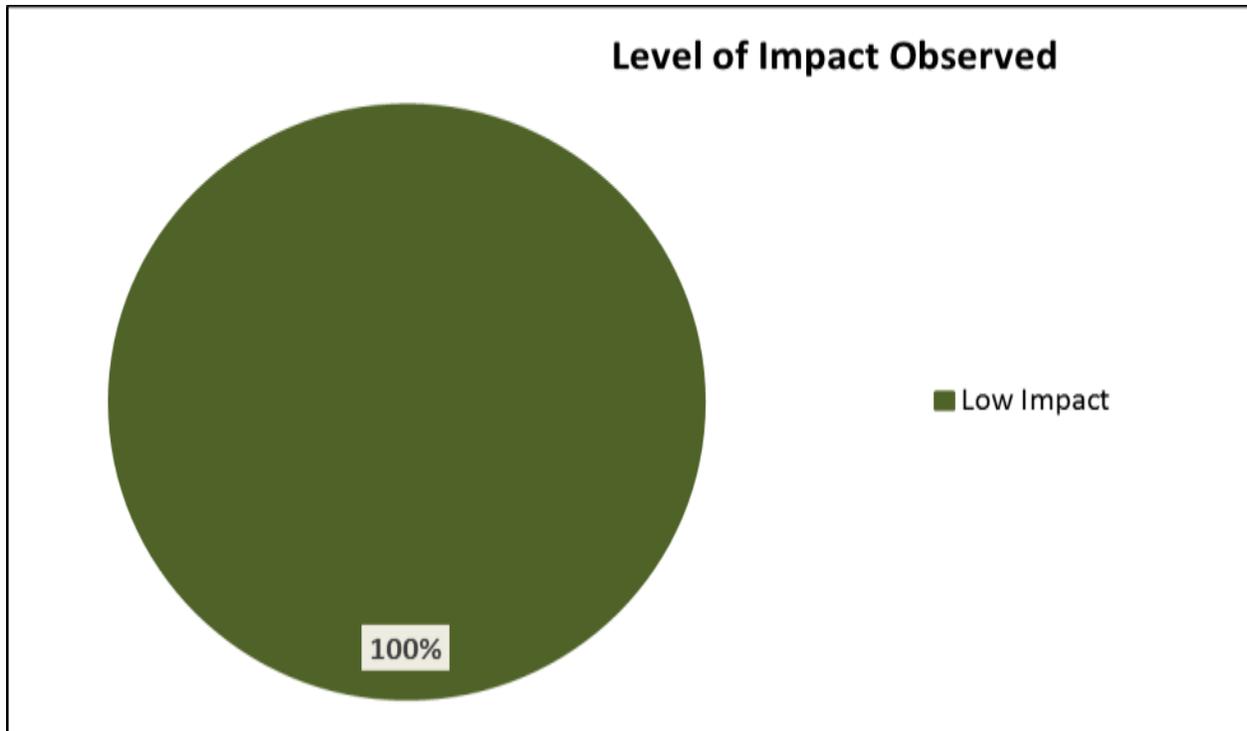


Figure 3.60 Level of Impact Observed at Trá na gCeann (Silverstrand)

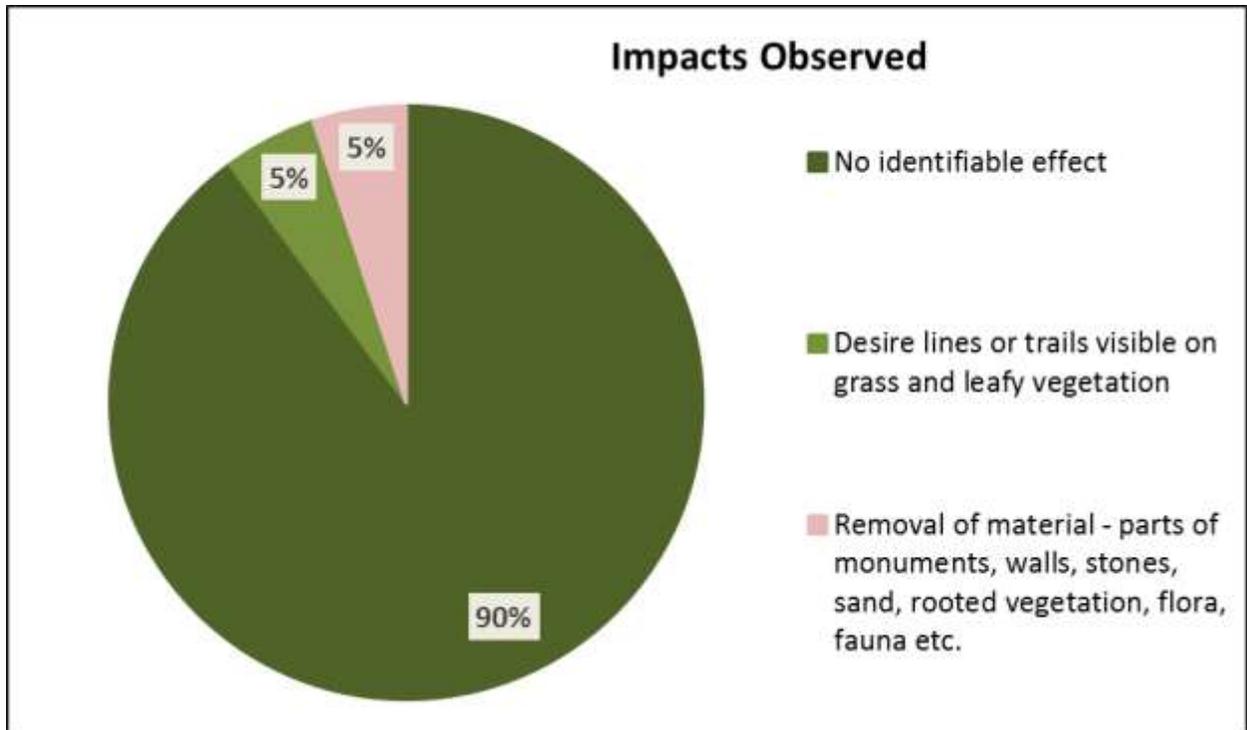


Figure 3.61 Impacts Observed at Trá na gCeann (Silverstrand)

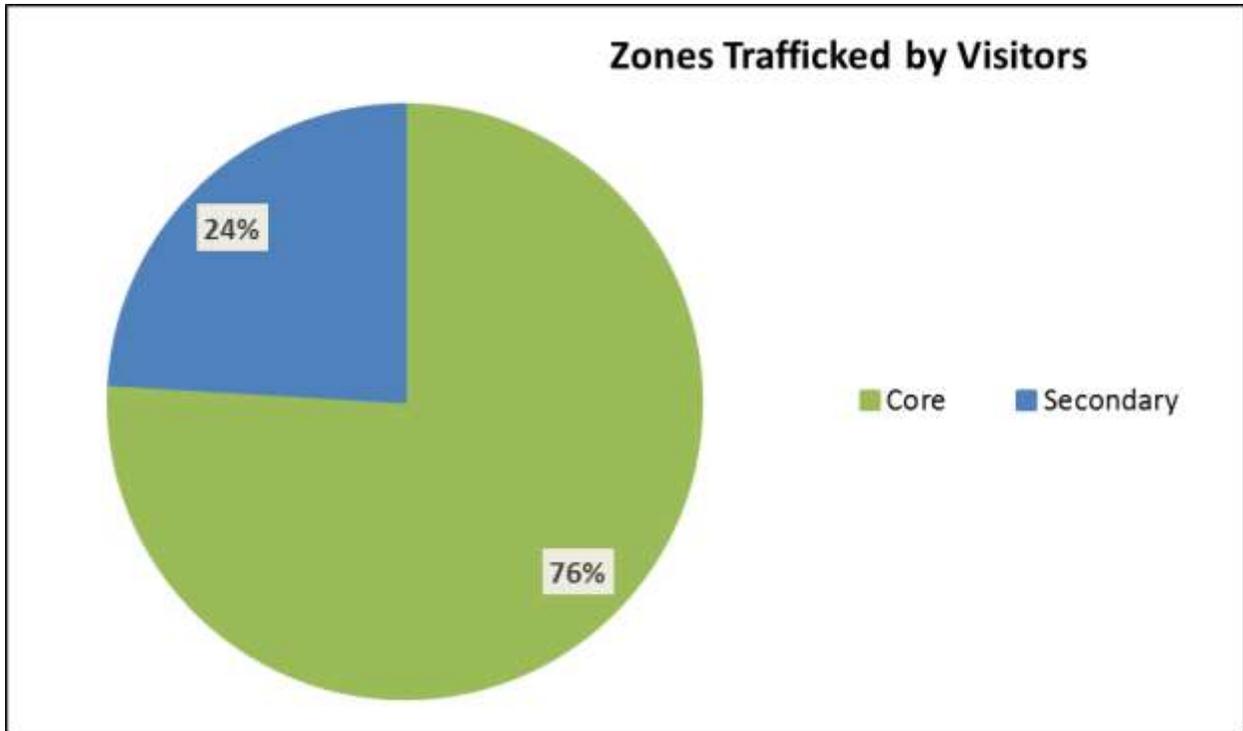


Figure 3.62 Zones trafficked by visitors at Trá na gCeann (Silverstrand)

Table 3.9 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.

3.9.1 Recommendations and Analysis of Results and Visitor Movement Patterns

90% of visitors had no identifiable effect on the site. However, the Ecological Assessment recorded that site overuse from grazing and visitors was having a medium level effect to the site, outside the discovery point location.

The main use for the site is recreational with locals and visitors using it for dog walking, swimming and water sports.

The majority of visitors (76%) stayed with the core zone of the beach and car park, 24% of visitors left went into the secondary area, however this is a restricted area in terms of walkers.

Access to the hill behind the cliffs is restricted, which supports the sensitivity of the site, however it was noted that some visitors still accessed this area of the site, for protection purposes signage could be erected to ensure visitors are aware of the vulnerability of the area.

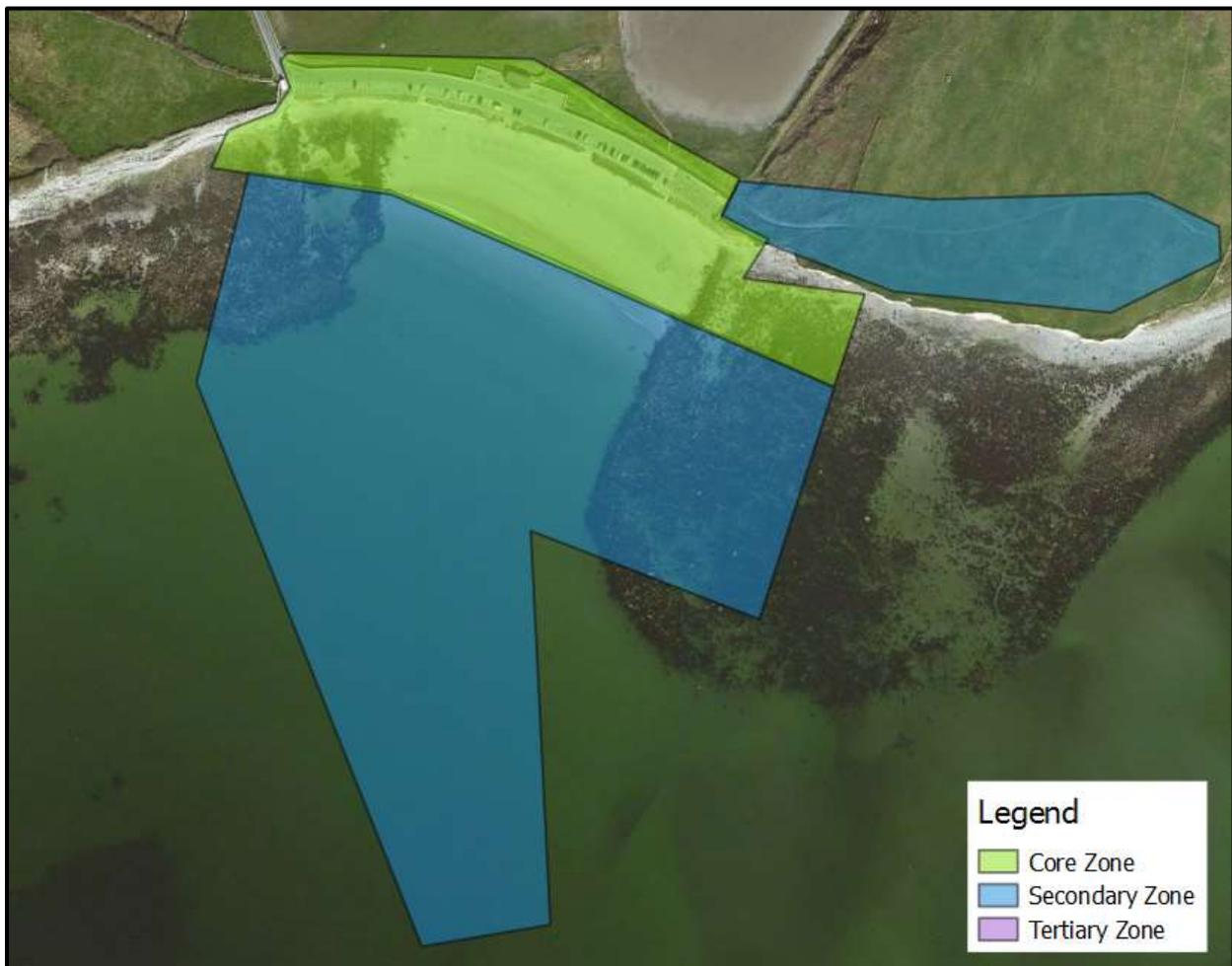


Figure 3.63 Visitor Movement Zones at Trá na gCeann (Silverstrand)

3.10 Omey Island

Site Name: Omey Island	Date Surveyed: 23rd June 2017
County: Galway	Landscape Type: Soft Shores/Beaches/Dunes – Marine Areas
Total no. of People: 31 Male: 16 Female: 15	Average Duration of visitors on site: 00:37:00
Site Description: Omey Island is accessible at low tide everyday by crossing acres of firm sandy beach, by car or foot. Omey Island hosts a wealth of antiquities. The ruins of Teampaill Féichín (Feichin’s Church) a medieval church built on a 7 th century Christian settlement lie close to the north coast. The church was covered in sand until 1981 and it is surrounded by the remains of a semi-sunken village that was wiped out during the Famine. There are no visitor facilities on the island itself apart from a grassy patch being used as a carpark, however on the mainland there is a purpose-built carpark along with interpretive material for visitors. Omey Island is located within the Omey Island Machair SAC and the Inishbofin, Omey, Omey Island and Turbot Island SPA.	

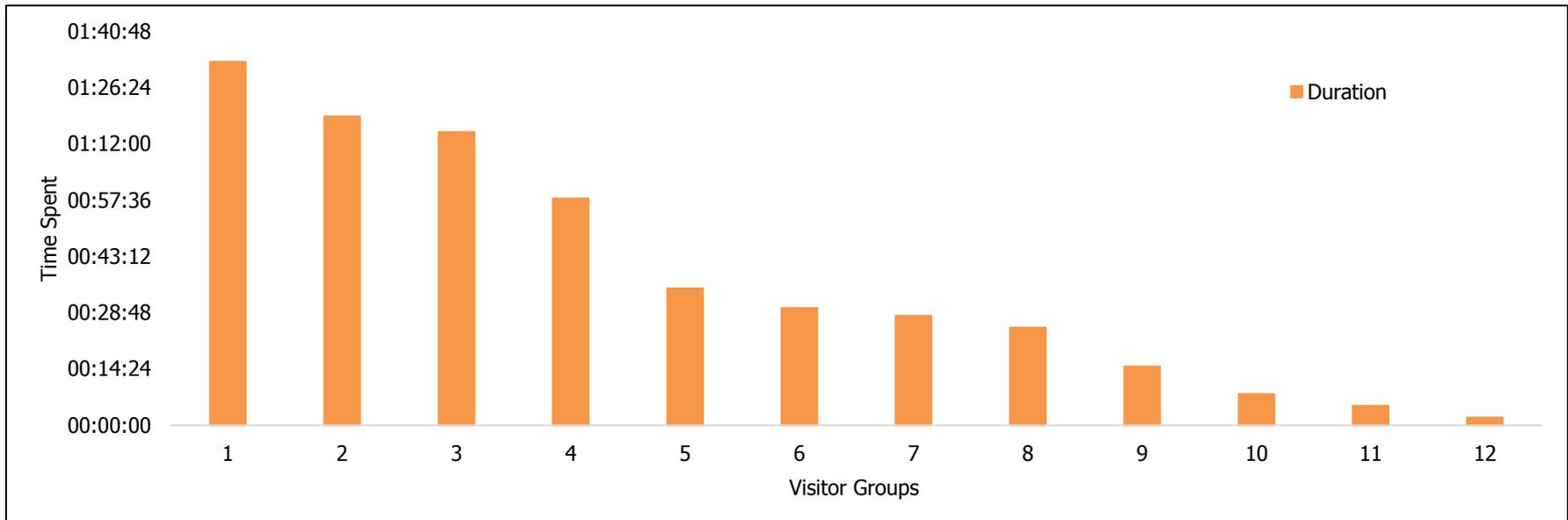


Figure 3.64 Duration Spent at Omey Island

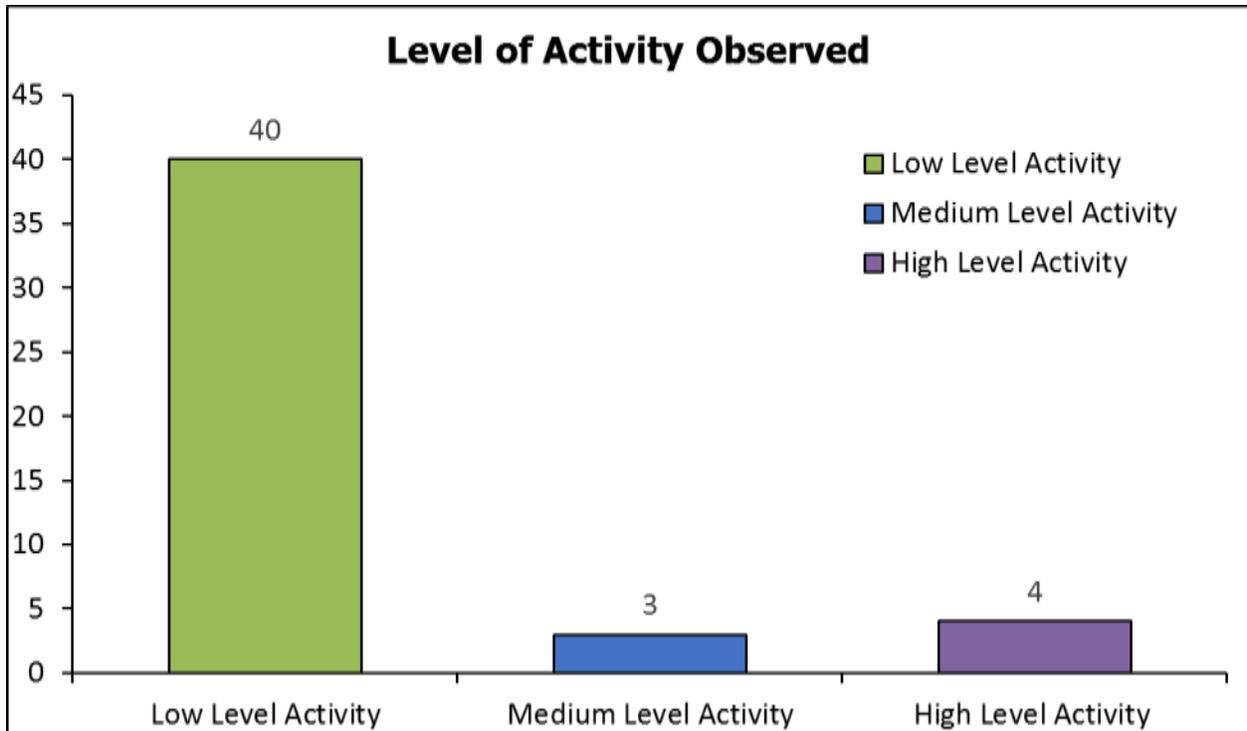


Figure 3.65 Level of Activity Observed at Omey Island

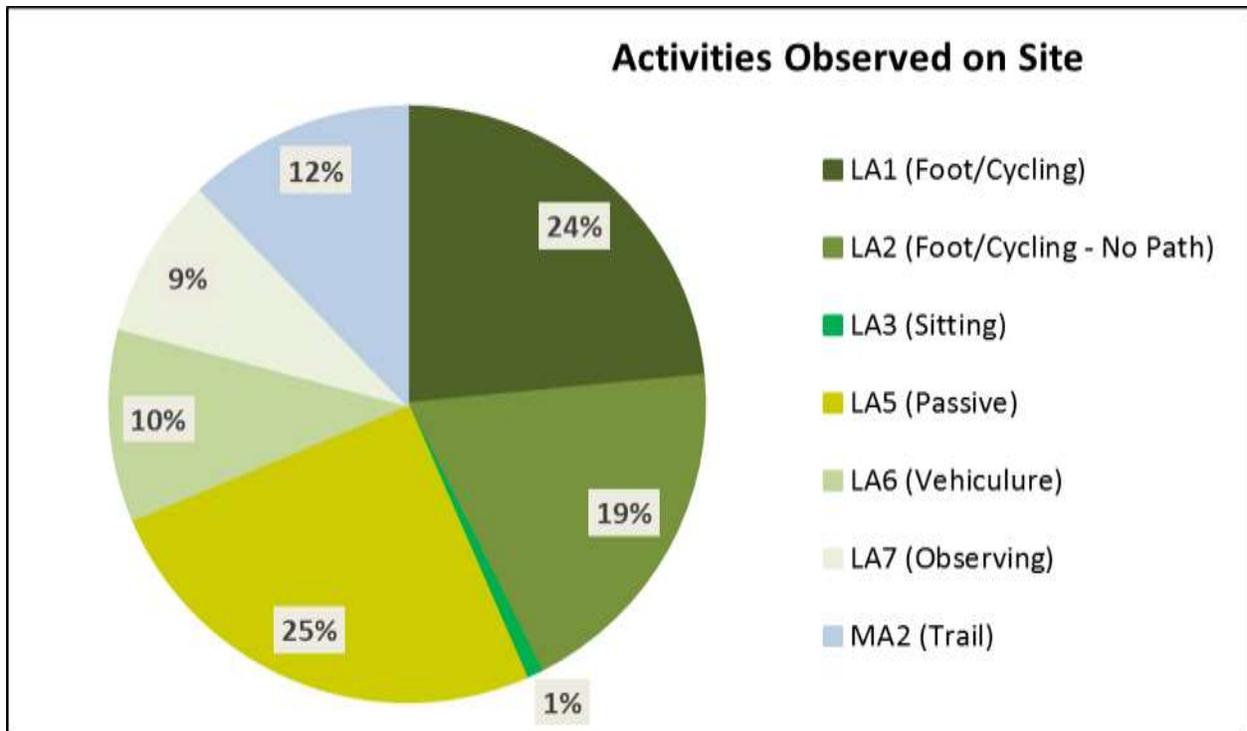


Figure 3.66 Range of Activities Observed at Omey Island

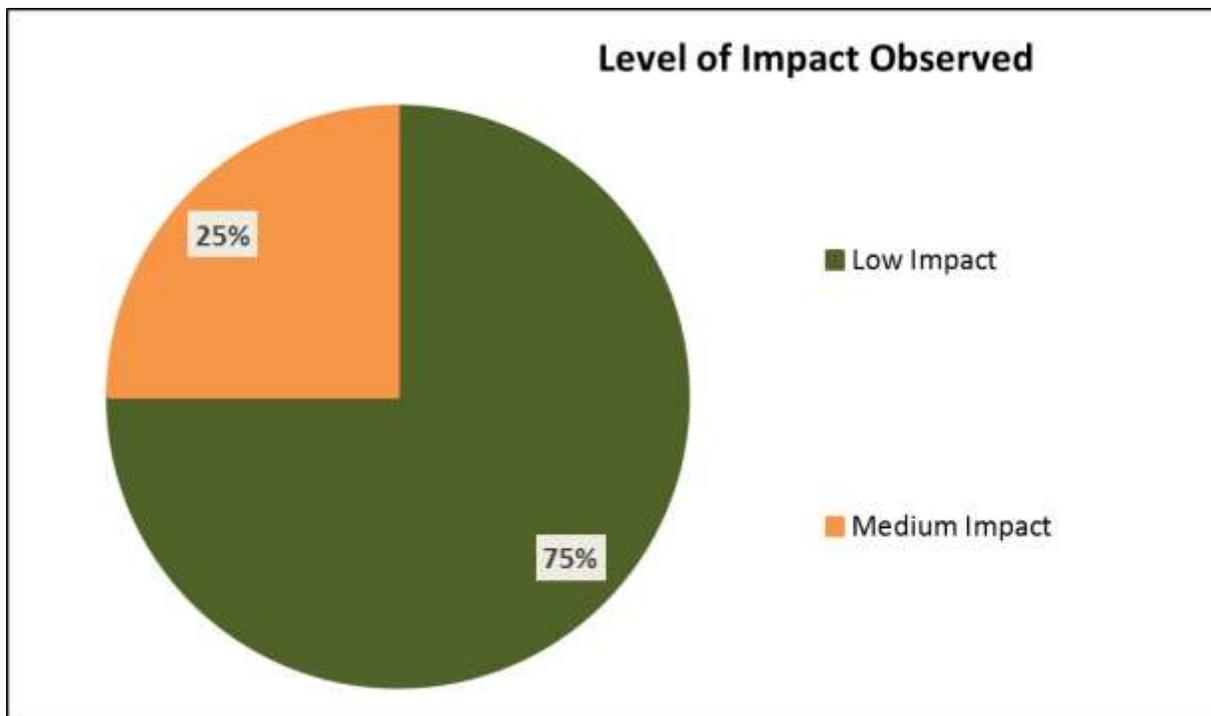


Figure 3.56 Level of Impact Observed at Omey Island

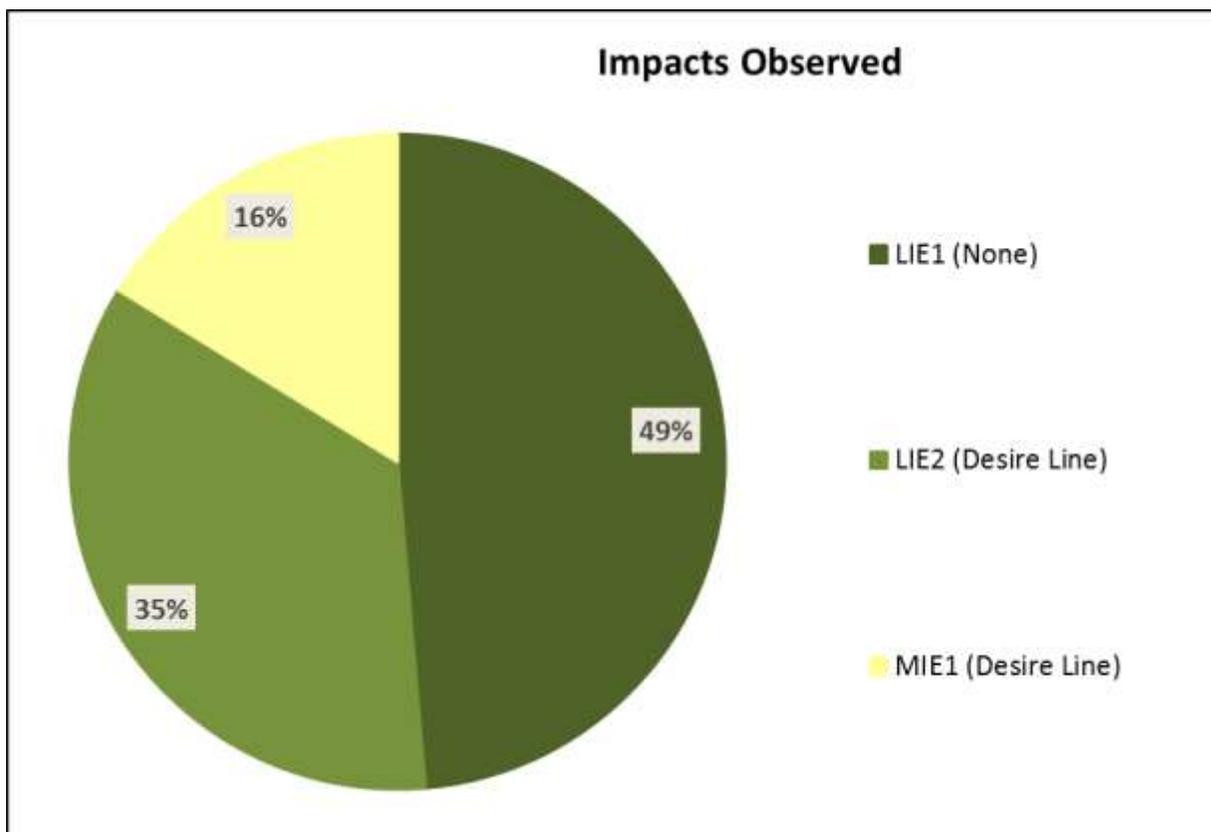


Figure 3.57 Impacts Observed at Omey Island

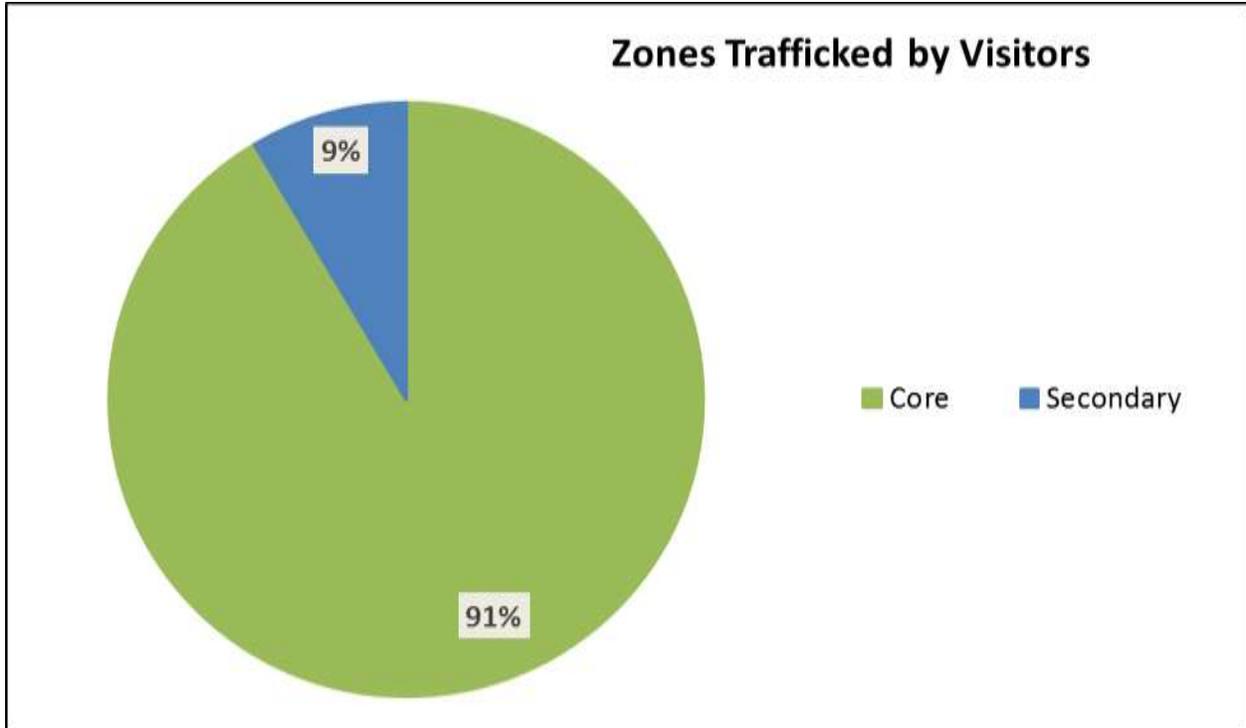


Figure 3.67 Zones trafficked by visitors at Omey Island

Table 3.10 Visitor Movement Zones Description

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.

3.10.1 Recommendations and Analysis of Results and Visitor Movement Patterns

The majority of people (75%) took part in activities which had a low impact on the site. A medium level of impact (25%) was observed on the sand dunes due to desire lines being visible from visitor movement.

The Ecological Assessment recorded that the site is close to maximum capacity, which may increase the risk to sensitive areas (some spots of trampling already recorded) due to a combination of overgrazing, natural erosion and visitor movement.

91% of visitors stayed within the boundaries of the marked trail across the causeway to the island. 9% of visitors were observed to leave the core areas and traffic across the dunes and bare rock down to the cliff edge.

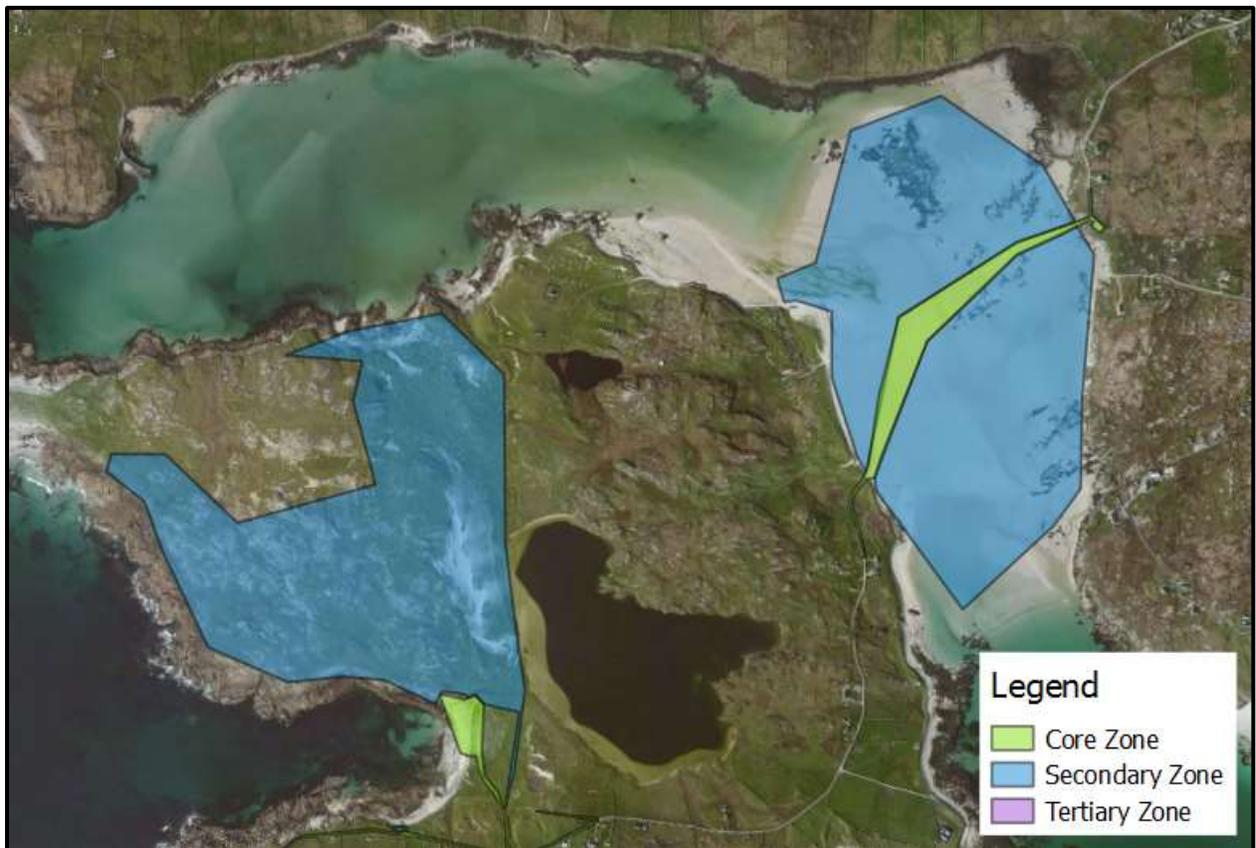


Figure 3.68 Visitor Movement Zones at Omey Island

3.11 Oileán Chloigeann

Site Name: Oileán Chloigeann	Date Surveyed: 8th July 2017
County: Mayo	Landscape Type:
Total no. of People: 51 Male: 22 Female: 29	Average Duration of visitors on site: 01:04:00
Site Description: Oileán Chloigeann is Mayo’s newest island, having only being officially declared an island in 1991. The tiny island is situated on the north-eastern corner of Blacksod Bay, about 12km from Belmullet. The island is linked to the mainland by a narrow, sandy causeway that divides Tramore Bay from Blacksod Bay and it is circled by sandy beaches. There are no visitor facilities on the Island, however, there is a car park located on the mainland along with an information sign for visitors outlining the importance of the Dunes. Oileán Chloigeann is located within the mullet/Blacksod Bay cSAC and the Blacksod Bay/Broadhaven SPA.	

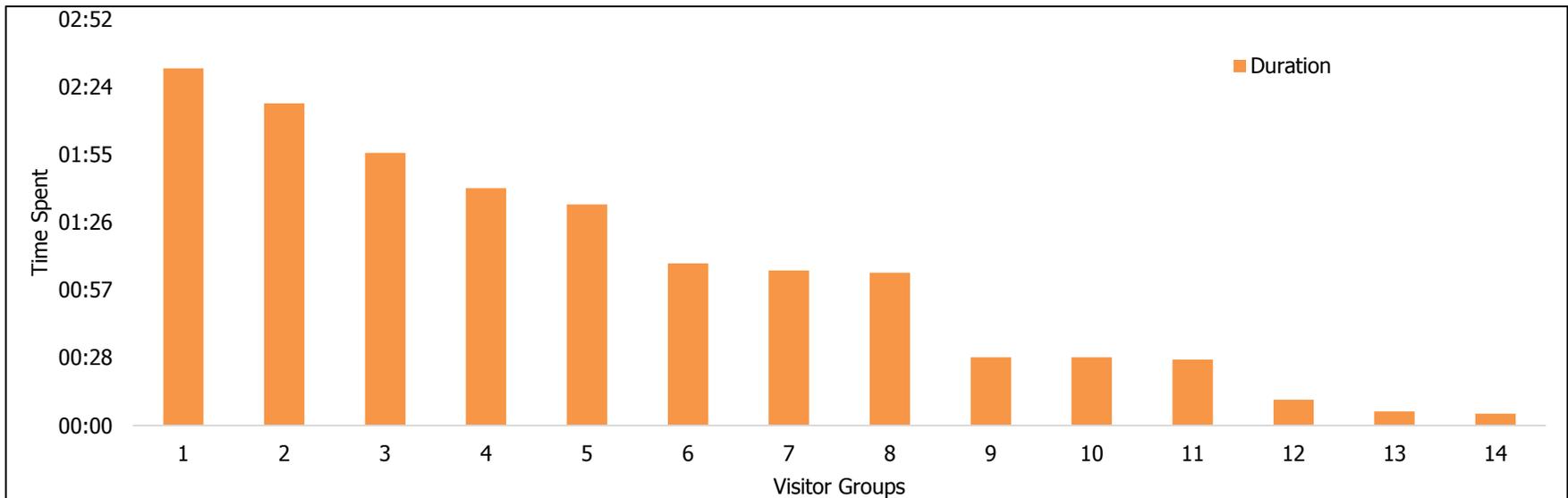


Figure 3.69 Duration Spent at Oileán Chloigeann

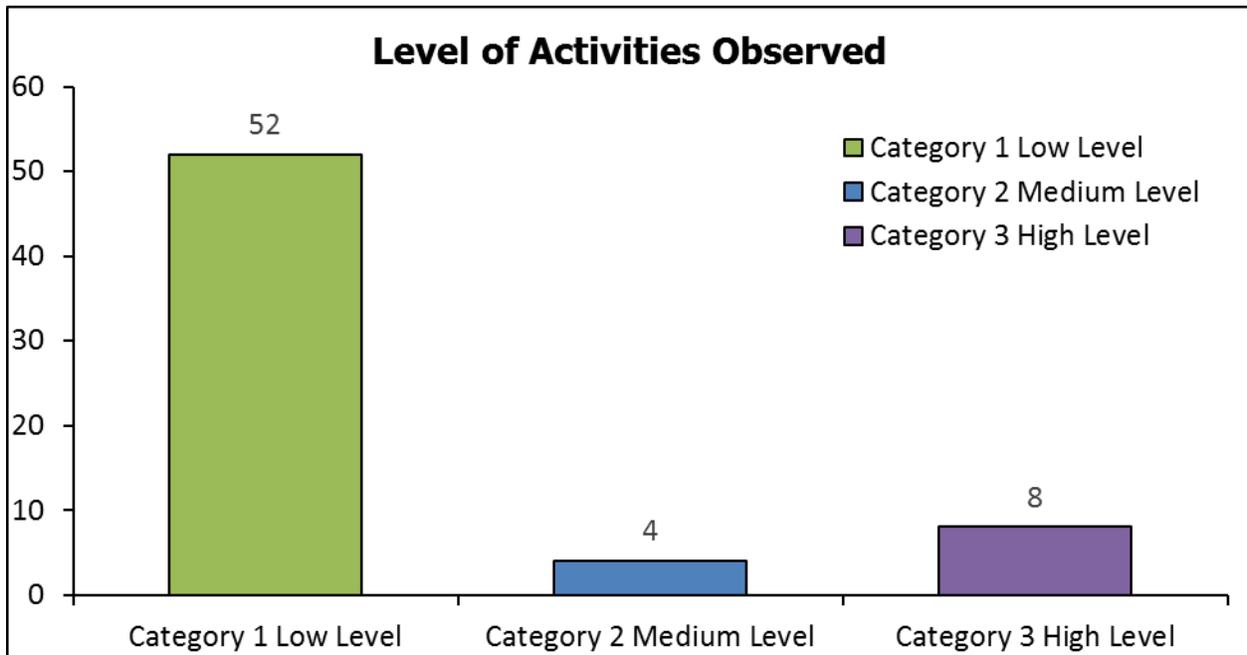


Figure 3.70 Level of Activity Observed at Oileán Chloigeann

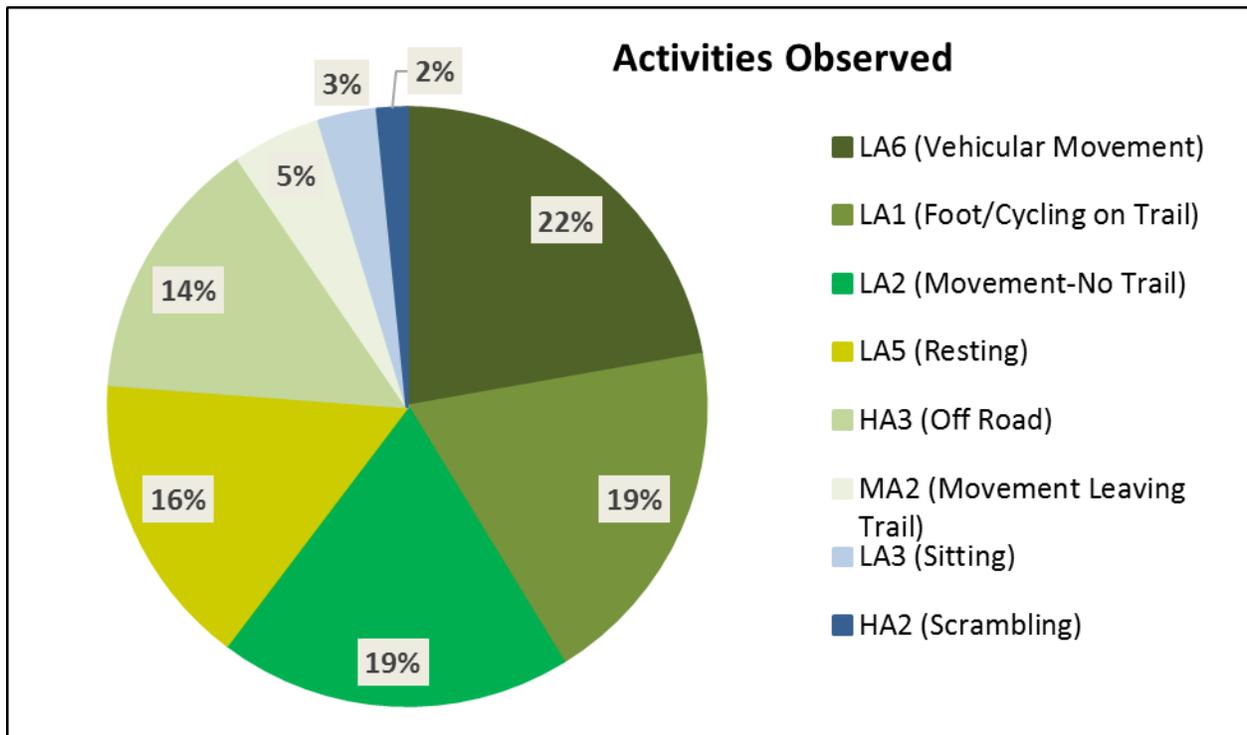


Figure 3.71 Range of Activities Observed at Oileán Chloigeann

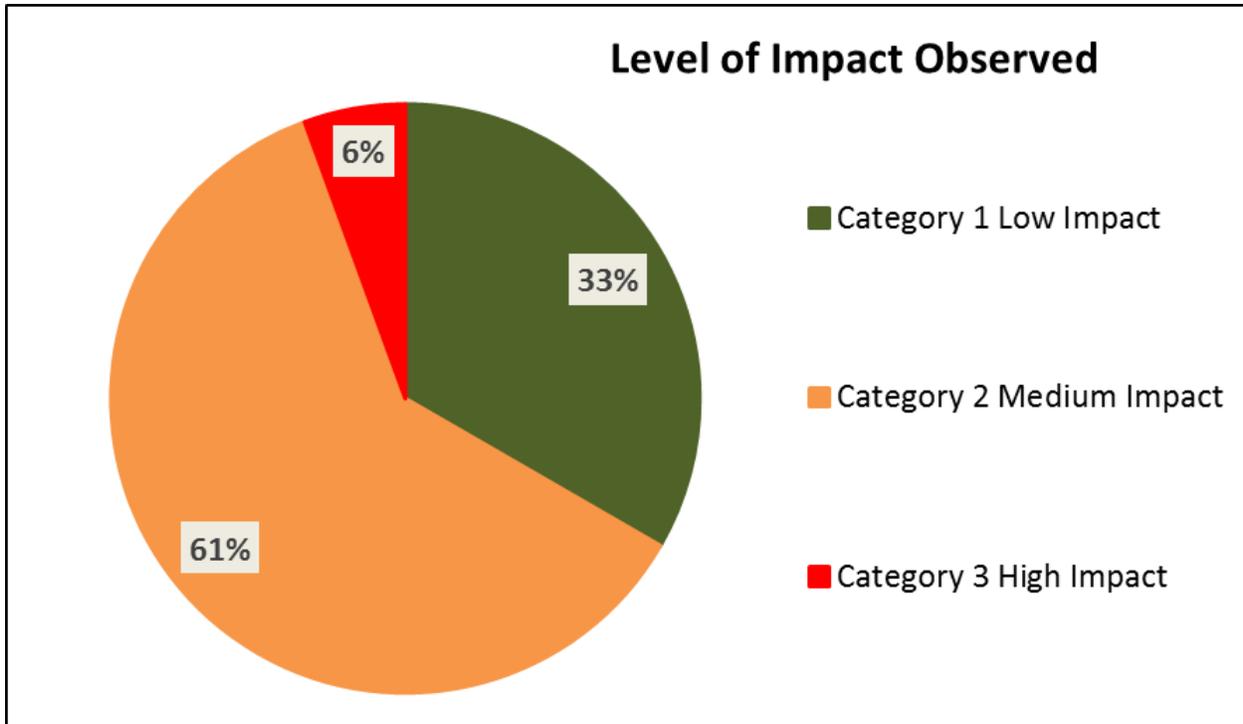


Figure 3.72 Level of Impact Observed at Oiléan Chloigeann

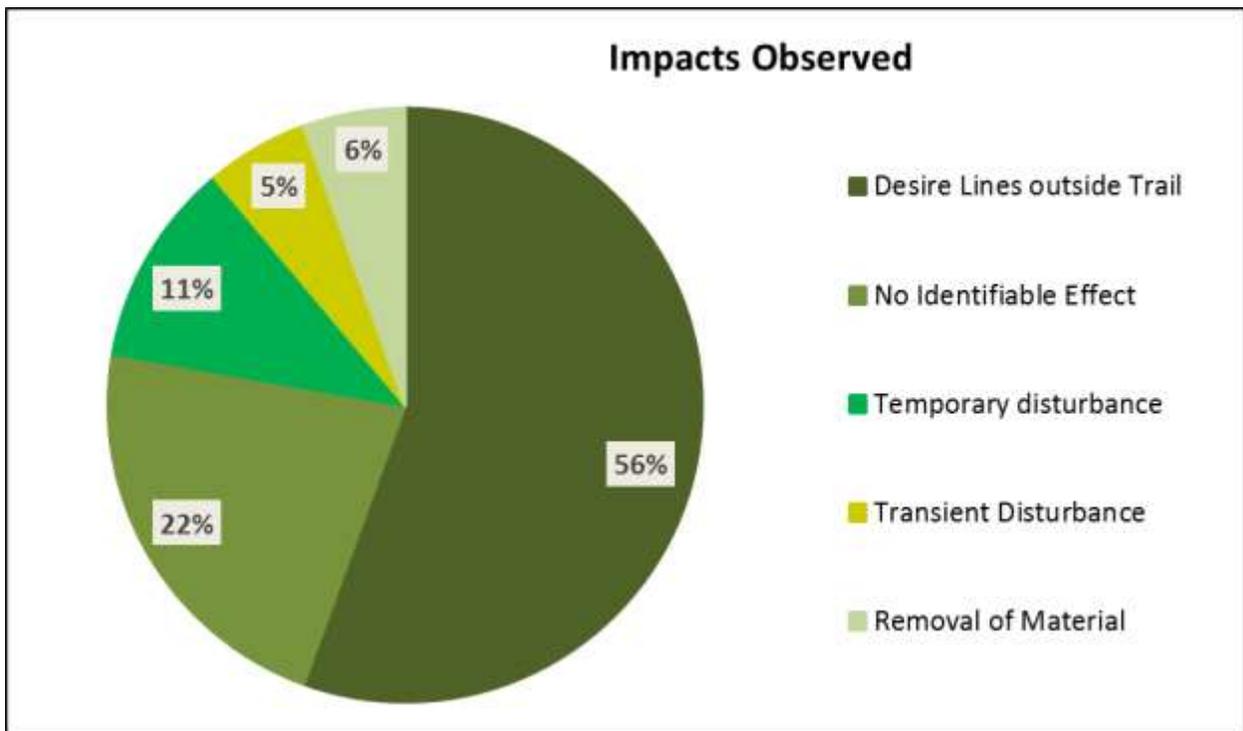


Figure 3.73 Impacts Observed at Oiléan Chloigeann

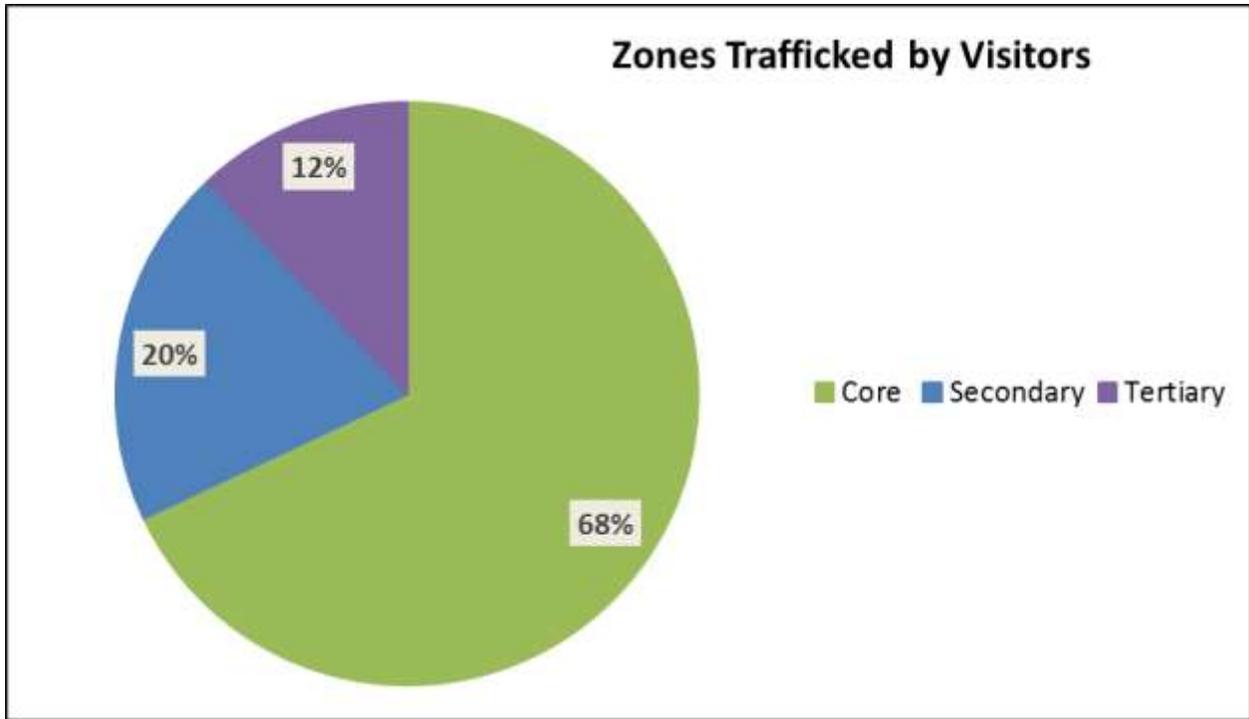


Figure 3.74 Zones trafficked by visitors at Oileán Chloigeann

Table 3.11 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.
Tertiary Zone	Areas where no car park, paved areas, marked pathways, trails, tracks and managed grassland are identifiable and beyond the immediate boundaries of the site.

3.11.1 Recommendations and Analysis of Results and Visitor Movement Patterns

Oileán Chloigeann recorded the highest level of impact with 41% of visitors having a medium level effect on the site and 37% having a high impact. This was caused as a result of visitors (56%) using the dunes as a means of accessing the beach, resulting in visible desire lines throughout.

68% of visitors stayed within the boundaries of the core zones of the beach and designated walkways and paths.

Overall visitors had an impact on the site (Medium Level) resulting from desire lines and erosion outside the marked trails and paths giving access to the beach.



Figure 3.75 Visitor Movement Zones at Oileán Chloigeann

3.12 Strandhill

Site Name: Strandhill	Date Surveyed: 7th July 2017
County: Sligo	Landscape Type: Soft Shores/Beaches/Dunes
Total no. of People: 293 Male: 145 Female: 148	Average Duration of visitors on site: 00:43:00
Site Description: Strandhill is the largest coastal village and townland in County Sligo. It is situated at the western base of Knocknarea on the Collera peninsula in Sligo Bay. The beach is renowned for surfing, but is not a suitable bathing water area. The Unshin River SAC and the Ballysadare Bay SPA and Cummeen Strand SPA are adjacent to the Strandhill site. The landing zone of the discovery point is a carpark which acts as a town carpark as well as an access point to the beach. The dune system beside the carpark has signs erected by the NPWS detailing the importance of the dunes in terms of ecology and a large expanse of them are fenced off for protection. Strandhill is part of the Ballysadare Bay Special Area of Conservation (SAC), which is designated for a number of habitats including the priority fixed grey sand dune habitat.	

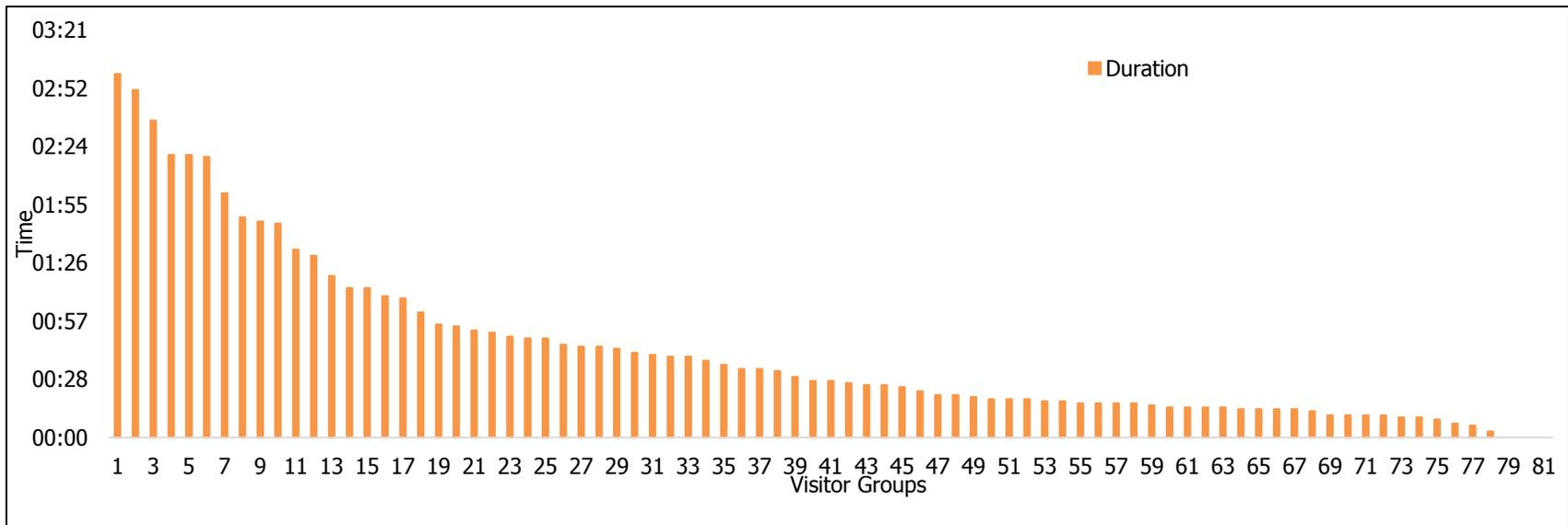


Figure 3.76 Duration Spent at Strandhill

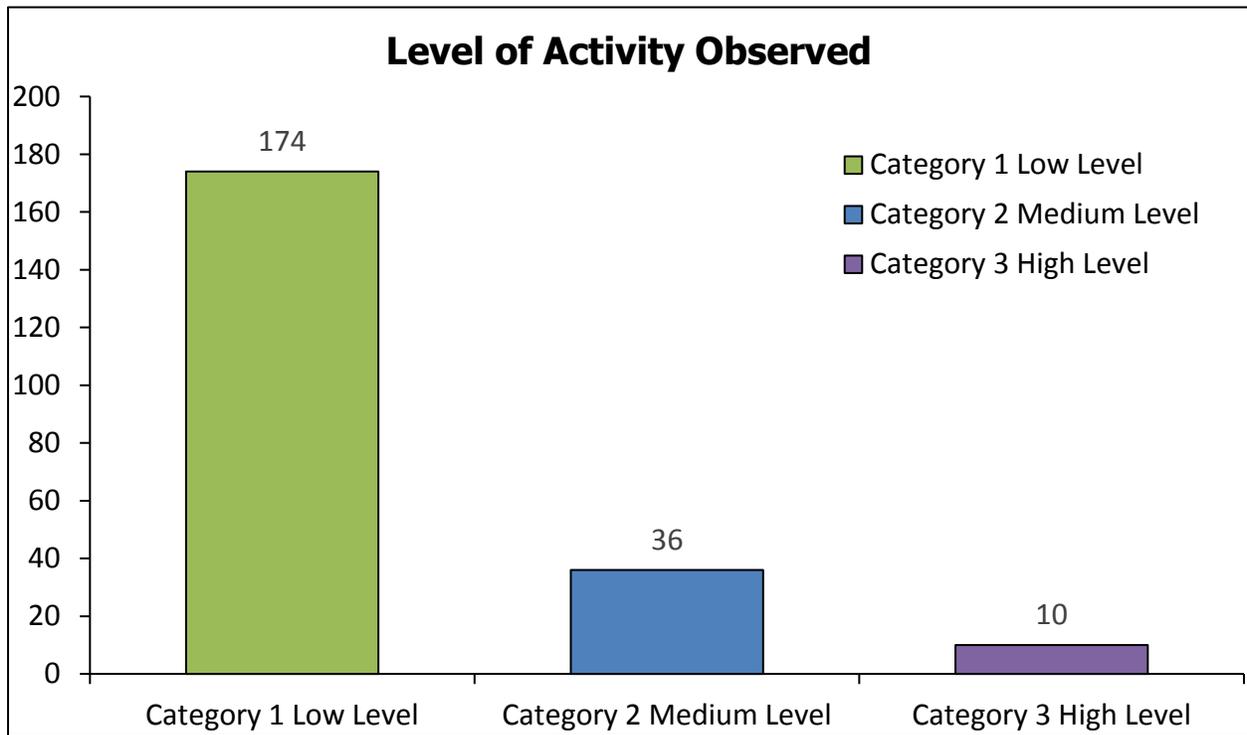


Figure 3.77 Level of Activity Observed at Strandhill

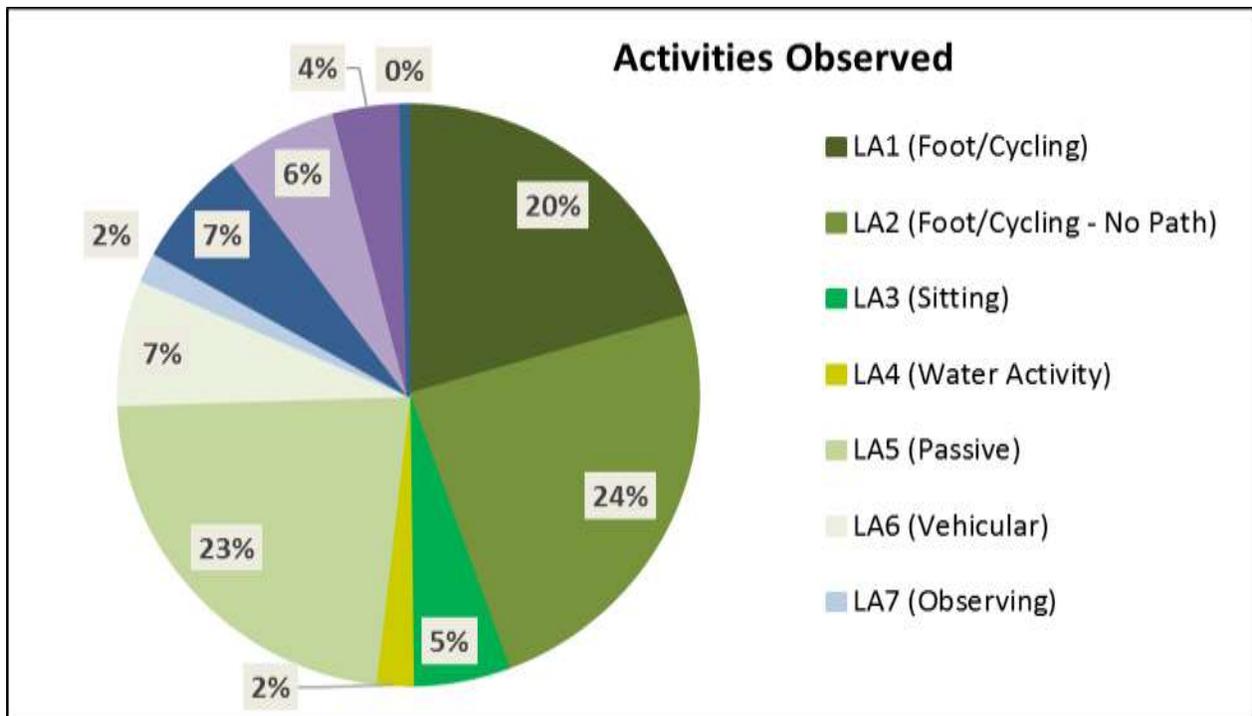


Figure 3.78 Range of Activities Observed at Strandhill

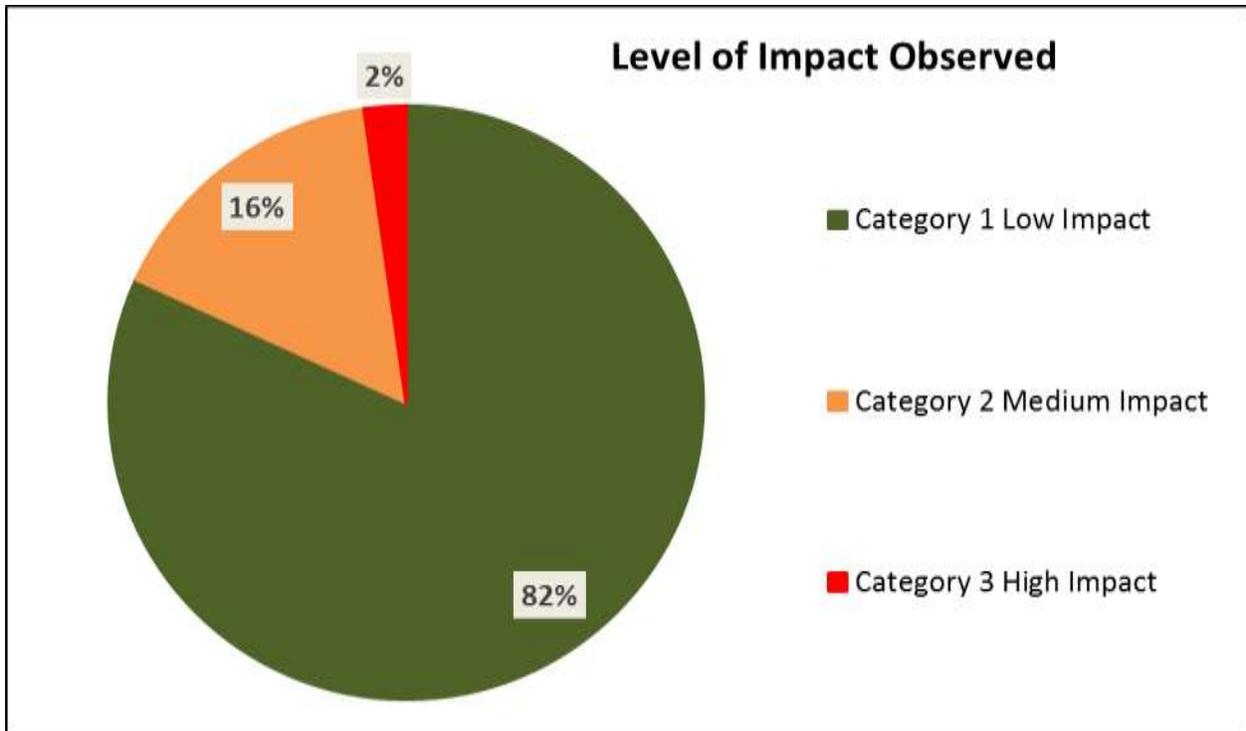


Figure 3.79 Level of Impact Observed at Strandhill

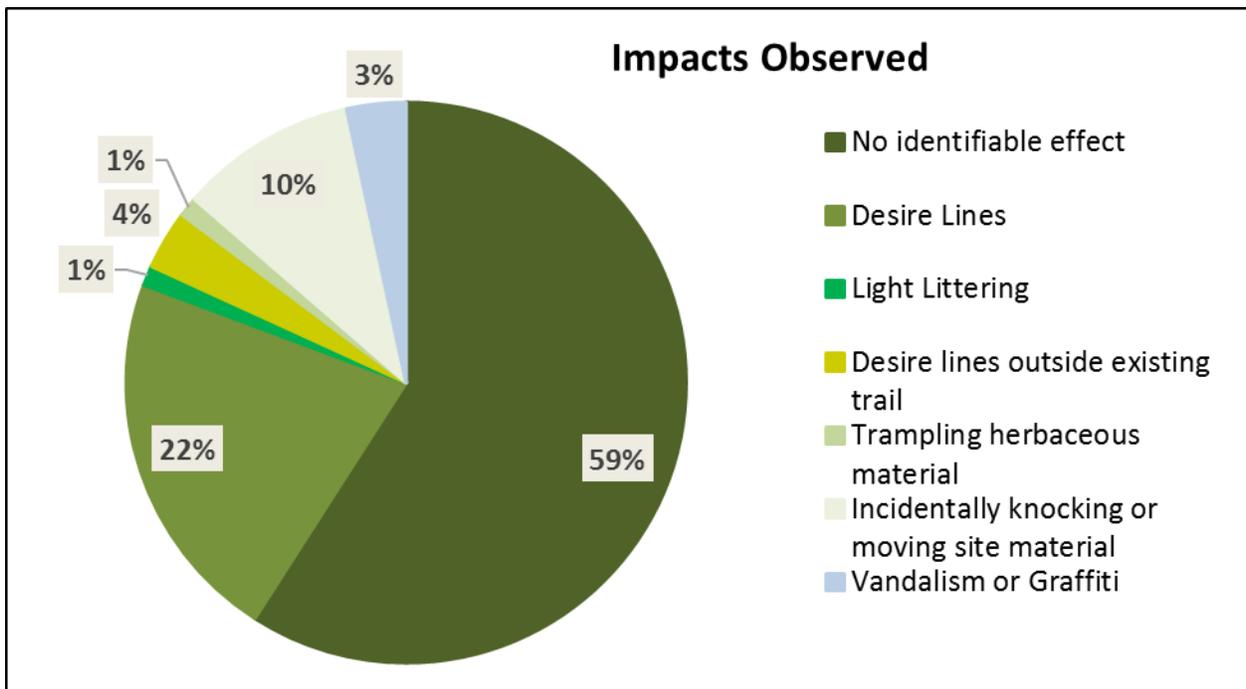


Figure 3.80 Impacts Observed at Strandhill

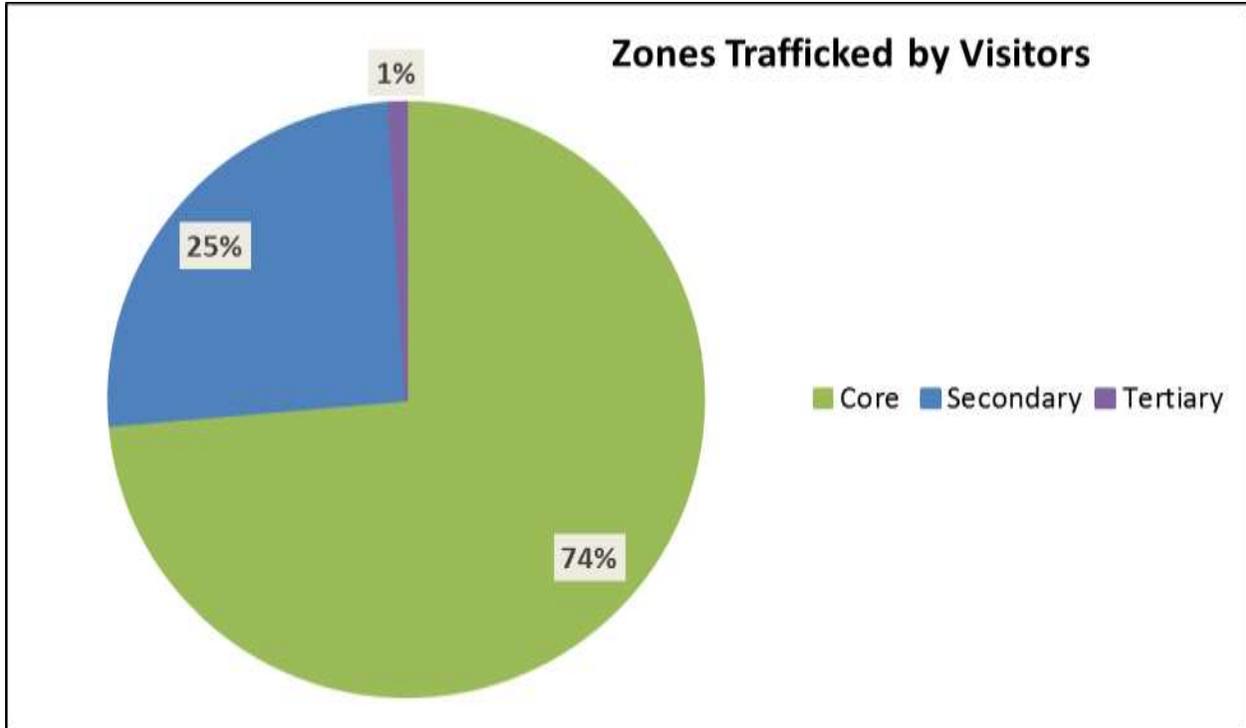


Figure 3.81 Zones trafficked by visitors at Strandhill

Table 3.12 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.
Tertiary Zone	Areas where no car park, paved areas, marked pathways, trails, tracks and managed grassland are identifiable and beyond the immediate boundaries of the site.

3.12.1 Recommendations and Analysis of Results and Visitor Movement Patterns

82% of visitors had no identifiable effect on the site. The majority of visitors to the site stayed within the core zone boundaries.

22% of visitors were observed to climb the highest dune, this became evident at the point where the fencing ends.

33% of people were recorded to have a high impact on the dunes, as a result of trampling caused by visitor movements. The ecological assessment recorded that the sensitive habitat received damage from visitors where the fencing put in place to deter visitors from accessing the dunes ends.



Figure 3.82 Visitor Movement Zones at Strandhill

3.13 Murvagh Beach

Site Name: Murvagh Beach	Date Surveyed: 14th July 2017
County: Donegal	Landscape Type: Soft Shores/Beaches/Dunes
Total no. of People: 65 Male: 34 Female: 31	Average Duration of visitors on site: 00:44:50
<p>Site Description: Murvagh Blue Flag Beach is located close to the village of Laghey on the south western coast of County Donegal. Murvagh is a long shallow beach behind which are sand dunes, designated as a Special Area of Conservation. Murvagh beach operates the An Taisce Pack it in Pack it out programme to encourage beach goers to leave no trace. The Donegal Golf course is located behind the Dune Complex. The visitor entrance consists of a car park which is heavily sheltered by the dunes, there are also toilet facilities located in the car park. Interpretive material is located at the entrance to the beach for visitors. Murvagh Beach is part of the larger Donegal Bay (Murvagh) Special Area of Conservation (SAC) which is designated for two sand dune Annex I habitats: Fixed coastal dunes with herbaceous vegetation (grey dunes) and Humid dune slacks.</p>	

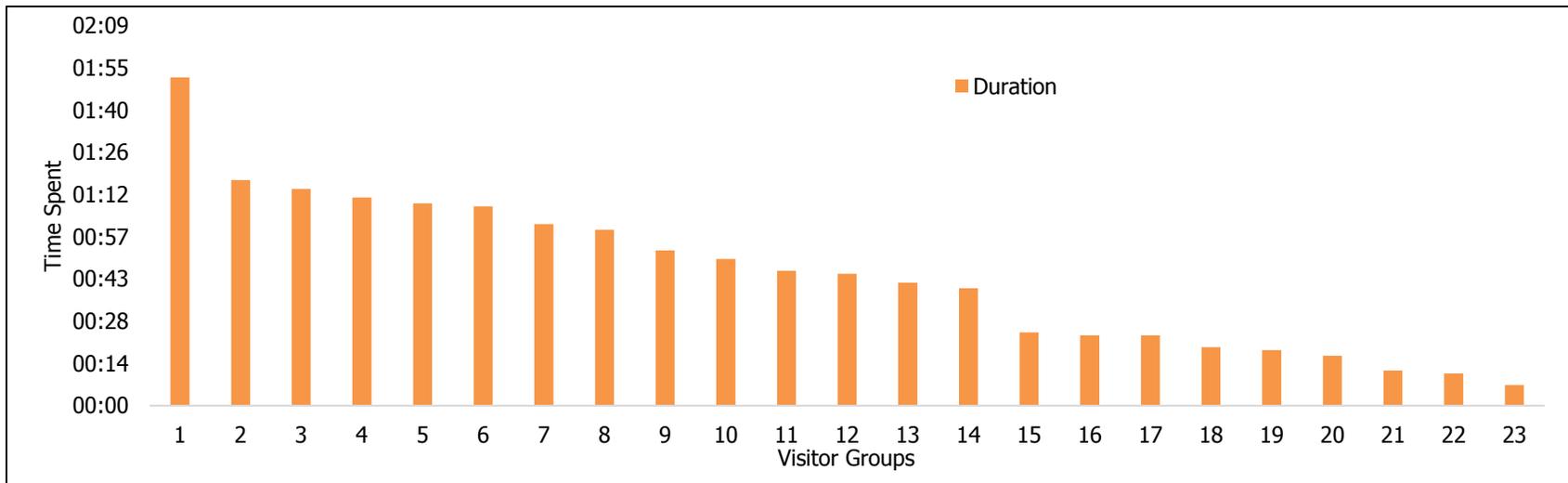


Figure 3.83 Duration Spent at Murvagh Beach

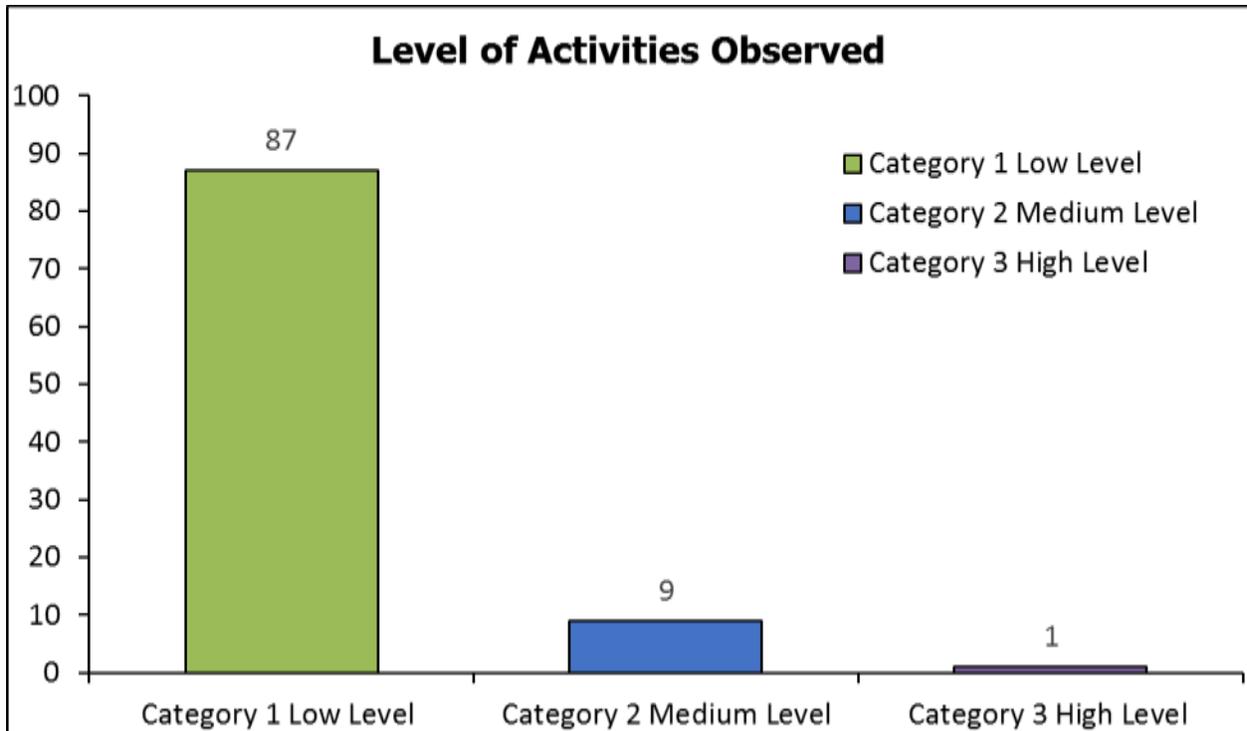


Figure 3.84 Level of Activity Observed at Murvagh Beach

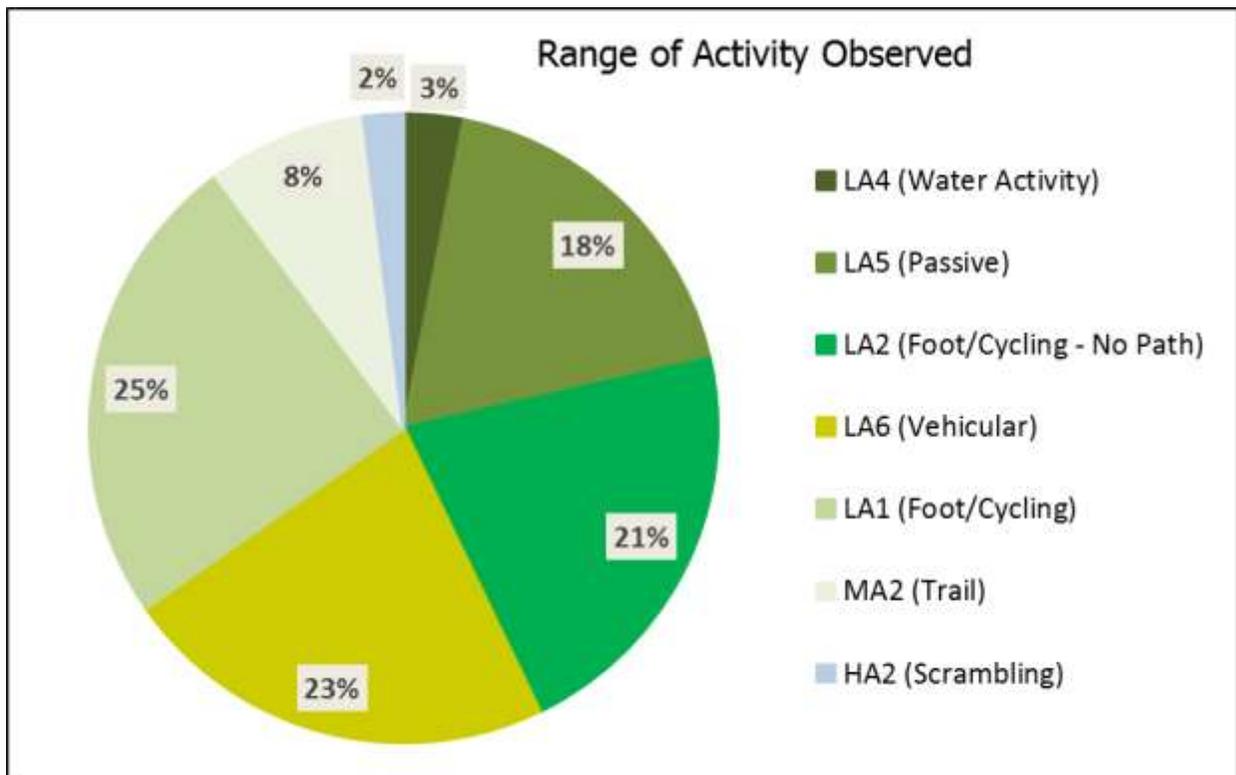


Figure 3.85 Range of Activities Observed at Murvagh Beach

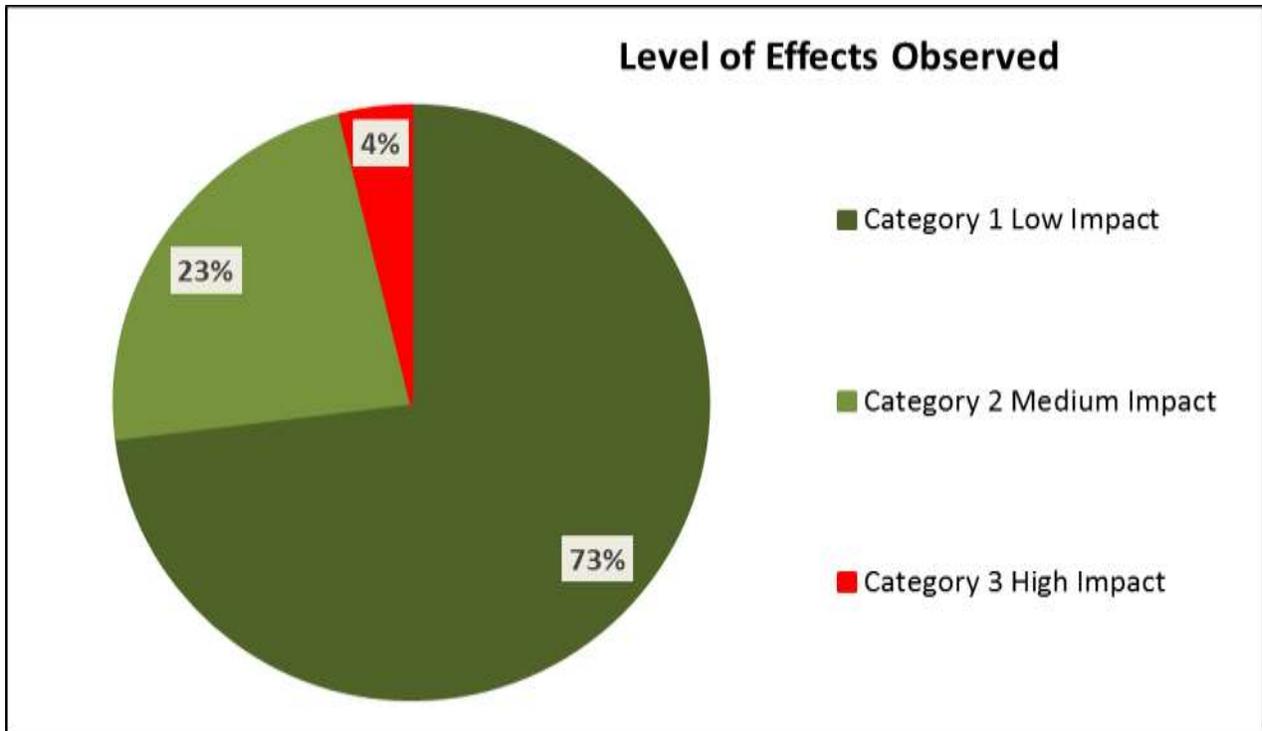


Figure 3.86 Level of Effects Observed at Murvagh Beach

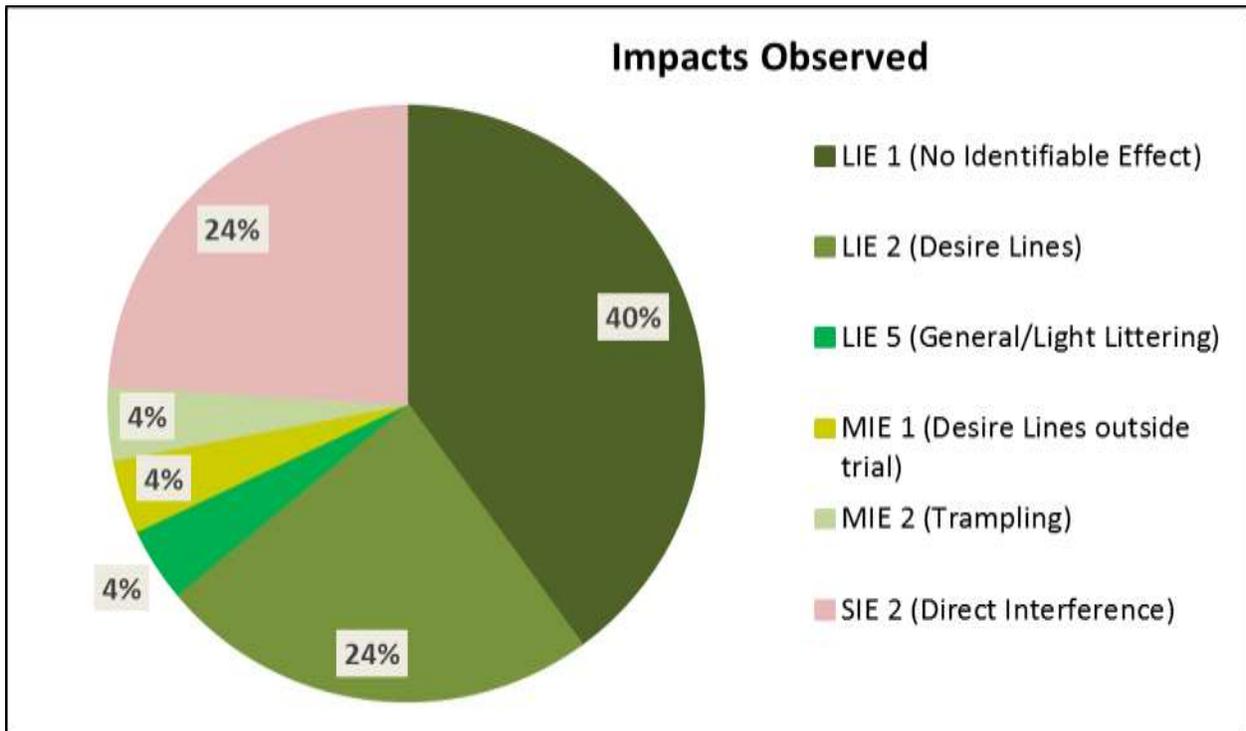


Figure 3.87 Range of Effects Observed at Murvagh Beach

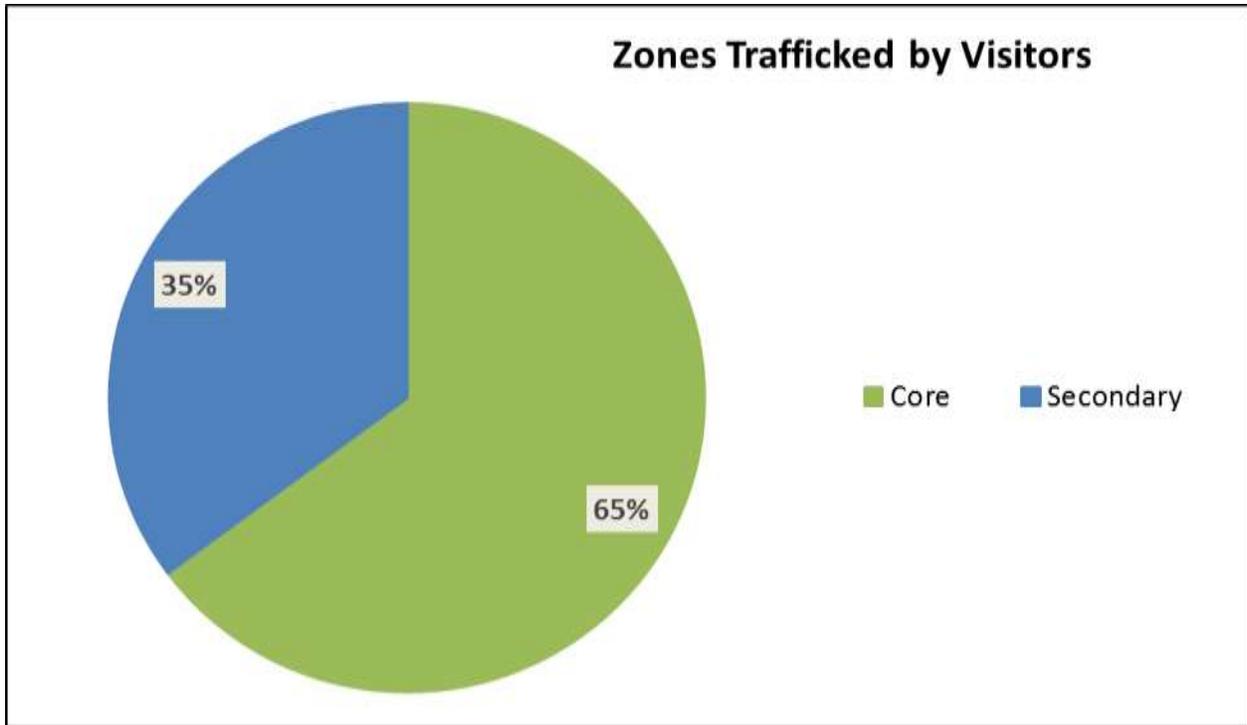


Figure 3.88 Zones trafficked by visitors at Murvagh Beach

Table 3.13 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.

Recommendations and Analysis of Results and Visitor Movement Patterns

The majority of visitors (42%) had no identifiable effect on the site. On the day of Pre-Planning it was noted that a small camp of a tent and camp fire had been set up. On returning to carry out the survey the subsequent day, the tent, along with a notable amount of litter (4%) was still in situ.

65% of visitors remained to the marked paths and beach. As the beach is heavily used for recreational purposes, some visitors (35%) were observed to move away from the beach and paths to utilise the space surround and behind the dunes.

Overall no visitor activities resulted in any long-term damage to the site.



Figure 3.89 Visitor Movement Zones at Murvagh Beach

3.14 Cé Mhachaire Uí Rabhartaigh

Site Name: Cé Mhachaire Uí Rabhartaigh	Date Surveyed: 15th July 2017
County: Donegal	Landscape Type: Stony Coastline
Total no. of People: 26 Male: 14 Female: 12	Average Duration of visitors on site: 00:28:00
Site Description: Cé Mhachaire Uí Rabhartaigh (Min Larach Harbour) is characterised by a stony coastline to the west with a sloping hill to the south. This embarkation point offers an exceptional view to Glassan Bay which extends for 3.5km into the Atlantic. The site consists of a carpark Min Larach Harbour is located within the Falcaragh to Meenlaragh SPA, which is designated for a number of habitats including the priority fixed grey sand dune habitat.	

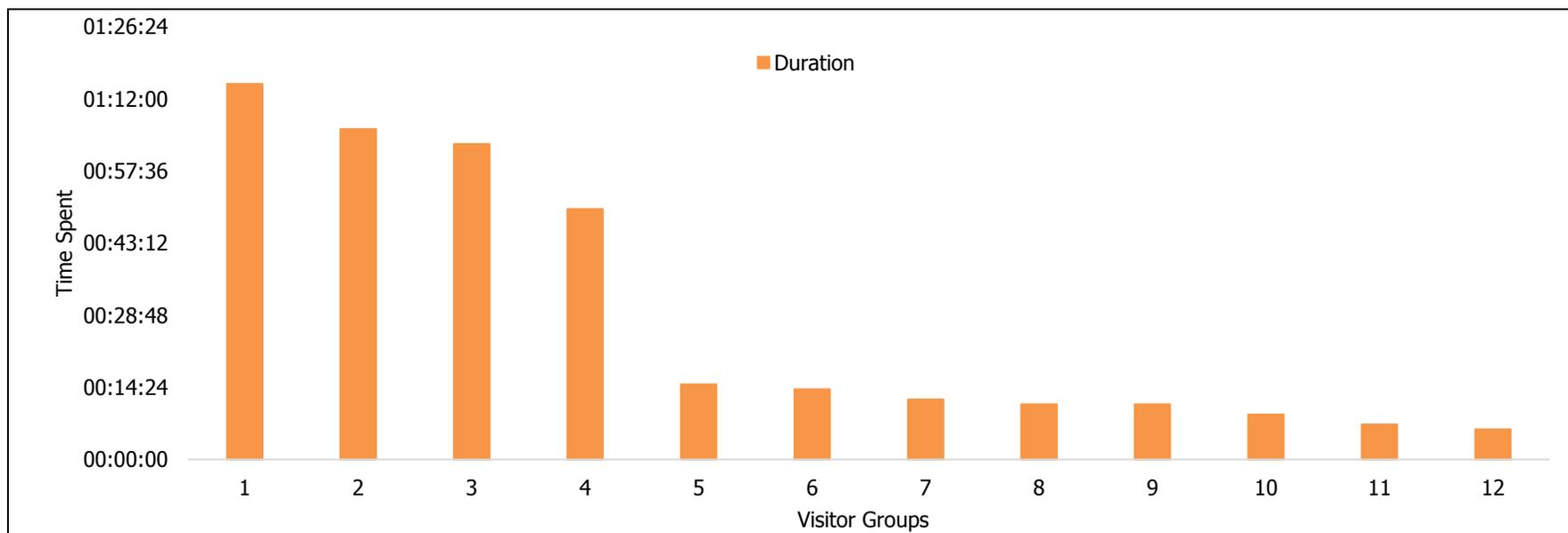


Figure 3.90 Duration Spent at Cé Mhachaire Uí Rabhartaigh

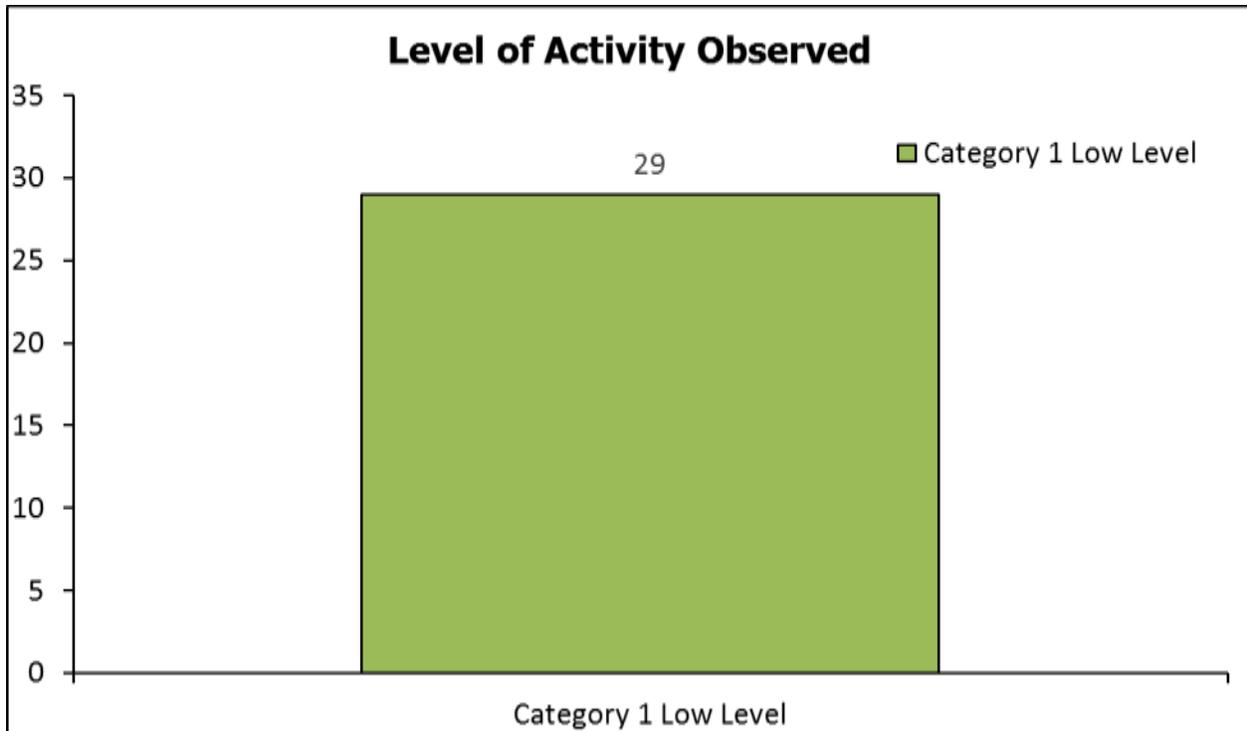


Figure 3.91 Level of Activity Observed at Cé Mhachaire Uí Rabhartaigh

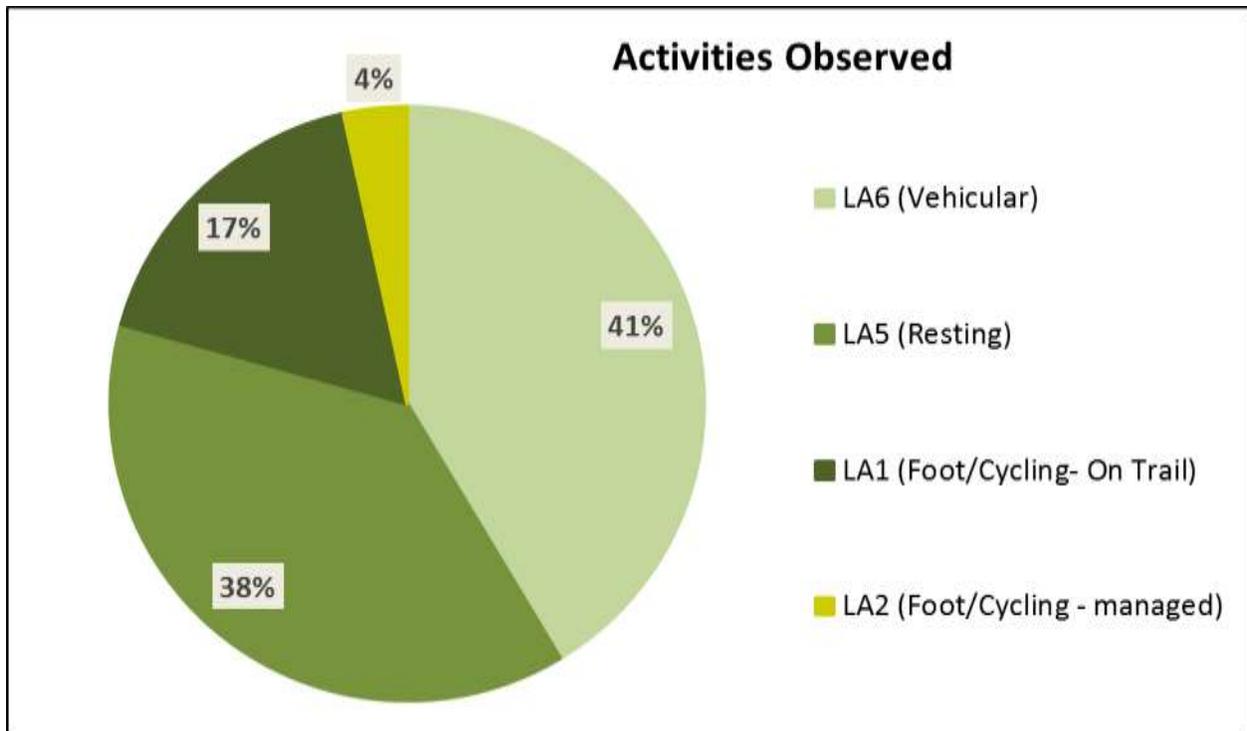


Figure 3.92 Range of Activities Observed at Cé Mhachaire Uí Rabhartaigh

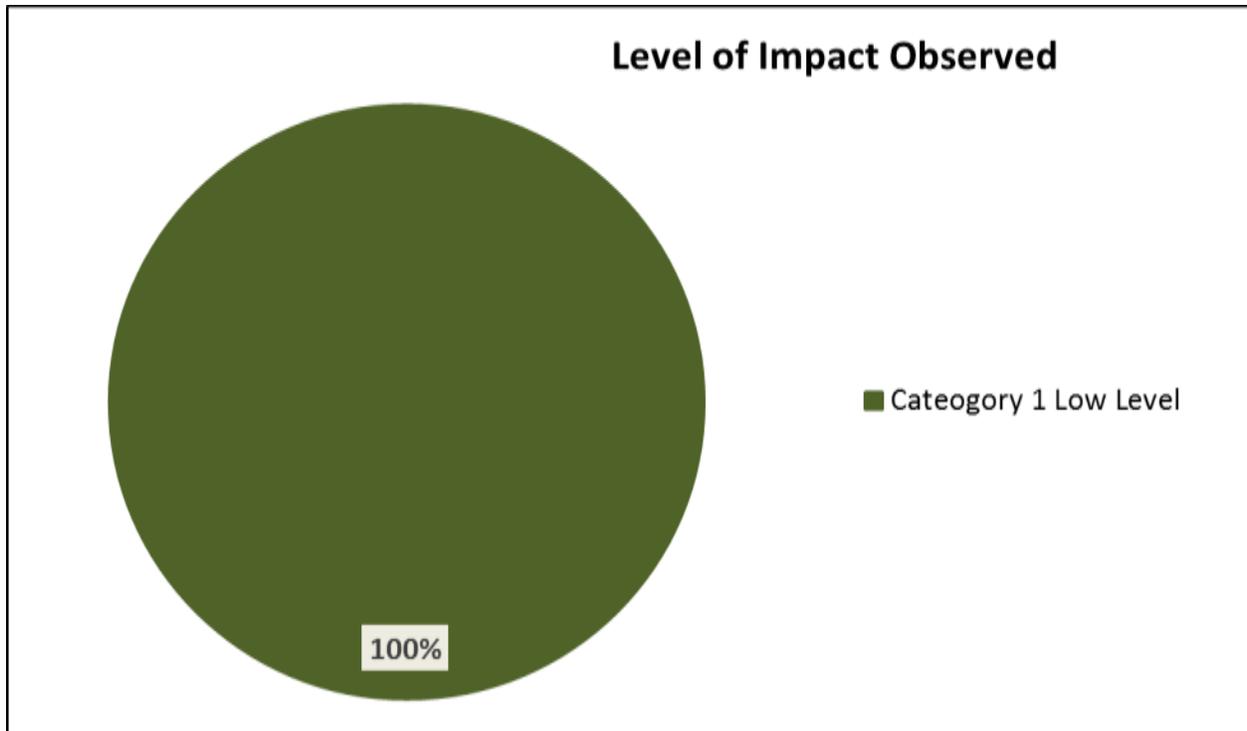


Figure 3.93 Level of Impact Observed at Cé Mhachaire Uí Rabhartaigh

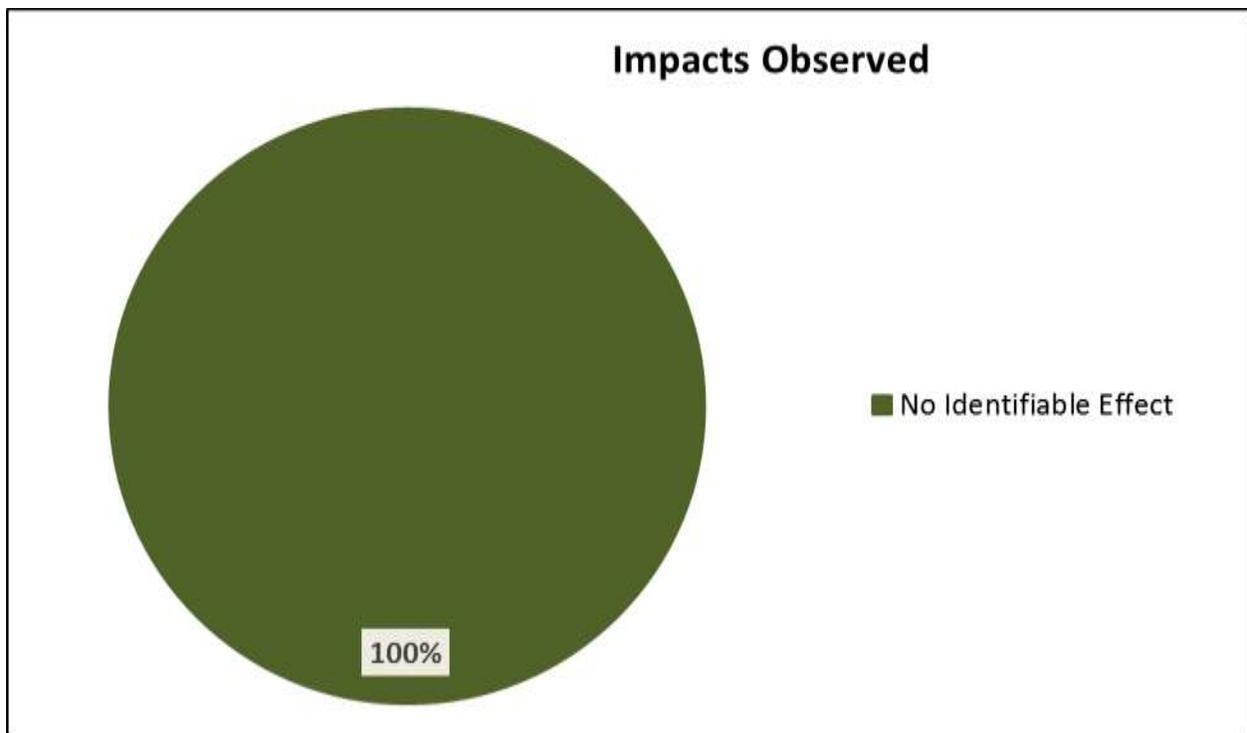


Figure 3.94 Impacts Observed at Cé Mhachaire Uí Rabhartaigh

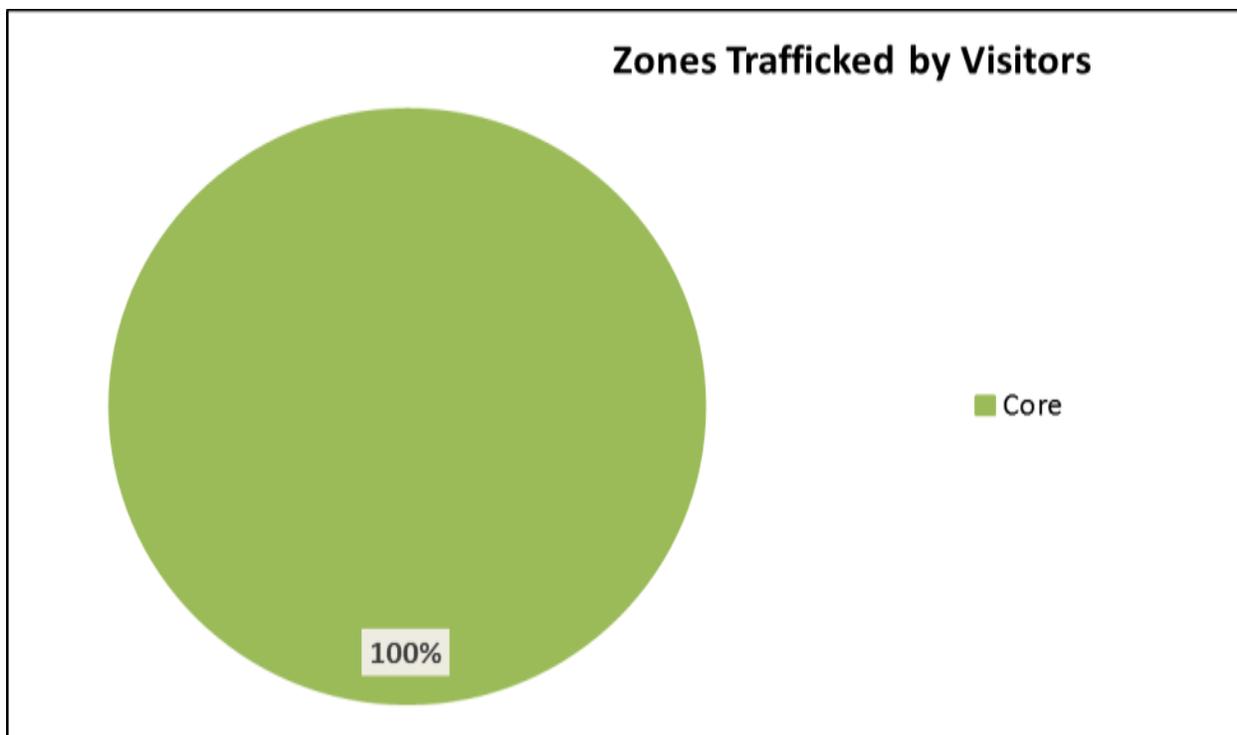


Figure 3.95 Zones trafficked by visitors at Cé Mhachaire Uí Rabhartaigh

Table 3.14 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
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3.14.1 Recommendations and Analysis of Results and Visitor Movement Patterns

There were no identifiable effects to this site.



Figure 3.96 Visitor Movement Zones at Cé Mhachaire Uí Rabhartaigh

3.15 Inch Island

Site Name: Inch Island	Date Surveyed: 16th July 2017
County: Donegal	Landscape Type: Coastal
Total no. of People: 54 Male: 23 Female: 31	Average Duration of visitors on site: 02:26:00
Site Description: Inch Island is a small island of about 5 square miles, lies just off the Donegal Coast at Burt at the start of the Inishowen peninsula and is accessed by a causeway road. The island is a wildfowl sanctuary and has large a large man-made lake filled with swans, geese and other bird species. The discovery point has a carpark facility and WAW signage. There are 3 walking routes. Interpretive material regarding the ornithological interest is present at the site. The castle built on the cliff overlooking the Swilly dates back to the mid-15 th century. Inch Island is located within the Lough Swilly SAC and SPA.	

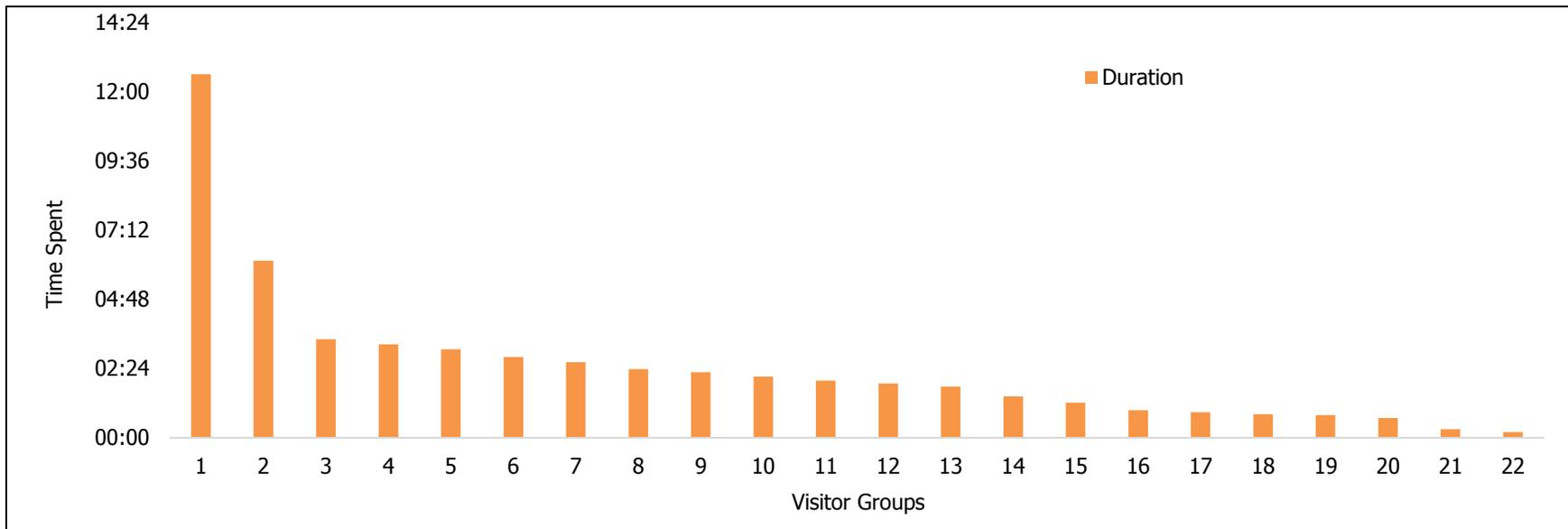


Figure 3.97 Duration Spent at Inch Island

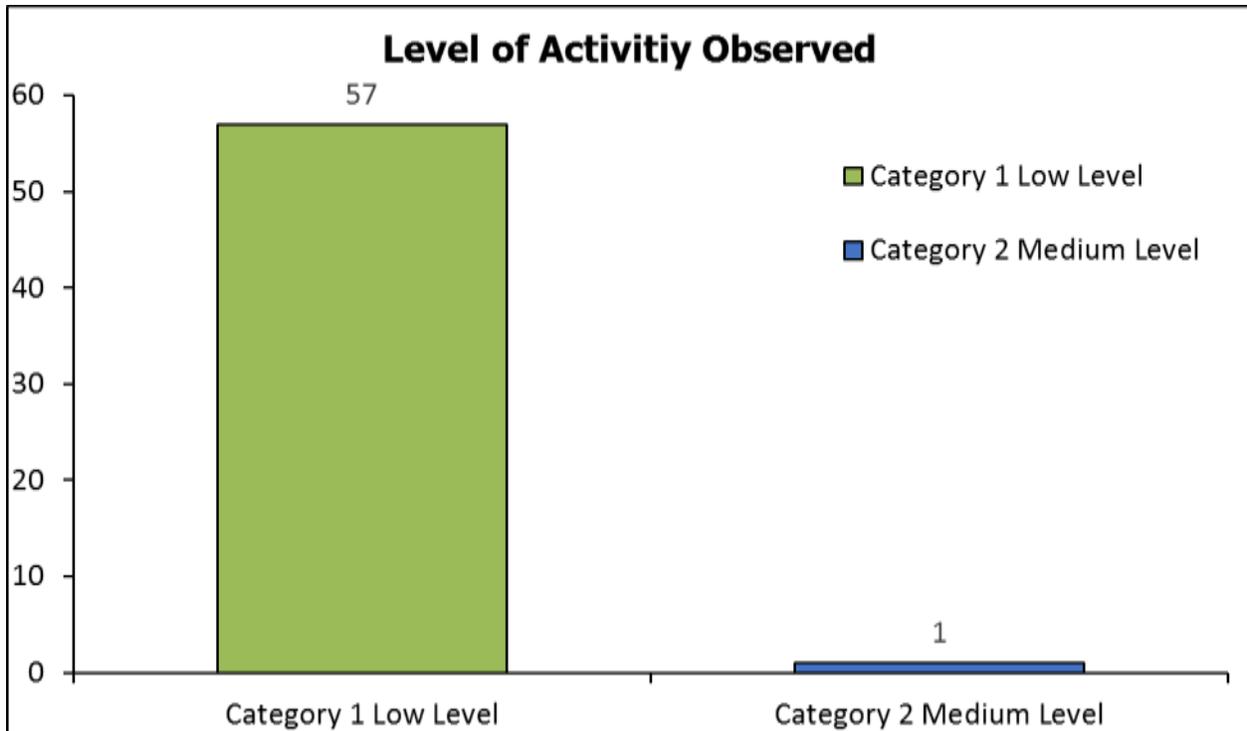


Figure 3.98 Level of Activity Observed at Inch Island

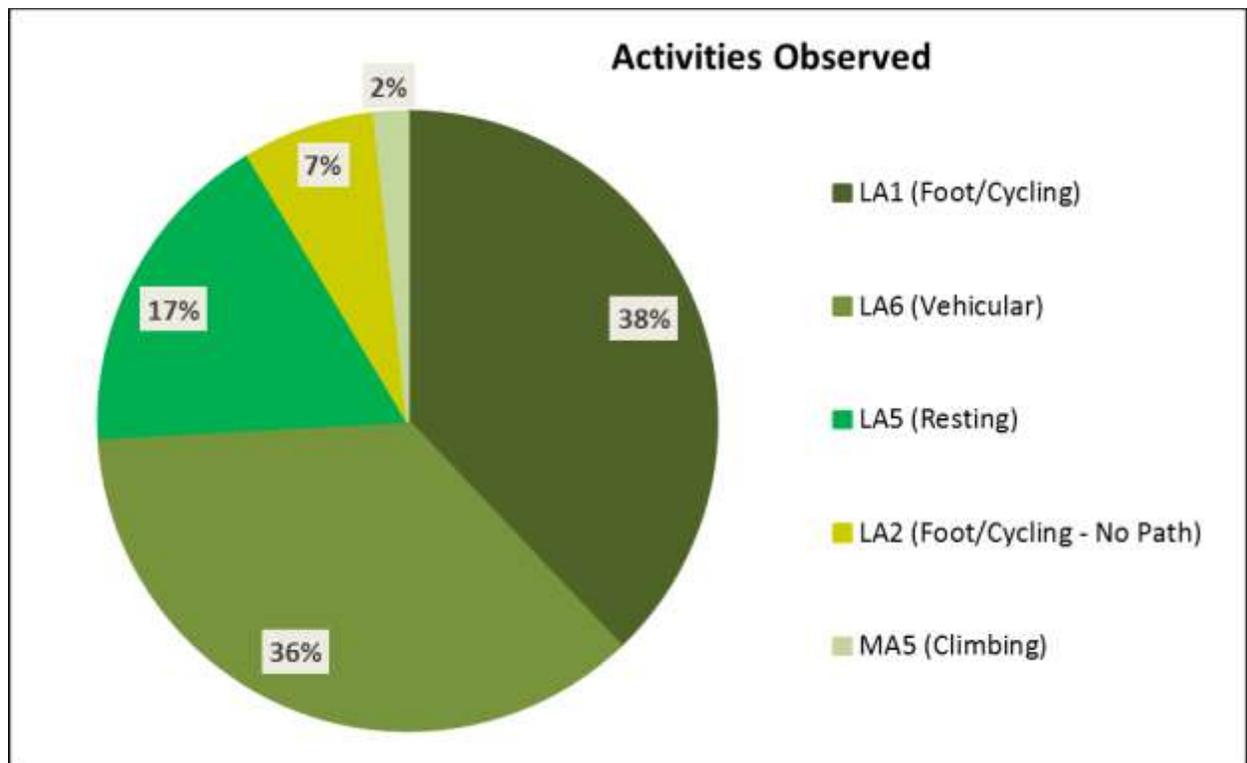


Figure 3.99 Range of Activity Observed at Inch Island

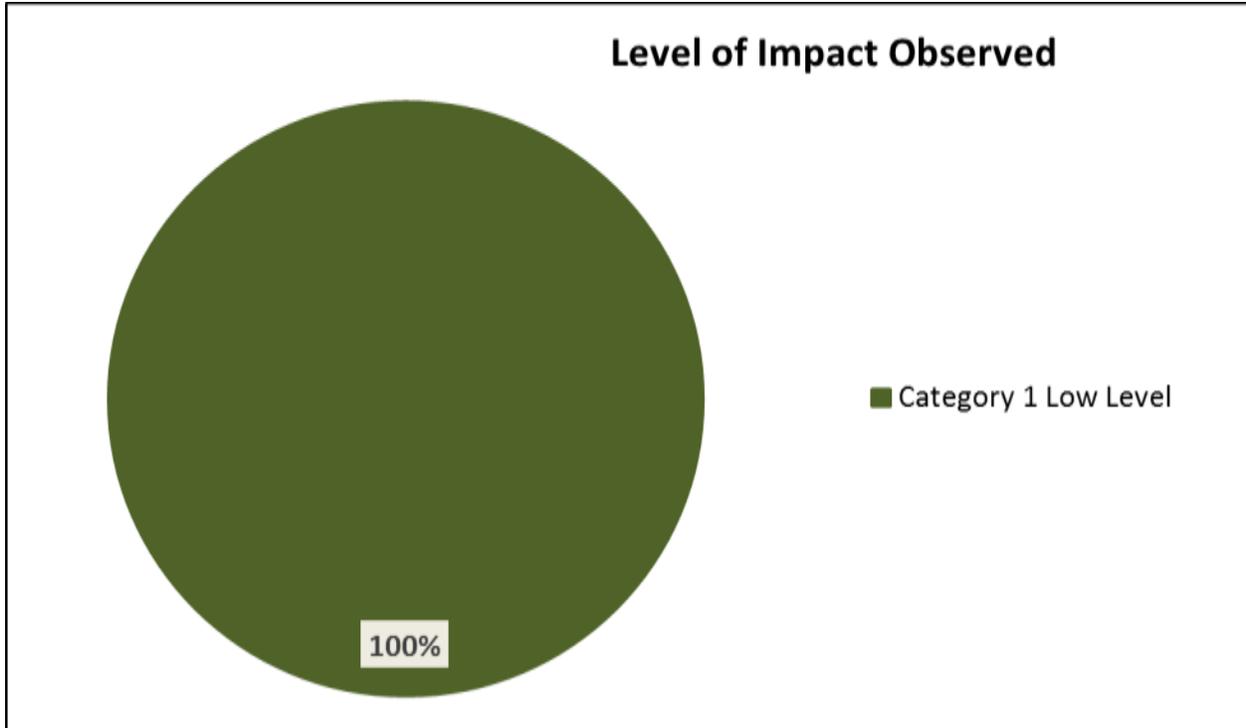


Figure 3.100 Level of Impact Observed at Inch Island

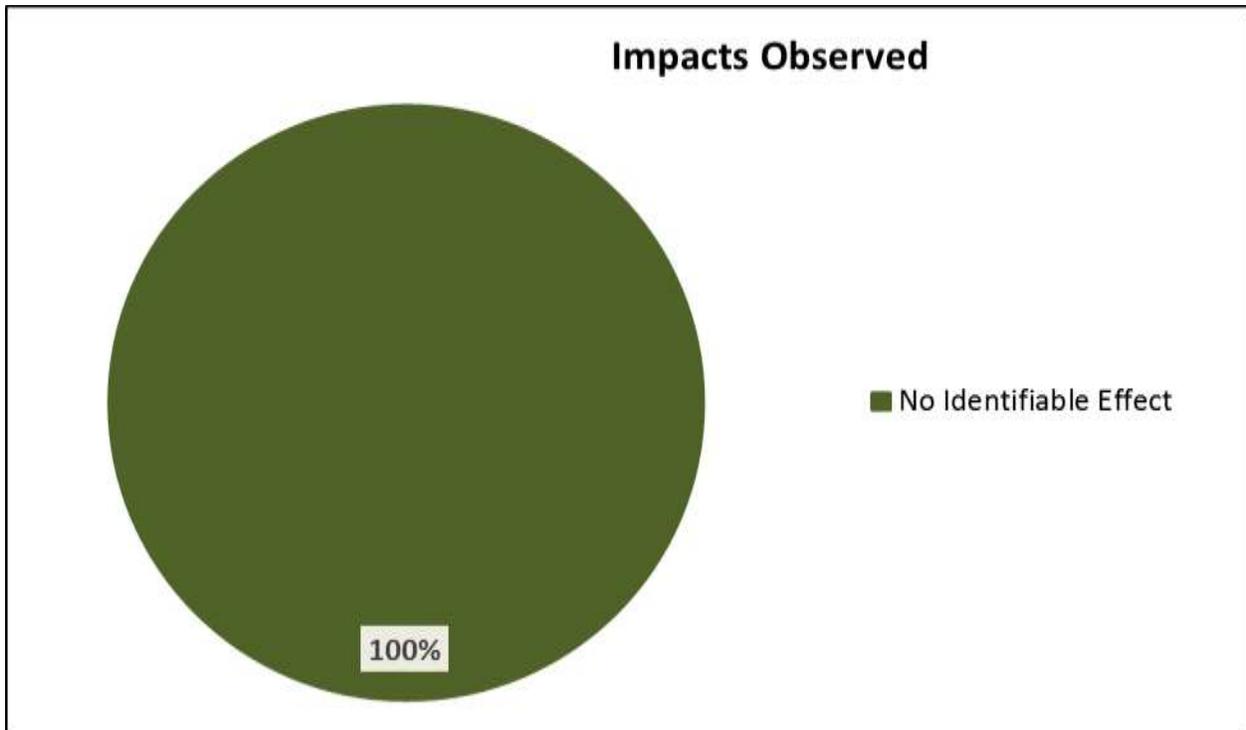


Figure 3.101 Range of Effects observed at Inch Island

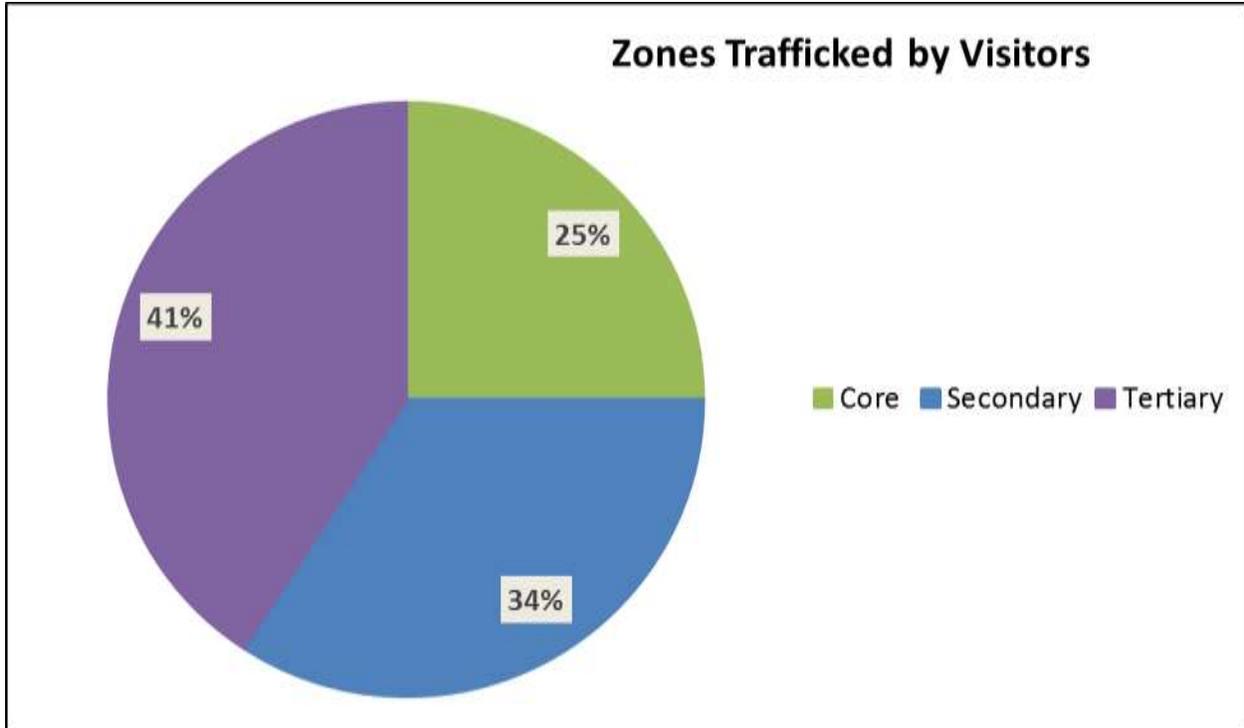


Figure 3.102 Zones trafficked by visitors at Inch Island

Table 3.15 Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.
Tertiary Zone	Areas where no car park, paved areas, marked pathways, trails, tracks and managed grassland are identifiable and beyond the immediate boundaries of the site.

3.15.1 Recommendations and Analysis of Results and Visitor Movement Patterns

The importance of this site for recreation including cycling, walking and birdwatching is evident by the level of impacts observed to the site. 100% of visitors had no identifiable effect to the site.



Figure 3.103 Visitor Movement Zones at Inch Island

3.16 Results and Analysis for all sites

Table 3.16 Overview of site demographics and dwell time

site	Male	Female	Total No. of People	No. of Groups	Average Duration on site (Hours: Minutes: Seconds)
Lough Hyne	78	69	147	61	00:45:00
Galley Head	103	88	191	22	00:44:00
Dursey Sound	64	66	130	44	01:30:00
Teach Dhoire Fhíonáin	148	158	306	59	01:02:00
Carrigafoyle Castle	25	23	48	21	00:13:44
Ballyheigue Beach	68	58	126	52	00:44:00
Ballyvaughan Pier	15	11	26	18	00:19:00
Cappagh Pier	47	46	93	33	00:26:00
Trá na gCeann	65	72	117	41	00:37:00
Omey Island	16	15	31	12	00:37:00
Oileán Chloigeann	22	29	51	5	01:04:00
Strandhill	145	148	293	81	00:43:00
Cé Mhachaire Uí Rabhartaigh	14	12	26	12	00:28:00
Inch Island	23	31	54	12	02:26:00
Murvagh Beach	34	31	65	22	00:44:50

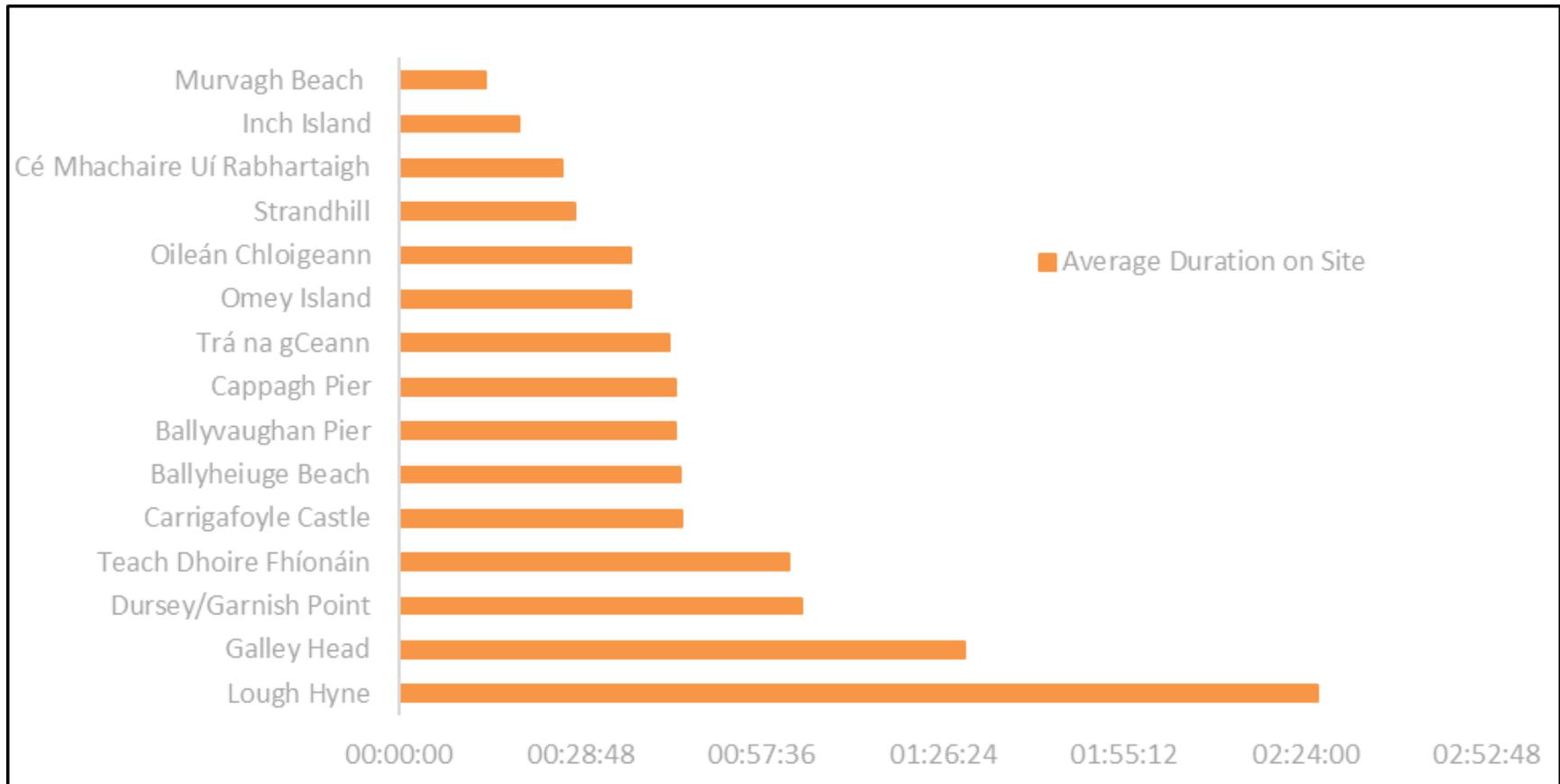


Figure 3.104 Analysis of Average Duration Spent on Each site

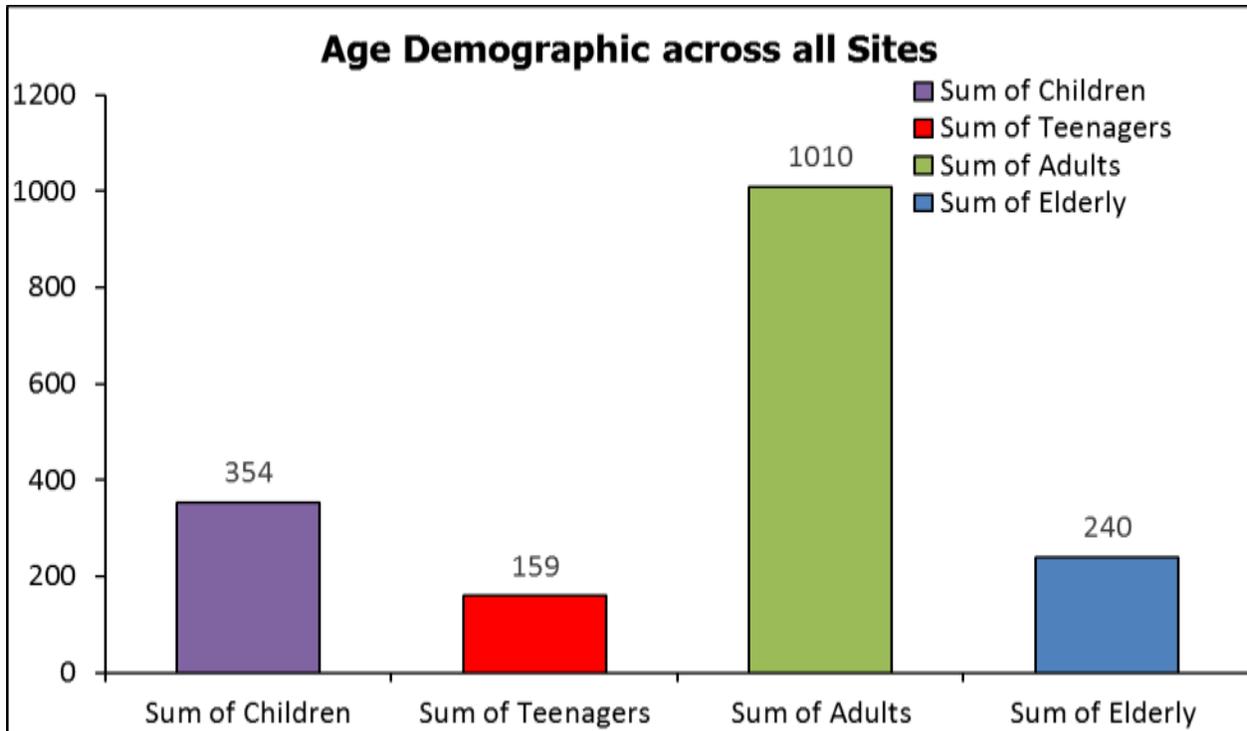


Figure 3.105 Age Demographic across all sites

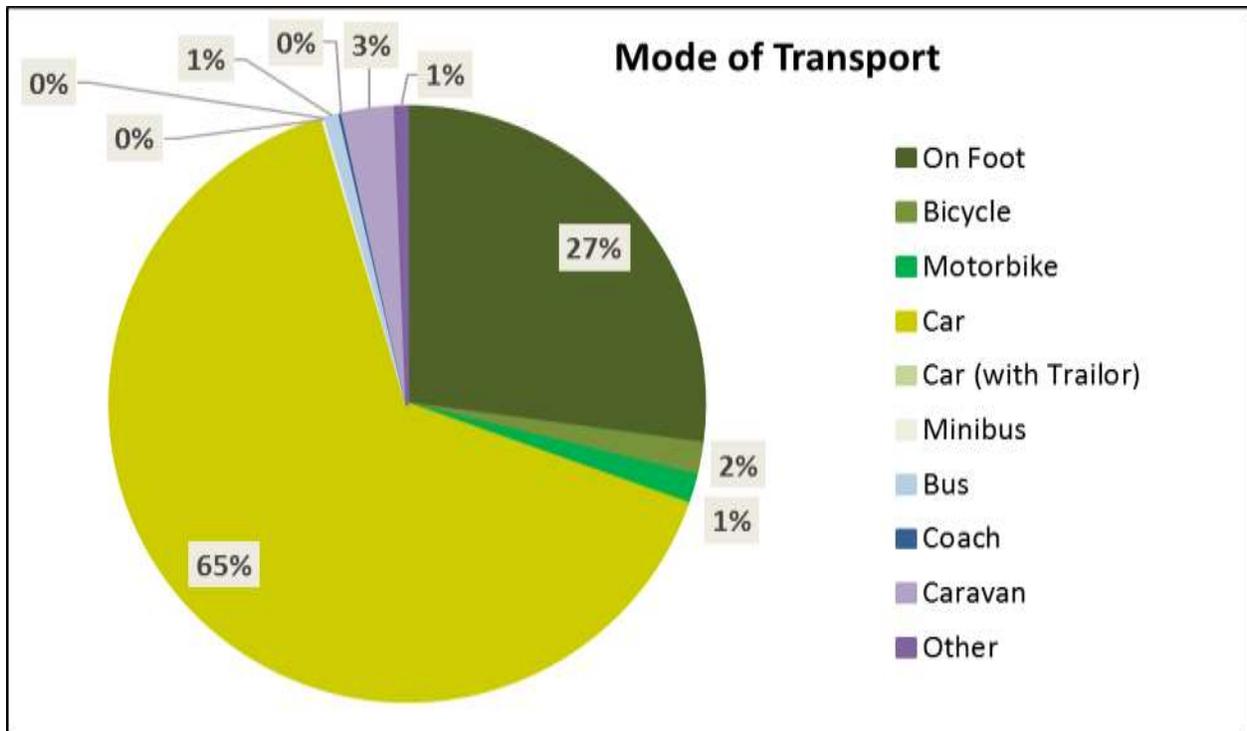


Figure 3.106 Mode of Transport across all sites

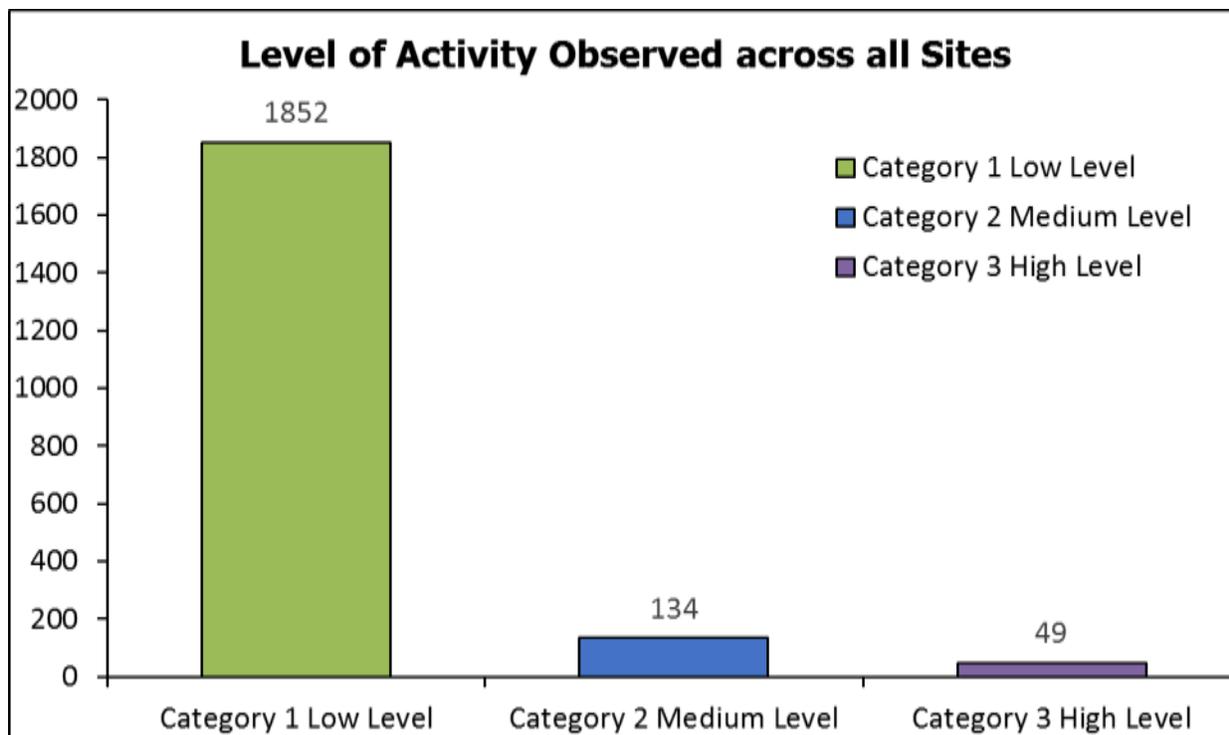


Figure 3.107 Overall Level of Activity Recorded across all sites

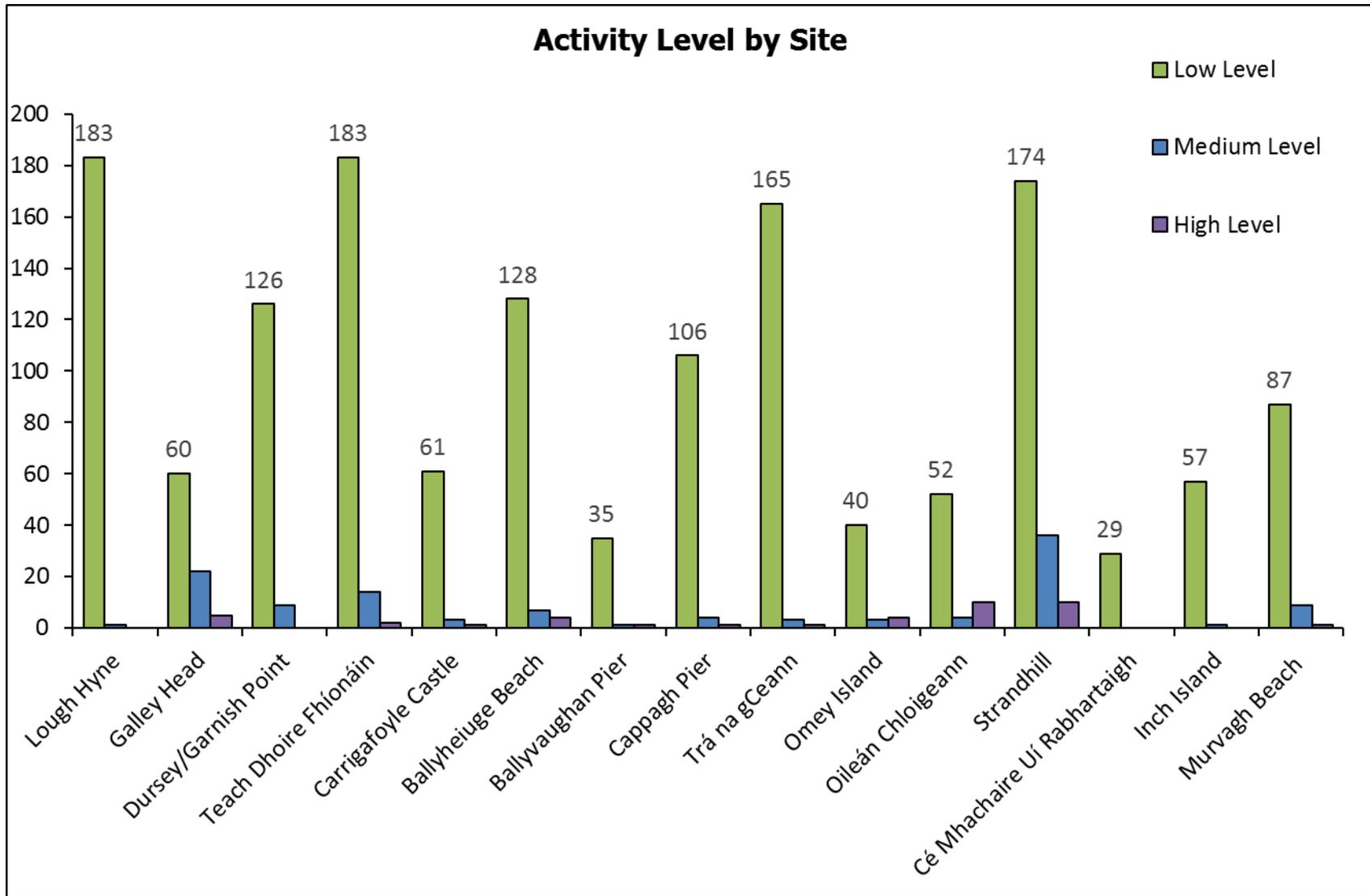


Figure 3.108 Level of Activity Observed across all sites

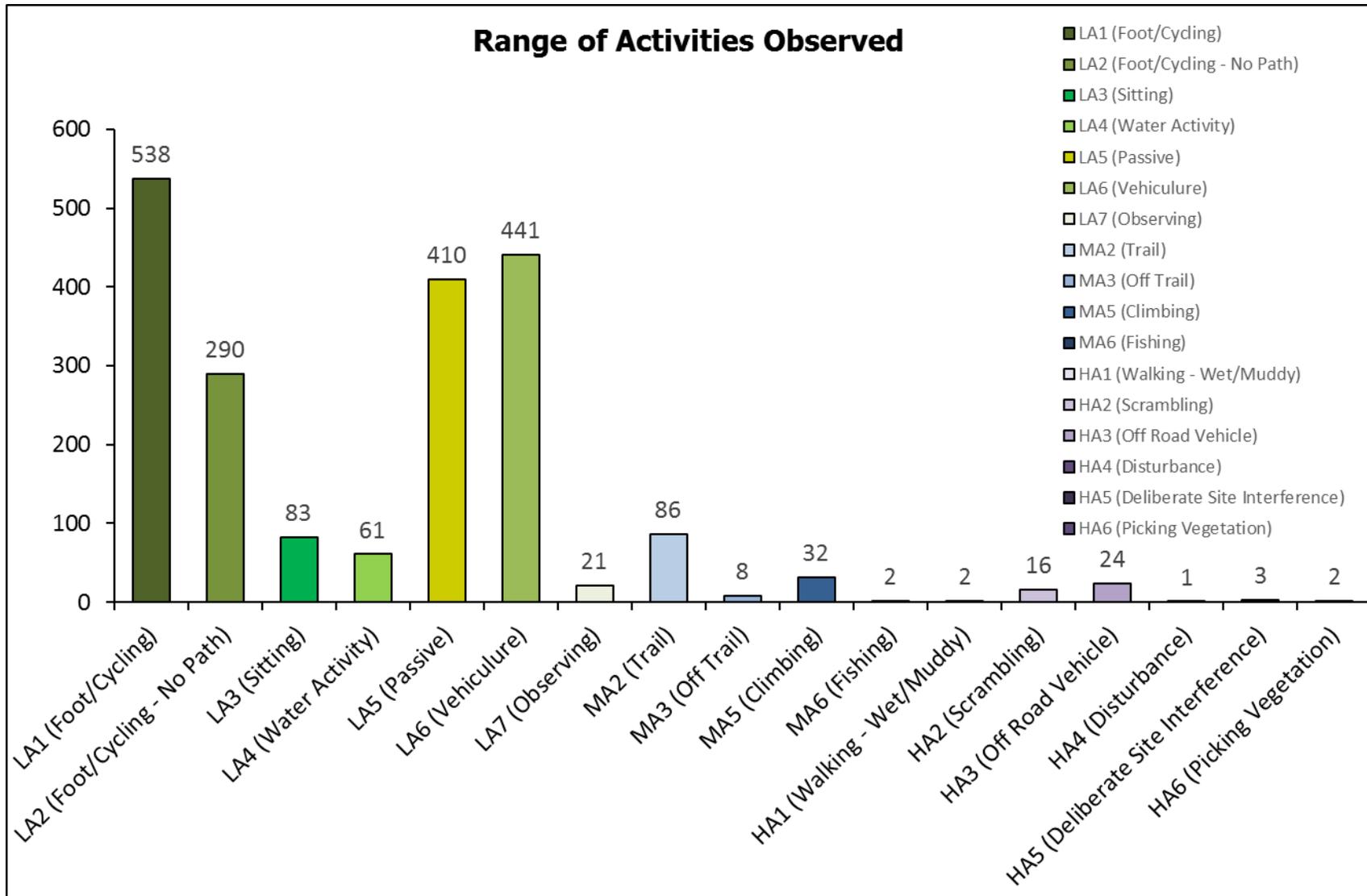


Figure 3.109 Range of Activities Recorded across all site

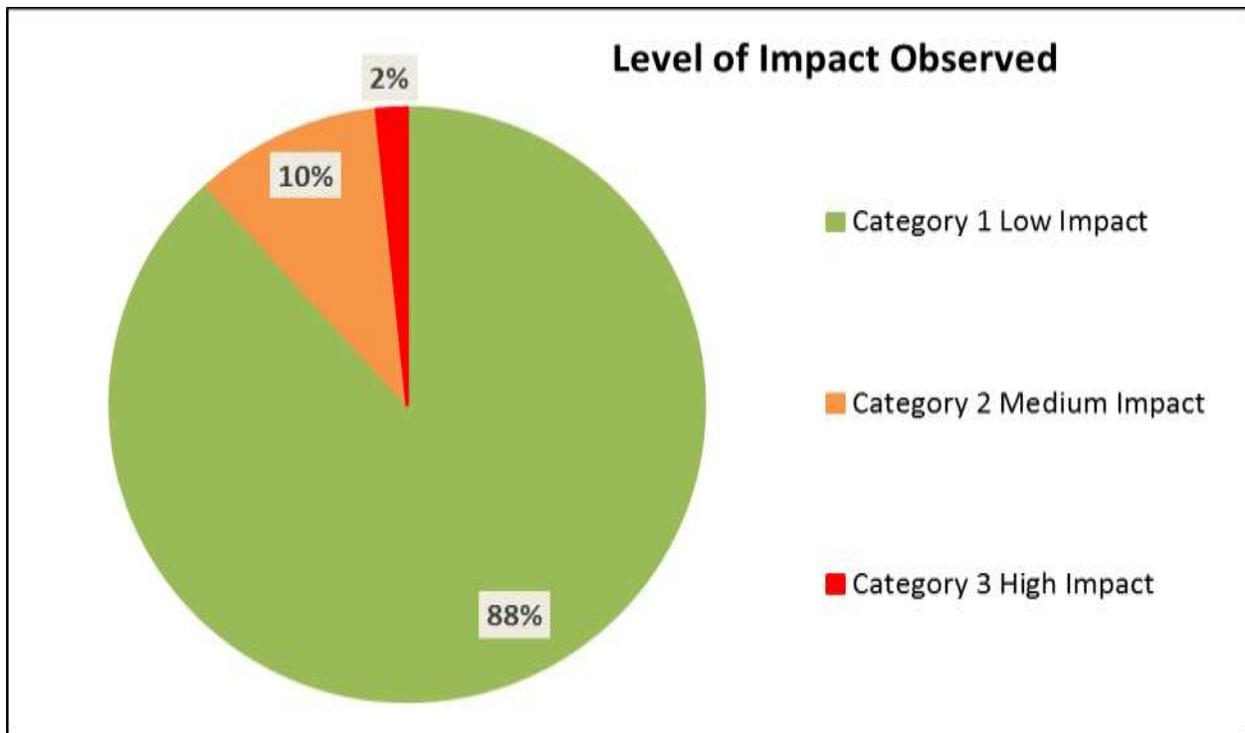


Figure 3.110 Range of Impacts Observed across all sites

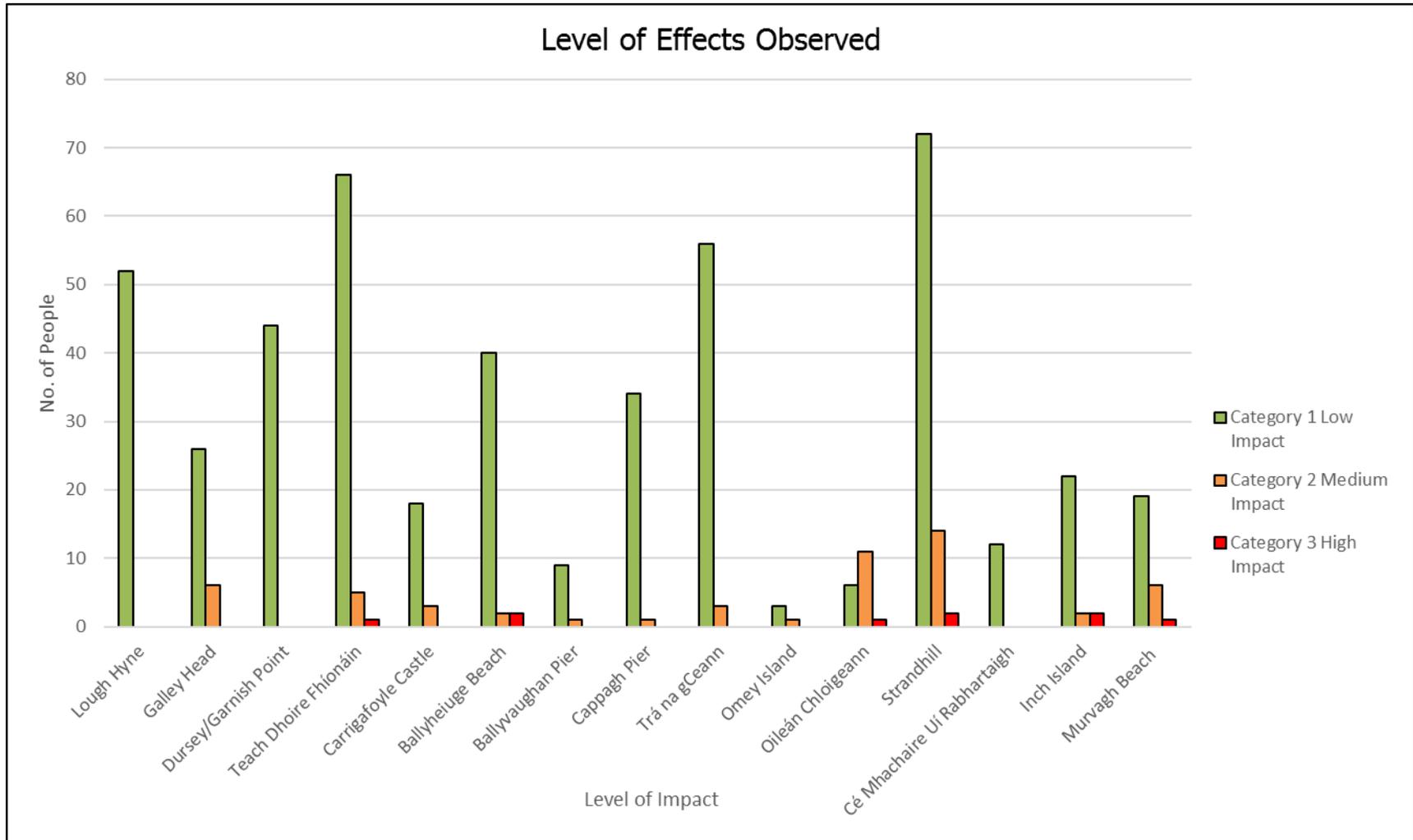


Figure 3.111 Range of Impacts Observed across all sites

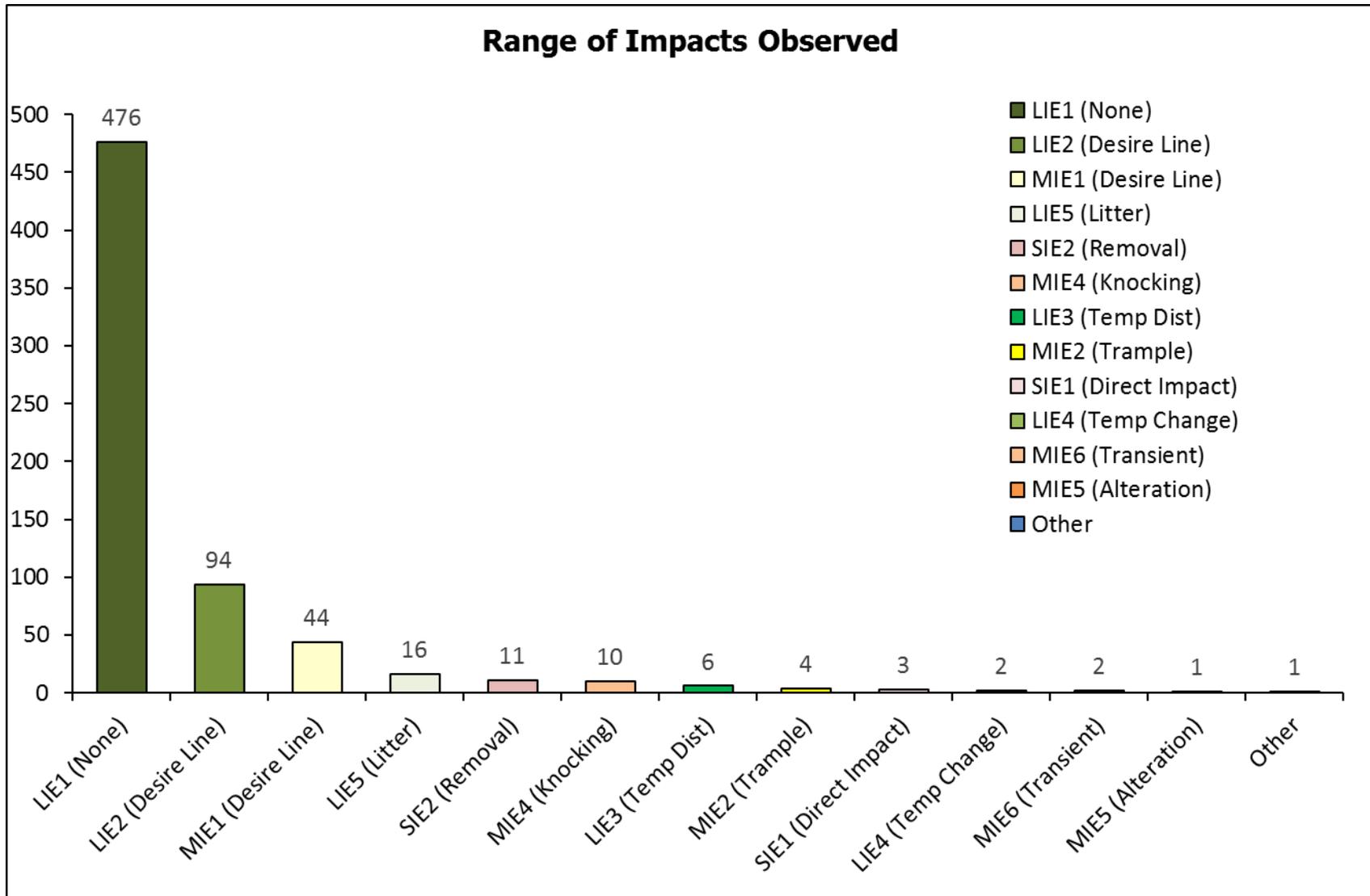


Figure 3.112 Range of Impacts Observed across all sites

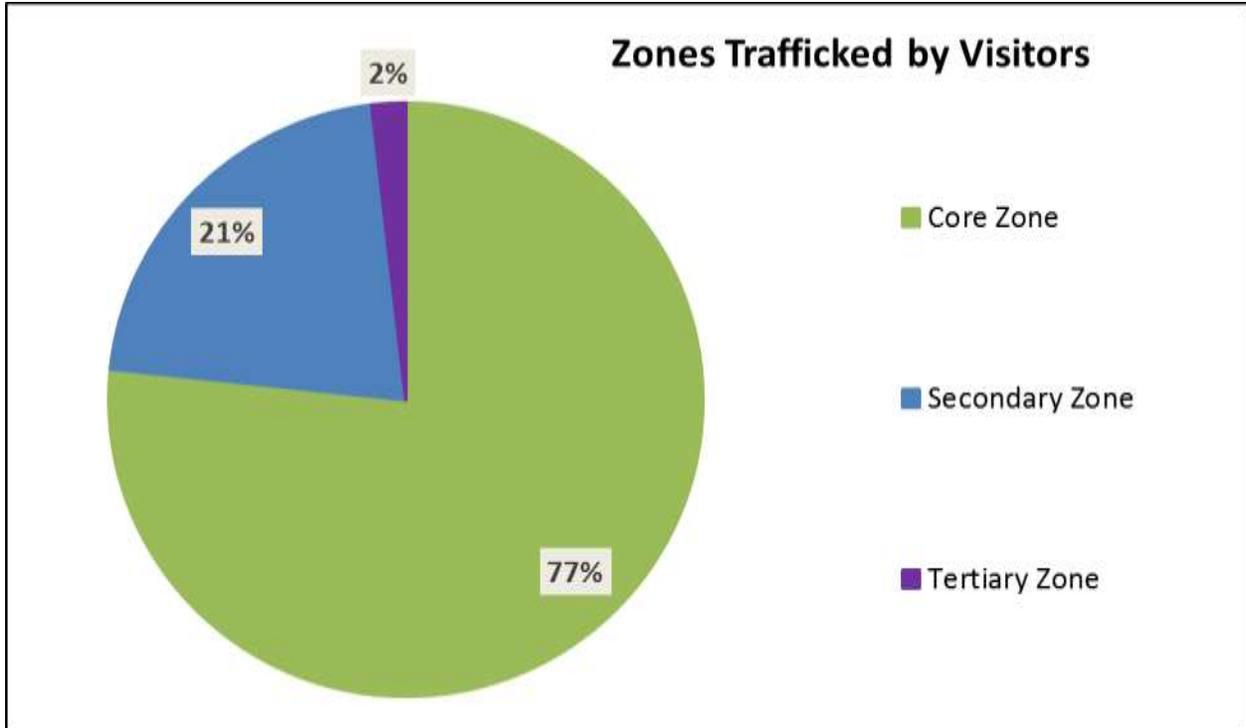


Figure 3.113 Zones trafficked by visitors across all sites

Table 3.17 Overall Visitor Movement Zones Descriptions

Core Zone	Existing car parks, paved areas, viewing platforms, marked pathways, trails, tracks and managed grassland and areas where pathways, trails or roads exist. The majority of visitors remain in these zones.
Secondary Zone	Areas outside of existing car park, paved areas, marked pathways, trails, and tracks and managed grassland. visitors are likely to traffic areas of grassland (in some cases farmland grazed by sheep or cattle), heath or bare rock, usually to get a better view of site attractions or to access trails at the site.
Tertiary Zone	Areas where no car park, paved areas, marked pathways, trails, tracks and managed grassland are identifiable and beyond the immediate boundaries of the site.

Section 4 Analysis of Results for all sites

4.1.1 General Analysis of sites

Of the 1763 visitors observed during the 2017 survey;

- 87% were reported to have a low impact on sites;
- 3% were reported to have a medium impact on sites, however these effects were not thought to have any significant lasting impacts on the sites;
- 10% of visitors were recorded to have a high impact, (Oileán Chloigeann) analysis of this figure showed that a very low number of visitors took part in activities to cause any lasting significant effects to the sites; and
- visitors spent most time at sites with trails or looped walks, beaches, or areas where recreational activities were available: Dursey Sound (Control Point) (1 hr 30 mins), Teach Dhoire Fhionáin (Derrynane House) (1 hr 02 mins), Oileán Chloigeann (1 hr 04 mins), Inch Island (2hrs 26 mins).

4.1.2 Site Based Evidence

- Visitors that spent a short time at the various sites were observed to be aware of the sensitivities associated with the site. The majority of visitors to these smaller sites were shown to take part in low level activities such as sightseeing and taking photographs before moving off;
- On analysis, it was noted that the longer visitors spent on site, the likelihood of environmental effects increased;
- 91% of visitors across all sites engaged in low or medium level activities i.e. walking on marked paths, resting, reading, photographing and sightseeing (low level) leaving an existing marked trail or path (Medium Level);
- 71% of visitors were recorded to have no impact to the sites;
- Visitors arriving to sites with large numbers of groups (tour buses, camper vans) were noted to have a larger impact to a site than a group of one or two persons;
- 88% of visitors recorded to have no or low-level impacts to sites surveyed; and
- Where impacts did occur at the various sites, they were not reported to give rise to any significant long-term effects.

Section 5 Conclusions, Recommendations and Trends Observed

5.1.1 Conclusion

- A total of **1763** visitors were observed across fifteen Discovery Points. The majority of visitors to these sites were aware of the importance to respect the natural environment;
- Of the **1763** visitors observed during the survey **88%** were reported to have a low impact on the sites, **10%** were reported to have a medium impact, these effects however were not thought to have a significant or lasting effect on the sites. **2%** of all visitors were recorded to have a high impact, this however was a very small number of people and their activities did not have a lasting impact on the sites;
- A direct link between sites with physical landmarks and the likelihood of environmental effects arising has been established upon analysing the results. It was also evident that the longer visitors spent on site the likelihood of effects increased.; and
- The average duration recorded was 00:49:00, this resulting from the high number of large dispersed sites being observed. visitors who remained at a site for longer than 30 minutes were recorded at these larger sites.

5.1.2 Recommendations

Site management is recommended where visitors spend more than 15/20 minutes at one site. When considering the level of management warranted at a site a number of factors should be considered:

- Site size and dispersal;
- Level of activity recorded; and
- Average duration of time spent at site.

All sites should be evaluated and developed to ensure the correct facilities are out in place to deal with the level of footfall each site receives. If sites are left without any intervention, effects that are currently not causing significant impacts, may in the long-term cause effects to worsen.

- At sites with little or no signage, it is suggested to erect new signage at access points and Car Parks to make visitors aware of the sensitivities associated with the site (**Galley Head, Cé Mhachaire Uí Rabhartaigh**)
- Sites where visitors frequently take part in recreational activities could be facilitated by a warden during months in which sites have the highest visitor numbers to ensure activities don't have any adverse effects to the site (**Lough Hyne**)
- Information notices at sites with dune systems should be erected to inform visitors of the highly sensitive nature of the dune systems and to be aware of sticking to marked trails and paths (**Ballyheigue Beach, Strandhill, Cé Mhachaire Uí Rabhartaigh**).

Note: It should also be noted where recommendations are executed by the relevant authority at site level as a result of this monitoring programme that compliance with Article 6 (3) of the Habitats Directive must be adhered to.

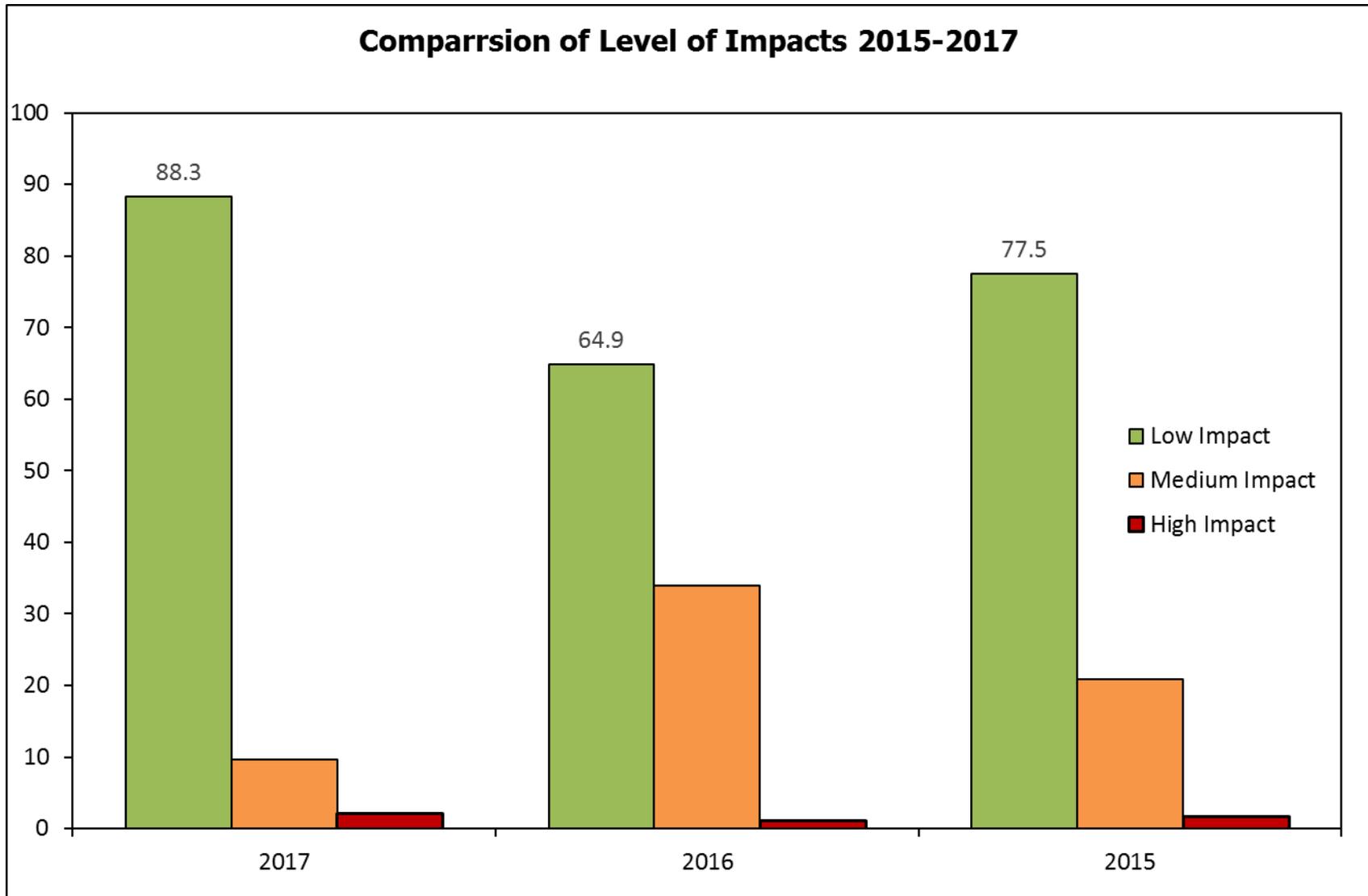


Figure 5.1 Level of Impact Observed from 2015-2017

5.1.3 Yearly Trends

Over the last three years of Observational Surveying carried out along the WAW, evidence has shown that the smaller less disperse sites receive less visitor movement which in turn results in fewer impacts.

The 2017 survey recorded the smallest number of visitors and in turn recorded the least number of effects to the 15 chosen sites.

Statistical analysis shows that there is no significant difference in impact levels year on year ($\chi^2 = 6.00$; $p = 0.199$). Thus, the overall impact levels identified each year are similar in nature.

5.1.4 Site Summary**Table 5.1 Visitor Observation Analysis Summary; detailed per site.**

Site Name	County	Site Summary
Galley Head	Cork	<ul style="list-style-type: none"> • 60% - no identifiable effect to the site • Lighthouse access currently restricted • 46% - trafficked secondary Zones • 10% - trafficked tertiary zones • 81%- low level activities (no adverse effects)
Lough Hyne	Cork	<ul style="list-style-type: none"> • 86% - no identifiable effect to the site • Dumping evident on arrival (6%) • 73% - stayed within the core zone • 27% - trafficked secondary zone
Dursey Sound	Cork	<ul style="list-style-type: none"> • 92% - No identifiable effect on the site • 59% - trafficked core areas • 5% trafficked secondary areas (photographs, site seeing) • Growth in visitor numbers would require a review of access to the site
Teach Dhoire Fhionáin (Derrynane House)	Cork	<ul style="list-style-type: none"> • 52% - No identifiable effect to the site • 38% - left desire lines in the Dunes (horse-riding) • 93% - trafficked core zones • 6% - trafficked secondary zones
Ballyheigue Beach	Kerry	<ul style="list-style-type: none"> • 86% - No identifiable effect to the site • 96% - trafficked core zones • 4% - trafficked the Dunes (locals using as access point) • Site of high ecological importance
Carrigafoyle Castle	Kerry	<ul style="list-style-type: none"> • 76% - No identifiable effect on site • 60% - trafficked core zones • 11% - trafficked secondary zones • 29% - trafficked tertiary zones (photographing)
Cappagh Pier	Clare	<ul style="list-style-type: none"> • 91% - No identifiable effect to the site • 2% - observed to throw rocks • Site mainly used for recreation • 80% - trafficked core zones • 20% - left core zones to access boat tours • No activities jeopardised the value of the site
Ballyvaughan Pier	Clare	<ul style="list-style-type: none"> • 90% - no identifiable effect on site • 86% - trafficked core zones • 14% - trafficked secondary zones (entered the water) • Overall no discernible effects to the site
Trá na GCeann (Silver Strand)	Galway	<ul style="list-style-type: none"> • 90% - No identifiable effect to the site • site overuse from grazing and visitors- medium level effect to the site (outside discovery point location) • Main site use is recreation • 76% - trafficked core zones • 24% - trafficked secondary zones (restricted area)
Omev Island	Galway	<ul style="list-style-type: none"> • 75% - No identifiable effect to the site • Medium level of impact (25%) observed on the sand dunes- visitor movement • Site is close to maximum capacity (ecological assessment) • 91% - trafficked core zones

2017 Visitor Observation Study Results of the Environmental Surveying and Monitoring of the WAW

Site Name	County	Site Summary
		<ul style="list-style-type: none"> • 9% trafficked secondary zones
Oileán Chloigeann	Mayo	<ul style="list-style-type: none"> • Highest level of Impact, 41% Medium, 37% high • resulting from 56% using dunes as an access point • 68% - trafficked core zones • Overall site had a medium level of Impact (desire lines and erosion outside marked paths)
Strandhill	Sligo	<ul style="list-style-type: none"> • 82% - no identifiable effect on the site • 22% - climbed the highest dune at the point where the fencing stops • A high impact on the dunes was recorded (33%)
Murvagh Beach	Donegal	<ul style="list-style-type: none"> • 42% - No identifiable effect on site • Pre-Planning recorded a campsite including a fire and notable amount of litter (4%) • 65% - trafficked core zones • 35% - trafficked secondary zones • No long-term damage to the site recorded
Cé Mhachaire Uí Rabhartaigh	Donegal	<ul style="list-style-type: none"> • No identifiable effects to the site
Inch Island	Donegal	<ul style="list-style-type: none"> • No identifiable effect to the site

Section 6 Appendix I: Visitor Observation Survey Sheet

Specify other:
<input type="text" value="Seán Clarke"/>
Date of Survey
<input type="text" value="16 July 2017"/>
Site Name
<input type="text" value="Inch Island"/>
Station
<input type="text" value="Carpark"/>
Male - Kids
<input type="button" value="-"/> <input type="text" value="0"/> <input type="button" value="+"/>
Male - Teens
<input type="button" value="-"/> <input type="text" value="0"/> <input type="button" value="+"/>
Male - Adults
<input type="button" value="-"/> <input type="text" value="0"/> <input type="button" value="+"/>
Male - Elderly
<input type="button" value="-"/> <input type="text" value="1"/> <input type="button" value="+"/>
Female - Kids
<input type="button" value="-"/> <input type="text" value="0"/> <input type="button" value="+"/>
Female - Teens
<input type="button" value="-"/> <input type="text" value="0"/> <input type="button" value="+"/>
Female - Adults
<input type="button" value="-"/> <input type="text" value="0"/> <input type="button" value="+"/>
Female - Elderly
<input type="button" value="-"/> <input type="text" value="1"/> <input type="button" value="+"/>
Total Number of Visitors
<input type="text" value="2"/>

Category 1 Low Level Activities	
Walking, running or cycling on paths, marked trails or hard surfaces	LA1
Walking, running, cycling or playing in mown grass, managed grassland or level sand	LA2
Sitting on benches, walls, mown grass, sand	LA3
Swimming, sailing, surfing, kayaking in water	LA4
Resting, reading, looking, picnicking, sightseeing, painting, photographing	LA5
Vehicular movement on roads and parking areas	LA6
Watching nature in hedges, woods, streams, pools and intertidal areas	LA7
Category 2 Medium Level Activities	
Powered movement through water	MA1
Any movement leaving an existing trail or marked path	MA2
Any movement leaving a trail through leafy vegetation	MA3
Any movement leaving a trail through woody vegetation	MA4
Climbing on walls, loose stones, sand, soil etc.	MA5
Fishing	MA6
Category 3 High Level Activities	
Walking through wet/muddy soil	HA1
Scrambling on steep or loose slopes	HA2
Off road vehicular movement	HA3
Disturbance of wildlife	HA4
Deliberate building or moving or knocking site materials - parts of monuments, walls, stones, sand etc.	HA5
Picking herbaceous vegetation	HA6

Activities (Low)

LA1 (Foot/Cycling)
 LA2 (Foot/Cycling - No Path)
 LA3 (Sitting)
 LA4 (Water Activity)
 LA5 (Passive)

LA6 (Vehicure)
 LA7 (Observing)
 Other

Activities (Medium)

MA1 (Powered - Water)
 MA2 (Trail)
 MA3 (Off Trail)
 MA4 (Off Trail - Woody)
 MA5 (Climbing)

MA6 (Fishing)
 Other

Activities (High)

HA1 (Walking - Wet/Muddy)
 HA2 (Scrambling)
 HA3 (Off Road Vehicle)
 HA4 (Disturbance)
 HA5 (Deliberate Site Interference)

HA6 (Picking Vegetation)
 Other

Category 1 Low Impact Effect	
No identifiable effect	LIE1
Desire lines or trails visible on grass and leafy vegetation	LIE2
Temporary disturbance (including chasing and feeding) of insects, fish, amphibian, reptiles insects, birds and mammals	LIE3
Temporary change of character - due to the appearance or nature of activities (noise, crowds, etc.)	LIE4
General/light littering	LIE5
Category 2 Medium Impact Effect	
Desire lines or tracks visible outside of existing trail or marked path	MIE1
Trampling of herbaceous vegetation	MIE2
Damage to woody vegetation	MIE3
Incidentally moving or knocking site materials - parts of monuments, walls, stones, sand, rooted vegetation, flora, fauna etc.	MIE4
Addition/alteration of site features, transient emissions, noise	MIE5
Transient disturbance, emissions, noise	MIE6
Disturbance of wildlife	MIE7
Category 3 Severe Impact Effect	
Direct interference with site material - parts of monuments, walls, stones, sand, rooted vegetation, flora, fauna etc.	SIE1
Removal of material - parts of monuments, walls, stones, sand, rooted vegetation, flora, fauna etc.	SIE2
Vandalism or graffiti	SIE3
Destruction of structures, vegetation or fauna	SIE4
Heavy littering or dumping quantities of waste	SIE5
Burning materials or lighting a fire	SIE6
Injuring, killing or taking wildlife	SIE7

Effects (Low)

LIE1 (None)
 LIE2 (Desire Line)
 LIE3 (Temp Dist)
 LIE4 (Temp Change)
 LIE5 (Litter)

Other

Effects (Medium)

MIE1 (Desire Line)
 MIE2 (Trample)
 MIE3 (Damage)
 MIE4 (Knocking)
 MIE5 (Alteration)

MIE6 (Transient)
 MIE7 (Disturbance)
 Other

Effects (Severe)

SIE1 (Direct Impact)
 SIE2 (Removal)
 SIE3 (Vandalism)
 SIE4 (Destuction)
 SIE5 (Dumping)

SIE6 (Burning)
 SIE7 (Injuring)
 Other

Appendix II: List of Activities and Effects by Category

Category 1 Low Impact	
No identifiable effect	
Desire lines or trails visible on grass and leafy vegetation	
Temporary disturbance (including chasing and feeding) of insects, fish, amphibian, reptiles insects, birds and mammals	
Temporary change of character - due to the appearance or nature of activities (noise, crowds, etc.)	
General/light littering	
Category 2 Medium Impact	
Desire lines or tracks visible outside of existing trail or marked path	
Trampling of herbaceous vegetation	
Damage to woody vegetation	
Incidentally moving or knocking site materials - parts of monuments, walls, stones, sand, rooted vegetation, flora, fauna etc.	
Addition/alteration of site features, transient emissions, noise	
Transient disturbance, emissions, noise	
Disturbance of wildlife	
Category 3 Severe Impact	
Direct interference with site material - parts of monuments, walls, stones, sand, rooted vegetation, flora, fauna etc.	
Removal of material - parts of monuments, walls, stones, sand, rooted vegetation, flora, fauna etc.	
Vandalism or graffiti	
Destruction of structures, vegetation or fauna	
Heavy littering or dumping quantities of waste	
Burning materials or lighting a fire	
Injuring, killing or taking wildlife	

Activities	
Category 1 Low Level	
Walking, running or cycling on paths, marked trails or hard surfaces	
Walking, running, cycling or playing in mown grass, managed grassland or level sand	
Sitting on benches, walls, mown grass, sand	
Swimming, sailing, surfing, kayaking in water	
Resting, reading, looking, picnicking, sightseeing, painting, photographing	
Vehicular movement on roads and parking areas	
Watching nature in hedges, woods, streams, pools and intertidal areas	
Category 2 Medium Level	
Powered movement through water	
Any movement leaving an existing trail or marked path	
Any movement leaving a trail through leafy vegetation	
Any movement leaving a trail through woody vegetation	
Climbing on walls, loose stones, sand, soil etc.	
Fishing	
Category 3 High Level	
Walking through wet/muddy soil	
Scrambling on steep or loose slopes	
Off road vehicular movement	
Disturbance of wildlife	
Deliberate building or moving or knocking site materials - parts of monuments, walls, stones, sand etc.	
Picking herbaceous vegetation	

Appendix III: Breakdown of Results from each site**Galley Head**

Activities Observed	Total No. People	% of People
LA1 (Foot/Cycling)	69	28.51
LA2 (Foot/Cycling - No Path)	12	4.95
LA3 (Sitting)	22	9.09
LA5 (Passive)	50	20.66
LA6 (Vehicular)	61	25.20
LA7 (Observing)	2	0.82
MA2 (Trail)	19	7.85
MA5 (Climbing)	3	1.23
HA3 (Deliberate)	3	1.23
HA4 (Disturbance)	1	0.41
Grand Total	242	100

Impacts Observed	Total No. People	% of People
No identifiable effect	49	59.75
General/light littering	5	6.09
Desire lines or trails visible on grass and leafy vegetation	18	21.95
Temporary disturbance	4	4.87
Desire lines or tracks visible outside of existing trail or marked path	6	7.31
Grand Total	82	100

Lough Hyne

Activities Observed	Total No. People	% of People
LA1 (Foot/Cycling)	49	27.68
LA2 (Foot/Cycling - No Path)	18	10.16
LA3 (Sitting)	21	11.86
LA4 (Water Activity)	10	5.64
LA5 (Passive)	31	17.51
LA6 (Vehicular)	44	24.85
LA7 (Observing)	3	1.69
MA2 (Trail)	1	0.56
Grand Total	177	100

Impacts Observed	Total No. People	% of People
LIE1 (None)	44	86.27
LIE2 (Desire Line)	1	1.96
LIE3 (Temporary Disturbance)	3	5.88
LIE5 (General/Light Littering)	3	5.88
Grand Total	51	100

Dursey Island (formerly referred to as Garnish Point)

Activities Observed	Total No. People	% of People
LA6 (Vehicular)	40	29.41
LA1 (Foot/Cycling)	40	29.41
LA5 (Passive)	37	27.20
LA2 (Foot/Cycling - No Path)	10	7.35
MA2 (Trail)	7	5.14
MA5 (Climbing)	2	1.47
Grand Total	136	100

Impacts Observed	Total No. People	% of People
No identifiable effect	34	91.89
General/light littering	2	5.40
Temporary change of character - due to the appearance or nature of activities (noise, crowds, etc.)	1	2.70
Grand Total	37	100

Teach Dhoire Fhíonáin (Derrynane House) Breakdown of Activities

Impacts Observed	Total No. Of People	% of People
LIE1 (None)	37	53
LIE2 (Desire Line)	27	38
LIE5 (Litter)	1	1
MIE1 (Desire Line)	3	4
MIE2 (Trample)	2	3
SIE2 (Removal)	1	1
Grand Total	71	100

Activities Observed	Total No. People	% of People
HA1 (Walking - Wet/Muddy)	1	0
HA2 (Scrambling)	1	0
LA1 (Foot/Cycling)	58	32
LA2 (Foot/Cycling - No Path)	46	25
LA3 (Sitting)	2	1
LA5 (Passive)	29	16
LA6 (Vehicular)	33	18
LA7 (Observing)	2	1
MA2 (Trail)	11	6
MA3 (Off Trail)	2	1
MA5 (Climbing)	1	0
Grand Total	186	100

Ballyheigue Beach

Activities Observed	Total No. People	% of People
LA6 (Vehicular)	31	22.30
LA1 (Foot/Cycling)	40	28.78
LA5 (Passive)	13	9.35
LA2 (Foot/Cycling - No Path)	35	25.18
LA4 (Water Activity)	5	3.59
LA3 (Sitting)	4	2.88
MA2 (Trail)	3	2.16
MA5 (Climbing)	4	2.88
HA2 (Scrambling)	1	0.72
HA5 (Deliberate building)	1	0.72
HA3 (Off Road)	1	0.72
HA6 (Picking Herbaceous Vegetation)	1	0.72
Grand Total	139	100

Impacts Observed	Total No. People	% of People
LIE1 (None)	53	88.3
LIE2 (Desire Line)	3	5
SEI2 (Removal)	1	1.6
SIE1 (Direct Interference)	1	1.6
MIE4 (Incidentally moving site materials)	1	1.6
MIE5 (Addition/Alteration of site features)	1	1.6
Grand Total	60	100

Carrigafoyle Castle

Activities Observed	Total No. People	% of People
LA6 (Vehicular)	19	27.94
LA1 (Foot/Cycling)	19	27.94
LA5 (Passive)	18	26.47
LA2 (Foot/Cycling - No Path)	8	11.76
MA2 (Trail)	2	2.94
MA5 (Climbing)	1	1.47
HA1 (Walking in wet/muddy soil)	1	1.47
Grand Total	68	100

Impacts Observed	Total No. People	% of People
No identifiable Effect	16	76.19
Desire lines	2	9.52
Direct Interference with site Material	2	9.52
Burning Materials/Lighting Fire	1	4.76
Grand Total	21	100

Cappagh Pier

Activities Observed	Total No. People	% of People
LA6 (Vehicular)	30	27.27
LA1 (Foot/Cycling)	31	28.18
LA5 (Passive)	28	25.45
LA2 (Foot/Cycling - No Path)	3	2.72
LA4 (Water Activity)	8	7.27
LA7 (Watching)	2	1.81
LA3 (Sitting)	3	2.72
MA6 (Fishing)	2	1.81
MA5 (Climbing)	2	1.81
HA5 (Deliberate building)	1	0.90
Grand Total	110	100

Impacts Observed	Total No. People	% of People
No identifiable effect	31	91.17
General/Light Littering	2	5.88
Temporary change of character	1	2.94
Grand Total	34	100

Ballyvaughan Pier

Activities Observed	Total No. People	% of People
LA6 (Vehicular)	10	27.03
LA1 (Foot/Cycling)	10	27.03
LA5 (Passive)	9	24.32
LA2 (Foot/Cycling - No Path)	6	16.21
MA2 (Movement leaving exiting Trail)	1	2.70
HA1 (Walking- Wet Soil)	1	2.70
Grand Total	37	100

Impacts Observed	Total No. People	% of People
LEI1 (None)	9	90
MIE6 (Transient Disturbance)	1	10
Grand Total	10	100

Trá na gCeann (Silver Strand)

Activities Observed	Total No. People	% of People
LA6 (Vehicular)	30	27.27
LA1 (Foot/Cycling)	31	28.18
LA5 (Passive)	28	25.45
LA2 (Foot/Cycling - No Path)	3	2.72
LA4 (Water Activity)	8	7.27
LA7 (Watching)	2	1.81
LA3 (Sitting)	3	2.72
MA6 (Fishing)	2	1.81
MA5 (Climbing)	2	1.81
HA5 (Deliberate building)	1	0.90
Grand Total	110	100

Impacts Observed	Total No. People	% of People
No identifiable effect	31	91.17
General/Light Littering	2	5.88
Temporary change of character	1	2.94
Grand Total	34	100

Omev Island

Activities Observed	Total No. People	% of People
LA1 (Foot/Cycling)	27	24
LA2 (Foot/Cycling - No Path)	22	19
LA3 (Sitting)	1	1
LA5 (Passive)	29	25
LA6 (Vehicular)	12	10
LA7 (Observing)	10	9
MA2 (Trail)	14	12
Grand Total	115	100

Impacts Observed	Total No. People	% of People
LIE1 (None)	18	49
LIE2 (Desire Line)	13	35
MIE1 (Desire Line)	6	16
Grand Total	37	100

Oileán Chloigeann

Activities Observed	Total No. People	% of People
LA6 (Vehicular Movement)	14	22.22
LA1 (Foot/Cycling on trail)	12	19.04
LA2 (Movement-No Trail)	12	19.04
LA5 (Resting)	10	15.87
HA3 (Off Road)	9	14.28
MA2 (Movement Leaving Trail)	3	4.76
LA3 (Sitting)	2	3.17
HA2 (Scrambling)	1	1.58
Grand Total	63	100

Impacts Observed	Total No. People	% of People
Desire Lines outside Trail	10	55.5
No Identifiable Effect	4	22.2
Temporary disturbance	2	11.1
Transient Disturbance	1	5.5
Removal of Material	1	5.5
Grand Total	18	100

Strandhill

Activities Observed	Total No. People	% of People
LA1 (Foot/Cycling)	50	20.57
LA2 (Foot/Cycling - No Path)	58	23.86
LA3 (Sitting)	13	5.34
LA4 (Water Activity)	5	2.05
LA5 (Passive)	55	22.63
LA6 (Vehicular)	17	6.99
LA7 (Observing)	4	1.64
MA2 (Movement leaving existing trail)	16	6.58
MA5 (Climbing)	15	6.17
HA2 (Scrambling)	9	3.70
HA6 (Picking Herbaceous vegetation)	1	0.41
Grand Total	243	100

Impacts Observed	Total No. People	% of People
No identifiable effect	52	59.09
Desire Lines	19	21.59
Light Littering	1	1.13
Desire lines outside existing trail	3	3.40
Trampling herbaceous material	1	1.13
Incidentally knocking or moving site material	9	10.22
Vandalism or Graffiti	3	3.40
Grand Total	88	100

Murvagh Beach

Activity Observed	Total No. People	% of People
LA6 (Vehicular)	21	22.34
LA1 (Foot/Cycling)	23	24.46
LA5 (Passive)	17	18.08
LA2 (Foot/Cycling - No Path)	20	21.27
LA4 (Water Activity)	2	2.12
MA2 (Movement leaving exiting Trail)	9	9.57
HA2 (Scrambling)	2	2.12
Grand Total	94	100

Impacts Observed	Total No. People	% of People
LIE 1 (No Identifiable Effect)	10	41.66
LIE 2 (Desire Lines)	6	25
LIE 5 (General/Light Littering)	1	4.16
MIE 1 (Desire Lines outside trail)	5	20.83
MIE 2 (Trampling)	1	4.16
SIE 2 (Direct Interference)	1	4.16
Grand Total	24	100

Cé Mhachaire Uí Rabhartaigh

Activities Observed	Total No. People	% of People
LA6 (Vehicular)	12	41.37
LA5 (Resting)	11	37.93
LA1 (Foot/Cycling- On Trial)	5	17.24
LA2 (Foot/Cycling - managed)	1	3.44
Grand Total	29	100

Effects Observed	Total No. People	% of People
No Identifiable Effect	12	100
Grand Total	12	100

Inch Island

Activities Observed	Total No. People	% of People
LA1 (Foot/Cycling)	22	37.93
LA6 (Vehicular)	21	36.20
LA5 (Resting)	10	17.24
LA2 (Foot/Cycling - No Path)	4	6.89
MA5 (Climbing)	1	1.72
Grand Total	58	100

Impacts Observed	Total No. People	% of People
No Identifiable Effect	22	100
Grand Total	22	100

Appendix IV: Site Photographs



Photo 1: Galley Head, Co. Cork



Photo 2: Lough Hyne, Co. Cork



Photo 3: Dursey Sound (Control site), Co. Cork



Photo 4: Teach Dhoire Fhíonáin, Co. Kerry (View 1 Grassland Area)



Photo 4: Teach Dhoire Fhionáin, Co. Kerry (View 2 Beach)



Photo 5: Ballyheigue Beach, Co. Kerry



Photo 6: Carrigafoyle Castle, Co. Kerry



Photo 7: Cappagh Pier, Co. Clare



Photo 8: Ballyvaughan Pier, Co. Clare



Photo 9: Trá na gCeann (Silverstrand), Co. Galway



Photo 9: Trá na gCeann (Silverstrand), Co. Galway (View 2)



Photo 10: Omey Island, Co. Galway



Photo 11: Oileán Chloigeann, Co. Mayo



Photo 12: Strandhill, Co. Sligo



Photo 13: Murvagh Beach, Co. Donegal



Photo 14: Cé Mhachaire Uí Rabhartaigh, Co. Donegal

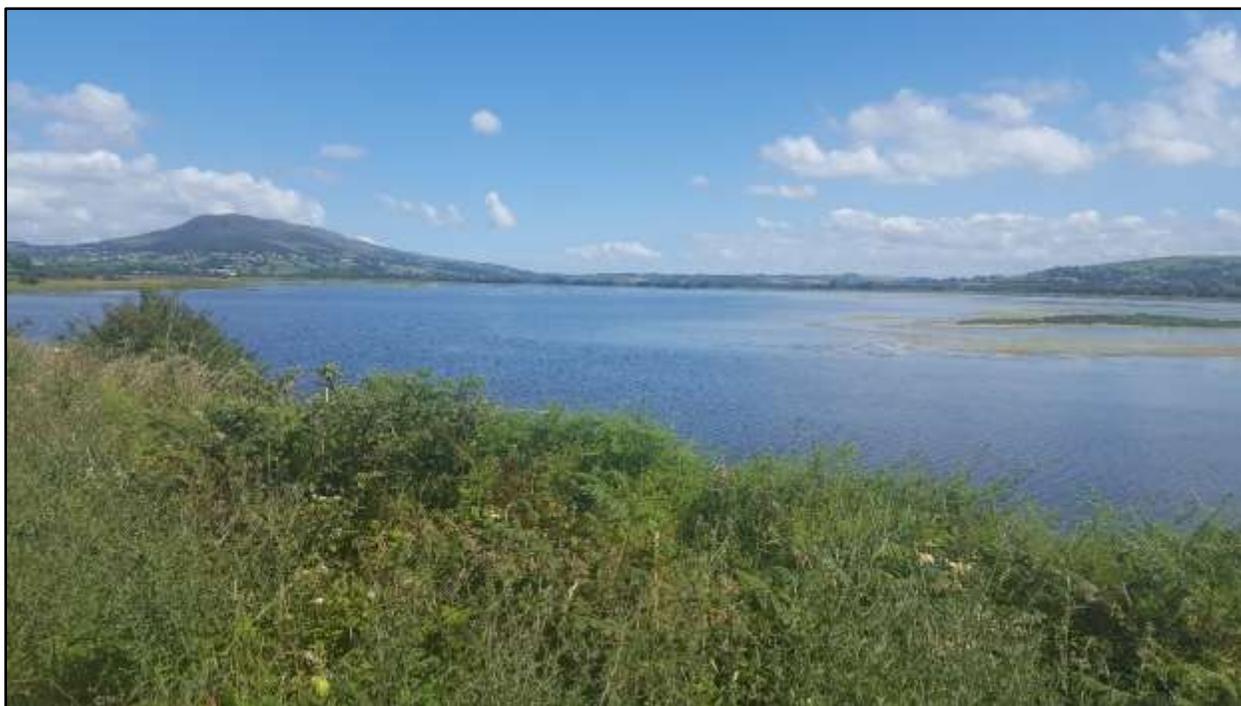


Photo 15: Inch Island, Co. Donegal