

# MACRO MONITORING RESULTS

---

## STRATEGY FOR ENVIRONMENTAL SURVEYING AND MONITORING

FOR THE

## WILD ATLANTIC WAY OPERATIONAL PROGRAMME

**for:**

**Fáilte Ireland**

88-95 Amiens Street  
Dublin 1



**Fáilte Ireland**

National Tourism Development Authority

**by:**

**CAAS Ltd.**

2<sup>nd</sup> Floor, The Courtyard,  
25 Great Strand Street,  
Dublin 1



**DECEMBER 2016**

## Table of Contents

|  |    |
|--|----|
| 1. Introduction.....   | 1  |
| 1.1 Methodology.....   | 3  |
| 1.1.1 Methodology for Macro Monitoring.....  | 4  |
| 2. Presentation of Results and Analysis.....   | 9  |
| 2.2 Macro Indicator 1- Water Quality.....  | 9  |
| 2.3 Macro-Indicator 2- National Roads Authority Traffic Counter .....                    | 17 |
| 2.4 Macro-Indicator 3- Blue Flag Beaches .....   | 22 |
| 2.5 Macro Indicator 4- Green Coast Award .....   | 23 |
| 1.5.1 Green Coasts at Monitoring Points .....  | 23 |
| 1.5.2 Green Coasts at Control Points .....   | 23 |
| 2.6 Monitoring Indicator 5- State of Knowledge of Irelands Biodiversity.....             | 24 |
| 2.7 Monitoring Indicator 6- EPA Ireland's Environment - An Assessment (2016).....        | 26 |
| Monitoring Indicator 7- The status of EU Protected Habitats and Species in Ireland ..... | 27 |
| 2.8 Monitoring Indicator 8- Visitor Numbers.....   | 33 |
| 1.8.1 Visitor Numbers at Monitoring Points .....   | 33 |
| 2.9 Monitoring Indicator 9- Tourism Related Planning Refusals .....                      | 36 |
| 3. Conclusions and Recommendations .....   | 38 |

# 1. Introduction

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

The Strategy for Environmental Surveying and Monitoring was carried out as part of Fáilte Ireland's commitments in the Wild Atlantic Way Operational Programme 2015-2019. A copy of the Operational Programme and associated documents are available on the Fáilte Ireland website.

Other Monitoring includes

- Monitoring and surveying of the activities of visitors at points along the Wild Atlantic Way
- Monitoring and surveying of the ecological effects of visitor activities at points along the Wild Atlantic

The purpose of the monitoring strategy is to ensure that the effects of the implementation of the Operational Programme are understood and acted upon. This will contribute to avoiding delays in identifying existing or emerging activities that could threaten the environment.

The Strategy for Environmental Surveying and Monitoring for the Wild Atlantic Way 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 Wild Atlantic Way Guidelines;
- identifying remedial action/works required;
- assessing the capacity for future loadings;
- integrating site management with future European Site Management Plans.

The monitoring includes the compilation of relevant regional data that is collected by other agencies as well as site specific data collected on behalf of Fáilte Ireland. Part of this work involves the development of generic monitoring methodologies and templates that may be used across a range of sites and conditions. The monitoring examines individual sites as well as larger-scale and regional indicators.

The macro monitoring element of the surveying as discussed in this document concentrates on long-established, high quality, official baselines that. These *inter alia* measure the seasonal variances in environmental loading caused by visitors at, and around the candidate Discovery Points. These official baselines will describe a number of key performance indicators. These will be combined to identify any emerging trends<sup>1</sup> over time or changes in the state of the environment along the Wild Atlantic Way.

These key performance indicators, which are described in detailed in Table 1.1 over, will be applied to six sites along the Wild Atlantic Way and a further four control sites inland from the route.

The results of these macro monitoring activities will be collated and presented to a Monitoring Group each year- along with results of all other Wild Atlantic Way monitoring activities. This information can be used by relevant members of the Monitoring Group to identify protective, remedial or improvement actions within their own areas of responsibility during the following year. An annual summary of the results of monitoring will be published on the Fáilte Ireland website.

---

<sup>1</sup> Trends are normally identified by analysing data over time however as this is only the second year of the monitoring programme long term trends are not identifiable as of yet. Any significant changes however from year on year results will be identified to the monitoring group and will continued to be monitored over the life of the monitoring programme to determine if indeed these are trends.



## 1.1 Methodology

Strand One of the monitoring strategy concentrates on long-established, high quality, official baselines. These measures *inter alia* the seasonal variances in environmental loading caused by visitors - such as water quality, road traffic, Blue Flag Beach conditions and Green Coast Awards.

The use of existing, robust datasets will be combined to identify any emerging trends and changes in a small number of key diagnostic environmental performance indicators. These macro-indicators provide a very high level of coordination for the cumulative impact assessment of other activities. Strategic Environmental Assessment of these plans and policies – at county, regional and sectoral levels utilise the same indicators. This also facilitates the isolation of the contribution of tourism though in-combination effects.

The monitoring focuses on intra-urban settlements between gateway towns along the Wild Atlantic Way. Gateways such as Cork and Galway that capture the infiltration of visitors. These also supply the high-level 'input' data for the monitoring before they become dissipated among many smaller destinations and intra-urban settlements (See Figure 1.1). There are 7 monitoring sites and 4 control sites selected to for the purpose of the macro monitoring. Each site is located in the counties situated along the Wild Atlantic Way, the 7 sites are; Dungloe, Bundoran, Newport, Galway Bay, Kilrush, Bantry and Cahersiveen. The 4 control points are; Ballybofey, Gort, Castleisland and Lahinch.

The purpose of macro monitoring is to identify the state of the environment between the gateway settlements because these intra-urban settlements, such as Bundoran in Co. Donegal, often accommodate and entertain the bulk of overnight visitors.

This strategy facilitates the direct identification and assessment, at a high level, of the effects that visitor numbers have on key environmental indicators. These use long-established baselines (from agencies such as the National Roads Authority, Environmental Protection Agency, Department of Environment, Community and Local Government, Department of Arts, Heritage and the Gaeltacht, etc.). It should be noted from the summarised historical overview of tourism and promotion in Section 2.8, that there are no survey areas associated with the Wild Atlantic Way where a meaningful 'baseline' condition exists that has not already been subject to over a century of the effects of tourism and promotion.

### **1.1.1 Methodology for Macro Monitoring**

1. Seven sites have been selected along the route - one for each county or at the closest available point where regional monitoring is carried out (See Table 1.2). The initial macro monitoring focuses on these seven sites. Future monitoring can be expanded to prioritise other areas in order of sensitivity and significance as directed by a Monitoring Group. The sites will be updated and informed by emerging results.
2. A further four control sites inland from the route in Donegal, Clare, Galway and Kerry have also been selected (See Table 1.3). These are also subject to expansion to prioritise other areas in order of sensitivity and significance as directed by a Monitoring Group.
3. The sites were selected on the basis that they are primary settlements along the Wild Atlantic Way route which are representative of a range of typical tourism based settlements and where data is readily accessible.

The monitoring points in Table 1.2 and the control points in Table 1.3 were chosen to measure the Monitoring and Technical Indicators shown on Table 1.1. This was based on the settlement meeting a specific criterion whereby datasets presently exist for infrastructure i.e. the settlement has a wastewater treatment plant, a National Roads Authority traffic counter, an Environmental Protection Agency Bathing Water monitoring location at or adjacent to the location. Other settlements were considered but did not meet these criteria.

4. The information collected from the existing datasets outlined in Table 1.1 will be combined annually to identify trends and changes in the technical indicators identified for each of the ten monitoring points.
5. The results will be presented to identify which trends and changes to technical indicators are directly attributable to tourism. Other intervening factors for example a technical failure at a wastewater treatment plant which are not attributable to tourism will also be highlighted. This will result in the ongoing review of indicators and targets, collating existing relevant monitored data, the preparation of monitoring evaluation report(s), the publication of these reports and, if necessary, the carrying out of corrective action.
6. If the results that show that visitor activity and/or visitor intensification is predicted or identified to result in a negative impact on the environment in particular locations, then recommendations will be made depending on the outcome and as directed by a Monitoring Group.



Figure 1.1 Macro Monitoring Locations

| Factor   | Technical Indicator  | Monitoring  | Authority/Source                      | Frequency     |
|--|--|---|---------------------------------------|---------------|
| <b>Water Quality</b>   | Non-conformities with relevant legislative requirements in Waste Water Treatment data available from licensed facilities (Waste Water Treatment Plants and Agglomerations) | <p>Non-conformances relating to minimum water quality standards and the licenced Population Equivalent (P.E) loading for the WWTP will be examined.</p> <p>Where a non-conformance is identified, the EPA collects and details information on the reason for failure. Persistent effects that is attributable to tourism i.e. overloading of treatment capacity resulting in failure to meet minimum requirements in summer months as a result of high visitor numbers.</p> <p>Non-conformances related to a relevant intervening factor, such as mechanical/technical issues, will be noted.</p> | Environmental Protection Agency (EPA) | Annual        |
|  | Conformance with legislative requirements at the closest bathing water monitoring site   | Non-conformances relating to minimum bathing water quality standards and legislative Coastal Water Quality status will be assessed  |                                       |               |
| <b>Traffic Volume</b>  | Upward/downward trend in traffic volumes during tourist season and shoulder seasons  | Assessment of National Roads Authority traffic counters adjacent to chosen sites and along the Wild Atlantic Way route where year-round statistics are collected.   | National Roads Authority (NRA)        | Annual        |
|  |  | Assessment of Local Authority data from intermittent monitoring of regional and local road traffic (where available). Regional and local roads comprise of 75% of the Wild Atlantic Way Route.  | Local Authorities                     |               |
| <b>Blue Flag Beaches and Marinas</b>                           | Upward/downward trend in award/status  | Assessment of the number of annual Blue Flag Beach status being retracted/awarded at the closest bathing water.   | An Taisce                             | Annual        |
| <b>National Green Coast Award</b>                              |  | Assessment of the number of National Green Coast Awards being retracted/awarded at the closest bathing water.   |                                       |               |
| <b>State of Knowledge Ireland's Biodiversity Report (2010)</b> | Changes in the status of biodiversity  | The status of this indicator be informed and updated by emerging findings and information sources from Biodiversity Reports.  | National Biodiversity Centre          | Occasional    |
| <b>EPA Ireland's Environment - An</b>                          | Changes in environmental status along the Wild Atlantic Way  | The status of this indicator be informed and updated by emerging findings and information sources from this report.   | Environmental Protection Agency (EPA) | Every 4 Years |



| Factor  | Technical Indicator   | Monitoring   | Authority/Source  | Frequency  |
|---|---|--|---|------------|
| <b>Assessment (2012)</b>  |   |  |   |            |
| <b>The status of EU Protected Habitats and Species in Ireland</b> | Changes in the status of EU Protected Habitats and Species in Ireland | The status of this indicator be informed and updated by emerging findings and information sources from the National Parks and Wildlife Service and other stakeholders on the status of EU Protected Habitats and Species.  | National Parks and Wildlife Service (NPWS)<br>Department of Environment, Community and Local Government (DECLG)<br>Department of Agriculture, Heritage and the Gaeltacht (DAHG) | Occasional |
| <b>Visitor Numbers</b>  | Changes in Fáilte Ireland data on visitor numbers                     | Upward/downward trends in visitor numbers during the tourist season and shoulder season.   | Fáilte Ireland  | Annual     |
| <b>Tourism related planning refusals</b>                          | Refusals of unsuitable tourism related projects by County             | Applications to An Bord Pleanála will provide an official high level indicator as to where pressure points are occurring in Counties along the Wild Atlantic Way without the need to capture all planning applications to Local Authorities and or Foreshore Lease/Licence applications to the Department of Environment, Community and Local Government.<br>A high level of tourism related refusals is a potential indicator pressure on the environmental status of said County. Record trends in tourism related applications. | An Bord Pleanála  | Annual     |

**Table 1.1 Macro Monitoring Indicators**

| County                 | Monitoring Point | National Roads Authority Traffic Counter                             | WWTP Licence No. | WWTP/Agglomeration             | Bathing Water Monitoring Site                    |
|------------------------|------------------|--|------------------|--------------------------------|--|
| Donegal                | Dungloe          | N56 Between Dungloe and R252 Jn, Co. Donegal (20562)                 | D0208-01         | Dungloe                        | Naran Beach/Carrickfinn                          |
| Donegal (Sligo Border) | Bundoran         | N15 Between Bundoran and Sligo, Tullaghan, Co. Leitrim (20153)       | D0130-01         | Bundoran/Mullaghmore /Cliffony | Bundoran/Mullaghmore                             |
| Mayo                   | Newport          | N59 Between Mullranny and Newport, Newfield, Co. Mayo (20591)        | D0224-01         | Mallaranny                     | Mulranny/Clare Island/Bertra                     |
| Galway                 | Galway Bay       | N18 Between Kilcolgan and Clarinbridge, Co. Galway (1182)            | D0050-01         | Galway Mutton Island           | Silverstrand/Salthill/Grattan Road/Ballyloughane |
| Clare                  | Kilrush          | N67 Between Kilrush Ferry and Kilrush, Moyne Court, Co. Clare (1671) | D0075-01         | Kilrush Agglomeration          | Cappagh Pier                                     |
| Kerry                  | Cahersiveen      | N70 Between Caherciveen and Glenbeigh, Gortaforia, Co. Kerry (20701) | D0181-01         | Cahersiveen/Knightstown        | Whitestrans                                      |
| Cork                   | Bantry           | N72 Between Bantry and Glengarriff, North of Bantry, Co. Cork (1715) | D0168-01         | Bantry                         | Barley Cove                                      |

**Table 1.2 Macro Monitoring Points**

| County  | Control      | National Roads Authority Traffic Counter                               | WWTP Licence No. | WWTP/Agglomeration     | Bathing Water Monitoring Site |
|---------|--------------|--|------------------|------------------------|-------------------------------|
| Donegal | Ballybofey   | N13 Between Stranorlar and Letterkenny, Treantaboy, Co. Donegal (1133) | D0120-01         | Ballybofer/Stranlorlar | N/A                           |
| Galway  | Gort         | N18 Between Kilcolgan and Clarinbridge, Co. Galway (1182)              | D0195-01         | Gort                   | N/A                           |
| Kerry   | Castleisland | N21 Between Tralee and Castleisland, Co. Kerry (1211)                  | D0180-01         | Castleisland           | N/A                           |
| Clare   | Lahinch      | N67 Between Ennistimon and Lisdoonvarna, Co. Clare (20671)             | D0080-01         | Lahinch                | Lahinch                       |

**Table 1.3 Macro Monitoring Control Sites**

## **2. Presentation of Results and Analysis**

### **2.2 Macro Indicator 1- Water Quality**

'Water Quality' was the first macro-indicator of environmental status to be examined at each of the monitoring points outlined in Table 1.2, and control sites outlined in Table 1.3. The 'Water Quality' indicator is broken into two sub-indicators: Wastewater treatment plant/Agglomeration operational status, and Bathing Water Status.

#### **Wastewater treatment plant/ agglomeration operational status**

This macro-indicator can be used to identify persistent effects on Water Quality that is attributable to tourism i.e. overloading of treatment capacity resulting in failure to meet minimum requirements in summer months as a result of high visitor numbers.

In order to determine the operational status of each of the wastewater treatment plants/agglomerations associated with each of the established monitoring and control points, the Annual Report of each of the EPA licenced facilities below was reviewed. A number of parameters related to the operational status of each facility were assessed under the headings outlined in Tables 2.1 and 2.2 below. Non-conformances relating to minimum water quality standards and the licenced Population Equivalent (P.E) loading for the WWTP were examined. Where a non-conformance was identified, the reason for failure was detailed.

The numbers of complaints made to each facility during the year 2015, as well as the number of reported incidents were noted. Any improvements or upgrades made to any of the facilities during the year ending 2015 were summarised.

This data should be reviewed and compared annually in order to identify any upwards or downwards trends in the operational status of the wastewater treatment plants/agglomerations at the monitoring and control points which might be attributable to tourism. For example, continuous exceedances in ELV's over consecutive years might indicate that a wastewater treatment plant/agglomeration is serving more than the population equivalent which it was intended. This might suggest high visitor numbers at the monitoring and control point locations.

| Monitoring Point  | WWTP Licence No. | WWTP/ Agglomeration                   | Status of conformity  | Reasons for non-conformity   | Complaints and Reported Incidents       | Population Equivalent | Improvements  |
|-------------------|------------------|---------------------------------------|---|--|---|-----------------------|---|
| <b>Dungloe</b>    | D0208-01         | Dungloe                               | The final effluent from the Primary Discharge Point was non-compliant with the Emission Limit Values in 2015. | The following parameters exceeded the emission limit values in 2015: <ul style="list-style-type: none"> <li>• cBOD</li> <li>• Suspended solids</li> <li>• COD</li> <li>• Ammonia</li> <li>• Ortho P</li> </ul> | 0 complaints,<br>6 Reported Incidents   | 2,400                 | The Dungloe Sewerage Scheme has been included in the Irish Water Capital Investment Programme for 2014-2016. This includes: <ul style="list-style-type: none"> <li>• Design and construction of a new wastewater treatment plant and outfall pipes to receiving waters.</li> <li>• New pumping stations and detention tanks.</li> <li>• New rising mains from pumping stations and gravity outfall pipe.</li> <li>• Design and construction of rehabilitation works for existing gravity pipelines</li> </ul> |
| <b>Bundoran</b>   | D0130-01         | Bundoran/<br>Mullaghmore/<br>Cliffony | The final effluent from the Primary Discharge Point was non-compliant with the Emission Limit Values in 2015. | The following parameters exceeded the emission limit values in 2015: - <ul style="list-style-type: none"> <li>• cBOD</li> <li>• COD</li> <li>• Suspended solids</li> <li>• Ammonia</li> </ul>                  | No complaints,<br>36 Reported Incidents | 2,000                 | There were no major capital or operational changes undertaken in 2015   |
| <b>Newport</b>    | D0224-01         | Mallaranny                            | The final effluent from the Primary Discharge Point was non-compliant with the Emission Limit Values in 2015  | The following parameter exceeded the emission limit value in 2015<br>The following parameter exceeded the emission limit value in 2015: <ul style="list-style-type: none"> <li>• Total Phosphorus</li> </ul>   | No Complaints,<br>1 Reported Incident   | 1,287                 | No major capital or operational changes undertaken in 2015.   |
| <b>Galway Bay</b> | D0050-01         | Galway Mutton Island                  | The final effluent from the Primary Discharge Point   | N/A  | 50 Complaints, 5 Reported Incidents     | 91600                 | No major capital or operational changes undertaken in 2015  |

|                    |          |                         |  |     |                                   |      |   |
|--------------------|----------|-------------------------|--|-----|-----------------------------------|------|---|
|                    |          |                         | was compliant with the Emission Limit Values in 2015   |     |                                   |      |   |
| <b>Kilrush</b>     | D0075-01 | Kilrush Agglomeration.  | Monitoring data relating to influent flow, or discharges to the receiving waters are not available.<br><br>It is not possible to state whether the final effluent is compliant with the Emission Limit Values in 2015. | N/A | 1 complaint, 0 reported incidents | 4640 | There was no major capital or operational changes undertaken in 2015. |
| <b>Cahersiveen</b> | D0181-01 | Cahersiveen/Knightstown | The final effluent from the Primary Discharge Point was compliant with the Emission Limit Values in 2015.  | N/A | 1 Complaint, 0 Reported Incidents | 5600 | There was no major capital or operational changes undertaken in 2015. |
| <b>Bantry</b>      | D0168-01 | Bantry                  | The final effluent from the Primary Discharge Point was compliant with the Emission Limit Values in 2015.  | N/A | 0 Complaints, 1 Reported Incident | 6000 | There were no major capital or operational changes undertaken in 2015 |

**Table 2.1 WWTP/Agglomeration Status at Monitoring Points**

| <b>Control</b>    | <b>WWTP Licence No.</b> | <b>WWTP/Agglomeration</b> | <b>Status of conformity</b>   | <b>Reasons for non-conformity</b> | <b>Complaints and Reported Incidents</b> | <b>Population Equivalent</b> | <b>Improvements</b>   |
|-------------------|-------------------------|---------------------------|---|-----------------------------------|--|------------------------------|---|
| <b>Ballybofey</b> | D0120-01                | Ballybofer/Stranlolar     | The final effluent from the Primary Discharge Point was compliant with the Emission Limit Values in 2015. | N/A                               | 9 complaints, 1 reported incident        | 4000                         | There was no major capital or operational changes undertaken in 2015. |

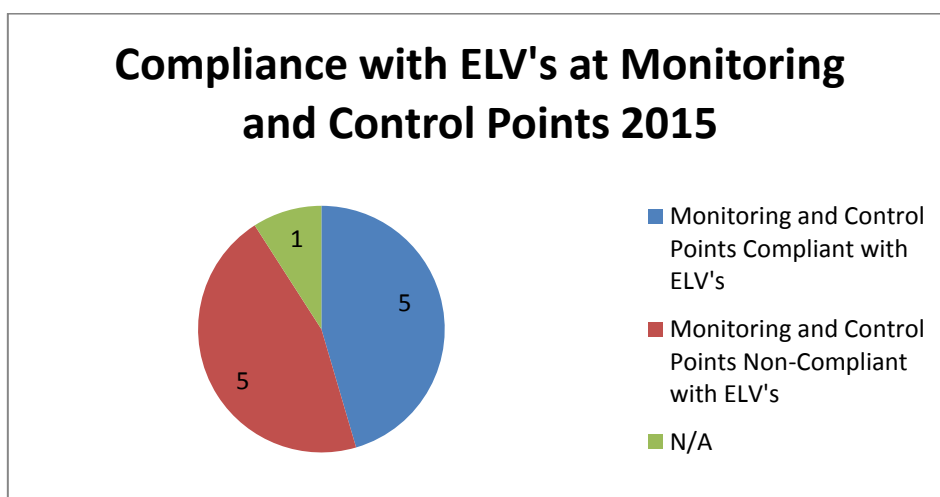
|                     |          |              |  |  |   |       |  |
|---------------------|----------|--------------|--|--|---|-------|--|
| <b>Gort</b>         | D0195-01 | Gort         | The final effluent from the Primary Discharge Point was non-compliant with one of the Emission Limit Values in 2015. | The following parameter exceeded the emission limit values in 2015:-<br><ul style="list-style-type: none"> <li>• Ammonia</li> </ul>  | 0 complaints, 1 (11 individual results submitted) reported incident | 4310  | There was no major capital or operational changes undertaken in 2015.  |
| <b>Castleisland</b> | D0180-01 | Castleisland | The final effluent from the Primary Discharge Point was compliant with the Emission Limit Values in 2015.            | N/A  | 0 complaints, 3 reported incidents                                  | 6,000 | There was no major capital or operational changes undertaken in 2015.  |
| <b>Lahinch</b>      | D0080-01 | Lahinch      | The final effluent from the Primary Discharge Point was non-compliant with the Emission Limit Values in 2015.        | The following parameters exceeded the emission limit values in 2015: -<br><ul style="list-style-type: none"> <li>• cBOD</li> <li>• COD</li> <li>• Suspended solids</li> <li>• Total Phosphorus</li> <li>• Total Nitrogen</li> <li>• Ammonia</li> </ul> | 0 complaints, 1 reported incidents                                  | 8400  | There were no major capital or operational changes undertaken in 2015. |

**Table 2.2 WWTP/Agglomeration Status at Control Sites**

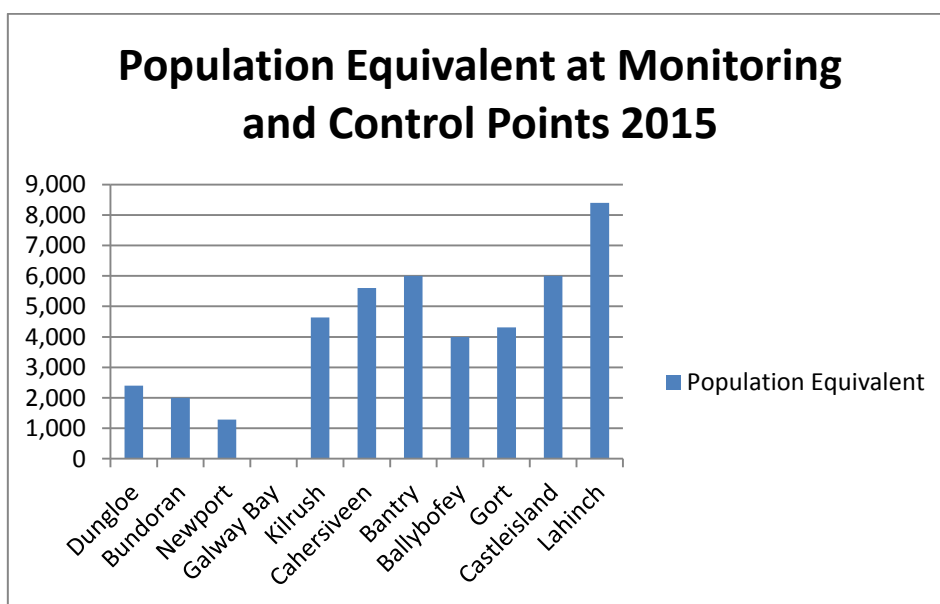
The results show that of the 7 monitoring points and 4 control points examined for this study, 5 (Castleisland, Ballybofey, Bantry, Cahersiveen and Galway Mutton Island) wastewater treatment plants/ agglomerations were compliant with Emission Limit Values in 2015, this shows that there has been an improvement from 2014 which recorded only 2 plants (Castleisland and Ballybofey) complying with the Emission Value Limit. (Reasons for non-compliance were regularly attributable to exceedances in permitted ELV's of ammonia and other substances. Non-compliance with ELV's at wastewater treatment plants could suggest that the facilities are serving over-populated catchment areas. Population numbers from 2014 to 2015 stayed generally the same, which did not seem to cause any more significant issues with compliance to the ELV. Increased visitor numbers to the monitoring points and control sites along the Wild Atlantic Way during the summer months could be putting pressure on these wastewater treatment facilities, resulting in breaches in annual ELV's.

4 of the named facilities received complaints during the year 2015, and 9 of the sites reported incidents to the EPA.

1 of the 11 wastewater treatment plants/agglomerations examined for this study had improvements or upgrades made to the facilities during the year 2015.



**Figure 2.1 Compliance with ELV's at Monitoring and Control Points 2015**



**Figure 2.2 Population Equivalent at Monitoring and Control Points 2015**

## Bathing water status

The second aspect of the technical indicator 'Water Quality' involved the inspection of the bathing water status of each of the chosen settlements. This was done by comparing each of the monitoring points and control sites against its associated Bathing Water Profile, as documented on the website '*Splash!*' -the EPA run national bathing water information website. The 2015 Bathing Water status of each monitoring point and control site was noted, as well as any reason for non-conformity with legislative coastal water quality status, and days restricted by any short-term pollution. The bathing water status of a site is noted as being 'excellent,' 'good' 'sufficient' 'poor', or having 'no data.'

The results of this monitoring indicator should be reviewed and compared annually in order to determine upwards or downwards trends in bathing water quality. Continuous recordings of 'poor' or 'sufficient' water quality might indicate tourism related pollution of bathing waters.

| County                 | Monitoring Point | Bathing Water Monitoring Site       | Bathing Water Status 2015     | Reason for non-conformity  | Days restricted by Short term pollution |
|------------------------|------------------|-------------------------------------|-------------------------------|--|---|
| Donegal                | Dungloe          | Naran Beach/Carrickfinn             | Excellent/ Excellent          |  | 0                                       |
| Donegal (Sligo Border) | Bundoran         | Bundoran/Mullaghmore                | Excellent/ Excellent          |  | 0                                       |
| Mayo                   | Newport          | Mulranny/Clare Island/Bertra        | Excellent/Excellent/Excellent |  | 0                                       |
| Galway                 | Galway Bay       | Salthill/Grattan Road/Ballyloughane | Excellent/ Sufficient/ Poor   | <ul style="list-style-type: none"> <li>Grattan Road Beach, 'Sufficient' status- based on the assessment of bacteriological results for the period 2011 to 2014</li> <li>Ballyloughane Beach, 'Poor' status based on the assessment of bacteriological results for the period 2011 to 2014</li> </ul> | 0                                       |
| Clare                  | Kilrush          | Cappagh Pier                        | Excellent                     |  | 0                                       |
| Kerry                  | Cahersiveen      | Whitestrans                         | Excellent                     |  | 0                                       |
| Cork                   | Bantry           | Barley Cove                         | Excellent                     |  | 0                                       |

**Table 2.3 Bathing Water Status at Monitoring Points**



| <b>County</b>  | <b>Control</b> | <b>Bathing Water Monitoring Site</b> | <b>Bathing Water Status 2015</b> | <b>Reason for non-conformity</b> | <b>Days restricted by Short term pollution</b> |
|----------------|----------------|--------------------------------------|----------------------------------|----------------------------------|--|
| <b>Donegal</b> | Ballybofey     | N/A                                  | N/A                              | N/A                              | N/A  |
| <b>Galway</b>  | Gort           | N/A                                  | N/A                              | N/A                              | N/A  |
| <b>Kerry</b>   | Castleisland   | N/A                                  | N/A                              | N/A                              | N/A  |
| <b>Clare</b>   | Lahinch        | Lahinch                              | Excellent                        | N/A                              | 0  |

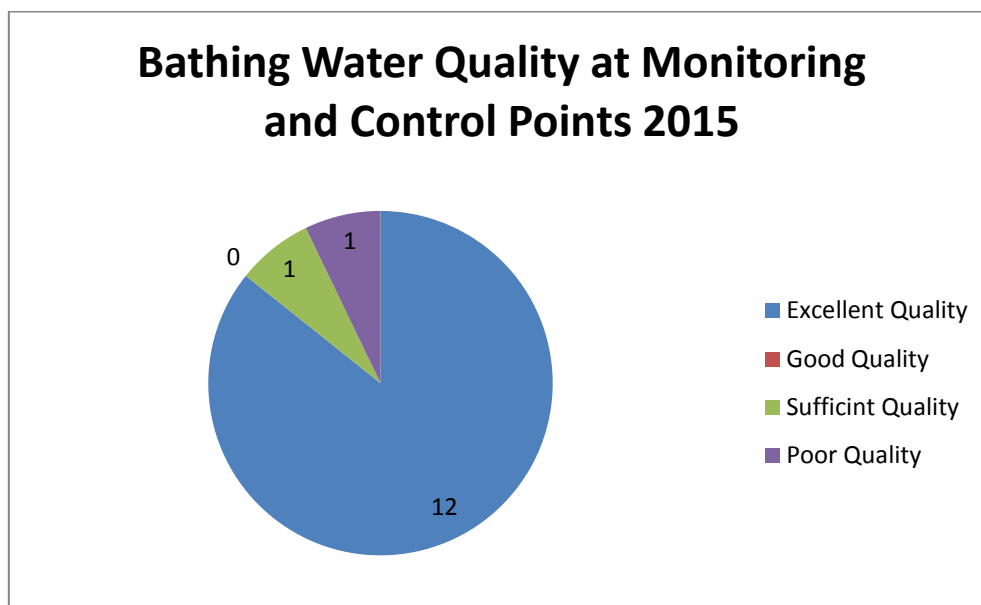
**Table 2.4 Bathing Water Status at Control Points**

14 'Bathing Water Monitoring Sites' at 7 of the established monitoring points and control sites along the Wild Atlantic Way were examined. Please note that some of these sites are associated with more than one EPA 'bathing water monitoring site' and thus have more than one definitive 'bathing water status.' Some of the monitoring points and control sites along the Wild Atlantic Way are not associated with any EPA 'bathing water monitoring sites', and thus the 'bathing water status' of these sites cannot be determined.

Of the 14 bathing water monitoring sites examined, 12 were found to have 'Excellent' bathing water status. According to the Bathing Water Regulations, 2008, and as referenced by '*Splash!*';

"Bathing waters are to be classified as "excellent":

1. if, in the set of bathing water quality data for the last assessment period, the percentile values for microbiological enumerations are equal to or better than the "excellent quality" values set out in Schedule 4, column B; and
2. if the bathing water is subject to short-term pollution, on condition that:
  - (i) Adequate management measures are being taken, including surveillance, early warning systems monitoring, with a view to preventing bathers' exposure, by means of warning or, where necessary, a bathing prohibition;
  - (ii) Adequate management measures are being taken to prevent, reduce or eliminate the causes of pollution; and
  - (iii) the number of samples disregarded in accordance with Regulation 7(4) because of short-term pollution during the last assessment period represented no more than 15% of the total number of samples provided for in the monitoring calendars established for that period, or no more than one sample per bathing season, whichever is the greater.



**Figure 2.3 Bathing Water Quality at Monitoring and Control Points 2015**

## 2.3 Macro-Indicator 2- National Roads Authority Traffic Counter

The monitoring and technical Indicator 'NRA Traffic Counter' was applied to each of the monitoring points outlined in Table 1.2, and control points outlined in Table 1.3. This involved the assessment of traffic counts on roads adjacent to chosen sites and along the Wild Atlantic Way for the year ending 2015.

The Transport Infrastructure Ireland's (TII) 'Traffic Data' website presents data collected from the TII traffic counters located on the National Road Network. The Website uses a dynamic mapping interface to allow the User to access data in a variety of report formats. The Monthly summary data available on the 'Traffic Data' website was examined and both the workday and weekday average interval traffic volumes for 24hr periods were noted for each month in 2015. This data can be reviewed and compared each year to identify upward or downwards trends in traffic volumes during tourist season and shoulder seasons.

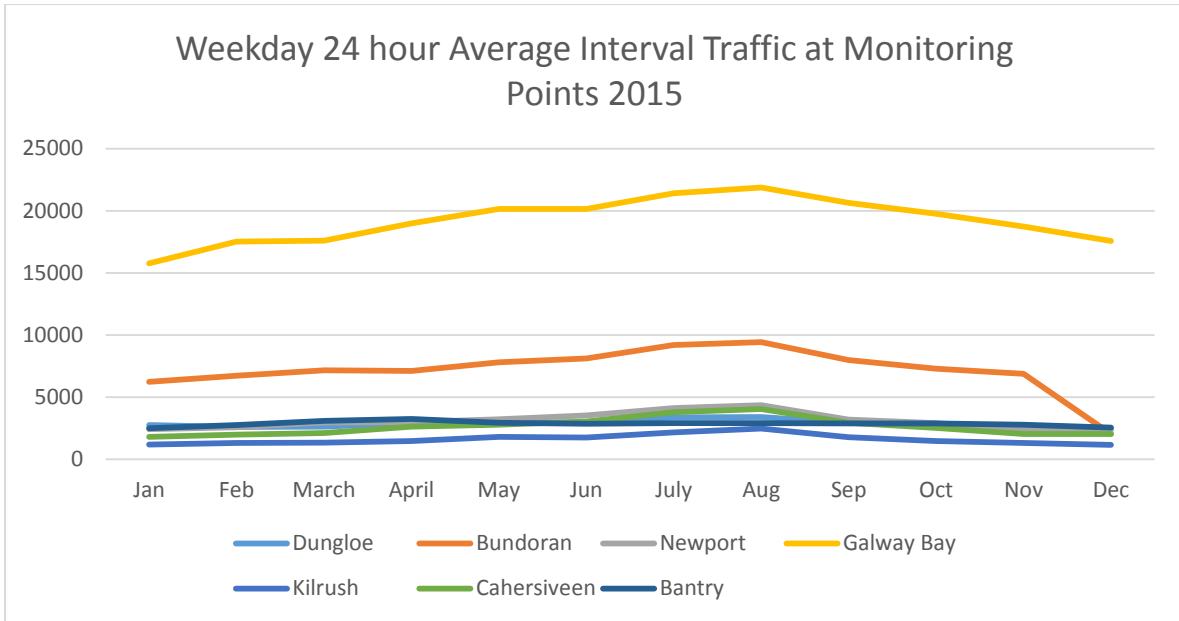
| County                        | Monitoring Point | National Roads Authority Traffic Counter                             | Jan   | Feb   | March | April | May   | Jun   | July  | Aug   | Sep   | Oct   | Nov   | Dec   |
|-------------------------------|------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Donegal</b>                | Dungloe          | N56 Between Dungloe and R252 Jn, Co. Donegal (20562)                 | 2757  | 2585  | 2632  | 2905  | 2920  | 2967  | 3373  | 3391  | 2920  | 2720  | 2635  | 2457  |
|                               |                  |  | 2368  | 2585  | 2496  | 2754  | 2776  | 2851  | 3300  | 3237  | 2748  | 2572  | 2496  | 2300  |
| <b>Donegal (Sligo Border)</b> | Bundoran         | N15 Between Bundoran and Sligo, Tullaghan, Co. Leitrim (20153)       | 6240  | 6728  | 7153  | 7100  | 7790  | 8113  | 9180  | 9420  | 7972  | 7280  | 6876  | 2035  |
|                               |                  |  | 5977  | 6861  | 7274  | 7268  | 7876  | 8151  | 9082  | 9542  | 9806  | 7452  | 7179  | 2334  |
| <b>Mayo</b>                   | Newport          | N59 Between Mullranny and Newport, Newfield, Co. Mayo (20591)        | 2403  | 2566  | 2967  | 2969  | 3219  | 3521  | 4114  | 4349  | 3192  | 2900  | 23675 | 2370  |
|                               |                  |  | 2360  | 2622  | 2994  | 2984  | 3254  | 3583  | 4159  | 4392  | 2235  | 2903  | 2748  | 2313  |
| <b>16772Gal way</b>           | Galway Bay       | N18 Between Kilcolgan and Clarinbridge, Co. Galway (1182)            | 15756 | 17519 | 17583 | 18984 | 20132 | 20132 | 21415 | 21859 | 20636 | 19769 | 18729 | 17576 |
|                               |                  |  | 16517 | 18209 | 18096 | 19736 | 19457 | 19457 | 20592 | 21087 | 19742 | 18933 | 17926 | 16772 |
| <b>Clare</b>                  | Kilrush          | N67 Between Kilrush Ferry and Kilrush, Moyne Court, Co. Clare (1671) | 1184  | 1314  | 1335  | 1456  | 1791  | 1732  | 2166  | 2466  | 1776  | 1467  | 1316  | 1158  |
|                               |                  |  | 1064  | 1180  | 1213  | 1364  | 1681  | 1643  | 2022  | 2305  | 1650  | 1369  | 1194  | 1051  |
| <b>Kerry</b>                  | Cahersiveen      | N70 Between Caherciveen and  | 1802  | 1968  | 2097  | 2612  | 2781  | 3030  | 3779  | 4049  | 2941  | 2510  | 2029  | 2033  |

|             |        |  |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------|--------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|             |        | Glenbeigh, Gortaforia,<br>Co. Kerry (20701)                              | 1718 | 1867 | 2075 | 2572 | 2772 | 3075 | 3775 | 4008 | 2888 | 2441 | 1987 | 1871 |
| <b>Cork</b> | Bantry | N72 Between Fermoy<br>and Ballyhooley,<br>Castlehyde, Co. Cork<br>(1715) | 2485 | 2745 | 3089 | 3229 | 2942 | 2854 | 2900 | 2915 | 2868 | 2872 | 2778 | 2539 |
|             |        |  | 2354 | 2585 | 2909 | 3167 | 2816 | 2769 | 2787 | 2824 | 2712 | 2756 | 2584 | 2401 |

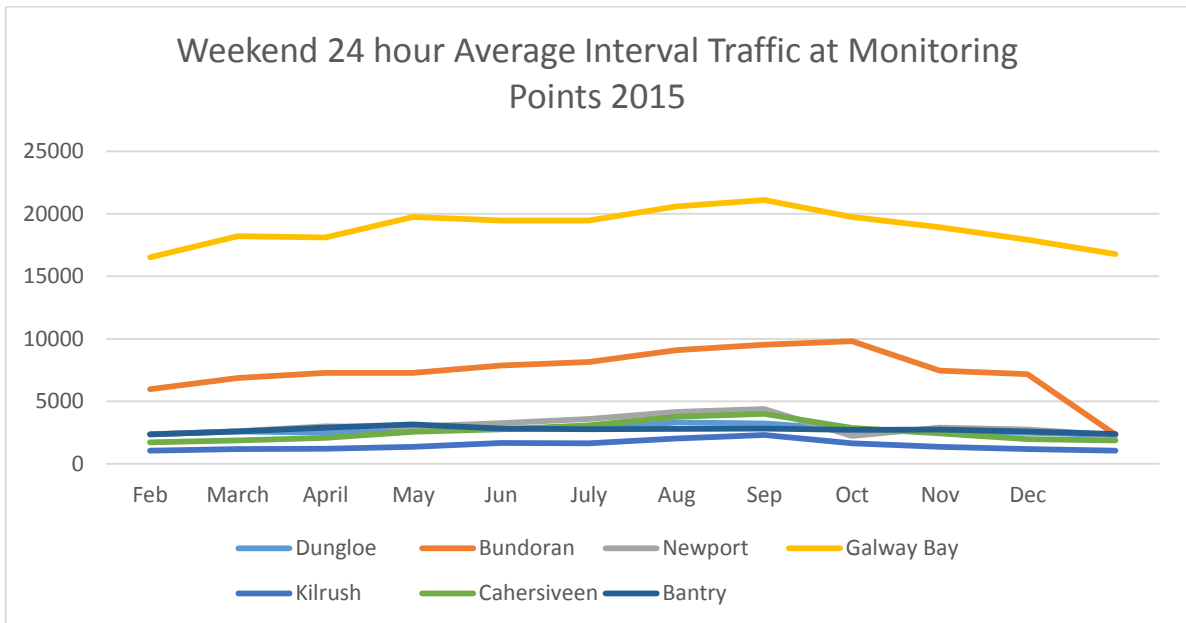
**Table 2.5 NRA Traffic Count at Monitoring Points**

| County  | Control      | National Authority Counter   | Roads Traffic | Jan   | Feb   | March | April | May   | June  | July  | Aug   | Sep   | Oct   | Nov   | Dec   |
|---------|--------------|--|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Donegal | Ballybofey   | N13 Between Stranorlar and Letterkenny, Treantaboy, Co. Donegal (1133) |               | 8050  | 9286  | 9335  | 9744  | 9934  | 9701  | 10146 | 10307 | 9988  | 9943  | 9575  | 9177  |
|         |              |  |               | 8486  | 9926  | 9780  | 10350 | 10441 | 10085 | 10741 | 10893 | 10839 | 10423 | 10171 | 9768  |
| Galway  | Gort         | N18 Between Kilcolgan and Clarinbridge, Co. Galway (1182)              |               | 15756 | 17519 | 17583 | 18984 | 19851 | 79457 | 20592 | 21087 | 19742 | 18933 | 17926 | 16772 |
|         |              |  |               | 16517 | 18209 | 18096 | 19736 | 20712 | 20132 | 21475 | 21859 | 20636 | 19676 | 18729 | 17576 |
| Kerry   | Castleisland | N21 Between Tralee and Castleisland, Co. Kerry (1211)                  |               | 7926  | 8643  | 8781  | 9362  | 9405  | 9346  | 9891  | 10229 | 9319  | 9445  | 9182  | 8721  |
|         |              |  |               | 8254  | 9110  | 9120  | 9683  | 9752  | 9551  | 10271 | 10524 | 9813  | 9897  | 9616  | 9162  |
| Clare   | Lahinch      | N67 Between Ennistimon and Lisdoonvarna, Co. Clare(20671)              |               | 1660  | 1852  | 1976  | 2223  | 2461  | 2600  | 2822  | 2999  | 2634  | 2217  | 1856  | 1876  |
|         |              |  |               | 1745  | 1950  | 2043  | 2223  | 2490  | 2635  | 2910  | 3074  | 2405  | 2266  | 1971  | 2021  |

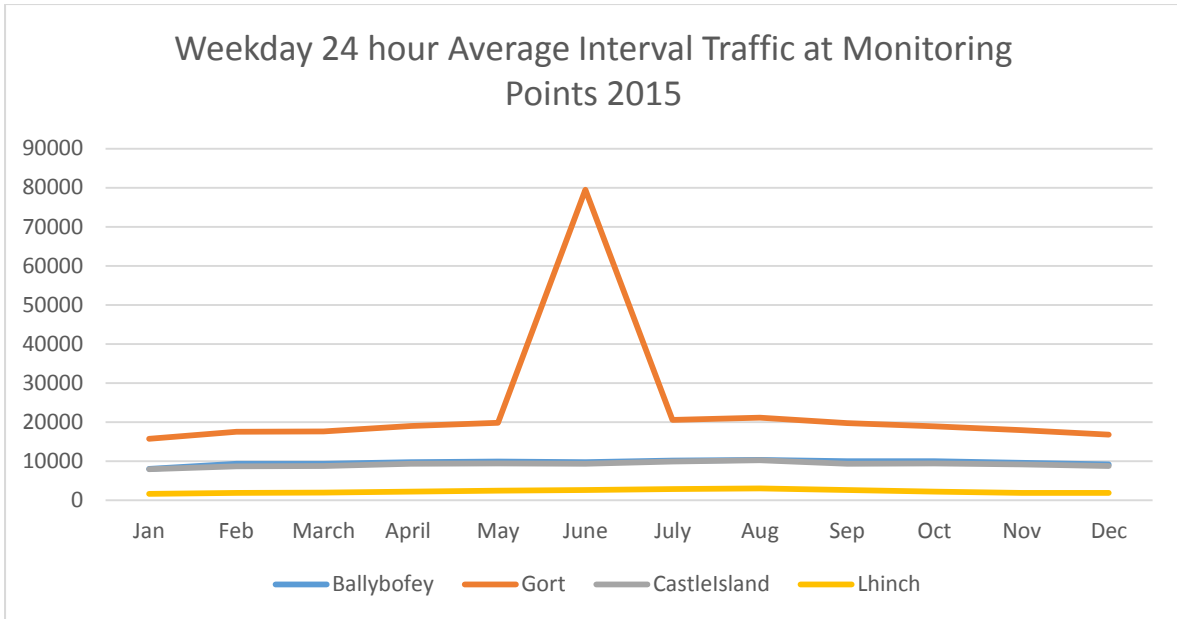
**Table 2.6 NRA Traffic Count at Control Points**



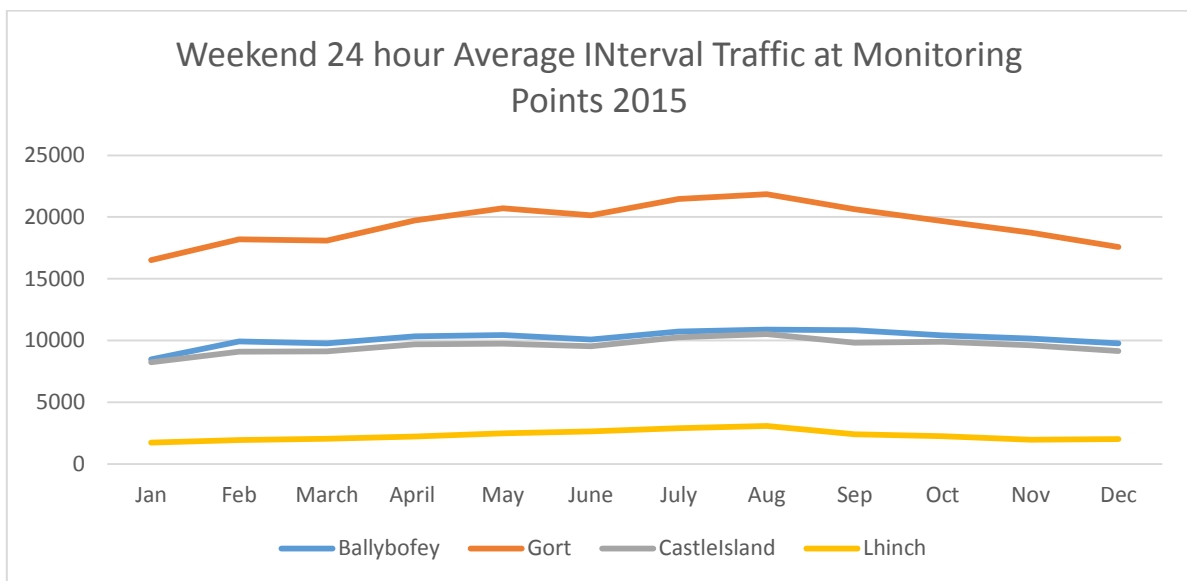
**Figure 2.4 Weekday 24-hour average interval traffic at monitoring points 2015**



**Figure 2.5 Weekday 24-hour average interval traffic at monitoring points 2015**



**Figure 2.6 Weekday 24 hour average interval traffic at monitoring points 2015**



**Figure 2.7 Weekend 24-hour average interval traffic at control points 2015**

The results of this macro indicator show that in 2015 there was an increase in 24-hour average interval traffic volumes during both weekends and weekdays, at all monitoring and control points during the summer months. This increase in average interval traffic at the monitoring points and control sites examined is likely attributable to an influx of tourists (domestic and foreign) travelling to and from the Wild Atlantic Way sites during the summer months.

## 2.4 Macro-Indicator 3- Blue Flag Beaches

The monitoring and technical Indicator 'Blue Flag Beaches' was applied to each of the monitoring points outlined in Table 1.2, and control points outlined in Table 1.3. The Blue Flag is operated in Ireland by An Taisce on behalf of the Foundation for Environmental Education (FEE). Beaches and marinas that achieve this accolade must comply with a specific set of criteria relating to water quality, information provision, environmental education, safety and beach management. At beaches the bathing water must comply with the excellent standard in accordance with the EU Bathing Water Directive. The 'Blue Flag Beaches' locations map, as available on An Taisce's 'Blue Flag Beaches' website was examined against the list of the established monitoring and control points. All those monitoring and control points that have been awarded 'Blue Flag' status in the year 2015 were noted, as indicated in Tables 2.7 and 2.8 below.

| County                 | Monitoring Point | Blue Flag |
|------------------------|------------------|-----------|
| Donegal                | Dungloe          | N         |
| Donegal (Sligo Border) | Bundoran         | Y         |
| Mayo                   | Newport          | N         |
| Galway                 | Galway Bay       | N         |
| Clare                  | Kilrush          | N         |
| Kerry                  | Cahersiveen      | N         |
| Cork                   | Bantry           | N         |

| County  | Control Site | Blue Flag |
|---------|--------------|-----------|
| Donegal | Ballybofey   | N         |
| Galway  | Gort         | N         |
| Kerry   | Castleisland | N         |
| Clare   | Lahinch      | Y         |

**Table 2.7 Blue Flag Beaches at Control Sites**

**Table 2.8 Blue Flag Beaches at Monitoring Points**

Of the 11 beaches examined at the established monitoring and control points, 2 of the beaches had been awarded 'Blue Flag' status in 2015. This has remained the same as the status recorded in 2014. These were Bundoran beach and Lahinch beach.



## 2.5 Macro Indicator 4- Green Coast Award

The monitoring and technical Indicator 'Green Coast Award' was applied to each of the monitoring points outlined in Table 1.2, and control points outlined in Table 1.3. The Green Coast Awards is an An Taisce award for beaches that meet the excellent standard for water quality as set out in the Bathing Water Directive but may not have the necessary built infrastructure to achieve Blue Flag status. An important element of this award is that these beaches have a beach management plan in place and that the local community are engaged in this process. The 'Green Coast' locations map as accessed via An Taisce's 'Clean Coasts' website was examined against the list of the above-mentioned monitoring and control points. All those monitoring and control points that had 'Green Coast' status in the year 2015 were noted, as indicated in Tables 2.9 and 2.10 below.

### 1.5.1 Green Coasts at Monitoring Points

| County                 | Monitoring Point | Green Coast |
|------------------------|------------------|-------------|
| Donegal                | Dungloe          | N           |
| Donegal (Sligo Border) | Bundoran         | N           |
| Mayo                   | Newport          | N           |
| Galway                 | Galway Bay       | N           |
| Clare                  | Kilrush          | N           |
| Kerry                  | Cahersiveen      | N           |
| Cork                   | Bantry           | N           |

### 1.5.2 Green Coasts at Control Points

| County  | Control Site | Green Coast |
|---------|--------------|-------------|
| Donegal | Ballybofey   | N           |
| Galway  | Gort         | N           |
| Kerry   | Castleisland | N           |
| Clare   | Lahinch      | N           |

Table 2.9 Green coasts at control sites

Table 2.10 Green Coasts and Monitoring Points

Of the 11 monitoring and control points examined, none held an An Taisce 'Green Coast Award' in 2015, results recorded from the 2014 report also show that none of the control points held a Green Coast Award during the year 2014.

## 2.6 Monitoring Indicator 5- State of Knowledge of Irelands Biodiversity

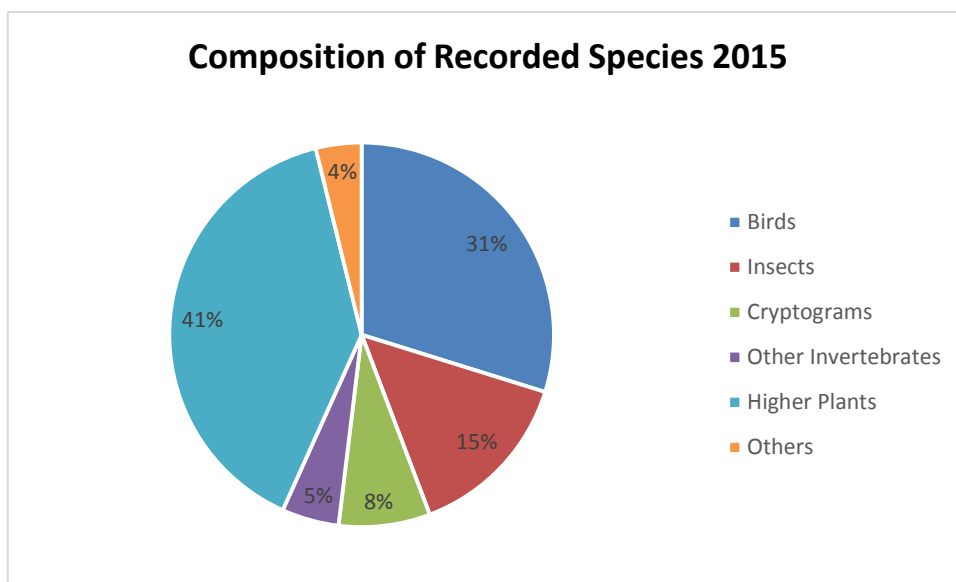
This general monitoring indicator is common to all of the above-mentioned monitoring and control points. In 2012 the National Biodiversity Data Centre produced a document entitled 'State of Knowledge- Irelands Biodiversity 2012.' It is the first inventory of the principal sources of biodiversity data in the Republic of Ireland. The document is laid out in sections following taxonomic grouping. Each section follows the same format and provides information on; Irish species, number of species, primary sources of distribution data, National conservation assessment, and monitoring or repeat surveys in place. The status of this indicator can be informed and updated by emerging findings and information sources from Biodiversity Reports.

For monitoring purposes, the National Biodiversity Centre Annual Review was examined in order to inform on the State of Knowledge of Irelands Biodiversity for the year ending 2015. The following 2015 parameters were noted: Species Numbers, Datasets, Habitats and Recorded Users of Biodiversity Maps- the online data portal, as indicated in Table 2.11 below. Annual Review publications can be examined hereafter in order to assess any upward or downward trends in the state of knowledge of Irelands Biodiversity.

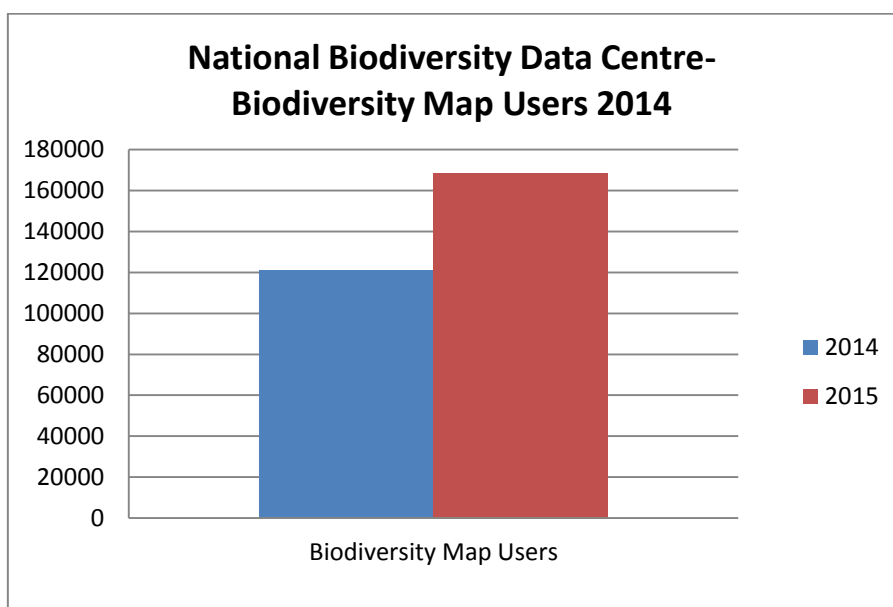
| State of Knowledge Ireland's Biodiversity Report (2010) -National biodiversity Centre Annual Review | Species Numbers 2015 | Records of Species 2015 |             | Datasets of Species 2015 | National surveys of EU protected Habitats 2015 | Recorded users of Biodiversity Maps |
|---|----------------------|-------------------------|-------------|--------------------------|--|-------------------------------------|
|   | 15,300               | Total                   | 3.7 million | 116                      | 8  | 168,368                             |
| Birds   |                      | 31%                     |             |                          |  |                                     |
| Insects   |                      | 15%                     |             |                          |  |                                     |
| Cryptograms   |                      | 8%                      |             |                          |  |                                     |
| Other Invertebrates   |                      | 5%                      |             |                          |  |                                     |
| Higher Plants   |                      | 41%                     |             |                          |  |                                     |
| Others  |                      | 4%                      |             |                          |  |                                     |

**Table 2.11 National Biodiversity Centre Annual Review 2015 data**

The National Biodiversity Centre Annual Review shows a notable rise in both numbers of species, and records and datasets of species in 2015. The National Biodiversity Data Centre has continued its work of collating empirical data and growing the national biodiversity database. This database now contains 3.7 million records from 116 datasets. Data on 15,300 species, which is almost half of all known Irish species, is available to map through the on-line data portal Biodiversity Maps. The only major change from 2014 is the larger percentage of bird records, thanks to the inclusion of almost 0.5 million bird records from the Bird Atlas 2017-11 dataset, provided by BirdWatch Ireland.



**Figure 2.8 Composition of recorded species 2015**



**Figure 2.9 Biodiversity Map Users 2015**

## 2.7 Monitoring Indicator 6- EPA Ireland's Environment - An Assessment (2016)

This general monitoring indicator is common to all of the above-mentioned monitoring and control points. Ireland's Environment 2016 – An Assessment, is the Environmental Protection Agency's four-yearly state of the environment report. It provides an evidence-based assessment of the current state of the environment in Ireland and the pressures being placed on it. It outlines the trends and changes in environmental quality as well as the socio-economic activities that are linked with these changes. The status of this monitoring indicator can be informed and updated by emerging findings and information sources from this report. It should be reviewed on release- every four years, and any changes in the environmental status along the Wild Atlantic Way should be noted.

The overall finding of the 2016 report is that Ireland's environment is in a generally good condition overall. However, there is no room for complacency and the country faces tough challenges in the coming years to meet EU commitments and targets across a range of areas including water, waste, air quality and greenhouse gases to name but a few. As a result of the growing economy focus must remain balanced between growth and becoming more sustainable to reduce emissions. In this context, the 2016 report has identified that the four key environmental challenges lined out in the 2012 report remain as valid now as they were in 2012: Valuing and protecting our natural environment; Building a resource-efficient, low-carbon economy; Implementing environmental legislation; and Putting the environment at the centre of our decision-making.

As lined out in the 2016 report, the overall outcome of these challenges for years on concludes that the challenges are mixed. Each challenge is broad and complex, there have been some improvements, however there has been no major breakthrough in the development of everyday effective solution to combating these environmental challenges. To try and combat these environmental challenges there has been key environmental actions put in place for 2016 these

|   |   |
|---|---|
| <b>Environmental Health and Wellbeing</b> | Aim to recognise the benefits of a good environment to health and wellbeing.  |
| <b>Climate Change</b>                     | Improve mitigation actions to lower greenhouse gas emissions and to improve knowledge on how to deal with adverse climate impacts |
| <b>Implementation of Legislation</b>      | Improve the enforcement and implementation of legislation to protect the environment  |
| <b>Restore and Protect Water Quality</b>  | Achieve ongoing improvements of water bodies from source to sea   |
| <b>Sustainable Economic Activities</b>    | Integrate efficient ideas across all economic sectors   |
| <b>Nature and Wild Places</b>             | Protect wild areas that act as hubs, contribute to health and wellbeing and provide sustainable tourist opportunities             |
| <b>Community Engagement</b>               | Inform communities on the importance of the protection and improvement of the environment.  |

include:

**Table 2.12 Key Environmental Actions**

## **Monitoring Indicator 7- The status of EU Protected Habitats and Species in Ireland**

This general monitoring indicator is common to all monitoring and control points. It provides for an assessment of the status of the habitats and species that Ireland is required to protect under the EU Habitats Directive. The status of this indicator can be informed and updated by emerging findings and information sources from the National Parks and Wildlife Service (NPWS) and other stakeholders on the status of EU Protected Habitats and Species.

The 2013 report 'The Status of EU Protected Habitats and Species in Ireland' as published by NPWS was reviewed in order to inform this monitoring indicator. The overall status of each of Irelands known habitats and species was noted as 'Good' 'Poor' or 'Bad,' for the period 2008-2014, as indicated in Table 2.12 below. This report should be review on release- every six years, and any changes in the status of Irish habitats or species along the Wild Atlantic Way should be noted.

| Habitat   | Overall Status |
|---|----------------|
| SANDBANKS slightly covered by seawater at all times (1110)  | Good           |
| ESTUARIES (1130)  | Poor           |
| MUDFLATS & SANDFLATS not covered by seawater at low tide (1140)   | Poor           |
| COASTAL LAGOONS (1150)  | Bad            |
| LARGE SHALLOW INLETS AND BAYS (1160)  | Poor           |
| REEFS (1170)  | Bad            |
| ANNUAL VEGETATION OF DRIFT LINES (1210)   | Poor           |
| PERENNIAL VEGETATION OF STONY BANKS (1220)  | Poor           |
| VEGETATED SEA CLIFFS of the Atlantic and Baltic coasts (1230)   | Poor           |
| SALICORNIA and other annuals colonising mud and sand (1310)   | Poor           |
| ATLANTIC SALT MEADOWS (1330)  | Poor           |
| MEDITERRANEAN SALT MEADOWS (1410)   | Poor           |
| HALOPHILOUS SCRUB (1420)  | Bad            |
| EMBRYONIC SHIFTING DUNES (2110)   | Poor           |
| SHIFTING DUNES along the shoreline with <i>Ammophila arenaria</i> (white dunes) (2120)  | Poor           |
| FIXED COASTAL DUNES with herbaceous vegetation (grey dunes) (2130)  | Bad            |
| DECALCIFIED FIXED DUNES with <i>Empetrum nigrum</i> (2140)  | Bad            |
| ATLANTIC DECALCIFIED FIXED DUNES ( <i>Calluno-Ulicetea</i> ) (2150)   | Bad            |
| DUNES with <i>Salix repens</i> spp. <i>Argentea</i> ( <i>Salicion arenaria</i> ) (2170)   | Bad            |
| HUMID DUNE SLACKS (2190)  | Poor           |
| MACHAIR (21A0)  | Bad            |
| OLIGOTROPHIC WATERS containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) (3110)                        | Bad            |
| HARD OLIGO-MESOTROPHIC WATERS with benthic vegetation of <i>Chara</i> spp. (3140)   | Bad            |
| NATURAL EUTROPHIC LAKES with <i>Magnopotamion</i> or <i>Hydrocharition</i> – type vegetation (3150)                                 | Poor           |
| NATURAL DYSTROPHIC LAKES and ponds (3160)   | Poor           |
| TURLOUGHES (3180)   | Poor           |
| WATER COURSES of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation (3260) | Poor           |
| RIVERS WITH MUDDY BANKS with <i>Chenopodion rubri</i> p.p. and <i>Bidention</i> p.p. vegetation (3270)                              | Good           |
| NORTH ATLANTIC WET HEATHS with <i>Erica tetralix</i> (4010)   | Bad            |
| EUROPEAN DRY HEATH (4030)   | Bad            |
| ALPINE AND SUB-ALPINE HEATH (4060)  | Bad            |

|  |      |
|--|------|
| <b>JUNIPERUS COMMUNIS formations on heaths or calcareous grasslands (5130)</b>                                     | Poor |
| <b>CALAMINARIAN GRASSLANDS of the Violetalia calaminariae (6130)</b>   | Poor |
| <b>SEMI-NATURAL DRY GRASSLANDS and scrubland facies on calcareous substrates (Festuco-Brometalia) (6210)</b>       | Bad  |
| <b>SPECIES-RICH NARDUS GRASSLANDS on siliceous substrates in mountain areas (6230)</b>                             | Bad  |
| <b>MOLINIA MEADOWS on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) (6410)</b>                 | Bad  |
| <b>HYDROPHILOUS TALL HERB fringe communities of plains and of the montane to alpine levels (6430)</b>              | Bad  |
| <b>LOWLAND HAY MEADOWS (Alopecurus pratensis, Sanguisorba officinalis) (6510)</b>                                  | Bad  |
| <b>ACTIVE RAISED BOG (7110)</b>  | Bad  |
| <b>DEGRADED RAISED BOG still capable of regeneration (7120)</b>  | Bad  |
| <b>BLANKET BOG (and Active Blanket Bog) (7130)</b>   | Bad  |
| <b>TRANSITION MIRE and quaking bogs (7140)</b>   | Bad  |
| <b>DEPRESSIONS on peat substrates of the Rhynchosporion (7150)</b>   | Good |
| <b>CALCAREOUS FENS with Cladium mariscus and species of the Caricion davallianae (7210)</b>                        | Bad  |
| <b>PETRIFYING SPRINGS with tufa formation (Cratoneurion) (7220)</b>  | Poor |
| <b>ALKALINE FEN (7230)</b>   | Poor |
| <b>SILICEOUS SCREE of the montane to snow levels (Androsacetalia alpinae and Galeopsetalia ladani) (8110)</b>      | Poor |
| <b>CALCAREOUS AND CALCHIST SCREES of the montane to alpine levels in Ireland (Thlaspietea rotundifolii) (8120)</b> | Poor |
| <b>CALCAREOUS ROCKY SLOPES with chasmophytic vegetation (8210)</b>   | Poor |
| <b>SILICEOUS ROCKY SLOPES with chasmophytic vegetation (8220)</b>  | Poor |
| <b>LIMESTONE PAVEMENTS (8240)</b>  | Poor |
| <b>CAVES not open to the public (8310)</b>   | Good |
| <b>Submerged or partially submerged SEA CAVES (8330)</b>   | Good |
| <b>OLD SESSILE OAK WOODS with Ilex and Blechnum (91A0)</b>   | Bad  |
| <b>BOG WOODLAND (91D0)</b>   | Good |
| <b>ALLUVIAL FORESTS with Alnus glutinosa and Fraxinus excelsior (91E0)</b>   | Bad  |
| <b>Taxus baccata WOODS (91J0)</b>  | Bad  |
| <b>Species</b>   |      |
| <b>KILLARNEY FERN Trichomanes speciosum (1421)</b>   | Good |
| <b>MARSH SAXIFRAGE Saxifraga hirculus (1528)</b>   | Good |
| <b>SLENDER NAIAD Najas flexilis (1833)</b>   | Poor |
| <b>SLENDER GREEN FEATHER-MOSS Hamatocaulis vernicosus (1393)</b>   | Good |

|   |         |
|---|---------|
| <b>PETALWORT</b> <i>Petalophyllum ralfsii</i> (1395)  | Good    |
| <b>MAERL</b> <i>Lithothamnion coralloides</i> <i>Phymatolithon calcareum</i> (1376, 1377)                 | Poor    |
| <b>WHITE CUSHION MOSS</b> <i>Leucobryum glaucum</i> (1400)  | Good    |
| <b>SPHAGNUM GENUS</b> <i>Sphagnum</i> spp. (1409)   | Poor    |
| <b>LYCOPODIUM GROUP</b> <i>Lycopodium</i> (and related genera) (1413)                                     | Poor    |
| <b>CLADONIA SPP.</b> <i>Cladonia</i> subgenus <i>Cladina</i> (5113)                                       | Poor    |
| <b>GEYER'S WHORL SNAIL</b> <i>Vertigo geyeri</i> (1013)   | Poor    |
| <b>NARROW-MOUTHED WHORL SNAIL</b> <i>Vertigo angustior</i> (1014)   | Poor    |
| <b>DEMOULIN'S WHORL SNAIL</b> <i>Vertigo moulinsiana</i> (1016)   | Poor    |
| <b>KERRY SLUG</b> <i>Geomalacus maculosus</i> (1024)  | Good    |
| <b>FRESHWATER PEARL MUSSEL</b> <i>Margaritifera margaritifera</i> (1029)                                  | Bad     |
| <b>NORE FRESHWATER PEARL MUSSEL</b> <i>Margaritifera durrovensis</i> (1990)                               | Bad     |
| <b>WHITE-CLAWED CRAYFISH</b> <i>Austropotamobius pallipes</i> (1092)                                      | Poor    |
| <b>MARSH FRITILLARY</b> <i>Euphydryas aurinia</i> (1065)  | Poor    |
| <b>SEA LAMPREY</b> <i>Petromyzon marinus</i> (1095)   | Bad     |
| <b>RIVER LAMPREY</b> <i>Lampetra fluviatilis</i> <b>BROOK LAMPREY</b> <i>Lampetra planeri</i> (1099,1096) | Good    |
| <b>ALLIS SHAD</b> <i>Alosa alosa</i> (1102)   | Unknown |
| <b>KILLARNEY SHAD</b> <i>Alosa fallax killarnensis</i> (5046)   | Good    |
| <b>TWAITE SHAD</b> <i>Alosa fallax fallax</i> (1103)  | Bad     |
| <b>POLLAN</b> <i>Coregonus autumnalis</i> (5076)  | Bad     |
| <b>ATLANTIC SALMON</b> <i>Salmo salar</i> (1106)  | Bad     |
| <b>NATTERJACK TOAD</b> <i>Bufo calamita</i> (1202)  | Bad     |
| <b>COMMON FROG</b> <i>Rana temporaria</i> (1213)  | Poor    |
| <b>LEATHERBACK TURTLE</b> <i>Dermochelys coriacea</i> (1223)  | Poor    |
| <b>HORSESHOE BAT</b> <i>Rhinolophus hipposideros</i> (1303)   | Good    |
| <b>COMMON PIPISTRELLE</b> <i>Pipistrellus pipistrellus</i> (1309)   | Good    |
| <b>SOPRANO PIPISTRELLE</b> <i>Pipistrellus pygmaeus</i> (5009)  | Good    |
| <b>NATHUSIUS' PIPISTRELLE</b> <i>Pipistrellus nathusii</i> (1317)   | Unknown |
| <b>NATTERER'S BAT</b> <i>Myotis nattereri</i> (1322)  | Good    |
| <b>DAUBENTON'S BAT</b> <i>Myotis daubentoni</i> (1314)  | Good    |
| <b>WHISKERED BAT</b> <i>Myotis mystacinus</i> <b>BRANDT'S BAT</b> <i>Myotis brandtii</i> (1330, 1320)     | Good    |
| <b>BROWN LONG-EARED BAT</b> <i>Plecotus auritus</i> (1326)  | Good    |
| <b>LEISLER'S BAT</b> <i>Nyctalus leisleri</i> (1331)  | Good    |



|  |         |
|--|---------|
| <b>IRISH HARE</b> <i>Lepus timidus</i> (1334)                        | Good    |
| <b>OTTER</b> <i>Lutra lutra</i> (1355)                               | Good    |
| <b>PINE MARTEN</b> <i>Martes martes</i> (1357)                       | Good    |
| <b>GREY SEAL</b> <i>Halichoerus gryphus</i> (1364)                   | Good    |
| <b>COMMON (HARBOUR) SEAL</b> <i>Phoca vitulina</i> (1365)            | Good    |
| <b>HUMPBACK WHALE</b> <i>Megaptera novaeangliae</i> (1345)           | Unknown |
| <b>BOTTLE-NOSED DOLPHIN</b> <i>Tursiops truncatus</i> (1349)         | Good    |
| <b>COMMON DOLPHIN</b> <i>Delphinus delphis</i> (1350)                | Good    |
| <b>HARBOUR PORPOISE</b> <i>Phocoena phocoena</i> (1351)              | Good    |
| <b>KILLER WHALE</b> <i>Orcinus orca</i> (2027)                       | Unknown |
| <b>LONG-FINNE DOLPHIN</b> <i>Globicephala melas</i> (2029)           | Unknown |
| <b>RISSO'S DOLPHIN</b> <i>Grampus griseus</i> (2030)                 | Unknown |
| <b>WHITE-SIDED DOLPHIN</b> <i>Lagenorhynchus acutus</i> (2031)       | Good    |
| <b>WHITE-BEAKED DOLPHIN</b> <i>Lagenorhynchus albirostris</i> (2032) | Unknown |
| <b>STRIPED DOLPHIN</b> <i>Stenella coeruleoalba</i> (2034)           | Unknown |
| <b>CUVIER'S BEAKED WHALE</b> <i>Ziphius cavirostris</i> (2035)       | Unknown |
| <b>SOWERBY'S BEAKED WHALE</b> <i>Mesoplodon bidens</i> (2038)        | Unknown |
| <b>MINKE WHALE</b> <i>Balaenoptera acutorostrata</i> (2618)          | Good    |
| <b>FIN WHALE</b> <i>Balaenoptera physalus</i> (2621)                 | Good    |
| <b>BLUE WHALE</b> <i>Balaenoptera musculus</i> (5020)                | Unknown |
| <b>SPERM WHALE</b> <i>Physeter macrocephalus</i> (5031)              | Unknown |
| <b>NORTHERN BOTTLENOSE WHALE</b> <i>Hyperoodon ampullatus</i> (5033) | Unknown |
| <b>SEI WHALE</b> <i>Balaenoptera borealis</i> (2619)                 | Unknown |

**Table 2.12 Status of EU protected habitats and species 2014**

The data shows that in the year 2015, of the 57 EU protected habitats in Ireland- 5 were of 'Good' status, 27 were of 'Poor' status and 25 were of 'Bad' status. Of the 58 EU protected species in Ireland- 31 were of 'Good' status, 11 were of 'Poor' status, 5 were of 'bad' status. The status of some 8 EU protected species in Ireland were 'Unknown' in 2015.

### STATUS OF EU PROTECTED HABITATS IN IRELAND 2015

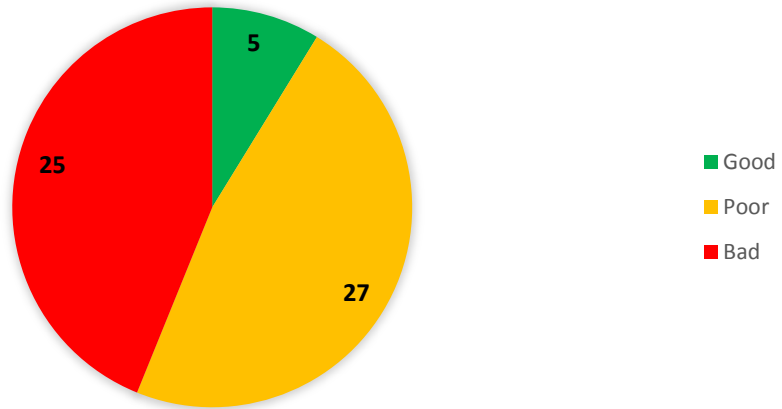


Figure 2.10 Status of EU Protected Habitats in Ireland 2015

### STATUS OF EU PROTECTED SPECIES IN IRELAND 2015

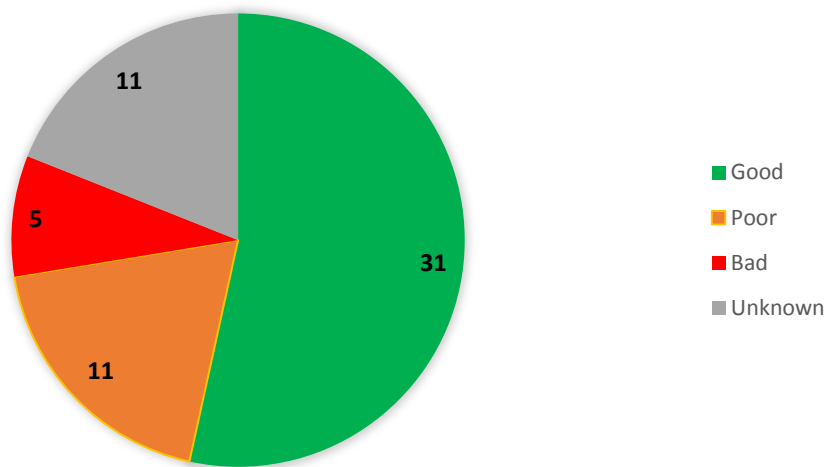


Figure 2.11 Status of EU Protected Species in Ireland 2015

## 2.8 Monitoring Indicator 8- Visitor Numbers

The monitoring and technical Indicator 'Visitor Numbers' was applied to each of the relevant counties outlined in Table 1.2 and Table 1.3, for the year ending 2015. It should be noted that data on visitor numbers at the specific monitoring and control sites along the Wild Atlantic Way is not available at present time. Thus, in order to inform this monitoring indicator of environmental status, Failte Ireland visitor numbers at county level were reviewed instead.

This data should be reviewed and compared annually in order to identify any upwards or downwards trends in county tourism which might be attributable to awareness and promotion of the Wild Atlantic Way.

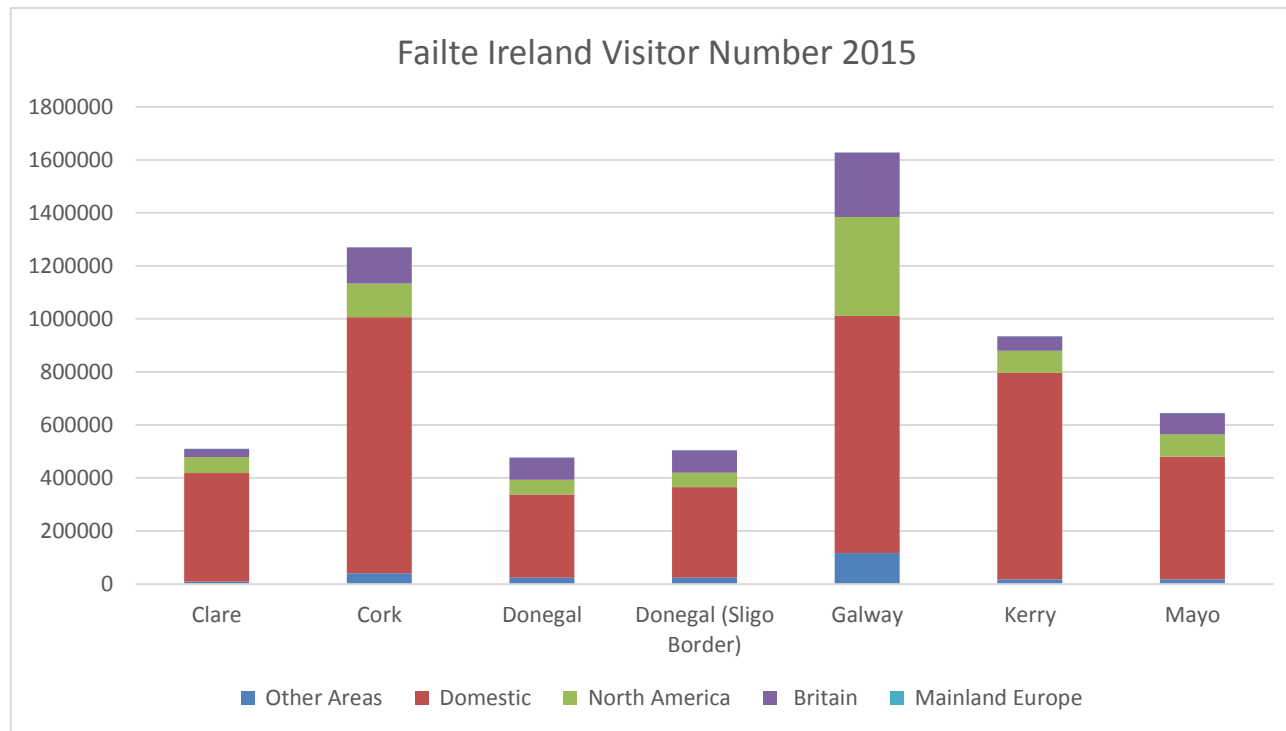
### 1.8.1 Visitor Numbers at Monitoring Points

|                               | Monitoring Point | Britain | Mainland Europe | North America | Other Areas | Domestic | Total Visitors |
|-------------------------------|------------------|---------|-----------------|---------------|-------------|----------|----------------|
| <b>Donegal</b>                | Dungloe          | 84,000  | 126,000         | 55,000        | 24,000      | 314,000  | 603,000        |
| <b>Donegal (Sligo Border)</b> | Bundoran         | 84000   | 126000          | 55,000        | 24,000      | 341,000  | 603,000        |
| <b>Mayo</b>                   | Newport          | 79,000  | 121,000         | 85,000        | 17,000      | 463,000  | 765,000        |
| <b>Galway</b>                 | Galway Bay       | 243,000 | 621,000         | 373,000       | 117,000     | 895,000  | 2,249,000      |
| <b>Clare</b>                  | Kilrush          | 30,000  | 29,000          | 60,000        | 9,000       | 410,000  | 538,000        |
| <b>Kerry</b>                  | Cahersiveen      | 54,000  | 79,000          | 83,000        | 18,000      | 779,000  | 1013,000       |
| <b>Cork</b>                   | Bantry           | 137,000 | 254,000         | 126,000       | 40,000      | 967,000  | 1524,000       |

**Table 2.13 Visitor Numbers at Monitoring Points**

| <b>County</b>  | <b>Control</b> | <b>Britain</b> | <b>Mainland Europe</b> | <b>North America</b> | <b>Other Areas</b> | <b>Domestic</b> | <b>Total Visitors</b> |
|----------------|----------------|----------------|------------------------|----------------------|--------------------|-----------------|-----------------------|
| <b>Donegal</b> | Ballybofey     | 84,000         | 126,000                | 55,000               | 24,000             | 314,000         | 603,000               |
| <b>Galway</b>  | Gort           | 243,000        | 621,000                | 373,000              | 117,000            | 895,000         | 2,249,000             |
| <b>Kerry</b>   | Castleisland   | 54,000         | 79,000                 | 83,000               | 18,000             | 779,000         | 1013,000              |
| <b>Clare</b>   | Lahinch        | 30,000         | 29,000                 | 60,000               | 9,000              | 410,000         | 538,000               |

**Table 2.14 Visitor Numbers at control sites**



**Figure 2.12 Failte Ireland Visitor Numbers at Counties along the WA**

## 2.9 Monitoring Indicator 9- Tourism Related Planning Refusals

The final macro-indicator of environmental status examined for this study is 'tourism related planning refusals.' A high level of tourism related refusals is a potential indicator of pressure on the environmental status of a County.

The An Bord Pleanala website was used to gain access to records of all 'decided cases' of planning appeals from the year 2014 at each of the counties along the Wild Atlantic Way. Where a decision was made by An Bord Pleanala to refuse planning for a development in any of these six counties (Galway, Mayo, Donegal, Clare, Cork and Kerry) during 2015, the reason for refusal was examined. All planning refusals during the year 2015 in each county were reviewed and all those with a decision which might be attributable to tourism were noted.

This method provides an official high level indicator as to where pressure points are occurring in Counties along the Wild Atlantic Way without the need to capture all planning applications to Local Authorities and or Foreshore Lease/Licence applications to the Department of Environment, Community and Local Government.

| Case Number    | Case  | Reason for Refusal                       |
|----------------|---|--|
| <b>Galway</b>  |   |  |
| 246241         | Cregg, Co. Galway. (15/729)   | Area of High landscape sensitivity       |
| 246766         | Ballinamanna West, Clarinbridge, Co. Galway. (15/1544)                      | Landscape and Visual Amenity             |
| <b>Donegal</b> |   |  |
| 246540         | Glebe Td. Killybegs, Donegal (15/51173)                                     | May be an area of archaeological potent. |
| 246460         | Muntermellan, Horn Head, Dunfanaghy, Co. Donegal. (15/51692)                | Area of High Landscape Sensitivity       |
| <b>Mayo</b>    |   |  |
| 246179         | Cloonan, Islandeady, Castlebar, Co. Mayo. (15/828)                          | Landscape and Visual Amenity             |
| <b>Kerry</b>   |   |  |
| 205472         | Derreen, Killarney, Co, Kerry. (15/205)                                     | Landscape and Visual Amenity             |
| <b>Clare</b>   |   |  |
| 245425         | Beal an Inbhir, Shanakyle Road, Leadmore West, Kilrush, Co. Clare. (15/407) | Landscape and visual Amenity             |

**Table 2.15 Tourism Related Planning Refusals**

Results show that every development in the six counties that was refused planning permission in 2015 as a result of tourism related reasons were all located along the Wild Atlantic Way route.

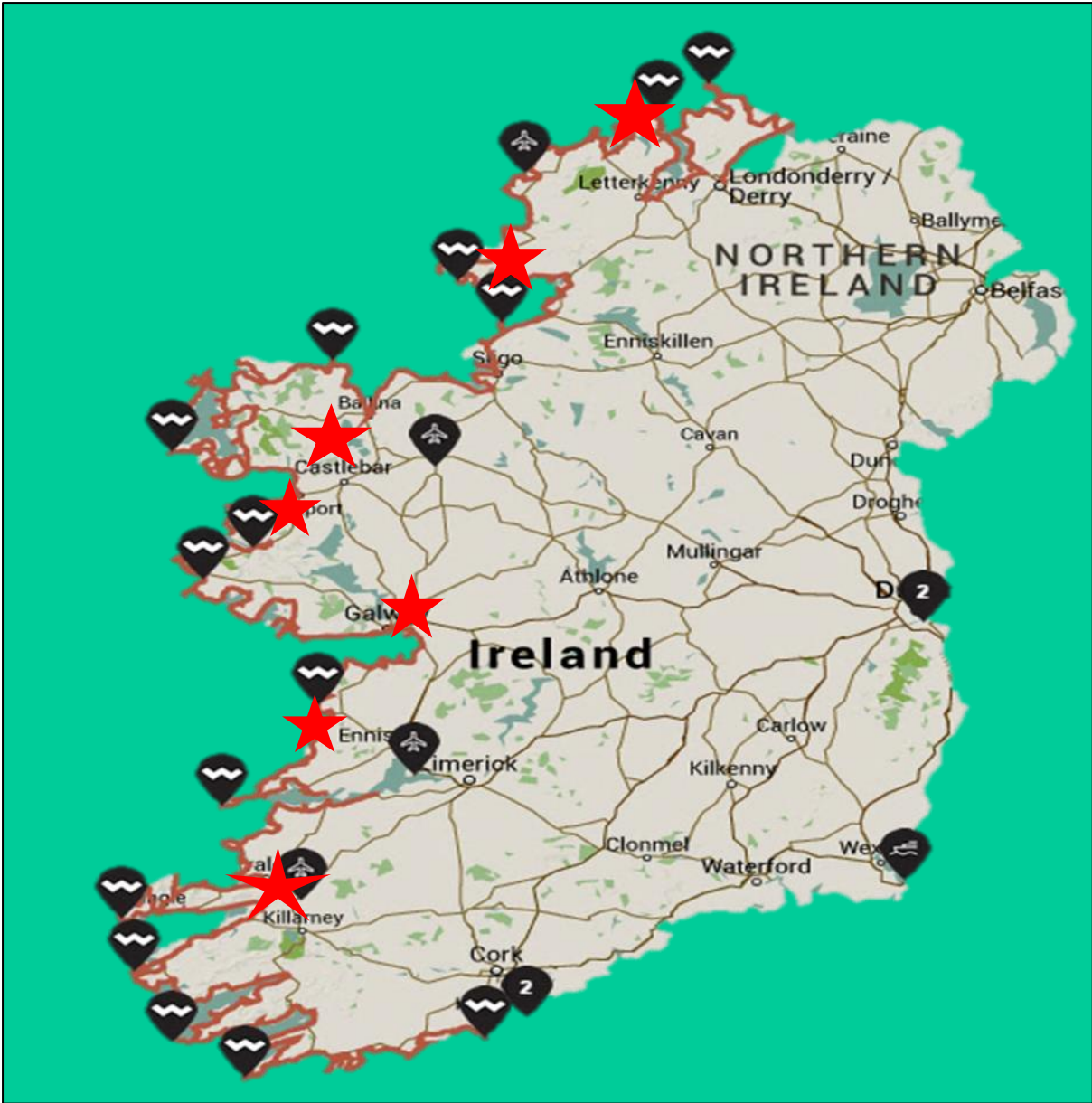


Figure 2.13 Locations of 2015 planning refusals along the WAW attributable to tourism

### **3. Conclusions and Recommendations**

The macro monitoring element of the *Environmental Surveying and Monitoring for the Wild Atlantic Way Operational Programme*, as discussed in this document concentrates on long-established, high quality, official baselines. These official baselines were adopted for this monitoring survey in order to represent a number of key performance indicators, the intended use of which being to identify trends and changes in the state of the environment along the Wild Atlantic Way.

The key performance indicators, as described in detailed in Table 1.1 of this document, were applied to six monitoring points and a further four control sites inland from the route in order to provide an insight into the state of the environment along the Wild Atlantic Way during the year 2015. The results of these macro monitoring activities will be collated and presented to a Monitoring Group along with results of all other Wild Atlantic Way monitoring activities.

The Strategy for Environmental Surveying and Monitoring is an evolving tool that will be informed and updated by emerging findings. Presentation of all monitoring results should thus be presented to the Monitoring Group once a year hereafter. This information can be used by relevant members of the Monitoring Group to identify protective, remedial or improvement actions within their own areas of responsibility during the following year. An annual summary of the results of monitoring will be published on the Fáilte Ireland website at the end of each monitoring year.