



# Bathing Water Quality in Ireland

A report for the year 2017



Environmental Protection Agency  
*An Ghníomhaireacht um Chaomhnú Comhshaoil*

## ENVIRONMENTAL PROTECTION AGENCY

The Environmental Protection Agency (EPA) is responsible for protecting and improving the environment as a valuable asset for the people of Ireland. We are committed to protecting people and the environment from the harmful effects of radiation and pollution.

### The work of the EPA can be divided into three main areas:

**Regulation:** *We implement effective regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.*

**Knowledge:** *We provide high quality, targeted and timely environmental data, information and assessment to inform decision making at all levels.*

**Advocacy:** *We work with others to advocate for a clean, productive and well protected environment and for sustainable environmental behaviour.*

## Our Responsibilities

### Licensing

We regulate the following activities so that they do not endanger human health or harm the environment:

- waste facilities (*e.g. landfills, incinerators, waste transfer stations*);
- large scale industrial activities (*e.g. pharmaceutical, cement manufacturing, power plants*);
- intensive agriculture (*e.g. pigs, poultry*);
- the contained use and controlled release of Genetically Modified Organisms (*GMOs*);
- sources of ionising radiation (*e.g. x-ray and radiotherapy equipment, industrial sources*);
- large petrol storage facilities;
- waste water discharges;
- dumping at sea activities.

### National Environmental Enforcement

- Conducting an annual programme of audits and inspections of EPA licensed facilities.
- Overseeing local authorities' environmental protection responsibilities.
- Supervising the supply of drinking water by public water suppliers.
- Working with local authorities and other agencies to tackle environmental crime by co-ordinating a national enforcement network, targeting offenders and overseeing remediation.
- Enforcing Regulations such as Waste Electrical and Electronic Equipment (WEEE), Restriction of Hazardous Substances (RoHS) and substances that deplete the ozone layer.
- Prosecuting those who flout environmental law and damage the environment.

### Water Management

- Monitoring and reporting on the quality of rivers, lakes, transitional and coastal waters of Ireland and groundwaters; measuring water levels and river flows.
- National coordination and oversight of the Water Framework Directive.
- Monitoring and reporting on Bathing Water Quality.

## Monitoring, Analysing and Reporting on the Environment

- Monitoring air quality and implementing the EU Clean Air for Europe (CAFÉ) Directive.
- Independent reporting to inform decision making by national and local government (*e.g. periodic reporting on the State of Ireland's Environment and Indicator Reports*).

## Regulating Ireland's Greenhouse Gas Emissions

- Preparing Ireland's greenhouse gas inventories and projections.
- Implementing the Emissions Trading Directive, for over 100 of the largest producers of carbon dioxide in Ireland.

## Environmental Research and Development

- Funding environmental research to identify pressures, inform policy and provide solutions in the areas of climate, water and sustainability.

## Strategic Environmental Assessment

- Assessing the impact of proposed plans and programmes on the Irish environment (*e.g. major development plans*).

## Radiological Protection

- Monitoring radiation levels, assessing exposure of people in Ireland to ionising radiation.
- Assisting in developing national plans for emergencies arising from nuclear accidents.
- Monitoring developments abroad relating to nuclear installations and radiological safety.
- Providing, or overseeing the provision of, specialist radiation protection services.

## Guidance, Accessible Information and Education

- Providing advice and guidance to industry and the public on environmental and radiological protection topics.
- Providing timely and easily accessible environmental information to encourage public participation in environmental decision-making (*e.g. My Local Environment, Radon Maps*).
- Advising Government on matters relating to radiological safety and emergency response.
- Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

## Awareness Raising and Behavioural Change

- Generating greater environmental awareness and influencing positive behavioural change by supporting businesses, communities and householders to become more resource efficient.
- Promoting radon testing in homes and workplaces and encouraging remediation where necessary.

## Management and structure of the EPA

The EPA is managed by a full time Board, consisting of a Director General and five Directors. The work is carried out across five Offices:

- Office of Environmental Sustainability
- Office of Environmental Enforcement
- Office of Evidence and Assessment
- Office of Radiation Protection and Environmental Monitoring
- Office of Communications and Corporate Services

The EPA is assisted by an Advisory Committee of twelve members who meet regularly to discuss issues of concern and provide advice to the Board.



## **Bathing Water Quality in Ireland 2017**

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## Bathing Water Quality in Ireland 2017

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### Acknowledgements:

The bathing water information in this report and in the EPA online bathing water system beaches.ie ([www.beaches.ie](http://www.beaches.ie)) is currently provided by local authorities responsible for monitoring the quality of bathing waters within their functional areas.

The collation of data was undertaken by Brigid Flood and Annmarie Tuohy. The report was prepared by Mr. Peter Webster (Senior Scientist, Reporting and Assessment) under the direction of Mr. Andy Fanning (Programme Manager, Evidence and Assessment) within the EPA Office of Evidence and Assessment.

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## Key findings 2017

Overall Water Quality				
93% (132) of our coastal and lake beaches met the minimum standard of Sufficient water quality	84.5% (120) were classed as either Excellent or Good water quality	8 beaches showed some deterioration in quality – five of which are in the Dublin area	7 beaches were classed as Poor – five of which are in the Dublin area	4 beaches showed an improvement in water – all from rural or small urban areas
Classifications are based on 2014 -2017 bathing season data for the microbiological parameters E.coli and Intestinal Enterococci. These faecal bacteria are used as indicator organisms with the aim of protecting public health.				

Pollution Events				
163 incident notices were issued by local authorities - up from 81 in 2016	112 of these were precautionary and pollution did not actually occur at the beach *	78 (55%) of beaches had a restriction in place at some stage during the year	Merrion and Sandymount Strand accounted for 12 of the bathing restrictions	Most pollution events related to sewage discharges after rainfall
* Precautionary (Prior) warnings are issued when local authorities suspect the possibility of a deterioration in water quality - most notably after heavy rainfall. In 2017, pollution did not actually turn out to be as bad as anticipated in all but two cases. We recognise as good practice this positive approach to public health protection shown by many local authorities.				

How to access water quality information
In June 2017, we launched a new website <a href="http://www.beaches.ie">www.beaches.ie</a> which is specifically designed for mobile devices. The site gives the latest water quality information as well as a host of information on our beaches – Check out <a href="http://www.beaches.ie">www.beaches.ie</a> before you go to the seaside!

## Glossary

The following is a description of terms used in this report.

**Bathing Water...** This is a general term used for those locations where swimming or recreational use of beaches and lakes is practiced. It is the term used but has no legal definition in the Bathing Water Directive 2006/7/EC

**Bathing Water Regulations...** This refers to Statutory Instrument 79 of 2008 ([SI 79 of 2008](#)), the Bathing Water Quality Regulations 2008 which transposed the Bathing Water Directive 2006/7/EC into Irish legislation.

**Bathing water Profile ...** This is a document which sets out the characteristics of the beach or lake together with any potential pollution pressures. Bathing water profiles are prepared by the responsible local authorities and are required for all identified bathing waters. They are available on [www.beaches.ie](http://www.beaches.ie)

**E.coli / Intestinal Enterococci ...** These are two types of bacteria found in both human and animal faeces in large numbers. They are used as indicators of the possible presence of other harmful microorganisms such as viruses.

**Identified bathing water ...** This is the legal term used for those beaches and lakes managed under the Bathing Water Regulations. Local authorities are responsible for identifying bathing waters within their functional area and these are generally those considered to be the most popular. We reported these to the European Commission each year. The public can propose new bathing waters to be identified for management under the Bathing Water Regulations and guidance on this is available from [www.beaches.ie](http://www.beaches.ie).

**Other Monitored Water:** This is an EPA derived term which has been applied to those generally smaller and less well used beaches that are monitored by local authorities as a public health measure but are not managed under the Bathing Water Regulations.

**Pollution ...** This is defined (for bathing water purposes) as the presence of microbiological contamination or waste affecting water quality and presenting a risk to the health of bathers

**Short Term Pollution ...** This term is used in the Regulations for microbiological contamination that has clearly identifiable causes, is not expected to last more than 72 hours, and for which the local authority has established procedures to predict and manage.

# 1. About this report

This report presents the fourth assessment of Ireland's 142 bathing waters identified under the Bathing Water Quality Regulations 2008 and is based on the results of monitoring covering the period 2014 to 2017. It also provides information on water quality at other locations where bathing activities occur and the water quality monitoring is undertaken by local authorities as a public health measure.

## The challenges we face

Good quality water is an essential natural resource for recreational use as well as being an important tourist attraction. This is highlighted in a recent EPA report <sup>1</sup> examining the recreational value of our inland waterways. Ireland has some of the best quality and most scenic coastal waters in northern Europe however we face many challenges to maintain this situation especially in urban areas such as Dublin Bay. Pressures include:

- impacts of pollution from urban run-off;
- wastewater discharges – especially after heavy rain;
- agricultural sources; and
- pollution from seabirds and other animals

In 2008 the regulations governing how we measure and improve water quality changed when Ireland adopted the Bathing Water Quality Regulations 2008. ([S.I. No. 79 of 2008](#)) These have been applied since the start of 2014. In 1991, Ireland had only 65 beaches as national bathing waters compared to 142 last year. These comprise the most popular of coastal beaches and a few inland lakes but there are many more smaller beaches which are also monitored by local authorities but which are not managed under the requirements of the Regulations.

The Regulations aim to:

- reduce the risk to bathers from bacterial pollution and improve health protection by introducing stricter standards for water quality and a new approach to assessment;
- establish a more pro-active approach to the assessment of possible pollution risks and the management of bathing waters; and
- promote increased public involvement and improved the communication of information on bathing water quality to the public.

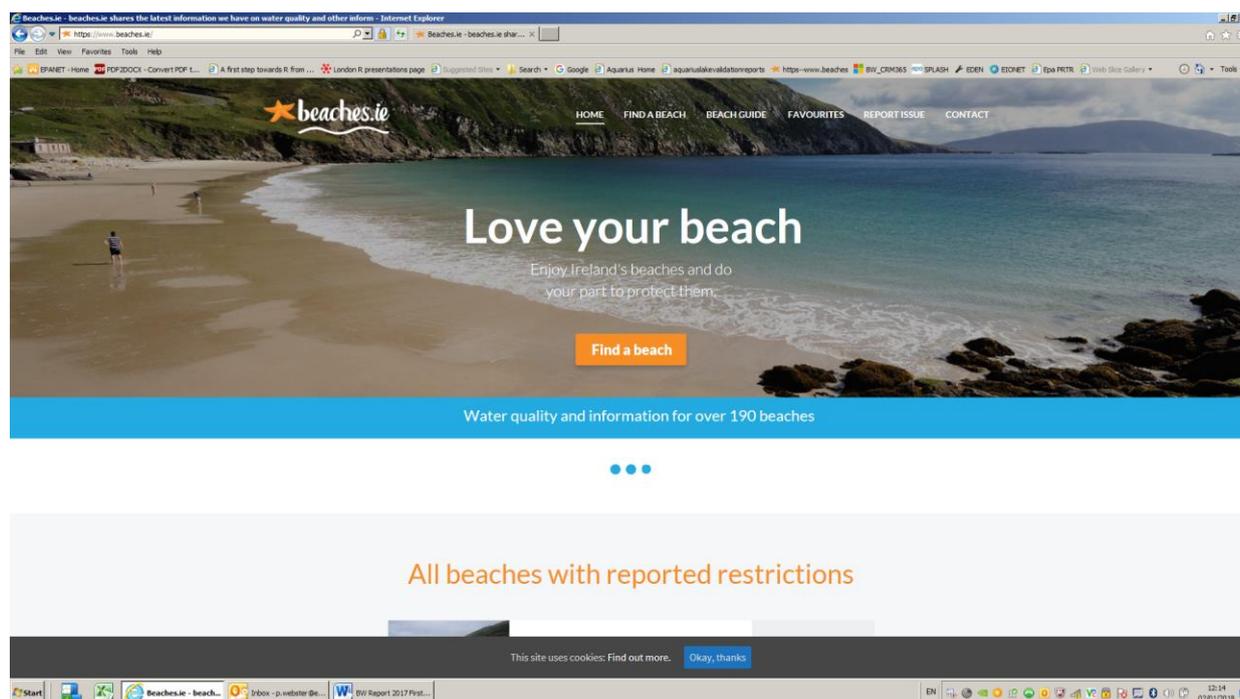
We now use the microbiological parameters E.coli and Intestinal Enterococci. The assessment of water quality now uses the compliance monitoring data for the current and 3 previous bathing seasons (on a rolling basis) rather than focusing only on the most recent season.

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<sup>1</sup> Demand for Water-Based Leisure Activity: the Benefits of Good Water Quality: John Curtis and Stephen Hynes <http://www.epa.ie/pubs/reports/research/water/research232.html>

## Public information management

The EPA provides systems for the communication and management of bathing water data both for Local Authorities and to provide information to the public using our national bathing water website [www.beaches.ie](http://www.beaches.ie) which was launched in June 2017. This was specifically designed to be accessed from mobile devices and represents a major step forward in making information on bathing water quality much more accessible. Details of any incidents at our main beaches reported by local authorities are notified to the public via a dedicated Twitter™ account @EPABeaches during the bathing season.



## What you can do to help

You can play an important part in improving water quality by reducing the waste you leave behind you on the beach. Make sure that you:

- bring your rubbish home with you,
- pick up dog poo and bring it home or dispose of it in suitable bins – don't just bury it in the sand,
- bring waste food home with you, as leaving it behind attracts seabirds that can cause bacterial pollution,
- report any pollution using the "See It -Say it" app. Details of the app are available at <http://www.epa.ie/enforcement/report/seeit/>

## 2. Water quality assessment

### Annual classifications

Since 2014, the annual water quality classification (rating) of a beach or lake has been based on water quality results covering a 4year period rather than just the past season’s data. Water quality at our beaches and lakes is classified as Excellent, Good, Sufficient or Poor. This approach is common across all EU Member States and there is a requirement to ensure that bathing waters are of ‘Sufficient’ standard or better. Any ‘Poor’ bathing water requires a programme of adequate management measures to be implemented. A minimum of 16 samples are required for formal annual assessment.

The criteria to be met, as set out in Table 1 and depend on whether the bathing water is a freshwater or a coastal location. These annual classifications are determined for all our identified bathing waters (main beaches and lakes) that are managed under the Bathing Water Regulations and their performance for the past four years is available on [www.beaches.ie](http://www.beaches.ie).

Table 1 – Annual assessment criteria

Parameter	Excellent	Good	Sufficient
E. coli (freshwater)	500*	1000*	900**
E.coli (Coastal)	250*	500*	500**
Intestinal enterococci (freshwater)	200*	400*	330**
Intestinal enterococci (coastal)	100*	200*	185**

\* based on 95-percentile value \*\* based on 90-percentile vale

### In-season individual sample assessment

During the bathing season (1<sup>st</sup> June – 15<sup>th</sup> September) the water quality of individual samples monitored at our beaches and lakes (identified bathing waters and other monitored waters) is also assessed as being Excellent, Good, Sufficient, or Poor.

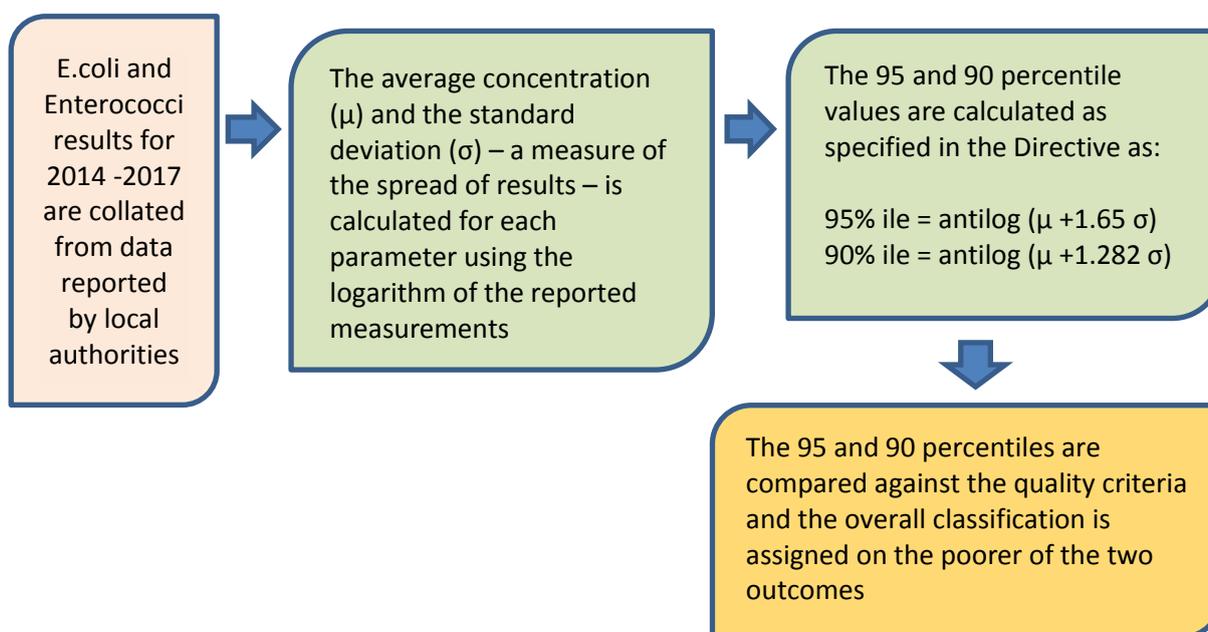
In agreement with the Health Services Executive (HSE), we have adopted the general criteria shown in Table 2 for the assessment of individual sample quality regardless of whether they are from freshwater or coastal beaches. The monitoring results and water quality status for the current season and for previous seasons are also available on [www.beaches.ie](http://www.beaches.ie).

Table 2 – In season individual sample assessment criteria

Parameter	Excellent	Good	Sufficient	Poor
E. coli	Less than or equal to 250	251 - 500	501 - 1000	Greater than 1000
Intestinal enterococci	less than or equal to 100	101 - 200	201 – 250	Greater than 250

## 2.1 How is annual water quality calculated?

The following flow chart shows how the overall quality is assessed



### Current water quality

Ireland’s beaches are monitored on a very regular basis during the bathing season and, in many cases, more frequently than the minimum monthly frequency required under the Bathing Water Regulations. This approach gives confidence in the overall water quality however over the course of any day the bacterial load in our waters is constantly changing.

This can be influenced by many factors including tidal flows, rainfall events, or by pollution from sources such as streams, drainage, or sewage discharges. The result of this is that, at any given time, the current water quality at a beach or lake may not necessarily be the same as the water quality of last sample tested, or the annual water quality classification.

As a rule, it is best to avoid contact with the water for at least 48 hours after heavy rainfall to reduce the risk of getting a recreational water illness, such as an upset tummy, even if [www.beaches.ie](http://www.beaches.ie), local authority website or the beach noticeboard shows the water quality is okay for swimming.

## 2.2 Bathing Water Classification signs

Each bathing water classification now carries a standard EU pictogram which will be displayed both on beaches.ie and on beach noticeboards to indicate the annual water quality assessment based on 4 years results. These images are now common across all EU Member States and are available in both English and the countries national language.



**Excellent quality**



**Good water quality**



**Sufficient water quality**



**Poor water quality**



**Ar Fheabhas**



**Go maith**



**Imleor**



**Go Dona**

### Other Classifications - 'New' and 'Changes'

When any bathing water is first reported by local authorities for identification under the Bathing Water Regulations it is given a classification of "New". Once local authorities have reported at least 16 samples we can formally classify a bathing water into one of the four quality categories.

For bathing waters where major infrastructural improvements, such as the commissioning of a new sewage works, or other activities which could significantly bring about a change in water quality, have occurred a formal classification cannot be determined until at least 16 samples (post change) are available for review. A holding category of 'Changes' is applied in such cases.

### 2.3 Other hazards

A Twitter™ feed, [@EPABeaches](#), is available to inform our online community of beach goers any beach-related news items and pollution incidents.

#### Harmful Jellyfish

As in 2016, 2017 saw the recurrence of harmful jellyfish in Irish waters. Irish Water Safety is the lead organisation for reporting of these hazards in conjunction with the local authorities and we use our Twitter feed [@EPABeaches](#) to reinforce the message. In 2017 the main species were again the Lions Mane jellyfish and the Portuguese 'Man o' War' both of which have stinging tentacles which can inflict a nasty wound even when they are dead. While the Lions Mane was mostly found in the Irish Sea the Portuguese Man o' War was more evident on southern and western coasts. Further details can be found at Irish Water Safety:

[jellyfish-id-card](#)



Lions Mane jellyfish



Portuguese Man o' War

#### Bacteria in surface streams

Parents and children are often unaware of the risk posed by harmful bacteria in surface water streams and rivers that drain onto the beaches either directly or through piped culverts. These can be an enticing place for young children to play but can contain very high bacterial counts – often much higher than is the seawater - especially after heavy rainfall. In addition to agricultural sources larger streams or rivers may also have received discharges from wastewater treatment plants located some distance from the beach.



**Several local authorities have erected warning signs but this may not always be the case ... the best course of action is to keep young children out them.**

### **New E. coli in surface streams**

In parallel with their work on the occurrence of antibiotic resistant bacteria in the environment, researchers at the National University of Ireland in Galway (NUIG) have detected a harmful variant of E. coli in some surface waters. Verotoxigenic E. coli (VTEC) is typically found in areas of intensive cattle and / or sheep. In 2015, the [Health Protection Surveillance Centre](#) reported that Ireland has one of the highest incidents rates in Europe. The risk of contracting illness is relatively low and this form of E. coli does respond to antibiotic treatment – at least for the time being. Further research is needed to determine the abundance and distribution, both nationally and internationally, together with risk of infection from exposure.

### 3. How good was water quality in 2017?

For the 2017 bathing season, there were 142 identified bathing waters assessed. 133 of these are coastal waters and 9 are inland freshwaters. Overall, 132 (93%) of waters met the minimum required standard of 'Sufficient'.

- **102** (71.8%) of bathing waters were classified as Excellent – same as 2016.
- **18** (12.7%) were classified as Good – same as 2016.
- **12** (8.5%) were classified as Sufficient - up 2 on 2016
- **7** were classified as Poor with the inclusion of Sandymount – up 1 on 2016
- **3** bathing waters – Dooley and Magheroarty (Co. Donegal) – new in 2015, together with Seafeld Quilty (Co. Clare) - new in 2017, still await sufficient samples for formal classification. They all appear likely to achieve Excellent quality given current trends.

The breakdown between coastal and freshwater bathing areas was is shown below.

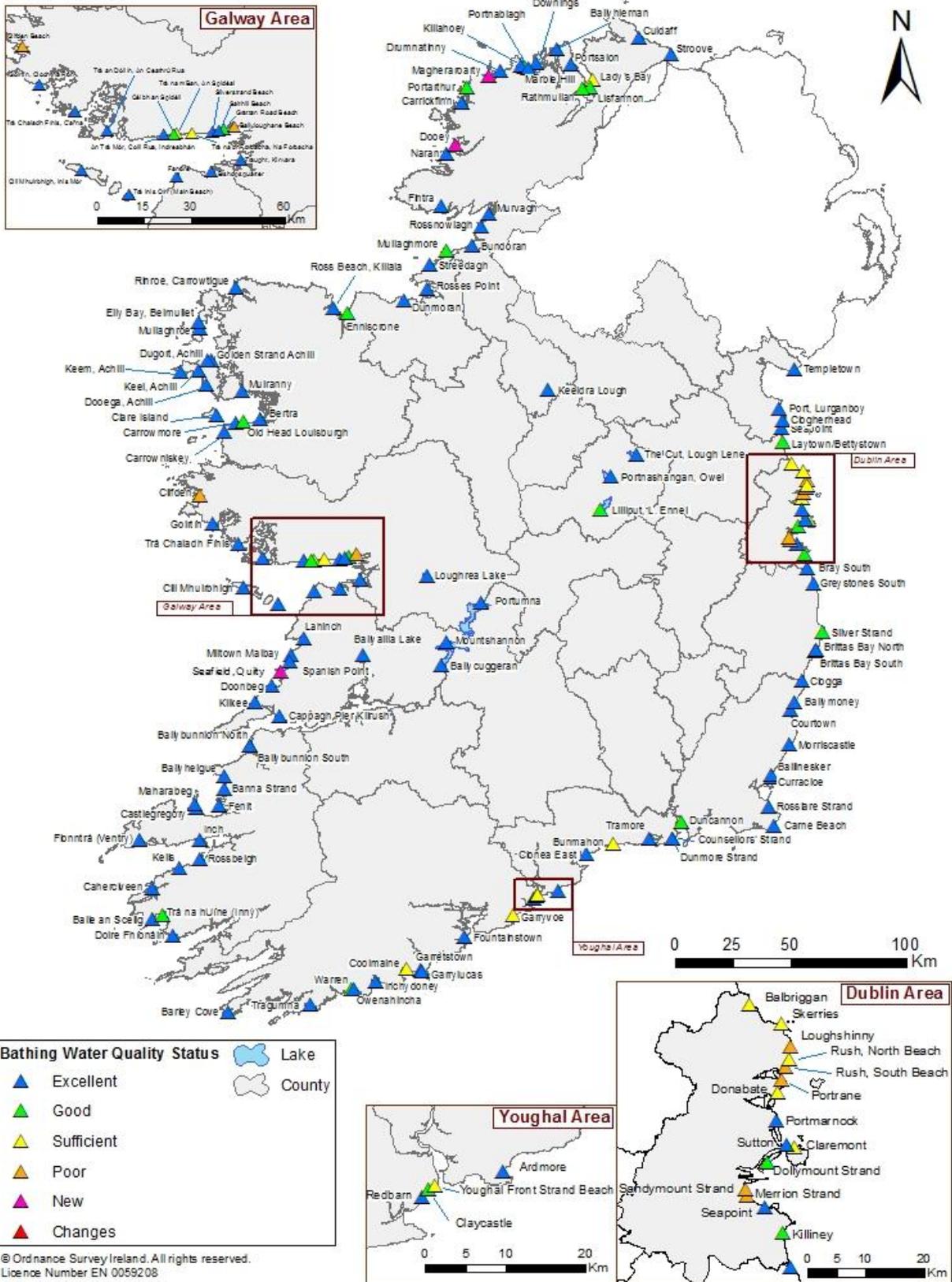
Classification	Coastal		Freshwater		All Bathing waters	
	No.	%	No.	%	Total	%
Excellent	94	70.6%	8	88.9%	102	<b>71.8%</b>
Good	17	12.8	1	11.1%	18	<b>12.7%</b>
Sufficient	12	9.0%	-	-	12	<b>8.5%</b>
Poor	7	5.3%	-	-	7	<b>4.9%</b>
New	3	2.3%	-	-	3	<b>2.1%</b>
Overall	133		9		142	100%

**Note:** Percentage values are rounded to 1 decimal place for reporting purposes.

All nine lakes achieved Excellent or Good water quality classifications, however, no new freshwater bathing areas have been identified in recent years.

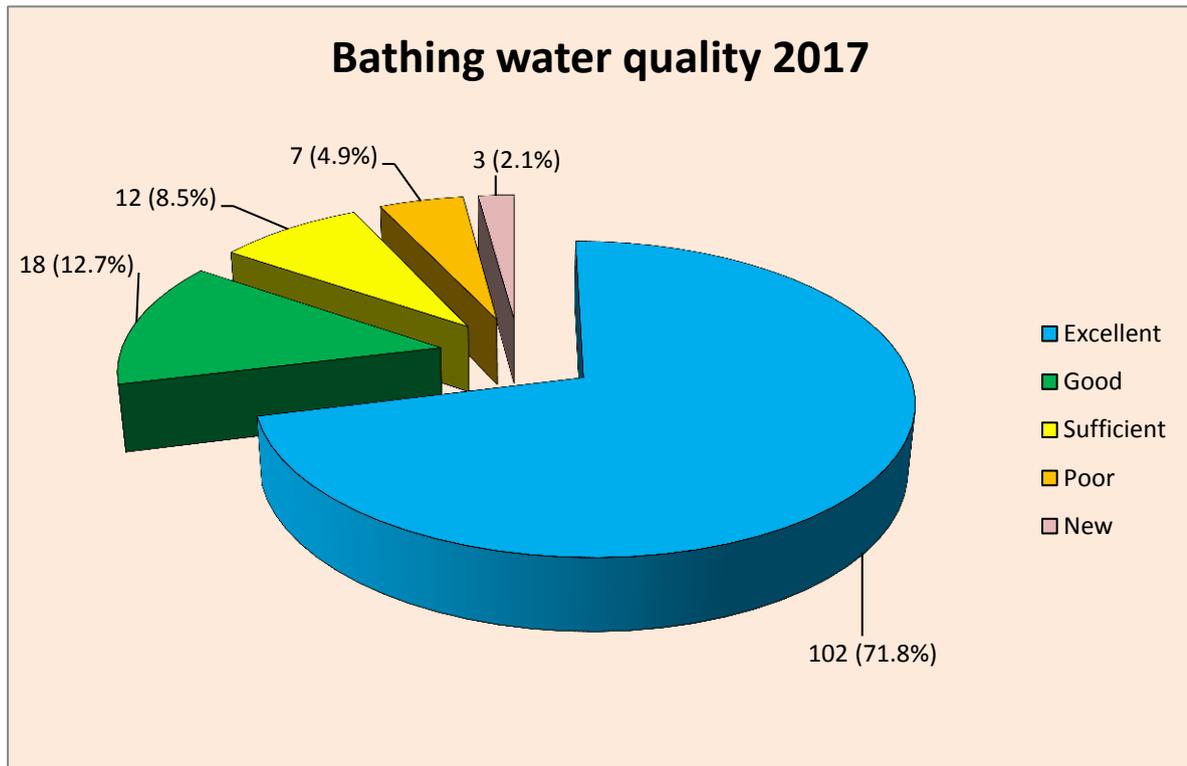
Movement from one category to the next (particularly from Excellent to Good) can be influenced by the inclusion of just a few poor samples in the 4 year period leading to a wider spread of results and thus higher average and percentile calculated values. It can also indicate an underlying pollution issue which needs to be addressed. Improvements are most notably observed when a year with some high results is no longer part of the rolling 4 year data set, as in the case of Youghal Front Strand, or where there has been a definitive change in the underlying water quality as in the case of Ardmore where a new wastewater treatment plant commissioned in 2015 has brought about significant improvements in water quality.

# Bathing Water Quality Map of Ireland 2017

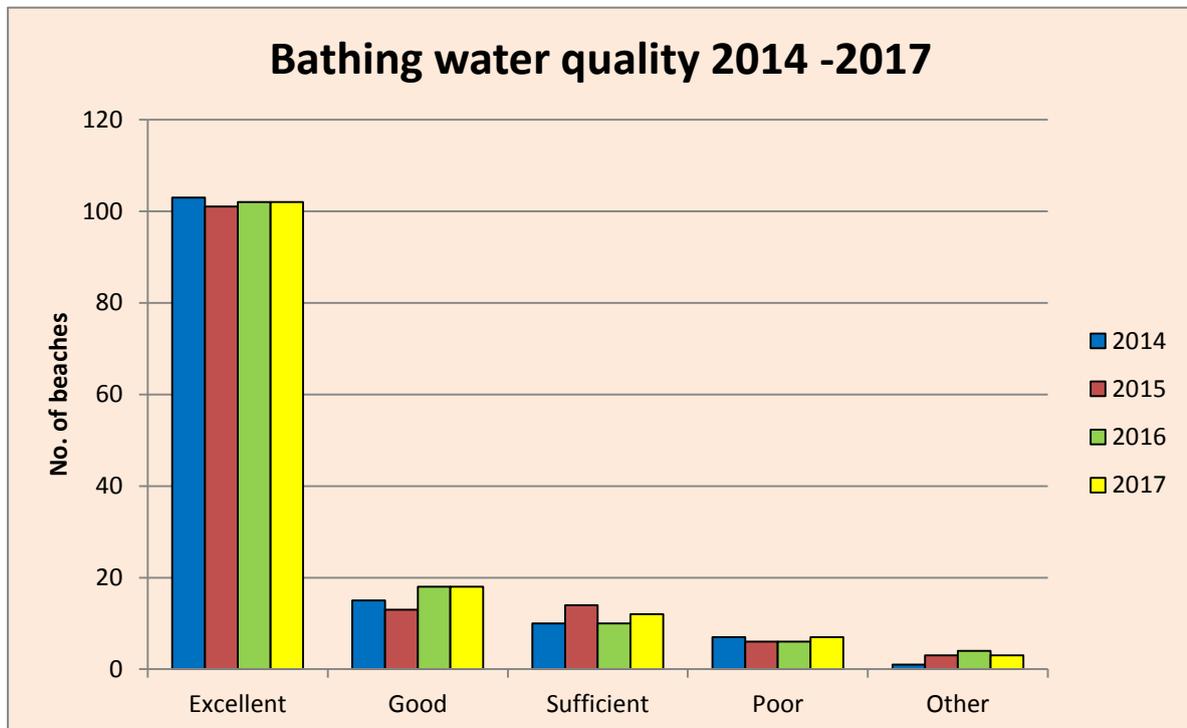


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## Bathing Water Quality 2017



## Water quality comparison (2014 - 2017)



Those waters exhibiting changes in quality between 2016 and 2017 are listed below:

### Improved

Local Authority	Bathing Water	2016 Quality	2017 Quality
Cork	Warren	Sufficient	Good
Galway	Trá na bhForbacha	Poor	Sufficient
Waterford	Ardmore	Changes	Excellent
Wexford	Duncannon	Sufficient	Good

### Deteriorated

Local Authority	Bathing Water	2016 Quality	2017 Quality
Cork	Coolmaine	Good	Sufficient
	Port Arthur (Derrybeg)	Excellent	Good
Dublin City	Sandymount	Sufficient	Poor
Fingal	Claremont	Good	Sufficient
	Donabate	Good	Sufficient
	Rush South	Sufficient	Poor
	Skerries	Good	Sufficient
Kerry	Waterville (Inny Strand)	Excellent	Good

Overall, 125 (90%) of the 139 waters for which classifications were determined showed no change across all four categories.

Over the last 4 years we have seen that many of our beaches appear to be largely unaffected by weather or pollution sources - mostly in the west and southwest. By contrast there are several which show impacts from pollution sources from time to time especially in urban areas. Given the right combination of circumstances any one of these vulnerable waters could result in being assigned a Poor classification.

**Local authorities urgently need to focus their attention on mitigating pollution impacts at these susceptible waters.**

### 3.1 Waters considered as vulnerable to pollution.

In addition to those waters currently classified in 2017 as Poor there are several waters currently achieving Good or Sufficient quality, or which have been classified as Sufficient in previous years, which still have the potential for achieving a Poor classification because of pollution impacts.

This list is not exclusive but includes the following beaches. In each case the most likely pollution source is also identified based on the bathing water profiles and management plans.

Status	Local Authority	Bathing Water	Likely pollution source(s)
<b>Poor</b>			
	Dublin City	Merrion Strand	Surface waters, drainage misconnections, birds
		Sandymount Strand	Surface waters, drainage misconnections, birds
	Fingal	Loughshinny	Urban sewage discharges and Septic tank discharges
		Portrane	Septic tank discharges, surface run-off
		Rush South	Sewage discharges
	Galway County	Clifden	Storm water overflow and Septic tank discharges
	Galway City	Ballyloughane	Urban runoff
<b>Vulnerable</b>			
	Cork	Garryvoe	Surface water stream
		Warrane – Cregane Strand	Though currently classed as Good there is potential for impacts from sewage discharges
		Youghal Front Strand	Sewage discharges, river inputs
		Coolmaine	Sewage discharges
	Donegal	Lady's Bay, Buncrana	Storm water overflow, river inputs
	Fingal	Balbriggan	River inputs, Harbour activities
		Rush North beach	Sewage discharges
		Claremont	Sewage discharges
		Skerries	Sewage discharges
		Donabate	Urban run-off / other sources
	Galway city	Grattan Road	Though currently classed as Good, Grattan Road has the potential for impacts from urban runoff
	Galway	Trá na mBan	Diffuse pollution
		Trá na bhForbacha	River inputs / septic tanks
		Céibh an Spidéil	Though having been Good for several years there is potential for impact from nearby sewage discharges as well as stream discharges
	Waterford	Bunmahon	River inputs / agriculture
	Westmeath	Lilliput	Sewage discharges /birds
	Wexford	Duncannon	Diffuse run-off

## 4. Dublin Bay in focus

### Dublin Biosphere

Dublin Bay is a unique location. In 2015 it was designated as a UNESCO (United Nations Educational, Scientific and Cultural Organisation) Biosphere and is the only one to be located largely within a capital city. Despite pressures including the country's largest port and wastewater treatment works the region is an important habitat for seabirds, wildlife, and aquatic species such as seals and porpoises. More information can be found at:

<http://www.dublinbaybiosphere.ie/>.



### Pollution pressures

Within the region there are several major beaches as well as popular swimming areas such as the 'Forty Foot', Half Moon, and the North Bull Wall.

A key feature of those beaches in the main part of Dublin Bay is that they are very gently sloping and at low tide expose very large areas of wet sand which are popular with seabirds.



Photo: © Paul O'Connell Photography

Out of all our coastal areas the waters in and around Dublin Bay appear to exhibit the greatest pressures from three main pollution sources. These are not altogether surprising and are a feature of many European waters close to large cities. They include:

- sewage discharges;
- contaminated surface streams; and
- birds and other animals.

### **Sewage and surface streams**

It is not only the beaches in Dublin Bay itself which are under pressure. Almost a quarter of Ireland's population lives in or around the capital and several beaches in Fingal are also under pressure from periodic pollution from sewage discharges and surface streams especially following heavy rainfall. In 2017, of the 15 identified beaches that lie within the Dublin Bay and Fingal area, 5 are classed as having Poor water quality, 5 with Sufficient water quality, and 5 bathing waters achieved Excellent or Good water quality. Over the last last four years, 9 of the 15 bathing waters have shown deterioration in water quality .

Irish Water has an extensive capita works programme to upgrade sewage treatment at these locations but it may be 2021 before any tangible improvements become evident. Further information can be found at <https://www.water.ie/projects-plans/>. In the meantime, these waters remain vulnerable and at risk of being downgraded in future years.

### **Seabird impacts**

Seabird droppings have as much as 10million E.coli bacteria per gram so it is perhaps no surprise that beaches where large numbers of birds are to be found , such as at Merrion and Sandymount, are showing impacts which may be contributing to a decline in quality as microbiological standards have become stricter and bird numbers appear to be increasing.

## Recreational use

The popularity of these beaches as a resource for public recreation such as dog-walking, combined with impacts from urban drainage, surface streams, and wastewater discharges make these a real challenge for local authorities to ensure compliance with the mandatory standards.

## Historic quality

The following table shows annual water quality classification since 2014 when the current stricter standards came into use. Prior to 2014 compliance was based on percentage of samples and less stringent targets. The mandatory requirement is for Sufficient quality. Management plans have been prepared for those classed as Poor.

Local Authority	Beach	2017	2016	2015	2014
Fingal Co Co	Balbriggan, Front Strand	Excellent	Excellent	Excellent	Excellent
Fingal Co Co	Skerries, South Beach	Excellent	Good	Excellent	Good
Fingal Co Co	Loughshinny Beach	Sufficient	Sufficient	Sufficient	Sufficient
Fingal Co Co	Rush, North Beach	Excellent	n/a	n/a	n/a
Fingal Co Co	Rush, South Beach	Sufficient	Excellent	Sufficient	Sufficient
Fingal Co Co	Portrane, the Brook Beach	Sufficient	Sufficient	Good	Excellent
Fingal Co Co	Donabate, Balcarrick Beach	Excellent	Good	Excellent	Excellent
Fingal Co Co	Portmarnock, Velvet Strand Beach	Excellent	Excellent	Excellent	Excellent
Fingal Co Co	Sutton, Burrow Beach	Excellent	Excellent	Excellent	Excellent
Fingal Co Co	Claremont Beach	Excellent	Good	Good	Good
Dublin City Co	Dollymount Strand	Good	Good	Excellent	Good
Dublin City Co	Sandymount Strand	Sufficient	Excellent	Excellent	Good
Dublin City Co	Merrion Strand	Sufficient	Sufficient	Sufficient	Excellent
DLR Co Co	Seapoint	Excellent	Excellent	Excellent	Excellent
DLR Co Co	Killiney	Good	Good	Excellent	Excellent

Legend	Excellent	Good	Sufficient	Poor
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Those beaches classified as Poor require information notices to be displayed which advise the public of the nature and reasons for the Poor water quality. Any with 5 successive years classed as Poor will require to be permanently closed (as a bathing water) until quality can be improved or they are declassified.

## Monitoring

All of the Dublin Bay beaches are monitored more intensively than required under the Bathing Water Regulations. Dublin City Council and Dun Laoghaire -Rathdown Council sample at least weekly during the bathing season with Fingal County Council sampling its beaches typically fortnightly. This ensures a high degree of public health protection but also increases the likelihood of finding periodic poorer quality.

Investigations of the Trimleston and Elm Park streams by Dublin City and Dun Laoghaire – Rathdown County Councils have shown the presence of misconnections from domestic properties with around 1 in 12 of the several hundred premises visited so far having misconnected drains. While work is continuing to rectify these problems, it could take several years to cover the large housing estates in both regions. Studies have also been undertaken to assess the impacts of the large numbers of seabirds known to congregate on Merrion and Sandymount beaches.

### **New research**

A project was commenced in mid-2017 involving collaboration between University College Dublin (UCD) and the University of Aberystwyth (Wales) which aims to better characterise and apportion the main sources of pollution in Dublin Bay. The ‘Acclimatize’ project aims to provide information on pollution sources using extensive modelling and measurements of water quality. Further information can be obtained at: <https://www.acclimatize.eu/>

Fingal County Council, in conjunction with UCD, is also undertaking an extensive project to better characterise and apportion the main sources of pollution in the Fingal region.

## 5. Who does what?

### Local authorities

In Ireland, local authorities have the primary responsibility for the management and monitoring of bathing waters and for the implementation of management measures to reduce or eliminate sources of pollution. They undertake the sampling and analysis of bathing waters as well as the day to day practical aspects of litter removal, maintenance of facilities, and the investigation of pollution events. By 24<sup>th</sup> March of each year they are required to identify to the EPA all bathing waters that they wish to be formally notified to the European Commission.

Any new bathing areas require the provision of supporting information including a bathing water profile which identifies the characteristics of the bathing water, its catchment area, and an assessment of potential pollution risks. Identified bathing waters would generally be those which have historically been used for bathing and where large number of bathers would be expected. These would, in most cases, also have adequate car parking and facilities such as toilets, picnic areas etc. Some smaller beaches which can be important for eco-tourism may also be monitored by local authorities. Where this information has been made available to EPA the water quality has been reviewed.

Local authorities provide us with details of their planned sampling programme (their annual monitoring calendar) prior to the start of each bathing season. Sampling is required to be undertaken within 4 days of the planned date to allow for contingencies such as stormy conditions which would render sampling unsafe or where, especially for those island bathing waters, air or ferry transport schedules are disrupted by bad weather.

### EPA

Our role is as regulator ensuring that the local authorities carry out their functions in accordance with the Bathing Water Regulations. We provide IT systems to manage and communicate the information reported by the local authorities and have prepared guidance to support local authorities in the implementation of their functions. We collate the monitoring results and other information about our beaches and communicate this to the public via [www.beaches.ie](http://www.beaches.ie).

At the end of each season we undertake the formal assessment of water quality and in December submit the monitoring data, water quality status assessments, details of any bathing restrictions, and management measures taken in respect of any incidents, to the European Commission.

We provide, and maintain the national bathing water website [www.beaches.ie](http://www.beaches.ie) and its associated Twitter™ account @EPABeaches to enable us to provide the public with up to date information.

## Health Service Executive (HSE)

The HSE cooperate closely with local authorities and the EPA in the management of bathing waters. They provide advice in relation to measures to ensure the protection of public health particularly in the case of pollution incidents.

## The public

The public can make representation to local authorities for the identification of new bathing waters and each year during the bathing season local authorities provide an opportunity to make such submissions. Information can be found on local authority websites – usually in their Environment sections. In 2016 we issued guidance for both the public and local authorities on what information should be provided and how this should be assessed. These documents are available at the following links:

Public Guidance:

<http://www.epa.ie/pubs/reports/water/bathing/publicadvicebathingwaters.html>

Local Authority Guidance:

<http://www.epa.ie/pubs/reports/water/bathing/frameworkforlocalauthoritiesofnewbathingwatersubmissions.html>

To date, very few submissions have been made in this way; however we would encourage the public to use this guidance to alert local authorities to popular beaches. Several inland local authorities have not identified any bathing waters and if you know that there are locations which are used for swimming on a regular basis then you should make this information known to them using the above guidance. Similarly, if you know of locations that are not currently being monitored, but where swimming is commonplace, then it is important to make these locations known to the local authority. This information is extremely helpful in determining whether the location meets the criteria for identification as a bathing water to be managed under the requirements of Bathing Water Regulations particularly so regarding the number of bathers / beach users and facilities provided or other measures taken to promote bathing.

## Sampling and Analysis

Swimming in Ireland can be a year-round activity in some locations, however, for the purposes of assessing water quality the bathing season in Ireland runs from 1<sup>st</sup> June to 15<sup>th</sup> September each year. In other European countries, it varies widely from just a few weeks in mid-summer in Scandinavia to several months in the Mediterranean regions.

**Many coastal waters are used for recreational activities such as surfing outside of the bathing season and, in general, these are not monitored by local authorities for bacteriological quality. Recreational users should be mindful of the possible risks of deterioration in water quality, especially after heavy rainfall, due to potential pollution from agricultural sources or from the impacts of discharges from sewage overflows.**

A 'pre-season' sample is taken by the local authority in late May and thereafter with a requirement for a minimum of monthly sampling however most local authorities sample at frequencies of typically fortnightly, and even weekly in some areas. Increased sampling frequency provides greater certainty to the overall water quality. Results are reported to us using the Environmental Data Exchange Network (EDEN) service and the results are then uploaded to our national website [www.beaches.ie](http://www.beaches.ie) but there is always a short time delay between sampling and the availability of results since it can take up to 72 hours for results to be available once samples have been received by the laboratory. This delay is simply due to the time it takes to culture the relevant bacteria and, unlike other areas of water quality assessment; **there are no quick alternatives to microbiological testing**. We encourage the local authorities to report their results promptly so that water quality data is kept up to date.

### Pollution notification

If a pollution incident occurs, or when sampling identifies a pollution risk which could have an impact on bather health, local authorities will act based on the microbiological thresholds established in conjunction with the HSE. Both the HSE and EPA are notified of the incident and may advise the local authority on any potential bathing restrictions.

Several local authorities monitor weather forecasts in efforts to predict possible pollution events e.g. as the result of heavy rainfall, and they will often put in place precautionary Prior Warning notices to advise the public of possible pollution risks.

Details of these, and any other pollution incidents, are notified to us by local authorities via our Bathing Water Information System and subsequently will be notified to the public via the beaches.ie website and the @EPABeaches Twitter™ account.

Signs located at the beach notice boards, or main access routes, are also used by local authorities to notify the public. Notices are also commonly displayed on local authority websites and may also include media broadcasts. Beaches.ie automatically issues Twitter™ alerts and the relevant details will be displayed on the beaches.ie website. Where any pollution is considered to be linked to wastewater discharges the local authority is required to inform Irish Water.

### Incident updates

Incident details are regularly updated by local authorities via the Bathing Water Information System and their impacts are assessed by the EPA Bathing Water team on an ongoing basis.

## 5.1 Warning signs and Incident management

A key requirement of the Bathing Water Regulations is to notify the public of any potential risks to bathing water quality. This has resulted in the development of a range of signs to cover the following commonly occurring situations:

- Where a deterioration in water quality is predicted (in advance) as being likely to occur;
- When routine sampling shows a deterioration in water quality which indicates that bathing is not advisable and;
- When bacterial pollution is detected at concentrations which present an acute health risk and a bathing prohibition is required.

### Pollution prediction

It is difficult to predict, with certainty, when deterioration in bathing water quality is likely to occur, or how significant it might be. Several local authorities use mathematical models or risk-matrix approaches linking possible pollution impacts to rainfall or other extreme weather warnings issued by Met Éireann allowing them to forewarn the public of a possible pollution.

Where possible pollution is predicted, many local authorities will erect Prior Warning notices at bathing waters they consider likely to be affected. These notices are very much precautionary and do not necessarily mean that any pollution will occur. Their purpose is to advise the public of possible Short Term Pollution potentially lasting only a few days at most.

Local authorities will generally monitor the bathing water to confirm whether pollution has occurred and when it is no longer evident. They may update their signage depending on the levels of pollution found and / or advice received from the HSE. Restrictions remain in place until it has been shown that pollution did not occur or that the water quality has returned to normal.

In 2017 most warnings passed without any pollution having occurred but if any deterioration in quality is identified these signs may be replaced by either a 'Swimming not advised' or a 'Do not Swim' notice depending on the severity of the pollution. In any event, if the water remains discolored bathing would not be advisable.

### Signs

These signs (as an A3 sized template) are available in both English and Irish and will normally be placed on the beach notice boards and on local authority websites. Electronic copies of any signage erected is also required to be submitted to the EPA along with full details of the incident, the likely source of pollution, and the expected duration of the event. We closely monitor each incident as it is ongoing.

Pollution can also be detected in bathing waters through the planned compliance monitoring program and when this occurs local authorities may act to put in place bathing restrictions based on the water quality thresholds agreed with HSE, or on advice received by them. This may be an 'Advice against bathing' or, in the case of more serious pollution a 'Bathing prohibition'. In both cases the purpose of this signage is to advise the public of a possible increased risk to health as result of any deterioration in water quality.

Where incidents are reported as being potentially linked to wastewater discharges, diffuse pollution, or domestic wastewater treatment systems (septic tanks) then the EPA's Office of Environmental Enforcement is notified and may open an enforcement file depending on the severity and frequency of incident notification. Management measures and investigations undertaken by the local authority, are reported to EPA prior to the Agency's assessment of bathing water quality and reporting to the European Union at the end of each bathing season.

For those waters classified as Poor (based on the 4 year assessment) there is an additional legal requirement that local authorities advise the public of this classification. To assist in this task two additional signs have been developed to help provide information on not only the likely pollution sources but what is being done to rectify the situation.

### How you can help us

Work is in progress to refine and simplify these signs but your feedback would help us considerably in this task. Please submit any comments you may have on the signs to [bathingwater@epa.ie](mailto:bathingwater@epa.ie)

## 5.2 Interpreting what Poor water quality means

Our assessment under the Bathing Water Regulations involves using a statistical approach to the calculation of water quality over a 4 year period as described in Section 2. The use of such an approach is to accommodate the minimum required sampling frequency of monthly samples covering June to mid-September.

The fact that bathing waters receive a classification of Poor reflects that, from time to time, they may be subject to periodic or more significant pollution events, than waters of better quality.

This often reflects the sensitivity of the bathing water to diffuse pollution from surface waters, septic tanks, urban runoff, or from the impacts of storm overflows. A Poor classification means that the bathing water has not met the minimum required standards required under the Bathing Water Regulations and that management measures to improve its quality require to be identified by the local authority and implemented.

It is however important to note that a Poor classification is based on a 4 year data set and is assessed on a rolling basis each year whereas the current water quality shown on [www.beaches.ie](http://www.beaches.ie) is based on the last reported sample and is judged against the criteria in section 2.1 for single samples.

### Swimming restrictions

Our guidance to local authorities on the management of Poor bathing waters requires that a bathing restriction be applied for the entire season which explains the reasons for the poor water quality, and what is being done to rectify the problems. Monitoring of these Poor waters will continue to be undertaken throughout the bathing season and the results will be available on beach noticeboards and on the beaches.ie website. While an ‘advice against swimming’ is the most likely restriction, a local authority may choose to implement a ‘bathing prohibition’ which is, in effect, a ban on swimming.

In neither case, does this mean that the beach itself is “off-limits” since the restriction applies to the bathing water rather than use of the landward area of the beach.

In 2017 the EPA reviewed plans for the implementation of management measures to remediate ‘Poor’ waters along with the implementation and effectiveness of any management measures undertaken during the 2016 bathing season.

## 5.3 Management Measures for Poor waters

The following tables show the progress and issues relating to those waters previously classified as Poor together with the planned measures for those currently identified in 2017.

### Infrastructure investment

Much of the infrastructure investment required to rectify issues with wastewater discharges features in Irish Water’s Capital Investment Programme however in most cases the timeframe is several years off due to the conflicting priorities of balancing investment in other areas of drinking water and wastewater infrastructure.

### Positive benefits of investment

On a positive note the new wastewater treatment plant commissioned at Ardmore in early 2016 has resulted in a marked improvement in the water quality there. Irish Water is in the final stages of completion of major infrastructural works to improve water quality at Rush South Beach and its environs. Youghal Front Strand has now returned to Sufficient quality largely because of improvements in wastewater management and a new wastewater treatment plant, due to be commissioned in 2018, should bring about further improvements.

## Clifden

One major disappointment was Clifden (Co. Galway) where despite the commissioning of a new wastewater plant in 2015, and a series of Excellent quality samples in that year, both 2016 and 2017 have been characterised by the occurrence of high bacterial concentrations on occasions especially after rainfall. Galway County Council investigations show several additional potential pollution sources as well as raising concerns over the operation of storm discharges from the Waste Water Treatment Plant itself. The net result is that Clifden is again classified as Poor and will remain so until remedial measures are put in place. Irish Water are investigating surface water ingress and engaging with the plant operators to ensure optimal use of the plant capacity.

## Future prospects

Some of the currently classified Poor waters are unlikely to see changes in their classification in the next few years unless through infrastructure improvements. Although in several cases there have been improvements in water quality the presence in the assessment data of high results from previous years may still influence their overall classification.

Where improved water quality is sustained or, for example, where there has been significant infrastructure investment likely to bring about improvements, then these waters could be reclassified as 'Changes' until sufficient post-improvement samples are available.

Planned management measures for these waters are summarised below.

## Other measures

Management Measures are not solely down to infrastructural investment by Irish Water. There are many other sources of pollution that are outside of Irish Water's remit, including surface water runoff, agricultural runoff, licensed discharges to surface waters, domestic septic tanks, private package treatment systems and impacts from animals / birds. The influences on water quality of all these pressures needs to be addressed where relevant.

Previously Poor waters – now improved						
Bathing Water	Local Authority	First year classified as 'Poor' under 2006/7/EC	Action taken and Outcomes achieved	Performance in 2017 using single sample assessment criteria	Water Quality Classification 2014 -2017	Comment
Trá na Forbacha	Galway County Council	2016	<p>A review of a Section 4 discharge license for a facility adjacent to the beach was undertaken and a new license issued requiring more intensive monitoring of the UV treatment system. The facility also upgraded its UV disinfection system.</p> <p>Investigations of domestic wastewater treatment systems (septic tanks) were undertaken as part of the under the National Inspection Programme. In several cases, remedial notices were served.</p>	8 Excellent	Sufficient	<p>Trá na Forbacha had previously shown episodic pollution and can be influenced by the quality of the Knock River which drains to the western end of the beach. Monitoring has indicated this is subject to contamination from bacterial inputs – possibly from septic tanks as agriculture is limited by the geography of the catchment.</p> <p>A private wastewater discharge adjacent to the river has also been targeted and improvements in waste management may have been a contributory factor though this will be further assessed at the end of the 2018 bathing season.</p>
Youghal Front Strand	Cork County Council	2014	Interception of one of the main storm discharges reduced the likelihood of discharges to the beach. Sewer network work is largely complete. A new wastewater treatment plant was commissioned in Q1 of 2018	6 Excellent 3 Good	Sufficient	Youghal Front Strand has shown improved performance from 2015 through 2017 but it can still exhibit slight deteriorations in water quality. The new wastewater plant is expected to result in further improvements in quality.

Currently Poor waters – 2017						
Bathing Water	Local Authority	First year classified as 'Poor' under 2006/7/EC	Summary of key management measures proposed	Performance in 2017 using single sample assessment criteria	Water Quality Classification 2014 -2017	Comment
Ballyloughane	Galway City Council	2014	<p>Investigative surveys to identify and correct misconnections to surface water drainage systems in the Ballyloughane outfall catchment area were undertaken in 2017 and will continue in 2018.</p> <p>Remedial works on combined storm overflows to cease their operation have also been carried out.</p> <p>Several misconnections of foul water were redirected to the foul sewer.</p>	<p>13 Excellent</p> <p>2 Good</p> <p>1 Poor</p>	Poor	<p>The Renmore outfall has now been decommissioned and is no longer considered a pollution source however Ballyloughane beach remains vulnerable to storm water pollution especially after heavy rainfall.</p> <p>Periodic elevated bacterial counts having been exhibited in all years since 2013.</p> <p>Overall water quality in 2017 was better than in previous years and may be an early indication that remedial works have had a positive impact however this will require to be further appraised at the end of the 2018 bathing season. If 2017 performance were to be maintained it is likely the beach would achieve at least Sufficient water quality in future years.</p>

Currently Poor waters – 2017						
Bathing Water	Local Authority	First year classified as 'Poor' under 2006/7/EC	Summary of key management measures proposed	Performance in 2017 using single sample assessment criteria	Water Quality Classification 2014 -2017	Comment
Clifden	Galway County Council	2014 and again in 2016	<p>An overhaul of the sewer network has been completed with substantial separation of surface and foul water in the town center. A number of defective manholes covers are due for replacement in 2018.</p> <p>The new WWTP has been operational since the Autumn of 2015 with disinfection of the effluent discharge during the bathing season. Measures proposed for 2018 included optimizing the capacity of the wastewater treatment plant. This was not achieved in 2017.</p> <p>Irish Water have agreed with the plant operators to ensure improved operation in 2018 with the aim of reducing storm discharges.</p>	<p>7 Excellent 1 Good 1 Sufficient 2 Poor</p>	Poor	<p>In 2015 Clifden was sampled at the required minimum monthly frequency with all 5 samples being of excellent quality.</p> <p>In 2016 sampling frequency was increased to at least fortnightly but on several occasions Poor water quality was observed after heavy rainfall resulting in reclassification as Poor in 2016. Sampling in 2017 was maintained at this frequency and showed similar patterns</p> <p>Investigations by Galway County Council have resulted in efforts to minimize other possible pollution inputs.</p> <p>WWTP storm water discharges remain the most likely source of periodic deterioration in water quality.</p>

<b>Currently Poor waters – 2017</b>						
<b>Bathing Water</b>	<b>Local Authority</b>	<b>First year classified as 'Poor' under 2006/7/EC</b>	<b>Summary of key management measures proposed</b>	<b>Performance in 2017 using single sample assessment criteria</b>	<b>Water Quality Classification 2014 -2017</b>	<b>Comment</b>
<b>Loughshinny</b>	Fingal County Council	2015	Irish Water has two sewerage projects planned to facilitate the decommissioning of the existing septic tank at Loughshinny and to provide transfer of existing pumping station discharges to the Skerries WWTP however completion of this project is not expected until Q1 2019 at the earliest. Proposed measures for 2017 included the inspection of domestic wastewater systems within the catchment together with monitoring of surface water outfalls.	8 Excellent 1 Poor	Poor	Loughshinny was first classified as Poor in 2015 and at risk of failing from the combined impacts of septic tank discharges and surface water drainage.  There are possible impacts from wastewater discharges to north of the bathing area.  Performance in 2017 was much better than in previous years. But for one high sample in 2014 the beach would have achieved Sufficient quality.
<b>Rush South Beach</b>	Fingal County Council	2014	Water quality at Rush South beach is impacted periodically by wastewater discharges. Rush agglomeration has now been connected to the new Portrane WWTP involving construction of 3 new pumping stations, and 6 km of new sewers. This major project is being commissioned in Q1 2018.	8 Excellent 1 Poor	Poor	Rush South beach was first classified as Poor in 2014 but returned to Sufficient quality briefly in 2016. Unfortunately, one high Enterococci result in late August 2017 was sufficient to push it back into Poor.

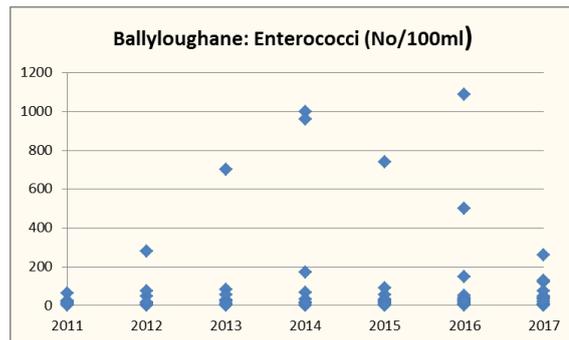
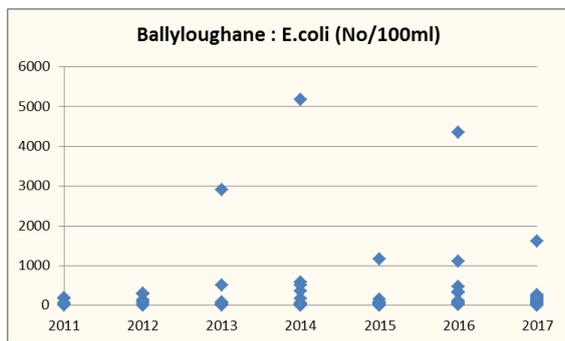
Currently Poor waters – 2017						
Bathing Water	Local Authority	First year classified as 'Poor' under 2006/7/EC	Summary of key management measures proposed	Performance in 2017 using single sample assessment criteria	Water Quality Classification 2014 -2017	Comment
Portrane (Brook beach)	Fingal County Council	2016	Proposals include investigation of domestic wastewater treatment plants (septic tanks) in the catchment together with more targeted inspections by dog wardens and sampling of stream outfalls to determine water quality.	7 Excellent 2 Good	Poor	<p>Water quality at Portrane (Brook beach) would have met Sufficient quality for E. coli but for a very high value in 2014 following heavy rainfall.</p> <p>In 2016 another high result, this time for Intestinal Enterococci, influenced the Poor outcome and demonstrates the vulnerability of this location to sporadic pollution events. This high value is likely to have an impact on future quality assessments until at least 2018.</p> <p>Overall performance in 2017 has been much better than in previous years with no poor samples reported.</p>

Currently Poor waters – 2017						
Bathing Water	Local Authority	First year classified as 'Poor' under 2006/7/EC	Summary of key management measures proposed	Performance in 2017 using single sample assessment criteria	Water Quality Classification 2014 -2017	Comment
Merrion Strand	Dublin City Council	2015	<p>Merrion Strand was first classified as Poor in 2015 based on 2012-2015 data.</p> <p>Management plans focus on the identification and remediation of possible misconnections to both the Elm Park and Trimlestown streams draining onto the beach.</p> <p>Irish water is cooperating with the relevant local authorities in checking misconnections to the surface water systems. They will use and develop current network models to assess possible pressures on the bathing water quality.</p> <p>Irish Water proposes to assess the current CSO spill data to the Elm Stream and correlate with the bathing water samples to check their impact and relevance.</p>	<p>8 Excellent</p> <p>4 Good</p> <p>1 Sufficient</p> <p>7 Poor</p>	Poor	<p>Merrion Strand exhibited several sporadic but significant pollution events during 2015 – 2017 which appear to be largely linked the quality of nearby surface waters / streams or other pollution sources such as seabirds.</p> <p>Inputs from the Elm Park stream and changes in flow direction due to a build-up of near shore sandbars have been linked to these events.</p> <p>Genetic profiling of bacteria indicates the presence of both human and avian (bird) genetic markers in the water, and in the sand, adjacent to the sampling point. Further work to identify which is the predominant influence is planned under the Acclimatize project. <a href="https://www.acclimatize.eu/">https://www.acclimatize.eu/</a></p> <p>Daily bird population surveys undertaken in 2016 showed high numbers of seabirds near the beach sampling point.</p>

Currently Poor waters – 2017						
Bathing Water	Local Authority	First year classified as 'Poor' under 2006/7/EC	Summary of key management measures proposed	Performance in 2017 using single sample assessment criteria	Water Quality Classification 2013 -2016	Comment
Sandymount Strand	Dublin City Council	2017	As with Merrion Strand, the management plan for Sandymount Strand focuses primarily on the identification and remediation of possible misconnections to both the Elm Park and Trimlestown streams draining adjacent to the beach and to the quantitation of pollution inputs using genetic profiling under the Acclimatize project <a href="https://www.acclimatize.eu/">https://www.acclimatize.eu/</a>	13 Excellent 3 Good 2 Sufficient 2 Poor	Poor	Water quality at Sandymount Strand appears to suffer similar pressures to that at Merrion Strand though, in general, water quality variations are not as severe.  In 2017 many samples were of Excellent quality however a series of less satisfactory samples during both 2017 and in earlier years has resulted in a progressive decline in overall water quality.

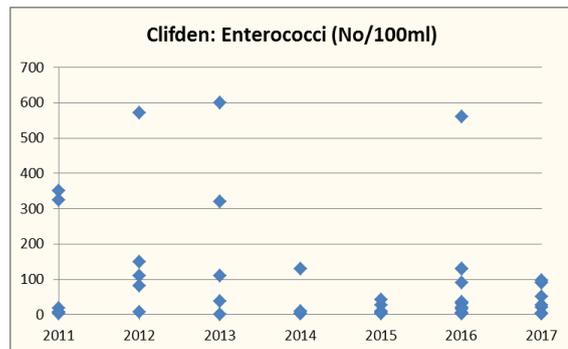
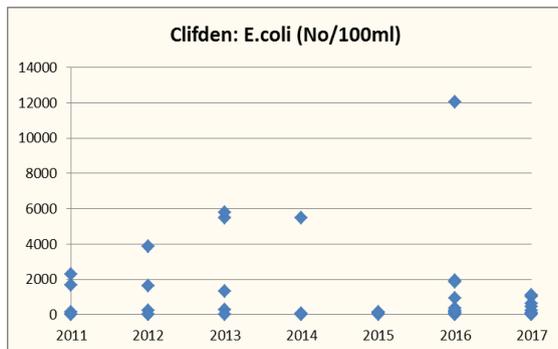
The following dot plots show the range of values reported annually for each of the Poor beaches. They give an indication of the spread of individual results which is a key factor in the calculation of the overall quality assessment.

## Ballyloughane



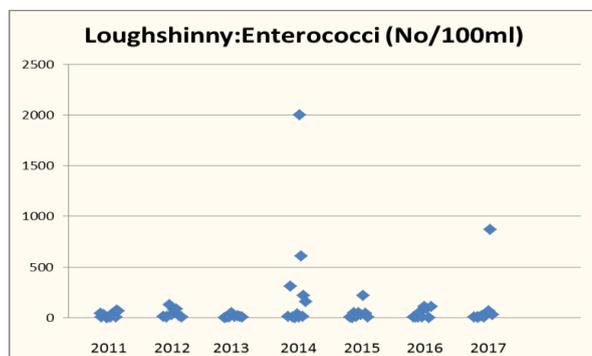
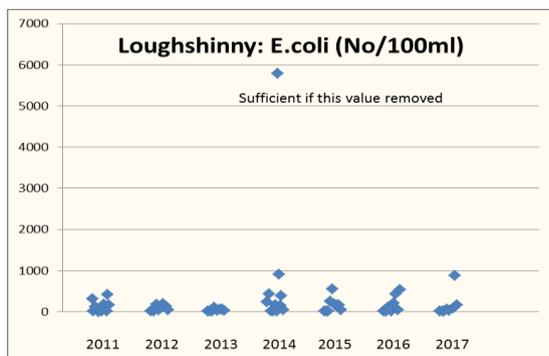
The large variation in E. coli, but more so Intestinal Enterococci, is the principal factor influencing Poor quality at Ballyloughane. 2017 results appear to show an improvement but it is too early to assess whether this is due to remedial actions.

## Clifden



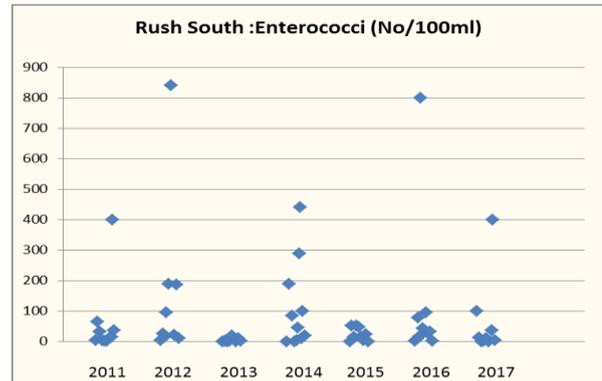
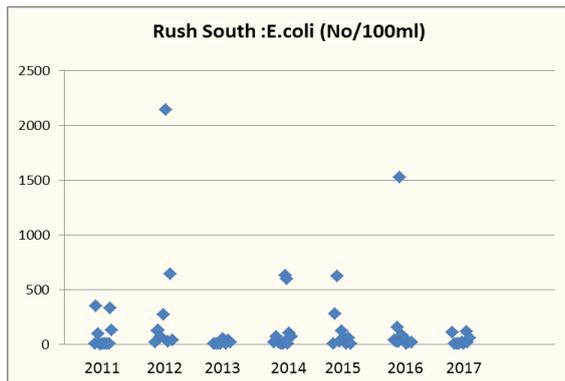
The highly variable nature of water quality at Clifden is illustrated by comparison with 2015 data. A new wastewater treatment plant was commissioned in 2015 however storm discharges may have been a contributory factor in 2016 and 2017 outcomes. During 2011 -2015 sampling was at minimum monthly frequency so may have missed extreme rainfall events.

## Loughshinny



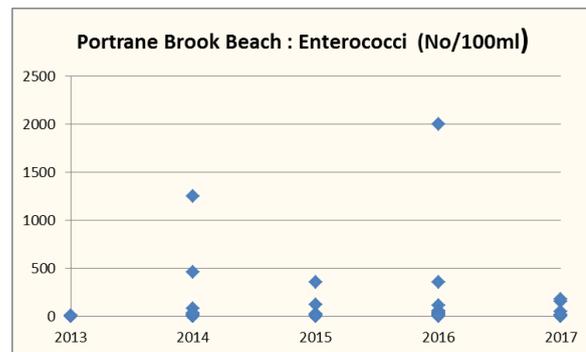
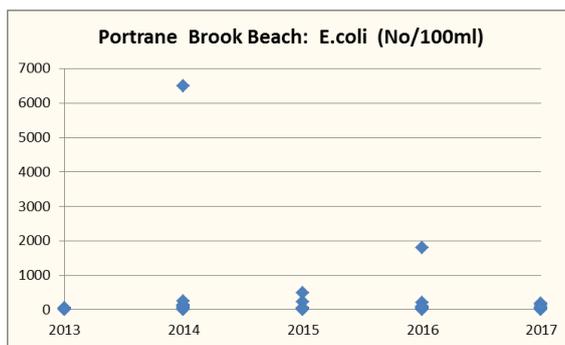
Loughshinny shows regular pollution impacts resulting in spikes in the numbers of bacteria found. While overall bacterial counts are not generally of a level to merit extreme public health concern the frequency of elevated counts indicates a background pollution source. An improved classification is possible for 2018 if current quality is sustained.

## Rush South Beach



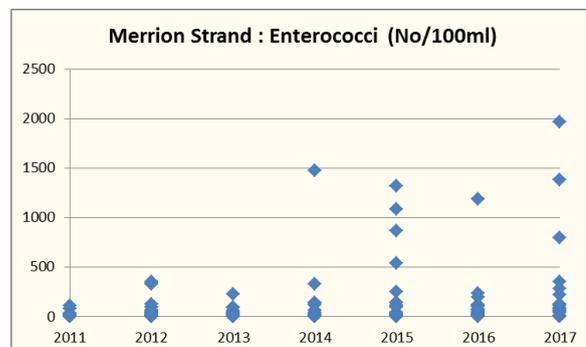
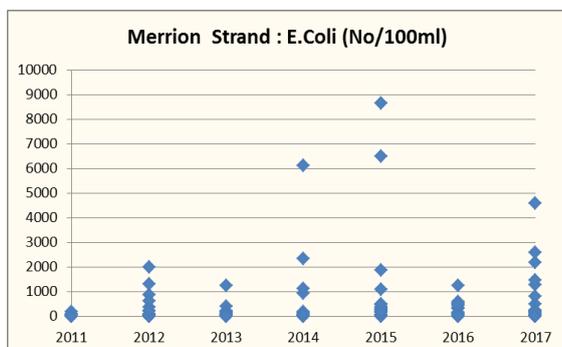
Water quality at Rush South is being clearly influenced by the proportion of elevated counts in the period 2014 to 2017, particularly for Enterococci. This indicates a recurrent pollution source.

## Portrane (Brook Beach)



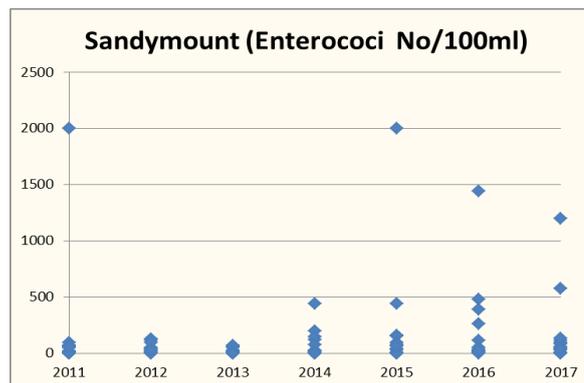
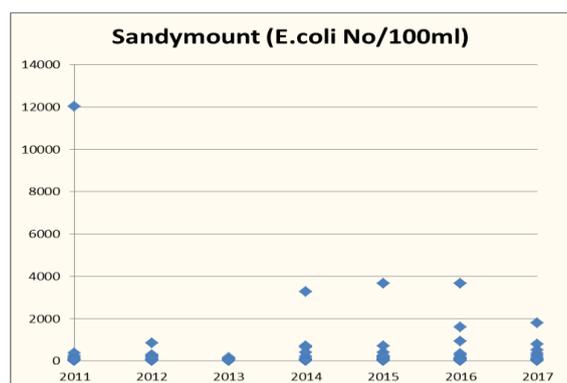
Overall water quality at Portrane (Brook beach) is still being influenced by the high results obtained in August 2014 following extensive heavy rainfall over the Bank Holiday weekend. In July 2016 another high Enterococci result was obtained following routine sampling. On that occasion, there had been no appreciable rainfall and investigations showed no evidence of any wastewater discharges. Fouling from animals was considered the most probable cause. It is unlikely that Portrane will achieve improved quality in 2018 because of this impact.

## Merrion Strand



Merrion Strand has shown a significant increase in the frequency and magnitude of pollution events in recent years with the period between 2014 and 2017 being particularly poor.

## Sandymount Strand



Sandymount Strand exhibited a particularly high E. coli and Enterococci count in 2011 however these values do not currently affect the current classification of Poor. This is largely down to the recurrence of elevated bacterial counts for both microbiological parameters in recent years combined with the application of stricter quality criteria.

### 5.4 The importance of weather

One of the key factors influencing Ireland's bathing water quality is our weather. As with the UK, the dominant west / southwesterly airflow over Ireland is generally unstable and brought appreciable rainfall in most weeks as the following table shows. Rainfall amounts are in mm.

Dates	Roches Pt.	Sherkin	Valentia	Shannon	Belmullet	Malin Head	Dublin
8 - 14 May	6.5	10.3	13.4	11.2	6.1	16.1	6.9
15-21 May	37.7	15.3	43.8	10.7	26.2	21.9	12.3
22 - 28 May	9.3	11.6	14.8	23.3	13.3	8.7	20.8
29 May - 4 Jun	15.8	17	36.3	16.2	29.4	27.4	12.7
5 - 11 Jun	65.1	69.3	68.9	44.1	31.4	32.2	41.7
12 -18 Jun	1	3.3	13.6	2.2	16.2	14.1	0.4
19 - 25 Jun	1	7.5	12	5.1	11.9	6.2	2.6
26 Jun - 2 July	21.8	14.7	19.8	19.8	13.4	3.5	32.4
3 - 9 July	0.8	1.2	9	7.7	26.3	39.7	1.6
10 - 16 July	3.4	17.5	13.6	7.3	7.9	15.2	6.4
17 - 23 July	27.1	44.1	48.4	65.7	26.7	26.1	21.5
24 - 30 July	15.4	23.5	32	40.8	35.2	31.2	11
31 July - 6 Aug	24.6	25.5	27.2	28.4	28.8	18.2	13
7 - 13 Aug	16.8	11.5	17.8	10.5	25.4	6.2	3.8
14 - 20 Aug	31.3	32.6	43	38.6	31	50.7	51.1
21 - 27 Aug	7.7	3.3	5.4	11.4	49.3	89.5	2.9
28 Aug -3 Sept	39	42.6	55.6	16.4	18.1	11.8	20.1
4 - 10 Sept	25.6	30	32.8	22.3	26.9	27.7	14.4
11 -15 Sept (5 days)	11	6.9	20.3	13.4	20.8	20.3	9.4

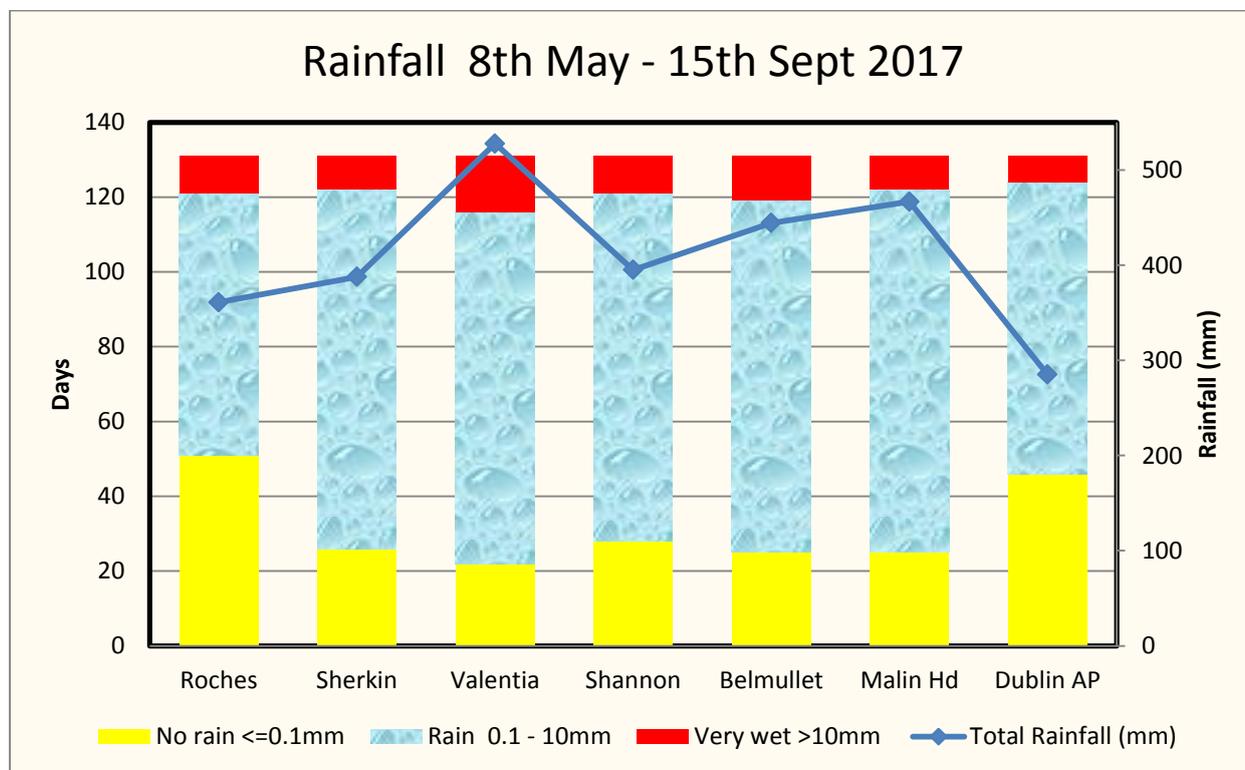
**Key:** Blue - Green = Very Low/ Low , Yellow - Light Orange = Moderate, Orange - Red = Heavy

What is very apparent is that while the bathing season started poorly with some very heavy rainfall especially in the Southwest it brightened up until mid-July when we were treated to another period of heavy rain and strong winds. This type of weather can cause a marked deterioration in water quality due to the churning up of sands and increased run off from urban areas, fields, surface waters, and wastewater overflows.

Met Eireann’s summary for 2017 indicates July and August were unsettled and noticeably cool while late August saw the influence of the remains of Hurricane Gert. This severe weather mostly affected the northwest with its impacts including severe flooding. Sampled from Donegal were thankfully taken prior to its arrival. Malin Head recorded its wettest rainfall event in 62 years on the 23<sup>rd</sup> August with 77.2 mm of rainfall.

It was so notably duller than usual, except in the southeast of the country, with sunshine levels well below their Long-Term Average (LTA) values. The cool and unsettled weather also continued well into September making the 2017 season one of the least welcoming for bathing in many years.

Ireland’s weather contrasts markedly with that of countries reported by the European Environment Agency as having a higher proportion of Excellent waters.<sup>2</sup> These countries are generally located in the Mediterranean or Southern European region where sunshine is much more prevalent. Since ultra violet light from sunshine has a marked influence on reducing bacterial concentrations it is no surprise that they appear to perform somewhat better than we do.



<sup>2</sup> European Bathing Water Quality in 2016, Ed. P. Kristensen, European Environment Agency 2016  
<https://www.beaches.ie/wp-content/uploads/2017/06/European-bathing-water-quality-in-2016.pdf>

## 6. Summary of Ireland's identified bathing waters

Water quality assessments have been undertaken on all the EU identified bathing waters for the period 2014-2017 involving statistical assessment of the 95 and 90 percentile values following logarithmic transformation of the bacteriological results. This information is presented in the following table. All locations are coastal waters unless specified.

Local Authority / Bathing Water	2015	2016	2017	Change from 2016	Comments
<b>Clare County Council</b>					
Ballyallia Lake, Ennis (freshwater)	Excellent	Excellent	Excellent	→	Overall water quality in Co. Clare bathing waters remains extremely high with all bathing waters showing Excellent classification.  New in 2017. Likely to be Excellent based on monitoring data
Ballycuggeran (freshwater)	Excellent	Excellent	Excellent	→	
Bishopsquarter	Excellent	Excellent	Excellent	→	
Cappagh Pier Kilrush	Excellent	Excellent	Excellent	→	
Fanore	Excellent	Excellent	Excellent	→	
Kilkee	Excellent	Excellent	Excellent	→	
Lahinch	Excellent	Excellent	Excellent	→	
Mountshannon (L. Derg ) freshwater)	Excellent	Excellent	Excellent	→	
Seafield, Quilty	n/a	n/a	New	-	
Spanish Point	Excellent	Excellent	Excellent	→	
White Strand , Doonbeg	Excellent	Excellent	Excellent	→	
White Strand, Miltown Malbay	Excellent	Excellent	Excellent	→	
<b>Cork County Council</b>					
Barley Cove	Excellent	Excellent	Excellent	→	
Coolmaine	Sufficient	Good	Sufficient	↘	
Fountainstown	Sufficient	Excellent	Excellent	→	
Garretstown	Good	Excellent	Excellent	→	
Garrylucas White Strand	Excellent	Excellent	Excellent	→	
Garryvoe	Sufficient	Sufficient	Sufficient	→	Garryvoe suffers from episodic pollution which may be linked to impacts from surface water quality / wastewater discharges
Inchydoney	Excellent	Excellent	Excellent	→	
Owenahincha Little Island Strand	Excellent	Excellent	Excellent	→	

Local Authority / Bathing Water	2015	2016	2017	Change from 2016	Comments
Redbarn	Good	Excellent	Excellent	→	
Tragumna	Excellent	Excellent	Excellent	→	
Warren, Cregane Strand	Good	Sufficient	Good	↗	Warren was periodically affected by wastewater discharges in 2016
Youghal Claycastle	Sufficient	Good	Good	→	
Youghal Front Strand Beach	Poor	Sufficient	Sufficient	→	All the Youghal beaches have improved because of wastewater infrastructure improvements. A new treatment plant is due for commissioning in 2018.
<b>Donegal County Council</b>					
Ballyhiernan, Fanad	Excellent	Excellent	Excellent	→	E. coli levels appear to be more variable in 2016 and 2017 than in previous years
Bundoran	Excellent	Excellent	Excellent	→	
Carrickfinn	Excellent	Excellent	Excellent	→	
Culdaff	Excellent	Excellent	Excellent	→	
Downings	Excellent	Excellent	Excellent	→	
Drumnatinny	Excellent	Excellent	Excellent	→	
Fintra	Excellent	Excellent	Excellent	→	
Killahoey	Excellent	Excellent	Excellent	→	
Lady's Bay, Buncrana	Sufficient	Sufficient	Sufficient	→	Lady's Bay appears to exhibit episodic low level pollution possibly arising from storm overflow discharges
Lisfannon	Excellent	Good	Good	→	Lisfannon just exceeded the threshold for Excellent quality due to Enterococci counts.
Marble Hill	Excellent	Excellent	Excellent	→	These waters continue to be of extremely high quality with few pollution sources or events identified.
Murvagh	Excellent	Excellent	Excellent	→	
Naran	Excellent	Excellent	Excellent	→	Portnablugh shows very variable Enterococci counts and just exceeds the criteria for Excellent quality
Portarthur , Derrybeg	Excellent	Excellent	Good	↘	
Portnablugh	Good	Good	Good	→	
Portsalon	Excellent	Excellent	Excellent	→	Rathmullan has shown more variable water quality since 2016 when compared to earlier years particularly for E. coli.
Rathmullan	Good	Good	Good	→	
Rossnowlagh	Excellent	Excellent	Excellent	→	
Stroove	Excellent	Excellent	Excellent	→	
Dooy	n/a	New	New	-	Both beaches were new in 2015 and await sufficient samples for full classification. Indications are that Excellent quality is likely to be achieved.
Magheroarty	n/a	New	New	-	

Local Authority / Bathing Water	2015	2016	2017	Change from 2016	Comments
<b>Dublin City Council</b>					
Dollymount Strand	Sufficient	Good	Good	→	Dollymount showed improved bacterial counts in 2017 with only 1 poor sample out of 20
Merrion Strand	Poor	Poor	Poor	→	Several pollution incidents were reported for Merrion Strand in 2017 due mainly to impacts of surface water streams and possible influences from seabirds
Sandymount Strand	Sufficient	Sufficient	Poor	↘	Sandymount also exhibited several pollution incidents which may have been linked to wastewaters, urban runoff, and possible influences from seabirds.
<b>Dun Laoghaire Rathdown Co. Co.</b>					
Killiney	Excellent	Good	Good	→	Reduction in overall quality due to 2 pollution events in 2016. Better in 2017
Seapoint	Excellent	Excellent	Excellent	→	
<b>Fingal County Council</b>					
Balbriggan, Front Strand Beach	Sufficient	Sufficient	Sufficient	→	Balbriggan remains extremely vulnerable to pollution from the Matt River and activities within Balbriggan harbour area
Claremont Beach	Good	Good	Sufficient	↘	Of the 9 samples in 2017, 1 was Poor and 1 Sufficient. Claremont shows evidence of repeated low level pollution
Donabate, Balcarrick Beach	Excellent	Good	Sufficient	↘	1 Poor sample of 9 in 2017 but some evidence of episodic pollution
Loughshinny Beach	Poor	Poor	Poor	→	Loughshinny was downgraded to poor in 2015 due to impacts of pollution events. Just 1 sample of 9 was Poor in 2017 with the other 8 being Excellent quality. Improvement likely in 2018
Portmarnock , Velvet Strand Beach	Excellent	Excellent	Excellent	→	
Portrane, the Brook Beach	Good	Poor	Poor	→	Periodic pollution still apparent. See discussion on Poor waters in main text.
Rush, North Beach	n/a	New	Sufficient	-	New in 2016. Several high samples in both 2016 and 2017 show this beach to be vulnerable to pollution risking Poor classification in future years
Rush, South Beach	Poor	Sufficient	Poor	↘	Rush South improved in 2016 but continues to be at risk from wastewater discharges
Skerries , South Beach	Sufficient	Good	Sufficient	↘	Skerries improved in 2016 but continues to show elevated bacterial counts
Sutton, Burrow Beach	Excellent	Excellent	Excellent	→	
<b>Galway City Council</b>					
Ballyloughane Beach	Poor	Poor	Poor	→	Ballyloughane showed improved quality in 2017 but classification is being influenced by sporadic pollution events occurring in most years
Grattan Road Beach	Sufficient	Good	Good	→	Sustained quality in 2017 but remains at risk from urban run-off
Salthill Beach	Excellent	Excellent	Excellent	→	
Silverstrand Beach	Excellent	Excellent	Excellent	→	

Local Authority / Bathing Water	2015	2016	2017	Change from 2016	Comments
<b>Galway County Council</b>					
An Trá Mor, Coill Rua, Indreabhain	Excellent	Excellent	Excellent	→	
Bathing Place at Portumna (freshwater)	Excellent	Excellent	Excellent	→	
Céibh an Spidéil	Good	Good	Good	→	Good quality despite its proximity to the sewage discharge at Spiddal
Cill Mhuirbhígh, Inis Mór	Excellent	Excellent	Excellent	→	
Clifden	Changes	Poor	Poor	→	All 5 samples taken in 2015 showed Excellent quality but 2016 and 2017 saw several high bacterial counts after rainfall. Further detail is provided in the general text of this report.
Goirtin, Cloch na Rón	Excellent	Excellent	Excellent	→	
Loughrea Lake (freshwater)	Excellent	Excellent	Excellent	→	
Trá an Dóilín, An Ceathrú Rua	Excellent	Excellent	Excellent	→	
Trá Chaladh Fínis, Carna	Excellent	Excellent	Excellent	→	
Trá Inis Oirr	New	Excellent	Excellent	→	First classified in 2016
Trá na bhForbacha, Na Forbacha	Sufficient	Poor	Sufficient	↗	Improvement observed in 2017. See main text for details
Trá na mBan, An Spidéal	Sufficient	Sufficient	Sufficient	→	Continued periodic impacts from agricultural run-off, septic tanks, and nearby wastewater discharge
Traught, Kinvara	Excellent	Excellent	Excellent	→	
<b>Kerry County Council</b>					
Baile an Sceilig (Ballinskelligs)	Excellent	Excellent	Excellent	→	Beaches in Co. Kerry appear to be relatively unaffected by pollution impacts
Ballybunnion North	Excellent	Excellent	Excellent	→	
Ballybunnion South	Excellent	Excellent	Excellent	→	
Ballyheigue	Excellent	Excellent	Excellent	→	
Banna Strand	Excellent	Excellent	Excellent	→	
Castlegregory	Excellent	Excellent	Excellent	→	
Doire Fhíonáin (Derrynane)	Excellent	Excellent	Excellent	→	
Fenit	Excellent	Excellent	Excellent	→	
Fionntrá (Ventry)	Excellent	Excellent	Excellent	→	
Inch	Excellent	Excellent	Excellent	→	
Kells	Excellent	Excellent	Excellent	→	

Local Authority / Bathing Water	2015	2016	2017	Change from 2016	Comments
<b>Kerry County Council</b>					
Maharabeg	Excellent	Excellent	Excellent	→	
Rossbeigh, White Strand	Excellent	Excellent	Excellent	→	
Trá na hUíne (Inny Strand, Waterville)	Excellent	Excellent	Good	↘	1 high E. coli sample (of 12) in early Sept 2017 resulted in the drop in quality
White Strand, Caherciveen	Excellent	Excellent	Excellent	→	
<b>Leitrim County Council</b>					
Keeldra Lough (freshwater)	Excellent	Excellent	Excellent	→	
<b>Louth County Council</b>					
Clogherhead	Excellent	Excellent	Excellent	→	Bathing waters in Co. Louth continue to be of a very high quality with few pollution sources having been identified.
Port Lurganboy	Excellent	Excellent	Excellent	→	
Seapoint	Excellent	Excellent	Excellent	→	
Shelling Hill/Templetown	Excellent	Excellent	Excellent	→	
<b>Mayo County Council</b>					
Bertra Beach, Murrisk	Excellent	Excellent	Excellent	→	Bathing waters in Co. Mayo continue to be of a very high quality with few pollution sources having been identified.
Carrowmore Beach, Louisburgh	Excellent	Excellent	Excellent	→	
Carrowniskey, Louisburgh	Excellent	Excellent	Excellent	→	
Clare Island, Louisburgh	Excellent	Excellent	Excellent	→	
Dooega Beach, Achill Island	Excellent	Excellent	Excellent	→	
Dugort Beach, Achill Island	Excellent	Excellent	Excellent	→	
Elly Bay, Belmullet	Excellent	Excellent	Excellent	→	
Golden Strand, Achill Island	Excellent	Excellent	Excellent	→	
Keel Beach, Achill Island	Excellent	Excellent	Excellent	→	
Keem Beach, Achill Island	Excellent	Excellent	Excellent	→	
Mullaghroe Beach, Belmullet	Excellent	Excellent	Excellent	→	
Mulranny Beach	Excellent	Excellent	Excellent	→	
Old Head Beach, Louisburgh	Good	Good	Good	→	
Rinroe Beach, Carrowtigue	Excellent	Excellent	Excellent	→	
Ross Beach, Killala	Excellent	Excellent	Excellent	→	

Local Authority / Bathing Water	2015	2016	2017	Change from 2016	Comments
<b>Meath County Council</b>					
Laytown/Bettystown	Good	Good	Good	→	
<b>Sligo County Council</b>					
Dunmorán Beach	Excellent	Excellent	Excellent	→	
Enniscrone Beach	Good	Good	Good	→	
Mullaghmore Beach	Excellent	Good	Good	→	Several high Intestinal Enterococci results in 2016 causing overall deterioration in quality. Some elevated E. coli in 2017
Rosses Point Beach	Excellent	Excellent	Excellent	→	
Streedagh Beach	Excellent	Excellent	Excellent	→	
<b>Waterford City and County Council</b>					
Ardmore Beach	Sufficient	Changes	Excellent	↗	Classified as 'Changes' in 2016 resulting from commissioning of a new WWTP. 2017 shows significant and sustained improvement in quality
Bunmahon Beach	Sufficient	Sufficient	Sufficient	→	Bunmahon remains vulnerable to pollution from the Mahon river which drains adjacent to the bathing area
Clonea Beach	Excellent	Excellent	Excellent	→	
Counsellors' Strand, Dunmore East	Excellent	Excellent	Excellent	→	
Dunmore Strand, Dunmore East	Excellent	Excellent	Excellent	→	
Tramore Beach	Excellent	Excellent	Excellent	→	
<b>Westmeath County Council</b>					
Lilliput, L. Ennel (freshwater)	Changes	Good	Good	→	Lilliput showed much improved in quality since 2015 due to remedial actions to remove wastewater discharges
Portnashangan, L. Owel (freshwater)	Excellent	Excellent	Excellent	→	
The Cut, L. Lene (freshwater)	Excellent	Excellent	Excellent	→	
<b>Wexford County Council</b>					
Ballinesker	Excellent	Excellent	Excellent	→	
Ballymoney North Beach	Excellent	Excellent	Excellent	→	
Carne	n/a	n/a	Excellent	→	New in 2017
Courtown North Beach	Excellent	Excellent	Excellent	→	
Curracloe	Excellent	Excellent	Excellent	→	
Duncannon	Poor	Sufficient	Good	↗	Duncannon continues to show improvements in overall water quality.

Local Authority / Bathing water	2015	2016	2017	Change from 2016	Comments
<b>Wexford County Council</b>					
Morriscastle	Excellent	Excellent	Excellent	→	
Rosslare Strand	Excellent	Excellent	Excellent	→	
<b>Wicklow County Council</b>					
Bray South Promenade	Good	Excellent	Excellent	→	
Brittas Bay North	Excellent	Excellent	Excellent	→	
Brittas Bay South	Excellent	Excellent	Excellent	→	
Clogga	Excellent	Excellent	Excellent	→	
Greystones South	Excellent	Excellent	Excellent	→	
Silver Strand	Good	Good	Good	→	Silver Strand failed to meet Excellent due to impacts from periodic occurrences of low levels of E. coli pollution.

### Overall Summary

Overall	Changes (No.)	Improved	Previously	Currently	No.	Comment
Improved quality ↗	4		Sufficient	Good	2	
No Change →	125		Poor	Sufficient	1	
Poorer quality ↘	8		Changes	Excellent	1	
New	3					
Previously unclassified	2	Deteriorated	Excellent	Good	2	
<b>Total</b>	<b>142</b>		Good	Sufficient	4	
			Sufficient	Poor	2	
		Changed	New	Sufficient	1	Rush North Beach
			n/a	Excellent	1	Carne

## 7. Summary of other monitored waters

Although there are currently 142 waters (for 2017) which Ireland has formally identified to the EU as bathing waters there are many locations around the country which are monitored by local authorities because swimming or recreational activities are known to take place there. These are generally smaller, or more remote, coastal beaches and fresh waters where the infrastructure to cater for many users (e.g. car parking facilities etc.) may not be as well developed as the popular bathing areas but which are considered important for eco-tourism purposes. Many of these waters are monitored under the Green Coast award scheme run by An Taisce.

Examination of water quality results for other monitored waters reported to us for the period 2014-2017 shows the quality **likely to be achieved** at these waters. This data is un-validated, unlike that used for identified bathing waters, though the same quality criteria have been applied. It should be stressed that these waters have no formal European Union classification and thus their expected status is reflected solely by means of a comparison with the current bathing water standards. Names highlighted in blue indicate a freshwater location.

We would encourage local authorities to bring as many of these high-quality waters as is practicable into the national monitoring programme as formally identified bathing waters under the 2008 Bathing Water Quality Regulations.

**Many of these locations may have no lifeguards, first aid, and safety equipment, or general facilities such as those found at identified bathing waters. It is strongly recommended that, before visiting any of these locations, bathers check on [www.beaches.ie](http://www.beaches.ie) or with the local authority to identify any restrictions which may be in place and check any local signage at the beach for information relating to water quality. Not all these waters are currently displayed on beaches.ie at present.**

**While water quality monitoring is undertaken by local authorities this is often at the minimum frequency required by the Bathing Water Regulations. Though they are not specifically covered by the legislative and management requirements of the Regulations, the same water quality standards have been applied in their assessment. These bathing areas may not necessarily display the same signage as applied to the identified bathing waters.**

**Swimming in unmonitored locations such as rivers, flooded quarries, lakes, or canals carries with it many possible dangers. In addition to potential microbiological hazards there may also be risks due to strong currents, hidden objects such as rocks, and hypothermia.**

**Do not swim alone but if you do make sure someone knows where you are!**

**Further information can be obtained from Irish Water Safety. [www.iws.ie](http://www.iws.ie)**

Of these 'other monitored waters' Stradbally, Ballyvooney and Boatstrand (Co. Waterford), Wicklow Harbour, and the North Bull Wall Causeway on the River Liffey, are indicated as 'likely to be of Poor quality' due to impacts from nearby wastewater or agricultural discharges into surface waters which subsequently impact those bathing areas. Balcadden Bay and Ireland's Eye (Fingal Co. Co.) were also monitored but have insufficient samples to assess overall water quality for 2014 - 2017.

**Other waters monitored by local authorities (Blue highlight = freshwater locations)**

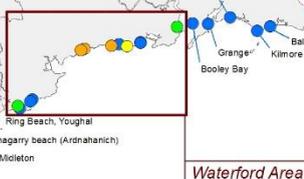
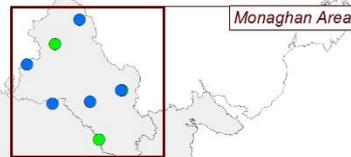
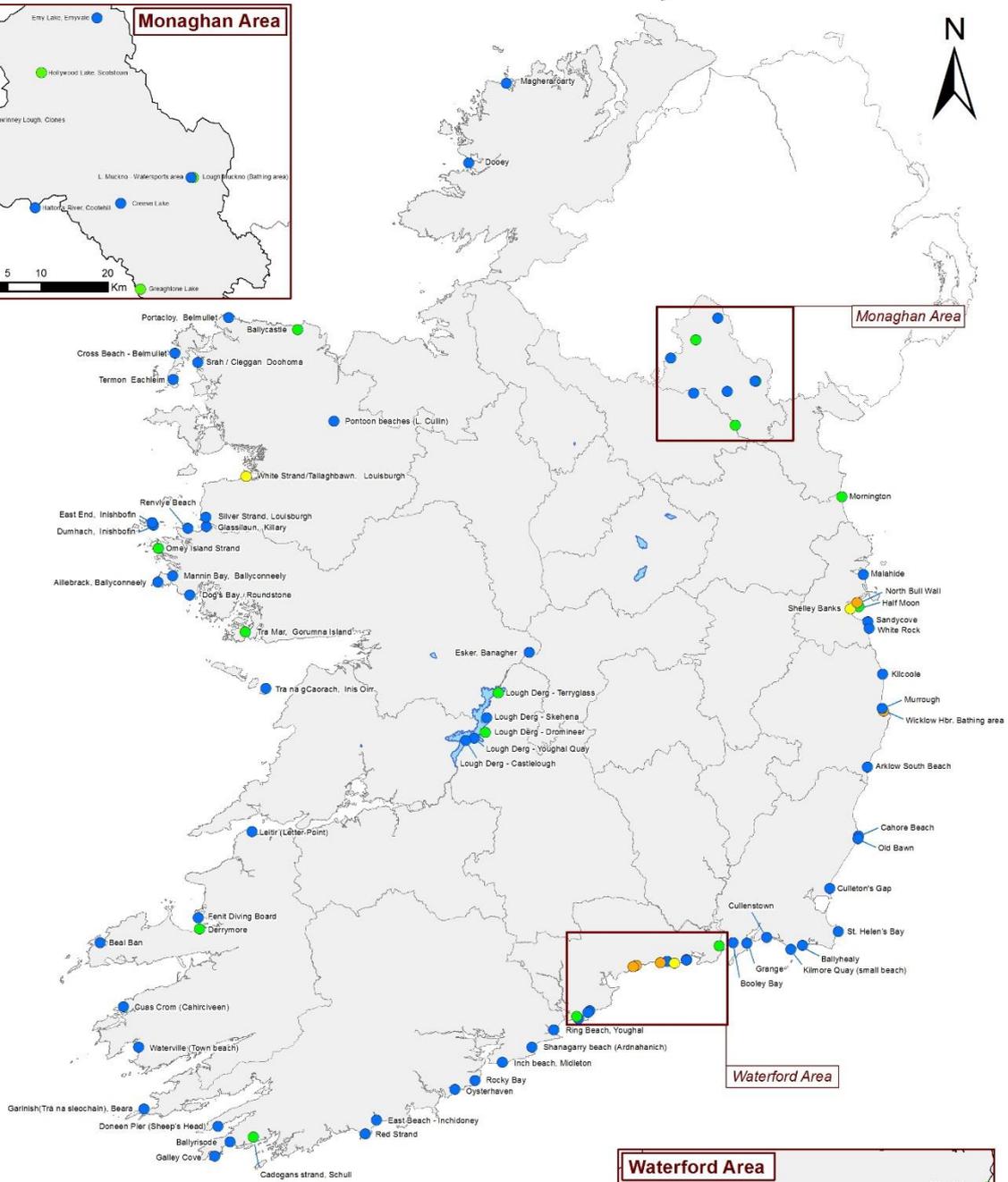
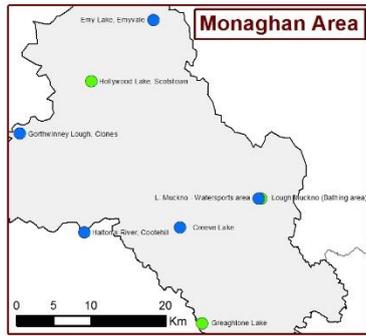
Local Authority / Bathing water	Likely Quality (2014 - 2017)	No. of samples	Comment
<b>Cork County Council</b>			
Ballyrisode	Excellent	21	
Cadogans strand, Schull	Good	21	
East Beach - Inchidoney	Excellent	15	
Galley Cove	Excellent	20	
Garinish(Trá na sleochain), Beara	Excellent	20	
Inch beach, Middleton	Excellent	20	
Oysterhaven	Excellent	21	
Red Strand	Excellent	16	
Ring Beach, Youghal	Excellent	20	
Rocky Bay	Excellent	16	
Shanagarry beach (Ardnahanich)	Excellent	21	
Doneen Pier (Sheep's Head)	Excellent	18	
<b>Donegal County Council</b>			
Doey	Excellent	12	
Magheroarty	Excellent	12	
<b>Dublin City Council</b>			
Half Moon	Good	89	
Shelley Banks	Sufficient	21	
North Bull Wall causeway	Poor	22	
<b>Dun Laoghaire - Rathdown County Council</b>			
Sandycove	Excellent	82	
White Rock	Excellent	81	
<b>Fingal County Council</b>			
Malahide	Excellent	19	2016 - 2017 data
<b>Galway County Council</b>			
Aillebrack, Ballyconneely	Excellent	20	
Dog's Bay, Roundstone	Excellent	20	
Dumhach, Inishbofin	Excellent	20	
East End, Inishbofin	Excellent	20	
Esker, Banagher	Excellent	16	
Glassilaun, Killary	Excellent	20	
Mannin Bay, Ballyconneely	Excellent	16	
Omey Island Strand	Good	19	
Trá na gCaorach, Inis Oirr	Excellent	21	

Local Authority / Bathing water	Likely Quality (2014 - 2017)	No. of samples	Comment
<b>Galway County Council contd.</b>			
Renvyle Beach (Trá Bán)	Excellent	20	
Trá Mar, Gorumna Island	Good	23	
<b>Kerry County Council</b>			
Beal Ban	Excellent	30	
Derrymore	Good	23	
Cuas Crom (Cahirciveen)	Excellent	13	2016 - 2017 data
Fenit at Diving Board	Excellent	8	2016 - 2017 data
Leitir (Letter Point)	Excellent	28	2016 - 2017 data
Waterville (Town beach)	Excellent	24	2016 - 2017 data
<b>Mayo County Council</b>			
Ballycastle	Good	23	
Pontoon beaches (L. Cullin)	Excellent	23	
Portacloy, Belmullet	Excellent	23	
Srah / Cleggan Doohoma	Excellent	22	
Termon Eachleim	Excellent	20	
White Strand/Tallaghbawn, Louisburgh	Sufficient	17	
Louisburgh – Silver Strand	Excellent	21	
Cross Beach – Belmullet	Excellent	20	
<b>Meath County Council</b>			
Mornington	Good	17	2015 - 2017 data
<b>Monaghan County Council</b>			
Halton's River, Cootehill *	Excellent	15	
Hollywood Lake	Good	18	
Creeve Lake	Excellent	13	
Emy Lake, Emyvale	Excellent	13	
Gortnawinney Lough, Clones	Excellent	13	
Greaghlonge Lake, Shercock	Good	13	
Lough Muckno - Bathing area	Good	16	2015 – 2017 data
Lough Muckno – Watersports area	Excellent	11	2016 - 2017 data
<b>Tipperary County Council</b>			
Lough Derg - Terryglass	Good	20	
Lough Derg - Skehena	Excellent	20	
Lough Derg - Dromineer	Good	20	
Lough Derg - Youghal Quay	Excellent	20	
Lough Derg - Castlelough	Excellent	20	
<b>Waterford City and County Council</b>			
Annestown	Excellent	22	
Ballyquin	Excellent	20	
Ballyvooney	Poor	19	
Boatstrand	Poor	23	High enterococci
Curragh (Ardmore)	Excellent	21	
Goat Island	Excellent	19	
Guillamene Cove	Excellent	20	
Kilfrassy	Sufficient	24	
Newtown Cove	Excellent	20	
Stradbally	Poor	28	

Whiting Bay	Good	20	
Local Authority / Bathing water	Likely Quality (2014 - 2017)	No. of samples	Comment
<b>Waterford City and County Council</b>			
Woodstown	Good	21	
<b>Wexford County Council</b>			
Ballyhealey	Excellent	30	
Booley Bay	Excellent	30	
Cahore Beach	Excellent	60	
Cullenstown	Excellent	62	
Culleton's Gap	Excellent	60	
Grange	Excellent	31	
Kilmore Quay (small beach)	Excellent	31	2016- 2017 data
Old Bawn	Excellent	62	
St. Helen's Bay	Excellent	29	
<b>Wicklow County Council</b>			
Arklow South Beach	Excellent	23	
Kilcoole	Excellent	6	2017 data
Wicklow Harbour bathing area	Poor	6	2017 data
Murrough	Excellent	6	2017 data

\* Monaghan Co. Co. has indicated that this location forms part of the larger Dromore river and lake network. Though located on private lands it is reported as being widely used for recreational purposes. This is the reason for its ongoing monitoring and retention in this report.

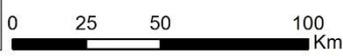
# Bathing Water Quality (Other Monitored Waters) 2017



**Likely Quality**

- Excellent
- Good
- Sufficient
- Poor

 Lake  
 County



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## AN GHNÍOMHAIREACHT UM CHAOMHNÚ COMHSHAOIL

Tá an Gníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaoil a chaomhnú agus a fheabhsú mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaoil a chosaint ó éifeachtaí díobhálacha na radaíochta agus an truaillithe.

## Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

**Rialú:** Déanaimid córais éifeachtacha rialaithe agus comhlíonta comhshaoil a chur i bhfeidhm chun torthaí maithhe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.

**Eolas:** Soláthraimid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spriocdhírithé agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.

**Tacaíocht:** Bímid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaoil atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaoil inbhuanaithe.

## Ár bhFreagrachtaí

### Ceadúnú

Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaoil:

- saoráidí dramhaíola (*m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistrithe dramhaíola*);
- gníomhaíochtaí tionsclaíocha ar scála mór (*m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta*);
- an diantalmhaíocht (*m.sh. muca, éanlaith*);
- úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe (*OGM*);
- foinsí radaíochta ianúcháin (*m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíochta*);
- áiseanna móra stórála peitрил;
- scardadh dramhuisce;
- gníomhaíochtaí dumpála ar farraige.

### Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
- Obair le húdarás áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhírú ar chiontóirí, agus trí mhaoirsiú a dhéanamh ar leasúchán.
- Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (DTLL), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a idíonn an ciseal ózóin.
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaoil.

### Bainistíocht Uisce

- Monatóireacht agus tuairiscí a dhéanamh ar cháilíocht aibhneacha, lochanna, uisce idirchriosacha agus cósta na hÉireann, agus screamhuiscí; leibhéal uisce agus sruthanna aibhneacha a thomhas.
- Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- Monatóireacht agus tuairiscí a dhéanamh ar Cháilíocht an Uisce Snámha.

## Monatóireacht, Anailís agus Tuairiscí ar an gComhshaoil

- Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- Tuairiscí neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus na n-údarás áitiúil (*m.sh. tuairiscíú tréimhsiúil ar staid Chomhshaoil na hÉireann agus Tuarascálacha ar Tháscairí*).

## Rialú Astaíochtaí na nGás Ceaptha Teasa in Éirinn

- Fardail agus réamh-mheastacháin na hÉireann maidir le gáis cheaptha teasa a ullmhú.
- An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhair breis agus 100 de na táirgeoirí dé-ocsaíde carbóin is mó in Éirinn.

## Taighde agus Forbairt Comhshaoil

- Taighde comhshaoil a chistiú chun brúnna a shainithint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeráide, an uisce agus na hinbhuanaitheachta.

## Measúnacht Straitéiseach Timpeallachta

- Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaoil in Éirinn (*m.sh. mórfheananna forbartha*).

## Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéal radaíochta, measúnacht a dhéanamh ar nochtadh mhuintir na hÉireann don radaíocht ianúcháin.
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha.
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta.
- Sainseirbhísí cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

## Treoir, Faisnéis Inrochtana agus Oideachas

- Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- Faisnéis thráthúil ar an gcomhshaoil ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaoil (*m.sh. Timpeall an Tí, léarscáileanna radóin*).
- Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- Plean Náisiúnta Bainistíochta Dramhaíola Guaisí a fhorbairt chun dramhaíl ghuaiseach a chosc agus a bhainistiú.

## Múscailt Feasachta agus Athrú Iompraíochta

- Feasacht chomhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

## Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an gníomhaíocht á bainistiú ag Bord Iánamseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inmharthanacht Comhshaoil
- An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- An Oifig um Fianaise is Measúnú
- Oifig um Chosaint Radaíochta agus Monatóireachta Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltaí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair inní agus le comhairle a chur ar an mBord.



**ENVIRONMENTAL PROTECTION AGENCY**

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