
Mark H Durkan MLA
Minister of the Environment
Goodwood House, 44 - 58 May Street,
Town Parks, Belfast BT1 4NN

Peter Weir, MLA
Northern Ireland Assembly
Parliament Buildings
Ballymiscaw
Stormont

AQW 50748/11-16

Peter Weir MLA has asked:

To ask the Minister of the Environment, given Ballyholme Beach, Bangor is currently ineligible for the Keep Northern Ireland Beautiful Beach Awards due to its poor water quality, to detail what actions his Department is taking to improve the water quality at Ballyholme Beach.

ANSWER

Ards and North Down Borough Council is responsible for managing Ballyholme beach in addition to the beaches at Groomsport, Millisle and Ballywalter. Bathing water quality at Ballyholme beach has been classified as 'sufficient', not 'poor', under the new standards which came into effect in 2015 under the revised Bathing Water Directive (2006/7/EC). In addition, the water quality at Ballyholme has been improving in recent years.

The classification of 'sufficient' meant that Ballyholme could have been put forward for a Seaside or Green Coast Award, had the Council chosen to do so. They did not put any of the beaches under their management forward for an award in 2015 but will still be able to do so in 2016. Crawfordsburn and Helens Bay, beaches in North Down, which are under the management of my

Department were awarded a Blue Flag and Seaside Award, and Green Coast Award respectively.

The Ballyholme bathing water catchment is a complex mixture of urban and rural pollution sources. Northern Ireland Water is currently undertaking a programme of improvement work to upgrade the sewerage infrastructure and key pumping stations in the Bangor area. This is an estimated £10M total investment by Northern Ireland Water in Bangor's sewerage infrastructure. Additionally, the Department has made representations to the Department of Agriculture and Rural Development and to the agriculture sector to highlight the impact of poor agricultural practices on our coastal waters (bathing and shellfish waters).

My Department has been working tirelessly to improve the standards of all our beaches and bathing waters through the Good Beach Summits. These are held twice per year, and an action plan has been developed in partnership with stakeholders to;

- Improve water quality
- Improve beach cleanliness, facilities management and signage
- Keep the public and media better informed
- Support the coastal economy

My Department recently published its 'Better Beaches Report' which sets out the progress made against the above criteria during the period of the Good Beach Summits. A copy of this report will be placed in the Assembly Library.

Mark Durkan

Signed: _____

Mark H Durkan MLA

Date: _____ **26 November 2015** _____

Department of the Environment
Marine Division

Better Beaches Report

September 2015



**Creating Prosperity and Wellbeing
through Environmental Excellence**

Ministerial foreword

I am committed to the further improvement of our beaches as an important environmental and tourism asset and am delighted to present this Better Beaches Report on what has been achieved over the first 10 Summits.



In June 2011, my predecessor, Alex Attwood hosted the first Good Beach Summit at Crawfordsburn. The Good Beach Summits are a great example of partnership working between government, industry, local authorities and community groups. Back in 2011, we set ourselves an Action Plan to:

- Improve water quality
- Improve beach cleanliness, facilities management and signage
- Keep the public and media better informed and
- Support the coastal economy.

The report details progress on all fronts of the Action Plan. I am particularly pleased to be reporting on the improvements in bathing water quality, attributable mainly to the upgrading of waste water treatment and sewerage infrastructure over the last 20 years. I am also delighted with the collaborative approach our beach operators (NIEA, the National Trust and the local councils) have used to improve beach signage to ensure that the public are well informed on beach facilities and water quality.

The problem with litter continues to challenge. I am committed to the continued implementation of our Marine Litter Strategy, to tackle this problem together. Programmes like 'Bag it and Bin it', 'Eco-schools' and 'Fishing For Litter' continue to raise the profile and educate our society about litter related problems.

By working in partnership, we are trying to ensure that the public is better informed about both beach and bathing water quality. The increase in uptake of beach award schemes, like Blue Flag, Seaside Award and Green Coast, are all helping to achieve this.

As the Report details, there is still more to do. The Good Beach Summits have evolved into a lively forum for those with a great passion for our beaches. They provide an excellent model to make further improvements by working across central and local government, community groups and industry. I am convinced that this approach will ensure that we continue to create prosperity and well-being through environment and tourism excellence.

Introduction

The current Bathing Water Quality Monitoring Programme has been in place in Northern Ireland since the late 1980s. Since then the broad context of the monitoring programme has remained relatively unchanged. This includes the 1976 Bathing Water Directive itself which set the compliance standards for “Good”, “Excellent” and “Poor” bathing water quality and described how the programme was run operationally. Since the implementation of this Directive, there have been some significant changes to the regulatory and policy backdrop around managing bathing waters. Not least of these is the revised Bathing Water Directive (rBWD), which has now become fully operational and sets more stringent bathing water quality standards. All efforts to improve bathing water quality are set in the context of meeting good ecological and environmental status under the Water Framework and Marine Strategy Framework Directives. There is now a considerably greater public awareness of environmental issues and those surrounding water quality. Significant upgrades to the sewerage infrastructure and treatment in the past 20 years has seen a huge decrease in the levels of untreated or partially treated wastewater being discharged into or near bathing waters.

In recent years, bathing water quality has not only been essential for protecting bathers’ health, but has also been an indicator of the improving state of the coastal zones and inland water bodies, which in turn helps to support coastal economies and tourism.

The Good Beach Summits draw together senior managers from central government, local government and the voluntary sector. This includes representatives from four of Northern Ireland’s coastal councils as well as representatives from both local and national campaign groups. Keep Northern Ireland Beautiful, the National Trust, the Marine Conservation Society and Surfers Against Sewage also attend with active and engaging participation.

An initial draft Action Plan was produced during the first summit. The Action Plan covered four main strands;

1. Improve water quality
2. Improve beach cleanliness, facilities management and signage
3. Keep public and media better informed
4. Support the coastal economy

Ten summits have been held to date. The following is a summary report of what has been achieved so far, and is reported under the four strands of the action plan.

1. Improve Water Quality

An increasing population and continued development of both urban and rural areas has placed an increasing burden on the water environment and on the sewerage infrastructure in Northern Ireland. In spite of this, bathing water quality has shown a gradual overall improvement since reporting began in 1994. **Figure 1** shows the annual compliance of identified bathing waters since 1999 against the old Bathing Water Directive 76/160/EEC standards (“the old standards”) which were in place until the end of the 2014 bathing season. **Figure 2** shows the percentage compliance against the old standards (both the mandatory and guideline standards), between 2004 and 2014. The red trendlines show that there has been an overall increase in the percentage compliance against both standards.

Bathing Water Directive 2006/7/EC came into effect fully at the end of the 2015 bathing season and introduced standards that are approximately twice as stringent compared with the outgoing Directive. **Figure 3** shows compliance against these new standards. It can be seen that bathing waters in Northern Ireland have continued to perform well against the tighter standards. The EU Directive requires that all identified bathing waters meet at least “sufficient” by 2015, and this is indeed what we have achieved.

The improving situation is in part due to significant investment in the sewerage network and tighter controls on the use of organic fertilisers. With more stringent standards for bathing waters and further improvements to bathing water quality becoming more challenging, consideration should now be given to how we assess and regulate bathing water quality in these new and challenging times.

Figure 1 Annual bathing water compliance 1999 – 2014 (old standards)

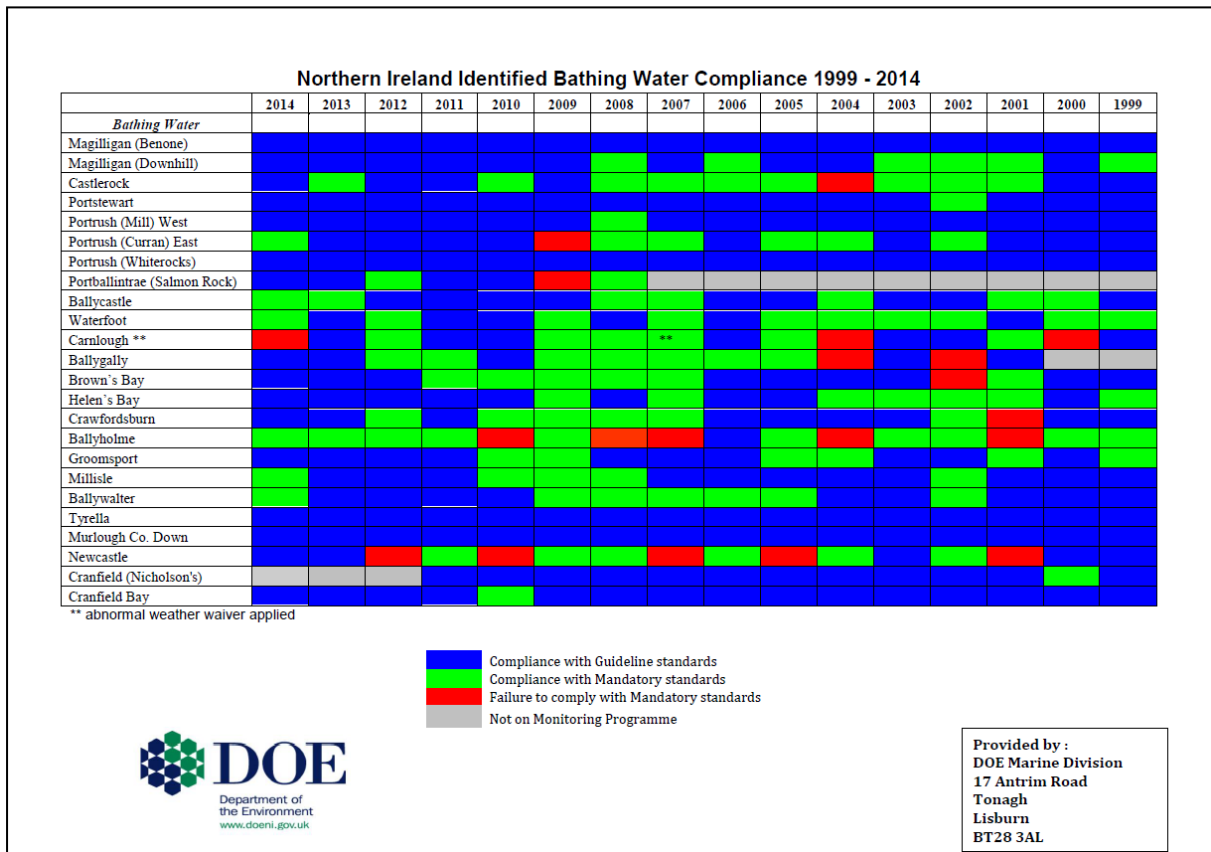


Figure 2 Percentage compliance with Mandatory and Guideline (old standards) 2004 - 2014

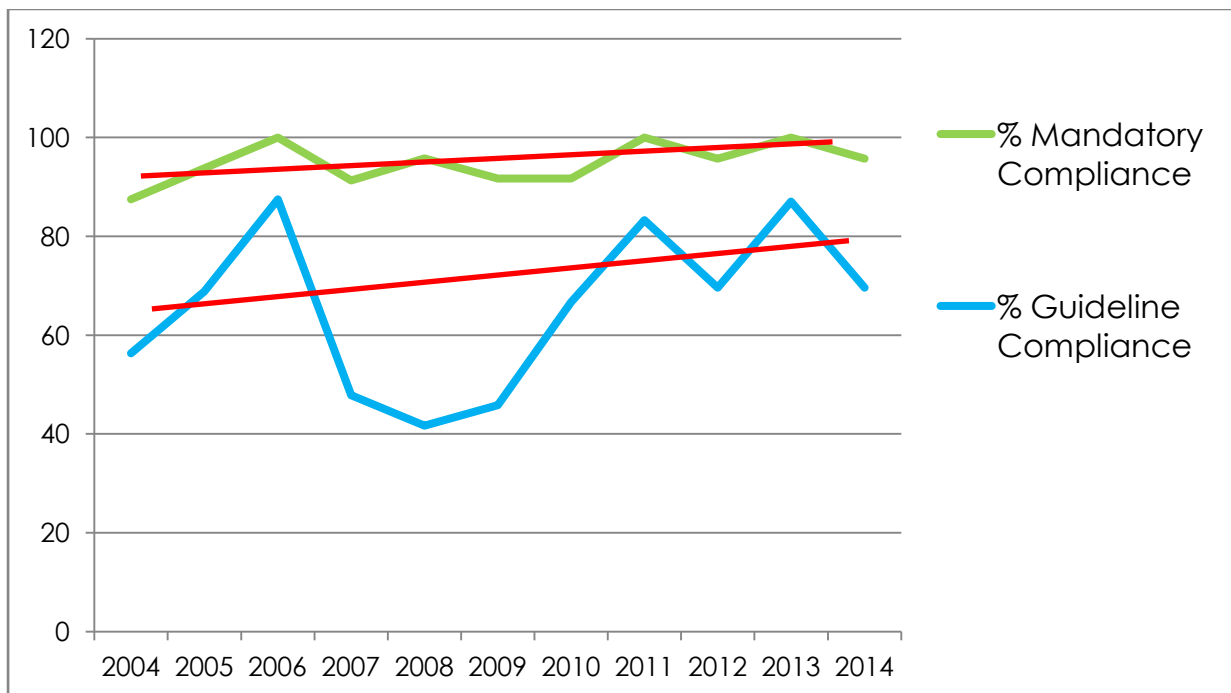


Figure 3 Bathing water compliance against the new, tighter standards of Bathing Water Directive 2006/7/EC

Bathing Water	Assessment period			
	2012-15	2011-14	2010-13	2009-12
Magilligan Benone	Blue	Blue	Blue	Blue
Magilligan Downhill	Blue	Blue	Blue	Green
Castlerock	Blue	Blue	Green	Green
Portstewart	Blue	Blue	Blue	Blue
Portrush Mill (West)	Blue	Blue	Blue	Blue
Portrush Curran (East)	Green	Green	Blue	Green
Whiterocks	Blue	Blue	Blue	Blue
Portballintrae	Blue	Blue	Green	Green
Ballycastle	Green	Green	Blue	Blue
Waterfoot	Green	Green	Green	Yellow
Carnlough	Yellow	Yellow	Green	Yellow
Ballygally	Green	Green	Green	Yellow
Browns Bay	Blue	Green	Green	Yellow
Helens Bay	Blue	Blue	Blue	Blue
Crawfordsburn	Blue	Blue	Blue	Green
Ballyholme	Yellow	Yellow	Red	Red
Groomsport	Blue	Blue	Blue	Green
Millisle	Green	Green	Green	Green
Ballywalter	Green	Green	Green	Red
Tyrella	Blue	Blue	Blue	Blue
Murlough	Blue	Blue	Blue	Blue
Newcastle	Green	Green	Green	Red
Cranfield	Blue	Blue	Green	Green

Understanding the pressures

Tracking pollution to its source can be difficult and is not always possible. There are methods for apportioning pollution to human (sewage) or ruminant (agricultural) sources. Molecular biological analysis of water samples can determine whether pollution in water derives from either of these sources by identifying specific DNA markers (“microbial source tracking”). There is another method for determining pollution sources in water which although inexpensive is less robust than microbial source tracking. This involves examining the ratios of different bacteria in the water sample, giving an indication of the source of the pollution. The result is based on the difference in the relative abundance of these bacteria within the intestines of humans versus ruminants.

DOE carried out a basic analysis of bathing water quality data after the 2014 bathing season. The findings have indicated that most bathing water catchments have mixed pollution sources (sewage and agricultural), but that some have more significant pressures from agriculture and some have more significant pressures from sewage sources. Analysis of the data from Newcastle bathing water (see Table 1), showed that prior to the commissioning of the new wastewater treatment works (WWTW) in 2013, the sewer network was impacting upon the microbiological quality of the bathing water. After the new WWTW was commissioned (just prior to the start of the 2013 bathing season), pollution incidents practically stopped, indicating that the new WWTW was working effectively.

Table 1 shows the findings of the assessment for Newcastle bathing water.

Table 1. Newcastle bathing water investigated incidents 2011 – 2014 (Red arrow indicates commissioning of new wastewater treatment works)			
	E. coli	Enterococci	Source
13/06/2011	3000	1100	Agri
05/07/2011	12000	1800	Human
06/09/2011	5400	870	Human
28/06/2012	3825	540	Human
04/07/2012	1462.5	200	Human
24/07/2012	4200	800	Not conclusive
01/08/2012	887.5	350	Agri
14/08/2012	5125	270	Human
17/08/2012	22500	1500	Human
29/08/2012	3600	130	Human
23/07/2013	1037.5	370	Agri
01/08/2013	38750	4700	Human

The full analysis of all 23 identified bathing waters is not shown here, however based upon the findings; two bathing water catchments were prioritised for further investigation in 2015. These are the catchments for: Carnlough and Portrush Curran (East Strand). These are currently being assessed by NIEA in two ways;

- catchment-wide investigation (pollution source apportionment assessments) to assess all pressures within the priority catchments, and;
- higher prioritisation under the cross compliance inspection regime to specifically assess farm businesses within priority catchments.

Source apportionment studies

On an annual basis, identified bathing waters have been prioritised for catchment-based pollution source apportionment studies. These studies, carried out by NIEA staff on behalf of DOE Marine Division, identify all potential pollution sources within a bathing water catchment where the bathing water is either failing, or at risk of failing, to meet the standards in the revised Bathing Water Directive. The studies conclude in a report for each bathing water catchment, which makes specific recommendations for improving water quality.

To date, nine catchment investigations have been carried out at the following bathing waters;

- Ballycastle (2014)
- Ballygally (2013)
- Ballyholme (2011/ 2012)
- Ballywalter (2011 /2012)
- Castlerock (2014)
- Groomsport (2014)
- Newcastle (2014)
- Waterfoot (2013)
- Brown's Bay (2011/12)

A further two are under way for 2015:

- Carnlough
- Portrush Curran (East Strand)

The nine investigations carried out so far have identified various problems within catchments ranging from agricultural pollution to sewerage misconnections, leachate from business premises and poorly functioning septic tanks. These were passed to, and addressed by the relevant authorities.

Water and Sewerage

After the first Good Beach Summit, Minister Attwood wrote to the then DRD Minister to stress the importance of continued funding for water quality improvements. DRD and NI Water have continued to invest in improving water quality through the Price Control (PC) process and through joint working with both DOE Marine Division and NIEA who set the consenting policy and discharge consent conditions. Improvements to bathing water quality have been tangible. In summary, significant investment was made under PC13 in maintaining improvements to the existing network including major upgrades at Newcastle, Magilligan (Benone), Millisle and Bangor (Ballyholme). Further significant investment has been committed under PC15 for small and large capital works, including a prioritised list of 19 large new wastewater treatment works (WWTW's) and some 51 rural WWTW's. Furthermore, funding has been secured for the installation of event monitors at NI Water assets within 2km of bathing waters.

Improving the Combined Sewer Overflow (CSO) "Spill" policy

The more stringent requirements of the revised Bathing Water Directive have implications for member states in terms of discharge consenting policy and CSO (combined sewer overflow) spills policy. The spills policy sets the maximum permitted number of spills per year, and allows fewer spills during the bathing season at those CSO's within 2km of bathing waters. A revised spills policy summary was adopted by DOE in 2014 and applies to how we regulate NI Water.

Septic tank consenting policy

NIEA undertook an assessment into the extent of the impact of unconsented septic tanks. Catchment studies were undertaken and demonstrated that the extent of the impacts varied greatly across catchments. In 2012 a new application process went live, along with an inspection regime to investigate unconsented septic tanks and bring them within regulatory controls. This results in fewer unconsented tanks and a process by which those which are not fit for purpose are upgraded. This has an overall positive impact upon water quality of (particularly rural) catchments draining into bathing waters.

Working with the Agriculture sector

There is already a significant raft of regulation in place to protect our water quality from the potentially damaging effects of agricultural activity. We know that bathing waters face pressures from a mixture of pollution sources, the main ones being urban waste water (sewage) and agriculture. DOE has worked closely with colleagues across Government; NIEA, DARD, AFBI, as well as with the agriculture sector itself, to highlight the problems facing bathing water quality and seeking new solutions to protect them. In 2015, DOE met with the sector-led Expert Working Group on Sustainable

Land Use. The Expert Working Group, supported by relevant Departments, was established to ensure that the agri-food sector can be expanded, but in a sustainable way that is both profitable to the sector and protects the environment. The Expert Working Group is developing practical guidance “by farmers, for farmers” to ensure that environmental issues are addressed.

The formation of the new Department of Agriculture, Environment and Rural Affairs will also assist in ensuring that government and the agricultural industry work together to implement the ‘Going for Growth’ Strategy, whilst protecting the environment.

Microbial source tracking – a way forward?

During the 2015 bathing season, NI Water has funded the collection and storage of bathing water quality samples for molecular DNA analysis (‘microbial source tracking’). This is a robust method of apportioning pollution to either human (sewage) or agricultural sources. This is an exciting and significant step forward in helping to understand potential pollution sources in bathing water catchments and finding solutions to help continue to improve bathing water quality.

2. Improve Beach Cleanliness, Facilities Management & Signage

Public signage - health and safety

At some of the first Good Beach Summits an early action point among bathing water operators was to address the need for common signage at all bathing waters. It was suggested that this was required to inform the public of both poor water quality and wider safety issues. A range of signs were developed collaboratively, taking consideration of legislative requirements (i.e. Bathing Water Directive) and drawing upon the experience of the RNLI. The signs are currently used across NI bathing waters.

Tackling Marine Litter

Marine litter has been the subject of much concern by Government and environment groups alike. One of the first actions to be taken forward by the Good Beach Summits was to develop a Marine Litter Strategy (the first in the UK and Ireland). The Strategy was launched on 4th July 2013 and is a co-ordinated response to tackle litter entering the sea and to reduce the amount of litter which is already there. Marine Litter Watch, developed by DOE Marine Division, is an online newsletter which was launched on 1st August 2013 to inform the public of how the Marine Litter Strategy is being implemented. The Strategy has been instrumental in developing schemes such as 'Fishing for Litter', which engages the fishing sector to reduce fishing litter entering our seas. It has links to the Northern Ireland Waste Management Strategy, to 'Eco-schools' and to the 'Bag it and Bin it' campaign.

With the majority of marine litter around Northern Ireland's coastline being comprised of plastics, including plastic carrier bags, the Good Beach Summit was a strong supporter of the introduction of the single-use carrier bag levy. The 5p levy was established on 8th April 2013 and helped the Department to meet its target of an 80% reduction in the use of single-use carrier bags by March 2014. The levy has also raised revenue in excess of £4 million which has allowed the establishment of the Challenge Fund, which has supported a wide range of environmental projects across Northern Ireland.

Live Here Love Here

This partnership campaign is promoting civic responsibility and community pride through a media campaign including TV, a Small Grants Scheme and support for local volunteering. It is supported by a number of Councils, the Department of the Environment, Tourism NI and Keep Northern Ireland Beautiful.

Since its launch on 10th February 2014 Live Here Love Here has funded 45 projects which have enabled volunteers to come together and better their local communities through practical actions with an environmental focus. In April Live Here Love Here

supported Northern Ireland's largest clean up campaign, the BIG Spring Clean which saw hundreds of groups, schools and businesses carry out clean ups in their local grot spots. Clean up support continued throughout the year with Coast Care and Adopt A Spot groups meeting on a regular basis. Volunteering events are recorded on the Live Here Love Here website www.livehereandlovehere.org where visitors can see what is happening throughout the year, every month there is a specific 'focus of the month' highlighting positive actions and volunteering opportunities that are supported by Keep Northern Ireland Beautiful.

Live Here Love Here has successfully entered into its second year with continued support from a number of Councils, the Department of the Environment, Tourism NI and Keep Northern Ireland Beautiful and is currently operating the second round of the Small Grants Scheme and Media Campaign.

Beach Management Strategy for North Coast and Antrim Coast Beaches.

At the eighth Good Beach Summit in May 2014, the Causeway Coast and Glens Heritage Trust (CCGHT) launched its Beach Management Strategy. This Strategy sets out a vision to protect and enhance beach management, cleanliness and water quality for beaches from Magilligan to Brown's Bay. The strategy was developed collaboratively by the CCGHT, University of Ulster, bathing water operators and NIEA.

3. Keep Public and Media Better Informed

Seeking media opportunities

Following a number of misrepresentations of bathing water quality issues within the media, a major press initiative took place in May 2012 to improve “media opportunities”. The press initiative concentrated on the launch of the new bathing water profiles, new beach signage and new Beach NI website. In 2013, the Department received good coverage of the 2013 bathing water results on local news, television, radio and newspapers, with all stories being taken up positively. In 2014 bathing water quality was still reported positively, in spite of having more individual incidents of poor water quality.

In addition to this, DOE prepared the first bathing water profiles in March 2011. These profiles are updated annually and published on the DOE internet. The profiles contain information about pollution sources within bathing water catchments and describe the sensitivities of each bathing water to potential pollution sources.

Collectively, the approach that has been taken is helping to create more awareness of the sensitivity of our coastal waters to heavy rainfall events and the potential sources of pollution.

Getting the message across – to bathe or not to bathe?

The general thrust of the revised Bathing Water Directive is to ensure better communication with the public on water quality. In conjunction with models which predict pollution incidents at bathing waters, most other countries have installed electronic signage which can be remotely updated with bathing water quality and other information. In March 2015, DOE successfully secured a bid under Interreg VA to develop a prediction model for bathing waters in Northern Ireland and in Counties Louth and Donegal. However a model is not expected to be in place until the 2017 bathing season. Until then, DOE and bathing water operators will continue to work closely to inform the public when water quality has deteriorated, and will continue to provide information via its website. Other avenues to get information to the public, including the use of social media are being explored.

4. Supporting the Coastal Economy

The strategic objective of DOE's Environment and Marine Group is to create prosperity and well-being through environment and heritage excellence. How we do our business is critical to enabling communities to benefit from sound environmental practices, while making it difficult for those who wish to flout the law. The Good Beach Summits have been invaluable in bringing together those organisations that are well placed to ensure that our beaches and coastline attract tourism and support local businesses.

Coastal award schemes

The Blue Flag Award is the definitive international beach award recognised in 46 countries as an assurance of beach cleanliness and safety. Other awards include Seaside and Green Coast Awards which provide assurance that mandatory standards are met in terms of a number of criteria including water quality. In Northern Ireland, many of our beaches have good coverage of these marks of quality assurance. In 2013, 6 Blue Flag Awards and 15 Seaside Awards were awarded. In 2014, 8 Blue Flag Awards for beaches, 2 Blue Flag Awards for marinas and 13 Seaside Awards were awarded. In 2015, 10 Blue Flag Awards were awarded to beaches, 2 Blue Flag Awards for marinas and 10 Seaside Awards were awarded. Clearly the number of prestigious Blue Flag Awards has steadily grown in this time.

Beach promotion and information

In May 2012, an additional boost was given to Northern Ireland's coastal communities via a new website (www.BeachNI.com) which was developed under the umbrella of Outdoor Recreation NI. The website was a one-stop-shop for information on water quality, facilities, weather updates and other activities in the surrounding areas.

The number of visitors to the BeachNI website increased between its launch in May 2012 from under 5,000 to over 20,000 in 2013.

In addition to this, much of this information is also provided via DOE's website at <http://doeni.maps.arcgis.com/apps/MapTour/?appid=f30d5397649a459d904585c6567a003a>.

Conclusions

Clean bathing waters will continue to be one of the highest priorities for DOE. While Government has statutory responsibilities in terms of maintaining and improving water quality, managing our beaches to the highest possible standard requires partnerships working across many sectors and engaging communities. The Good Beach Summits have provided an excellent arena to bring together these stakeholders and has fostered an understanding of what is needed to maintain and improve upon current standards in water quality, facilities, communication and management.

Some of the outcomes presented in this report would not have been possible without the Good Beach Summits bringing people together to achieve common goals (e.g. consistent signage and media campaign). Other outcomes, such as the delivery of improved sewerage infrastructure were already in the pipeline. As a result of the Good Beach Summits all stakeholders were given the opportunity to engage with NI Water, gaining a better understanding of the complexities and costs of implementing these upgrades.

There is still a lot to do. The Good Beach Summits will continue to raise the profile of issues around managing our beaches. The impact of agricultural practices on bathing waters is an area which DOE is actively seeking to address. Discussions are already taking place, but solutions will not happen overnight.

Real-time water quality predictions and electronic signage are areas where Northern Ireland is behind the rest of the UK and Ireland. Until a model is developed for Northern Ireland's bathing waters, we are unable to avail of the full flexibility of the revised Bathing Water Directive. How our bathing waters perform is very weather dependent and without a predictive model, those poor water quality results after heavy rainfall will continue to impact negatively upon our overall bathing water classifications from 2015 onwards.

DOE has worked closely with other Departments on an Interreg VA bid which includes a proposal to develop a prediction model for Northern Ireland's bathing waters and bathing waters in Counties Louth and Donegal. The proposal also covers the installation of a small number of electronic signs at bathing waters within the cross border river basin districts (in Northern Ireland this would extend to Magilligan (Benone), Magilligan (Downhill), Castlerock and Cranfield bathing waters). The bid was approved by the European Commission in March 2015. DOE ran a workshop on 4th September 2015 in advance of the call for proposals in November 2015.

2015 is a new era for bathing waters. For the first time bathing water quality results will be reported at the end of the 2015 bathing season using the more stringent standards of the revised Bathing Water Directive. Although our bathing water quality may appear poorer compared with previous years, we still have some of the cleanest bathing waters

in Europe. The changing 'goal posts' will make our bathing water compliance look different, but it is important to remember that this will be the case for bathing waters right across Europe. A report by the European Environment Agency (EEA) published in 2015 (<http://www.eea.europa.eu/publications/european-bathing-water-quality-in-2014/>) placed the UK 15th out of 28 EU member states for bathing water quality in 2014. Northern Ireland is not reported separately within this report, but as part of the UK. The report makes it easy however, to draw comparisons between Northern Ireland's compliance performance and that of other member states. Northern Ireland consistently performs well when compared with other UK and Republic of Ireland bathing waters.

The partnership approach has worked well through the Good Beach Summits, and the action plan which addresses water quality issues on a catchment-wide basis should ensure that we continue to perform well. Stakeholders remain as passionate as ever about the state of our beaches and DOE remain committed to encouraging their dedication and hard work through the Good Beach Summits.



DOE Marine Division
17 Antrim Road
Tonagh
Lisburn
BT28 3AL

Water Pollution Hotline: 0800 807060
Email: MarineDivision.InfoRequests@doeni.gov.uk

