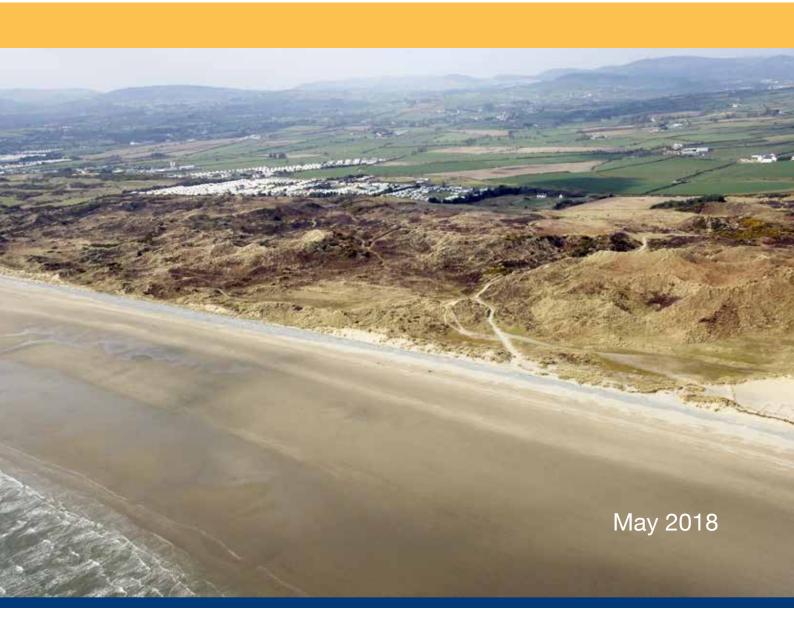
Better Beaches Report 2018







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Better Beaches Report 2018

1. Introduction

DAERA works in partnership with Keep Northern Ireland Beautiful (KNIB), NI Water, community groups, local councils and other land-owners like the National Trust to manage our bathing waters and beaches through the Better Beaches Forum.

Many aspects of how we manage bathing waters in Northern Ireland have changed since monitoring began over 25 years ago, not least of these changes was the introduction of more stringent bathing water quality standards in 2015. Despite this, our existing 23 EU "identified" bathing waters have performed well when compared with other parts of the UK, Ireland and further afield.

The Better Beaches Forum partners produced the first Better Beaches Report in 2015. We continue to further improve our beaches as an important natural asset, both recreationally and to underpin coastal economies.

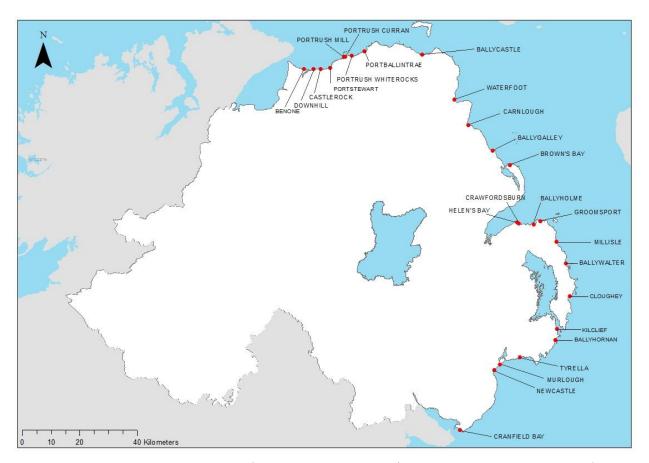


Figure 1.1 Northern Ireland Identified Bathing Waters (including 3 new sites identified in 2018 at Cloughey, Kilclief and Ballyhornan)

The management of our beaches and bathing waters links to a number of the outcomes for Northern Ireland under the draft Programme for Government (PfG);

Outcome 2 – We live and work sustainably, protecting the environment

Outcome 4 - We enjoy long, healthy, active lives

Outcome 12 – We have created a place where people want to live and work, to visit and invest.

Bathing water quality links closely to the PfG general water quality indicator, which measures progress in reducing our main pollution pressures from both agriculture and Waste Water Treatment Works (WWTWs).

The UK has recently published "A Green Future – Our 25 Year Plan to Improve the Environment". It sets out the UK government's planned actions to help the natural world regain and retain good health. It aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats. It calls for an approach to agriculture, forestry, land use and fishing that puts the environment first.

The 25 year plan emphasizes the importance of ensuring we continue to maintain clean recreational waters and provide warnings about temporary pollution. It highlights the need to continue to maintain our high standards of clean bathing water, lessening the risk to public health and also as a valuable boost to local economies through increased tourism.

DAERA has recently reviewed its bathing waters in order to ensure the highest possible level of EU protection is provided for water quality in areas where the public swim. Tackling marine litter has also reaped rewards, over 45 tonnes of rubbish have been removed from the sea by fishermen taking part in the Fishing for Litter scheme. The scheme is now operating in our three Fishery Harbours of Ardglass, Kilkeel and Portavogie with 135 boats participating. In August 2017, Warrenpoint joined the scheme, and as of September 2017 ten vessels have signed up to take part.

Whilst overall, bathing water quality is improving, there is no room for complacency. At Ballyholme, we saw the bathing water fail to meet the tighter standards of the revised Bathing Water Directive in both 2016 and 2017. However this is something that is being actively addressed through sewerage infrastructure improvements, catchment investigations and remedial actions.

Between 2011 and 2015, the then Minister hosted a number of Good Beach Summits, bringing together key stakeholders who developed an action plan. In 2016, the Good Beach Summits evolved into the Better Beaches Forum and the action plan was consolidated into three strands focusing on;

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 $^{^1\} https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/692578/25-year-environment-plan.pdf$

Improving water quality;

Improving beach cleanliness, facilities management and signage; and Keeping the public and media better informed.

These actions will underpin the improvement of the coastal and tourist economy.

2. Improving Water Quality

2.1 Overall Compliance and Trends 2017

As discussed in the 2015 Better Beaches Report, the Bathing Water Directive 2006/7/EC came into effect at the end of the 2015 bathing season. It introduced standards that are approximately twice as stringent compared with the outgoing Directive. Figure 2.1 shows the overall annual classification for 2017.

It should be noted that until the European Commission accepts the 2017 results in Spring 2018, all statistics, classification and analysis are "preliminary" and subject to change.

22 of the 23 monitored coastal bathing waters were classified overall as reaching minimum requirements.
12 locations were classified as excellent, 5 good, 5 sufficient and 1 poor.

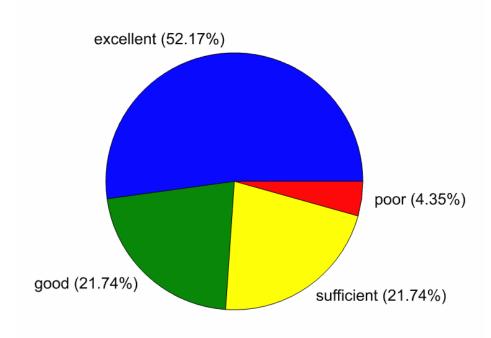


Figure 2.1: Overall classification of Northern Irish bathing waters in 2017 (Table 2; n=23).

In 2017, 95% of Northern Ireland's identified bathing water sites met the Bathing Water Directive 2006/7/EC standards. This means that 22 out of the 23 identified bathing waters complied with EU standards.

The percentage of bathing waters at excellent water quality status has increased from 47% in 2016 to 52% in 2017. This represents twelve beaches around Northern Ireland's coast meeting the stringent water quality criteria enabling them to apply for Blue Flag

status, with Castlerock and Groomsport beaches improving from Good to Excellent. However Brown's Bay beach dropped from Excellent to Good.

Ballyholme beach failed to meet the new more stringent Directive standards in 2017. This is explained in further detail below, along with the ongoing management measures to address the issue.

The extreme summer flood event on 22 August 2017, which caused landslides and physical damage to property, landscape and wildlife, was considered to be an 'Abnormal Situation' in terms of the Bathing Water Directive. The situation occurred throughout the North West of Northern Ireland and impacted at four bathing waters along the North Coast. Appropriate signage was erected, advising against bathing. Scheduled samples were discarded and replacement samples analysed. Within the Bathing Waters Directive, scheduled samples can be disregarded in such a situation, as long as the public has been warned of the poor water quality.

Table 2.1 demonstrates the changes at specific beaches in annual classification since the introduction of the Bathing Water Directive 2006/7/EC standards in 2015. Consistent Excellent bathing water quality performers include; Magilligan Benone, Magilligan Downhill, Portstewart, Portrush (Mill) West, Portrush (Whiterocks), Portballintrae, Helen's Bay, Tyrella, Murlough and Cranfield.

BATHING WATER	2015	2016	2017
Magilligan (Benone)			
Magilligan (Downhill)			
Castlerock			
Portstewart			
Portrush (Mill) West			
Portrush (Curran) East			
Portrush (Whiterocks)			
Portballintrae			
Ballycastle			
Waterfoot			
Carnlough			
Ballygally			
Brown's Bay			
Helen's Bay			
Crawfordsburn			
Ballyholme			
Groomsport			
Millisle			
Ballywalter			
Tyrella			
Murlough Co Down			
Newcastle			
Cranfield (Cranfield Bay)			

Northern Ireland's beaches have again performed well in comparison with the rest of the UK. Here 95% of our beaches met at least the minimum standard of the Bathing Water Directive. In 2017 Wales had 99%, England 98% and Scotland 87% meeting the minimum standards for bathing water quality.

Northern Ireland had 52% of its identified bathing waters achieve "Excellent" bathing water classification. In comparison, Wales had 76%, England 65% and Scotland, 29% achieving Excellent. These are very encouraging results when factors such as weather and location are taken into account. Northern Ireland continues to have high numbers of identified bathing waters meeting minimum water quality standards and over half of our bathing waters meeting "Excellent" bathing water classification.

2.2 Newly Identified Bathing Water Sites

Three candidate bathing waters were nominated for identification during the Department's review of identified Bathing Waters in 2017.

Cloughey, Kilclief and Ballyhornan were monitored for water quality in 2017 and preliminary results from all three beaches indicated that they have Excellent water quality.

These bathing waters were officially identified in May 2018 and are now included on the list of 26 identified bathing waters that are monitored on an annual basis with classifications reported back to Europe.

2.3 Source apportionment studies

Bathing waters are prioritised for catchment-based pollution source apportionment studies on an annual basis. These studies are carried out by DAERA staff and target potential pollution sources within the bathing water catchments of those sites that are failing, or where there is a risk of deterioration. The studies conclude in a report for each bathing water and make specific recommendations for improving water quality.

To date, twelve catchment investigations have been carried out at:

Ballyholme	2017
Portrush (Curran) East	2015/16
Carnlough	2015/16
Ballycastle	2014
Newcastle	2014
Castlerock	2014
Groomsport	2014
Ballygally	2013
Waterfoot	2013
Browns Bay	2011/12
Ballyholme	2011/12
Ballywalter	2011/12

The 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 findings were passed to the DAERA regulatory and advisory teams to be addressed.

2.4 Focus on Ballyholme – management measures to address water quality classification. In both 2016 and 2017, Ballyholme bathing water failed to meet the standards and obtained an overall classification of "Poor". This was disappointing considering the ongoing work to upgrade the sewerage infrastructure around North Down. It is important to note however that water quality at Ballyholme is usually well above acceptable levels on a day to day basis. Although sites are sampled 20 times in each bathing water season, there was only 1 occasion in 2017 and 3 occasions in 2016 when Ballyholme did not meet the minimum standards. As compliance is based on the previous 4 years of results, it may take a number of years for Ballyholme to improve to 'Sufficient' status or higher. It is encouraging that the results from the 2017 season are better overall than in 2016, and if this is maintained, it is anticipated that Ballyholme will move into compliance.

This bathing water appears to be particularly vulnerable to heavy rainfall events, which can flush pollution into the bathing water. Pollution normally disperses quickly, returning bathing water quality to safe levels (within 24 hours). It remains the case that general advice is to refrain from bathing for up to 48 hours after heavy rainfall.

In 2017 Ballyholme bathing water catchment was prioritised for investigation by DAERA staff to determine outstanding sources of pollution. The investigation determined that this remains to be a complex catchment which is vulnerable to pressures from agricultural run-off and overflows from the urban wastewater network. Many of the improvement actions are already underway.

Northern Ireland Water has an ongoing programme of upgrades to the wastewater treatment network in the area. These works are expected to be completed by the end of 2018. In 2016, an increased number of farm inspections were undertaken within the catchment.

2.5 Prediction and Discounting

Currently, it takes 24 hours from collecting a water sample at a beach to obtaining a result. Members of the public are therefore informed within 24 hours of a pollution event.

DAERA recognises the flaws of producing the results reactively. A modelling system is being developed to predict when bathing waters are likely to experience short term pollution events this is being funded under INTERREG VA. This means that members of the public will be warned in advance of short-term pollution events, which should result in better public health protection measures. The project is cross-border and is supported by coastal councils and Keep Northern Ireland Beautiful. It is hoped that a pilot scheme

can be run during the 2019 bathing season, with a view to rolling out the full scheme in 2020.

2.6 Water and Sewerage Improvements

Department for Infrastructure and NI Water continue to invest in improving water quality through the Price Control (PC) process and through joint working with both DAERA Marine and Fisheries Division and NIEA Water Regulation. Improvements to bathing water quality have been tangible. Significant investment was made under PC13 in improvements to wastewater treatment works (WWTW) and networks including major upgrades at Newcastle, Magilligan (Benone) and Bangor (Ballyholme). Further significant investment has been committed under PC15 for capital works which includes improvements at Ballycastle, Bangor and Millisle. There is also funding earmarked for the installation of event monitors at NI Water network assets within 2km of bathing waters and a pilot project has been initiated to test the hardware.

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

The more stringent requirements of the revised Bathing Water Directive has implications for Member States in terms of discharge consenting and CSO spills policy. The policy for intermittent discharges from sewer networks sets a maximum number of spills permitted per bathing season for CSOs which have the potential to impact on a bathing water. The spills policy sets the maximum permitted number of spills from CSOs within a range of 3km of Bathing Waters to 3 per bathing season, an alternative approach is to demonstrate no deterioration in water quality via modelling. Event monitors are being installed under the PC15 programme to improve our collective understanding of this area.

2.8 Septic tank consenting policy

In 2012 Northern Ireland Environment Agency developed a new application process for discharges from domestic wastewater treatment systems (septic tanks) which continues to operate to date. During the application process, if a septic tank is found to be having a detrimental impact on the receiving environment, remedial work is required to ensure that adequate treatment is provided, before consent is issued. This has an overall positive impact upon water quality in rural catchments which drain into bathing waters.

2.9 Working with the Agriculture sector

In 2016, central government departments in Northern Ireland were restructured leading to the creation of the Department of Agriculture, Environment and Rural Affairs. The vision of the new Department is "A sustainable environment and thriving economy benefitting society"

This has led to a closer alignment and awareness of agriculture activity and environmental responsibility, with more emphasis on sustainable, environmentally friendly farming practices.

A Memorandum of Understanding (MOU) has been signed between NIEA and Ulster Farmers' Union. It is hoped that the MOU will assist in improving environmental outcomes, including improving water quality through addressing diffuse pollution.

One new incentive the Department has introduced is the Environment Farming Scheme (EFS). This was launched in February 2017 and is a voluntary scheme that will support farmers and land managers to carry out environmentally beneficial farming practices on agricultural land. The aims of the Scheme are to; restore, preserve and enhance biodiversity; improve water management and water quality;

reduce soil erosion and improve soil management;

foster carbon conservation and sequestration in agriculture; and

reduce greenhouse gas and ammonia emissions from agriculture.

Agriculture pollution can have potentially damaging effects on rivers and bathing waters. Many of our bathing waters are in rural catchments and can therefore be susceptible to agricultural pollution. The scheme includes elements to improve and enhance water quality through both individual and group catchment improvement actions. Measures to improve water quality include buffer strips around rivers and riverine fencing.

The Catchment Care Project, which will be funded under INTERREG VA, will look at a range of agricultural issues across three catchments which have the potential to cause water pollution. The project will also examine measures to mitigate against water pollution impacts. The catchments are the Arney, Finn and Blackwater.

A Strategic Agricultural Land Management Strategy was launched by then Minister McIlveen on 21st October 2016. Some of the recommendations within the Strategy are now being progressed by a pilot scheme in the Upper Bann catchment. A report on the effectiveness of the pilot scheme is being developed, which will influence future management of agricultural land use incorporating better protection of waterways.

Although both the Catchment Care Project and the Strategic Land Management Strategy pilot schemes are not within bathing water catchments, the methodology and findings will be transferable to other sites.

2.10 Source Apportionment of Pollution by microbial source tracking (MST)

MST is a relatively new method of molecular DNA analysis being utilised by the Department, to apportion pollution to either human (sewage) or agricultural sources. This is a 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. The Department is working with NI Water and AFBI to prioritise and analyse samples to help provide solutions and improve bathing water quality.

3. Improve Beach Cleanliness, Facilities Management & Signage

3.1 Tackling Marine Litter through the Northern Ireland Marine Litter Strategy.

Marine litter pollution is a serious pressure on the marine environment and is a pressing twenty first century environmental problem. There are a number of exciting and interesting projects which tackle litter on our coast. These have been developed and are being implemented by the coalition of delivery partners to the Northern Ireland Marine Litter Strategy.

Details of a range of these projects are available from Marine Litter Watch, the newsletter of the Strategy². A short flavour of some of these is set out below.

The Northern Ireland Fishery Harbour Authority who manage the Fishing for Litter Scheme launched its "Happy Harbours" primary school education programme in 2016. The Programme aims to share the importance of caring for the marine environment with children from the harbour communities. NIFHA also partnered with a Danish organisation to arrange for old fishing nets to be recycled. Three 40 foot containers of old nets left Northern Ireland for recycling in Denmark.

NI Water's education team visited a record number of 19,072 pupils from primary and post primary schools across Northern Ireland during the 2015/16 school year to raise environmental awareness and spread the message of what should and should not be flushed down the toilet.

Councils are continuing to facilitate and support a number of initiatives including beach cleans. Ards & North Down Borough Council support beach cleans with a number of voluntary groups in the Borough. In 2016 Newry, Mourne and Down District Council in partnership with Love Your Lough, and Carlingford Tidy Towns, launched the #2minutebeachclean initiative. This was very successful during the 2017 bathing season at Tyrella beach. It is hoped to expand the work this season to provide and emphasise the message 'Stop Plastics entering Our Seas'. The #2minutebeachclean is a simple concept where members of the public take 2 minutes to do a short clean up. A number of #2minutebeachclean stations are located around the coast that provide litter pickers and bags for people to use in their clean up.

Mid and East Antrim Borough Council have been working on a range of initiatives to improve environmental awareness in local communities and increase the number of beach cleans. Working in partnership with waste services and education officers the Council will roll out new initiatives with the support of local communities including: #2minutebeachclean and Adopt a Spot (Eco Schools Programme). These will focus primarily on 3 Seaside Award Beaches, with additional beaches to be included in the future. It is hoped that with the support of local schools and community groups, these initiatives can be maintained at; Brown's Bay, Carnlough and Ballygally Beaches.

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² https://daera-ni.gov.uk/publications/marine-litter-watch-newsletter

NIEA manages the beaches at Crawfordsburn and Helen's Bay, which are situated within Crawfordsburn Country Park. New bins have been installed with bespoke tops to protect lids from disposable BBQ damage. Improved waste management signage is being designed to advise the public of the quantity of waste collected from the site and how they can help to reduce this.

Live Here Love Here - This partnership campaign is about promoting civic responsibility and community pride through an awareness campaign using TV, social media, a Small Grants Scheme and support from local volunteering. The partnership includes nine of the eleven Northern Ireland councils, DAERA, Tourism NI, Northern Ireland Housing Executive, Choice Housing, Coca Cola and Keep Northern Ireland Beautiful.

Since the launch of the scheme in 2014, Live Here Love Here has provided over £250,000 in grants to community projects, enabling volunteers to come together and enhance their local communities through practical environmental activities. Live Here Love Here supports a range of volunteer activities including Adopt A Spot, Coast, River and Lough Care and Northern Ireland's largest clean-up campaign, the BIG Spring Clean. Every year hundreds of groups, schools and businesses carry out clean ups in their local areas supported by Live Here Love Here. The Live Here Love Here website www.liveherelovehere.org/ and Facebook page

<u>www.facebook.com/liveherelovehere/</u> lists what is happening throughout the year and allows each action to be promoted widely.

Live Here Love Here has successfully entered into its fourth year as it continues to grow and as more people come together to tackle the blight of litter, dog fouling and other environmental issues.

3.2 Facilities' management and signage.

Over the last number of years, access and facilities at our local beaches have undergone dramatic improvements. Local Councils have improved beach accessibility through working with the Mae Murray Foundation www.maemurrayfoundation.org/

The Mae Murray Foundation was set up to allow people of all ages and abilities to take part in activities, experience the world and enjoy friendship together in an inclusive environment. One of a number of projects the Foundation has addressed is 'Hands Up for the beach', a project started in Summer 2016 to find out why families in Northern Ireland are excluded from beach environments and to establish a plan to improve access for all.

After receiving funding from Wooden Spoon - the children's rugby charity, and in partnership with Causeway Coast and Glens Borough Council, the Mae Murray Foundation have provided a full range of mobility and personal care equipment based at Benone Beach, making it the first 'Inclusive' Beach in Northern Ireland. It was launched in August 2017 with a range of equipment including beach and floating chairs, beach walker, beach crutches, hoist and shower trolley. The foundation is now engaged with a

range of other local councils to assist with improving access and facilities at a number of beaches.

Mid and East Antrim Borough Council are working with Mae Murray Foundation and community representatives to improve accessibility at Brown's Bay and Ballygally beaches. Funding has already been secured to build an accessibility ramp at Brown's Bay Beach. This project is currently in the planning phase and should be delivered by the start of the 2018 bathing season.

Newry, Mourne & Down District Council are working in partnership with Mae Murray Foundation towards ensuring that Cranfield is an accessible beach. Ards & North Down Borough Council and the National Trust have also liaised with Mae Murray Foundation to improve accessibility at beaches, such as Crawfordsburn and Portstewart.

This range of initiatives from our local councils and Mae Murray Foundation demonstrate the commitment to making our local beaches fun, safe and accessible places for everyone³.

4. Keep Public and Media Better Informed

4.1 Bathing Water Profiles

The Department prepared the first bathing water profiles in March 2011. These profiles are updated annually and published on the DAERA website⁴. The profiles contain lots of useful information including the sensitivities of each beach 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.

4.2 Coastal Award Schemes

The Blue Flag Award is the definitive international beach award recognised in 46 countries and is an assurance of beach cleanliness and safety. Other awards include Seaside and Green Coast Awards which similarly ensure minimum standards of beach management and water quality. In Northern Ireland, many of our beaches have good coverage of these marks of quality assurance. In 2016, 10 Blue Flag Beach Awards, 2 Blue Flag Marina Awards and 11 Seaside Awards were presented to the managing organisations (councils, National Trust, NIEA, marina operators). Similarly, in 2017, 8 Blue Flag Beach Awards, 2 Blue Flag Marina Awards and 12 Seaside Awards were granted by Keep Northern Ireland Beautiful, who administer the schemes in Northern Ireland.

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³ www.maemurrayfoundation.org/projects/hands-up/

⁴ https://www.daera-ni.gov.uk/topics/water/bathing-water-quality

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

The spirit 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, other countries have been developing and installing electronic signage which can be remotely updated with bathing water quality and other information. In 2017, University College Dublin, in partnership with Keep Northern Ireland Beautiful, AFBI, and a number of local councils successfully secured a bid under INTERREG VA to develop a prediction model for bathing waters in Northern Ireland, Co Louth, Co Donegal and Co Sligo. The prediction and discounting model is expected to be operational during the 2020 bathing season.

Until then, the Department 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 and with posters at bathing waters. Other mechanisms to get information to the public are being explored through social media. One such approach, by Ards & North Down Borough Council, is to update Facebook with poor water quality results and advice not to bathe. This will be trialled during the 2018 summer bathing season.

4.4 Abnormal Situations

In August 2017, Northern Ireland experienced severe rainfall over a short period of time. During this time the Department invoked an "Abnormal Situation". This is described by the Directive as "an event or combination of events impacting on bathing water quality at the location concerned and not expected to occur on average more than once every four years"

This situation occurred at four bathing waters Magilligan Downhill, Castlerock, Portrush (Curran) East and Portballintrae. As per Directive requirements, appropriate signs for "advice against bathing" along with monitoring of the situation occurred. Within the Bathing Water Directive, scheduled samples can be disregarded in such a situation, as long as the public has been warned of the poor water quality.

4.5 Increased awareness through Recreational Schemes.

Mid and East Antrim Borough Council are trying to increase beach activities through an Outdoor Recreation programme. These events primarily aim to increase usage of local beaches through events, while promoting and encouraging responsible behaviours by beach users. A programme of beach activities to be planned and delivered throughout the 2018 season, includes:

Beach Olympics Sea Kayaking and Canoeing Paddle Boarding Outdoor Exercise Classes

Conclusions

DAERA is committed to continuing partnership-working through the Better Beaches Forum. It is recognised that delivering the new draft Programme for Government outcomes requires collaboration and partnerships. Many of the improvements outlined in this report have only been made possible through this approach which is fostering a better understanding on how to improve water quality, beach facilities, management, and communication.

There is still a lot to do. The Better Beaches Forum will continue to raise the profile of issues around managing our beaches. The impact of agricultural practices on bathing waters is an area which DAERA is now actively addressing through a range of activities such as the Environmental Farming Scheme. The new combined sewer overflow monitoring systems will improve our understanding of the pressures that sewerage systems place on our coastlines. The development of water quality prediction and discounting systems through the INTERREG VA SWIM project, will enable better information for bathers on the risks of sea bathing. Beach operators are working in partnership to reduce litter through innovative approaches with volunteers. The work on improving beach access for all through the Mae Murray Foundation, a Northern Ireland-based charity, is an exemplar and has attracted media attention from across the UK.

The passion and commitment of the Better Beaches Forum representatives is best demonstrated through the outcomes being achieved. DAERA staff would like to thank all our partners for their active participation in all of the range of initiatives and schemes to

- protect our environment;
- ensure we are creating a place where people want to live and work, to visit and invest; and
- ensure we enjoy long, healthy, active lives.

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