

# Bathing Waters – a new approach



Curraclloe (Co. Wexford)

Photo by: [Isishjaunt.com](http://Isishjaunt.com)

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# Overview of Presentation

- History of the Bathing Water (BW) Regulations
- Outcome for the 2014 season
- Management & action plans for 2015
- BW Factsheets & Infographics
- Brief Summary

# History of BW Regulations

- Bathing waters have been extensively monitored since 1976; the introduction of the first Bathing Water (BW) Directive (76/160/EEC).
- In 1992, this Directive was transposed into Irish law as part of the “*Quality of Bathing Waters Regulations 1992*” [\(S.I. 155 of 1992\)](#)
- This initial legislation required the monitoring of several microbiological (Total & Faecal Coliforms), as well as physico-chemical parameters such as:
  - Colour, mineral oils, phenols, transparency, & tarry residues etc.
  - A lot of these substances were difficult to accurately quantify, so analyses was very time consuming!

# History of BW Regulations (cont)

- In 2004, the EU commenced a major revision of the BW Directive following a number of studies establishing links between BWs & public health.
- The revised BW Directive (2006/7/EC) was transposed into Irish law as the *Water Quality Regulations 2008* ([SI No. 79 of 2008](#)).
- Building on research into the health risks associated with BWs it focuses on tighter microbiological standards for two new parameters,
  - *Escherichia coli* (*E. Coli*) and *Intestinal enterococci* (*I.E.*)
- The new Regulations came fully into effect on the **31<sup>st</sup> Dec 2014**.



# New BW Regulations

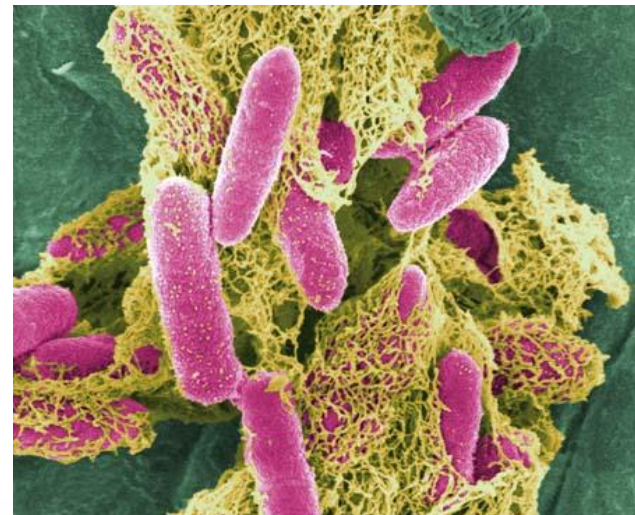
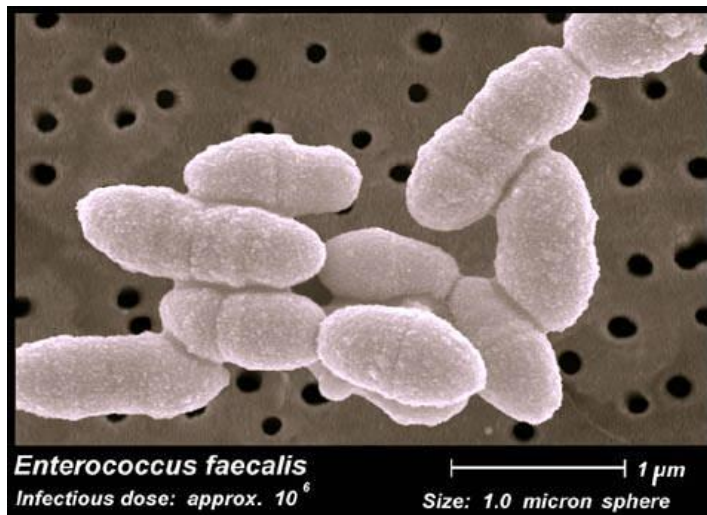
- The purpose of the new Regulations is primarily three-fold:
  - To improve health protection for bathers by introducing stricter standards for water quality and a new method of assessment;
  - To establish a more pro-active approach to the assessment of possible pollution risks and the management of bathing waters;
  - To promote increased public involvement and improved dissemination of information on bathing water quality to the general public.
- Significant improvements in water quality have been achieved, in particular over the last decade, due to:
  - Instillation and upgrading of urban wastewater treatment systems, &
  - General water quality management practices (agricultural, WW infrastructure) as a consequence of implementation of the Water Framework Directive (WFD)

# New BW Regs (cont)

The monitored microorganisms consist of:

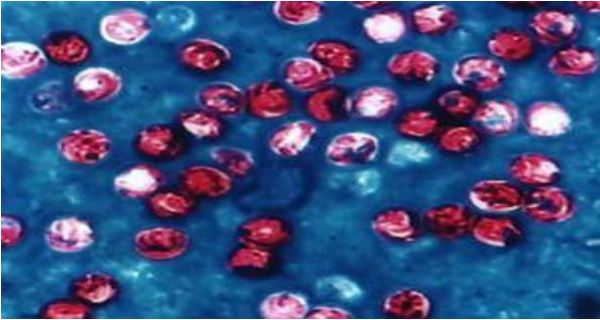
- *Intestinal Enterococci*, and
- *Escherichia coli (E.coli)*
- These organisms can cause illness on their own but are generally used as indicators of faecal contamination and as surrogates for other pathogens

Intestinal  
Enterococci

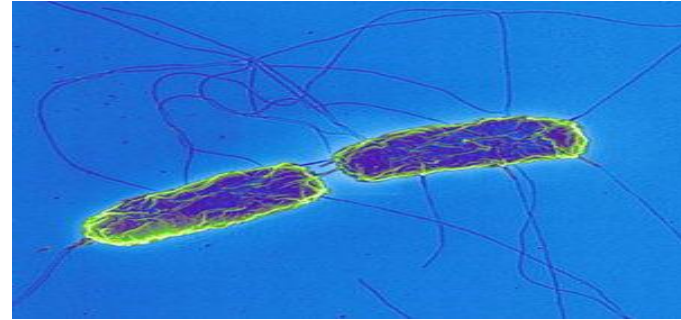


E. coli

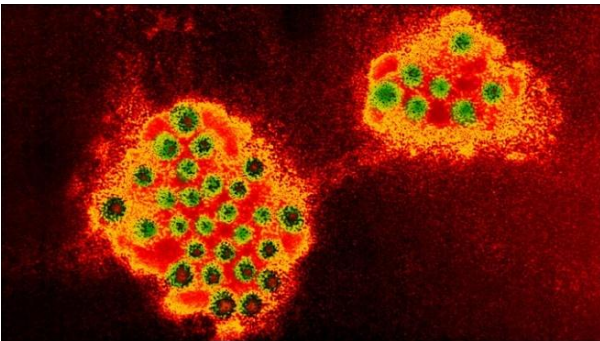
as indicators of ....



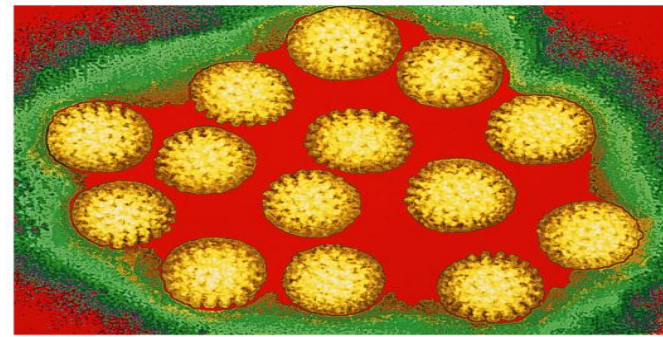
Cryptosporidium



Salmonella typhii



Norovirus



Human Rotavirus

# New BW Regs (cont)



- Bathing waters are now classed into four quality categories; 'Excellent', 'Good', 'Sufficient', or 'Poor'.
- A minimum target of 'Sufficient' is required to be achieved for all bathing waters
- The new stricter standards amount to an almost two fold decrease in the levels of microbiological contamination deemed to be acceptable for BWs.
- The assessment of water quality is for the previous 4 seasons (e.g. 2011-2014) rather than focusing just on the most recent BW season.

# Who Does What?

- **Local authorities** (LAs) have **primary responsibility** for the management of BWs, and for implementing measures to reduce or eliminate pollution sources.
- The **EPA's** role, as regulator, is to ensure that the requirements placed on LAs are carried out in accordance with the BW Regs.
  - We collates the monitored data, undertakes the assessment of water quality, review any actions taken by LAs in relation to BW pollution incidents, & also report the data to the EC each year.
  - We also operate the SPLASH BW website at [splash.epa.ie](http://splash.epa.ie), and runs a twitter messaging service at [twitter.com/EPABathingWater](https://twitter.com/EPABathingWater).
- Where pollution is linked to wastewater discharges, then **Irish water** working with LAs are responsible for upgrading the WW infrastructure.

# Outcome for 2014 (2011 -2014 data)

Sufficient (7/10 predicted)	Poor (all 7 predicted)
Balbriggan	Ardmore
Buncranna (LB)	Ballyloughane
Bunmahon	Clifden
Fountainstown	Duncannon
Grattan Road	Lilliput (L. Ennell)
Loughshinny	Rush South
Merrion Strand	Youghal Front Strand
Tra na Forbacha	
Tra na mBan	
Youghal Claycastle	

# Pollution incidents reported in 2014

Likely source of pollution	2014
Agricultural diffuse pollution	8
Wastewater discharges	27
Septic tanks	1
Animals / Birds	2
Urban discharges / combined with agriculture	3
Urban diffuse pollution	1
Other sources	6
<b>Total</b>	<b>48</b>

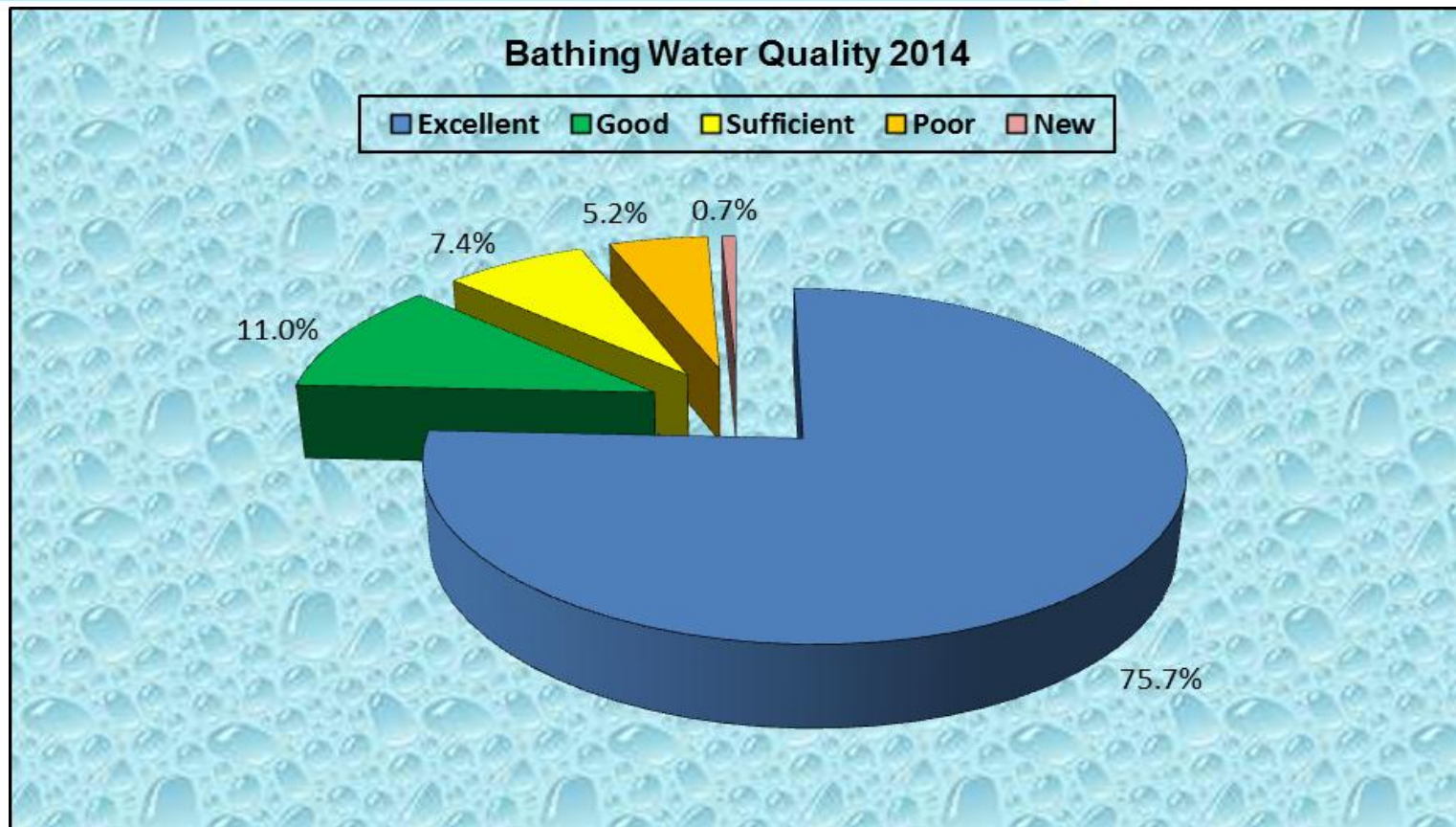
# Management plans / Actions for 2015

- Poor BWs: they must display either an '**Advice against bathing**' or '**Bathing Prohibition**' notice for **ENTIRE** BW season (1 June – 15 Sept)
- Management plans need to address both short term and longer term remedial measures
- Extreme values will definitely influence your assessment outcome (a rolling 4 year assessment)
- So unless remedial measures improve quality this could possibly mean a **permanent** bathing prohibition!
- Management plans have now been reviewed for all 7 Poor waters & seem capable of delivering long term improvements, if implemented in full.

# HSE action criteria (May 2015)

Escherichia coli	Intestinal enterococci	Recommended Action (At the discretion of PEHO, taking into account the beach profile, previous sampling history, probable source of contamination etc.)
<b>&gt; 2,000 E. coli OR &gt; 250 I.E.</b>		<b>Issue of a Bathing prohibition</b>
<b>≥ 1,000 - ≤ 2000 E. coli AND ≥ 200 I.E.</b>		<b>Issue of a Bathing prohibition</b>
<b>≥ 1,000 – ≤ 2000 E. coli BUT &lt; 200 I.E.</b>		<b>Issue an Advisory notice and resample immediately</b>
<b>If resample is still ≥ 1000 E. coli</b>		<b>Issue of a Bathing prohibition</b>
<b>≥ 500 - &lt; 1000 E. coli AND ≥ 100 - ≤ 250 I.E.</b>		<b>Monitor the situation and resample. Decision based on the evidence available/details of any pollution event.</b>

# Is it safe to go in the water?



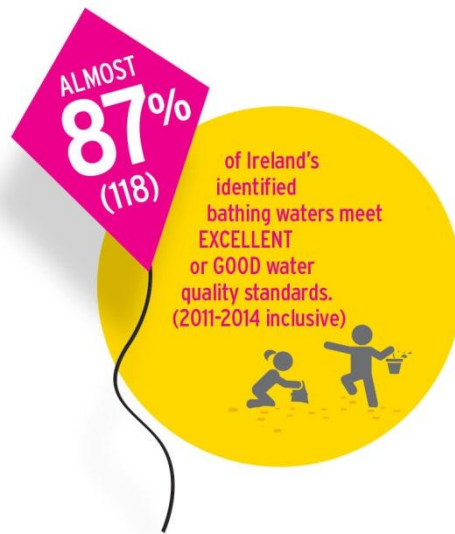
**YES** – but check out the latest water quality on **SPLASH**,  
or at the beach notice board

# BW Factsheets

- The BW Factsheets are designed to communicate our information & key messages to a wider audience as follows:
  - **Did You Know**: includes 4-5 important facts
  - **BW Assessment**: overview of the main categories i.e. Excellent, Good, Sufficient, Poor.
  - **What is Monitored**: Main sources of *E. coli*, and *I.E.*
  - **Splash & twitter**: How the public can be kept informed
  - **Public participation**: How you can nominate your favourite beach
  - **What Can I Do To Help**: 3-4 tips for the public involvement

# BW Infographics

- Give a visual overview of the key messages:



WATER QUALITY %



- Factsheets & Infographics are available on the Ireland's Environment section of EPA website:

[www.epa.ie/irelandsenvironment/irelandsenvironment2012/infos/](http://www.epa.ie/irelandsenvironment/irelandsenvironment2012/infos/)

# To Recap

- The new Bathing Water Directive was transposed into Irish law in 2008 and is now being implemented in full.
- Its objective is to improve the protection of bather's health by introducing stricter standards for water quality, and a new method of assessment (statistical assessment over 4 year period).
- It has established a more pro-active approach to the assessment of pollution risks, and to the management of bathing waters.
- It also places considerable emphasis on keeping the public fully informed about bathing water quality, and on notifying them of any incidents ([Splash, twitter, beach noticeboards](#)).

# Any Qs

Check the noticeboards at the beach for water quality information or pollution incident warnings during the bathing season JUNE 1st to SEPT 15th

