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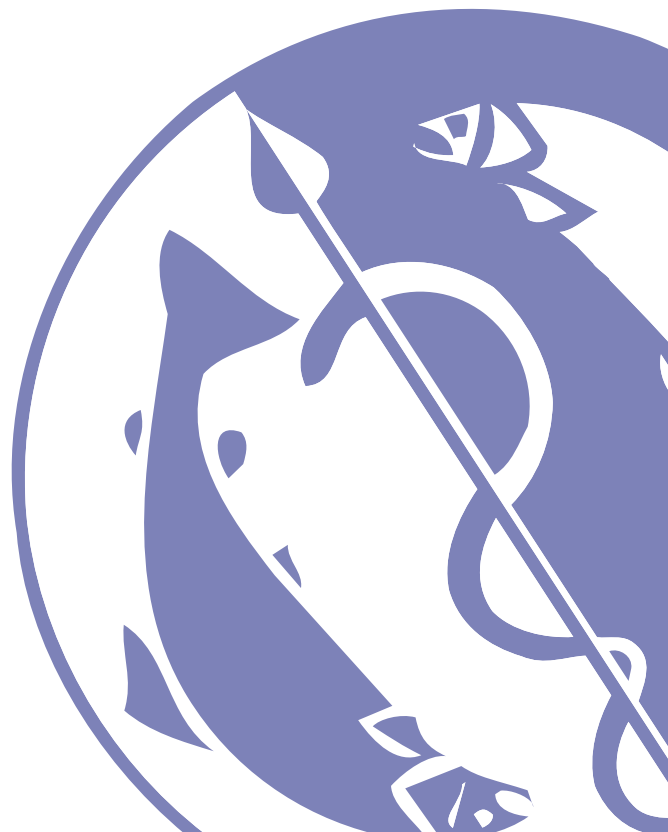
CENTRE FOR
RESEARCH INTO
ENVIRONMENT AND
HEALTH

**Assessment of
bathing water quality
for the States of Jersey 2015**

A Report to
Environmental Protection,
Department of the Environment,
States of Jersey

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Executive Summary Report



Executive Summary

1. Bathing water quality is measured at 16 locations around the Jersey coast, many of which have been monitored since 1991 and all for over a decade.
2. Twenty seawater samples are collected from each location between May and September by Environmental Protection, Department of the Environment, States of Jersey. The States of Jersey Official Analyst laboratory then measures the concentrations of two types of faecal indicator bacteria in the samples: *Escherichia coli* and intestinal enterococci (presumptive and confirmed). The European bathing waters Directive (2006/7/EC) requires these measurements.
3. After each bathing season, the results are collated and compared to levels specified in the following standards: (i) the European Directive (2006), which officially came into force in 2015, (ii) the old European Directive (1976), and (iii) the World Health Organization (WHO) (2003) guidelines for recreational waters.
4. The European Directive standards use water quality data from the last four consecutive bathing seasons (i.e. 80 sets of results from 2012-2015) for compliance assessment. Similarly, the WHO guidelines use data from five bathing seasons (i.e. 100 sets of results from 2011-2015). Both of these standards are designed to protect public health and are based on epidemiological evidence from across the globe.
5. Rainfall analysis showed that the 2015 bathing season was significantly wetter than average, particularly during August, which showed the highest monthly rainfall in the past 30 years.
6. Ten of the beaches (62.5%) demonstrated “Excellent” water quality, which is the highest possible water quality defined by the European Directive, A further six beaches displayed “Good” water quality (Table E1), whilst Bonne Nuit was the only beach to show “Sufficient” water quality, which is the minimum requirement of the new Directive. No beaches exhibited “Poor” water quality.
7. Thus, all 16 beaches passed the requirements of the European Directive, where a beach must achieve at least the “Sufficient” water quality classification. This result was better than the UK, where 4.6% of bathing waters showed “Poor” water quality. Here, the closest comparison was Wales, which also had no “Poor” classifications.
8. All Jersey bathing waters (i.e. 100%) passed the mandatory, or *Imperative*, standards for *E. coli* specified in the now redundant European Directive of 1976 (Table E1). Thirteen of the beaches (i.e. 81.25%) also passed the more stringent *Guideline* standards. This is the same as in 2014, despite the higher rainfall.

9. The World Health Organization (WHO) guidelines assess water quality in terms of the risk of minor gastrointestinal illness. For the current assessment period, 2011-2015, this risk is “Negligible” at five beaches, which indicates exceptionally high bathing water quality (Table E1). Ten locations showed “Low” risk, demonstrating that the majority of Jersey bathing waters currently have a “Low” associated illness risk at the very least. Bonne Nuit was the only bathing water to show “Moderate” risk. Importantly, no Jersey beaches showed “High” associated illness risk. Evidence from UK sites suggests that these classifications would improve if the provisions of WHO guidelines and European bathing water directive for real time prediction and discounting had been applied in Jersey.
10. Although water quality at Bonne Nuit met the minimum requirements of the European Directive standards, it is recommended that further water quality investigations are carried out here. Such investigations would aim to enhance the understanding of water quality variations at this location, allowing sample discounting through application of a real-time prediction system, as outlined in the European Directive.

Table E1 The current status of Jersey bathing water compliance

Location	Directive 2006/7/EC^a status 2012-2015	Directive 76/160/EEC^b status 2015	WHO 2003 guidelines gastroenteritis risk level 2011-2015
Havre des Pas	Excellent	<i>Guideline</i> Pass	Low
Green Island	Excellent	<i>Guideline</i> Pass	Low
Grouville	Good	<i>Guideline</i> Pass	Low
Archirondel	Excellent	<i>Guideline</i> Pass	Negligible
Rozel	Good	<i>Guideline</i> Pass	Low
Bouley Bay	Good	<i>Guideline</i> Pass	Low
Bonne Nuit	Sufficient	<i>Imperative</i> Pass	Moderate
Grève de Lecq	Excellent	<i>Guideline</i> Pass	Low
Plémont	Excellent	<i>Guideline</i> Pass	Low
St Ouen Watersplash	Excellent	<i>Guideline</i> Pass	Negligible
St Ouen Le Braye	Excellent	<i>Guideline</i> Pass	Negligible
Beauport	Excellent	<i>Guideline</i> Pass	Negligible
St Brelade	Excellent	<i>Guideline</i> Pass	Low
Portelet	Excellent	<i>Guideline</i> Pass	Negligible
La Haule	Good	<i>Imperative</i> Pass	Low
Victoria Pool	Good	<i>Imperative</i> Pass	Low

a Current European bathing water Directive, which came in to force in 2015

b The old European bathing water Directive, superseded by Directive 2006/7/EC in 2015