



Department of Environment, Food and Agriculture Government Laboratory

Interim Report on Isle of Man River Water Quality 2013

Chemical water quality data for summers from 1999 to 2013 are presented in the form of quality classifications, showing trends in the water quality of Manx rivers.

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This report presents the findings for chemical water quality based on a summer monitoring programme, covering 86 river sites located throughout the Island. The results are presented in rolling five-yearly intervals. This approach aims to minimize the variation in the data-set due to 'good' and 'bad' years for water quality (which can happen because of things like extreme weather events such as the very wet summer last year) and outliers in the data-set due to one-off major pollution events.

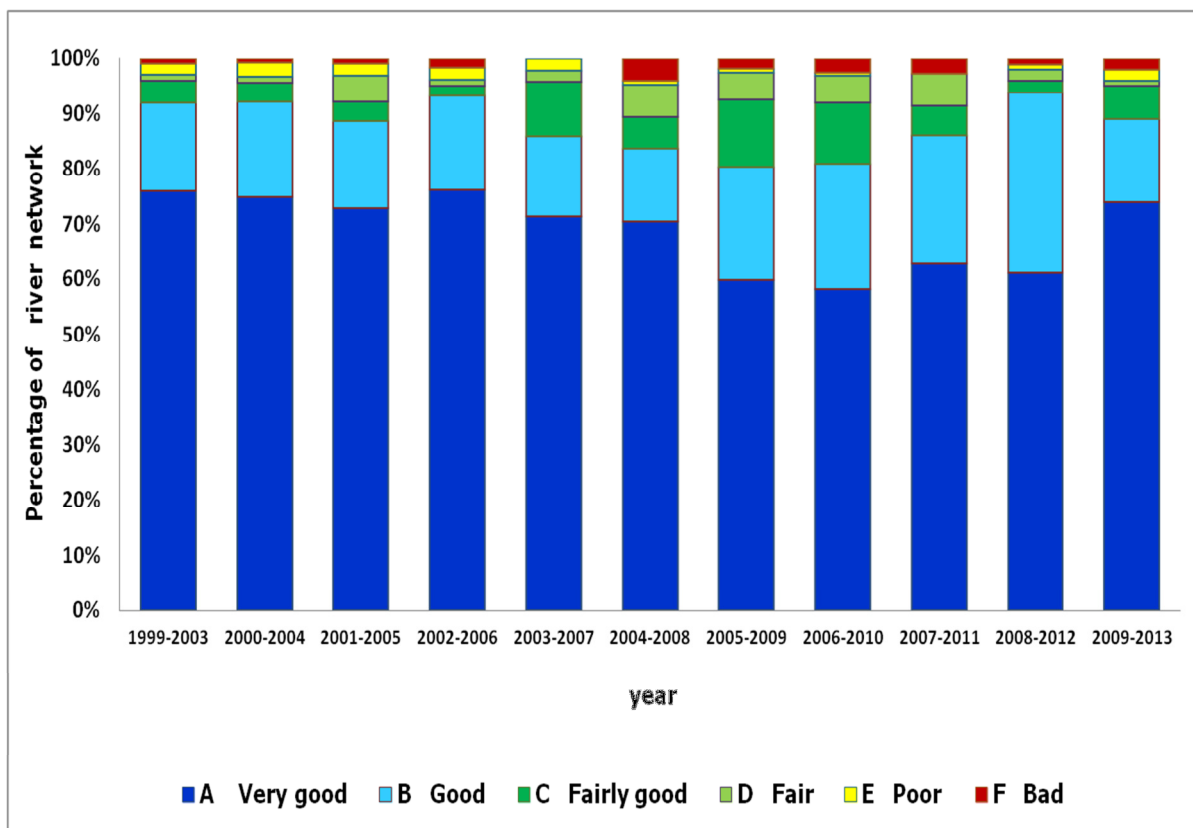
The latest monitoring shows that 89% of Manx rivers are of good or better chemical water quality and 96% are fair or better (see Table and Graph). The 'Good' class means the river site is of a quality suitable for salmonid fish such as brown trout, while the 'Fair' class means the site is showing some stress due to pollution or disturbance and isn't suitable for salmonids but will support other types of fish. Although there has been a 13% increase in the percentage of 'Very Good' river sites (natural ecosystems capable of supporting salmonid fisheries) since last year's monitoring sequence, disappointingly there has also been a 5% decrease in the overall percentage of sites that are rated as 'Good' or better. This probably reflects both continuing stresses and pollution pressures on a number of rivers, as well as extremes in weather events such as very dry and very wet summers, the former reducing dilution of pollutants in some sites and the latter increasing leaching and run-off of land-borne pollution in others.

The increase in the percentage of 'Very Good' rivers has been accompanied by a reduction in the number rated as 'Good' as some of these better quality rivers have improved further. Unfortunately, some previously 'Good' rivers have also deteriorated in water quality to become 'Fairly good' or worse. This is also evident in the increase in the percentage of rivers now classed as either 'Poor' or 'Bad' river compared to 2008-2012. These are rivers suffering moderate to severe pollution, with a reduction or loss of most animal life, including fish.

Table showing percentage of monitored river length achieving different chemical water quality classes during summer sampling

Water quality class	1999 - 2003	2000 - 2004	2001 - 2005	2002 - 2006	2003 - 2007	2004 - 2008	2005 - 2009	2006 - 2010	2007 - 2011	2008 - 2012	2009 - 2013
A Very good	76	75	73	76	71	71	60	58	63	61	74
B Good	16	17	16	17	15	13	20	23	23	33	15
C Fairly good	4	3	4	2	10	6	12	11	5	2	6
D Fair	1	1	5	1	2	6	5	5	6	2	1
E Poor	2	3	2	2	2	1	1	1	0	1	2
F Bad	1	1	1	2	0	4	2	3	3	1	2

Graph showing percentage of monitored river length achieving different chemical water quality classes during summer sampling



Comparison with U.K. river water quality is difficult because the U.K. regions now classify rivers on the basis of a variety of parameters including habitat and alien species in addition to water quality, following adoption of the EU Water Framework Directive. However, the most recent comparable figures for chemical river water quality from 2008, indicated that 79% and 95% of English and Welsh rivers respectively, were 'Good' or better (comparable results for Scottish rivers are unavailable). Thus it is probably safe to conclude that the Island's rivers are among the best in the British Isles, albeit not the very best.

In summary, although some of the best rivers have improved, there has been deterioration the second to best river water quality class relative to the last monitoring period. The persistence and indeed increase of a number of sites suffering stress, highlights the need for continued pollution mitigation, enforcement and water quality monitoring. Although one-season sampling is inherently subject to far more variability than year round sampling, it does provide a way to track general chemical water quality changes.

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