



Pollution of Bathing Waters From Diffuse Sources

Bacteria from animal waste may be washed into river systems and carried into coastal areas, particularly after heavy rain.

How are bathing waters polluted?

Scientists from the Scottish Environmental Protection Agency (SEPA) and Scottish Water first raised concerns about polluted bathing waters in the 1990s. They realised that bacteria from animal waste may be washed into river systems and carried into coastal areas, particularly after heavy rain. This kind of pollution is called diffuse pollution as it comes from a range of different sources in the surrounding environment. It is harder to control than pollution from point sources, such as sewage treatment works, because it involves managing the land to control the source of contamination.

How can we minimise contamination of bathing waters from agricultural sources?

It is possible to reduce contamination of bathing waters from animal waste by following certain procedures, known as best management practices. Some of these are outlined in the chapters on Nutrient Enrichment and Links Between Land and Water. The Scottish Executive also provides farmers with guidance on how best to manage farm wastes. One of these is the “4 Point Plan”.

Below left: The proximity of agricultural areas to coastlines can pose problems for bathing water quality
Below right: Managing water margins can minimise spread of fertilisers into water courses



The 4-Point Plan

This guidance encourages farmers to:

- Minimise dirty water around steadings: this dirty water can contain nutrients and bacteria from livestock manure, giving it high polluting potential. Re-routing access tracks for cows to avoid routes that can carry slurry to watercourses is one example.
- Use nutrients more efficiently: nutrients, such as fertilisers, lost to the surrounding environment are both a financial loss and a threat to the environment.
- Carry out risk assessments for manure and slurry: these help farmers plan where and when to spread waste, and reduces the risk of contamination.
- Manage water margins: restricting livestock access to water courses and minimising the spread of fertilisers near water reduces contamination, protects nearby wildlife habitats and may also benefit livestock.

How do you know if it's safe to swim?

A particularly successful strategy for keeping up to date with bathing water quality involves the beach signs that were set up by the Scottish Executive on five beaches in south-west Scotland in 2003. A team of scientists use continuously monitored data on rainfall and river flow conditions to predict the likely contamination to the beach area. The beach signs can be updated as conditions change, displaying their predictions on current water quality.



Beach signs in south-west Scotland show whether the water is safe for bathing

Did you know?

There are 60 beaches designated for bathing in Scotland. In 2004, 93% of these passed the minimum safety standards for bathing, with 57% of the total reaching excellent standards. Only 7% were considered poor. This is a marked improvement from 2001 when 15% of the bathing waters were considered to be in a poor condition, and only 40% met good standards.

