NFU Briefing

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Bathing Waters and Agriculture

Background

The Bathing Water Directive aims to protect public health from bacterial pollution at designated coastal and inland bathing waters. There are 413 bathing waters in England and the bathing season runs from 15 May to 30 September each year, during which time weekly water samples are collected from each bathing water by the Environment Agency. The water is tested for two faecal indicator organisms (FIO), *Intestinal enterococci* and *Escherichia coli*, which are used as measures of risk to human health.

98.3% of England's bathing waters passed mandatory standards in 2017.

2015 saw the introduction of the revised EU Bathing Water Directive which aims to further improve the quality of bathing waters by introducing higher compliance standards. The new standard has four classes for bathing waters – excellent, good, sufficient and poor. Standards are derived by averaging weekly results from the current year and the previous three years. A small percentage of routine samples can be excluded if they are the result of an identified "short term pollution" incident such as extreme rainfall. All bathing waters are required to achieve 'sufficient' classification.

If a designated bathing water fails to meet the new 'sufficient' standard, advice against swimming or paddling in that water must be posted at the bathing water by local authorities for the start of the next bathing season. The signs must also list the causes contributing to the poor standard, if agriculture has been identified as the main source of contamination it will be openly identified as such on the sign.

Which bathing waters are at risk?

The 2017 bathing water results show that a total of 7 (1.7% of total) bathing waters in England are designated as 'poor'. Table 1 below shows the bathing waters designated as 'poor' in 2017 and their regional location. Further information about the 2017 results can be found on the bathing waters page of the GOV.UK website and detailed information on individual bathing waters can be found on the EA Bathing Water Quality website.

Table 1: Bathing waters designated 'poor' in 2017

Bathing Water	Region	Classification
Burnham Jetty North	SW	Poor
Clacton (Groyne 41)	SE	Poor
Ilfracombe Wildersmouth	SW	Poor
Instow	SW	Poor
Scarborough South Bay	NE	Poor
Weston-super-Mare Uphill Slipway	SW	Poor
Combe Martin	SW	Poor

Pollution sources

Most bathing waters are subject to multiple diffuse sources of FIO pollution. The proportion varies from site to site, and in response to weather patterns. The most significant sources of pollution impacting on bathing water compliance are:

- Sewage from treatment works or combined storm sewer overflows (CSOs).
- Agricultural pollution - manure from grazing animals and slurry application.
- Urban run-off which contains dog and bird faeces.
- Birds and animals on the beach – for example seagulls, pigeons, dogs, horses and donkeys.

Risk from agricultural activity

Most livestock operations involving excreta present some risk of FIO entering watercourses. However, as FIO die off rapidly with storage, it is fresh slurry and manure that poses the greatest risk especially when associated with high rainfall events. Table 2 below shows results from a recent Defra research project which assessed relative risk of FIO pollution from different agricultural sources.

Table 2: Relative FIO risk from different agricultural sources

Farm tracks (between grazing and milking parlour especially)	High risk	High traffic and deposition of fresh excreta. Especially high where a direct route to watercourse exists.
Farm yards and hardstandings/ heaps	High risk	High traffic and concentrated fresh excreta. Especially high where run-off is un-contained
Grazing livestock	Medium risk	Distributed fresh excreta, mitigated by die-off. Dependent on drainage/run-off. Risk is low shortly after livestock removed.
Spreading	Medium risk	Mitigated by rapid die-off of FIOs in stored excreta. Dependent on drainage/run-off.
Livestock direct access to watercourse	Medium risk	Mitigated by relatively small input and time spent in river. Regular river crossings are high and reflected in farm track risk.
Field storage heaps	Low/inconsistent risk	Mitigated by rapid die-off of FIOs. Assumed heaps sited away from watercourses with no direct entry pathway.
Roofs	Low risk	Relatively uncontaminated source

Potential mitigation measures

The Defra study suggested the following best practices to reduce FIO contamination of drain flow and surface runoff waters:

- **Reduce the length of the grazing season**
- **Site solid manure field heaps away from watercourses/field drains**
- **Store solid manure heaps on an impermeable base and collect leachate**
- **Do not spread slurry or poultry manure at high risk times**
- **Do not spread FYM to fields at high risk times.**
- **Fence off rivers and streams**
- **Construct bridges crossing rivers/streams**
- **Manage farm tracks to minimise runoff to surface waters**

Further help and advice

Catchment Sensitive Farming (CSF) is an initiative to help farmers adopt voluntary measures to tackle and reduce diffuse water pollution from agriculture through advice and grants. CSF grants are now part of mid-tier Countryside Stewardship and are available as a standalone grant with or without the need to enter into a five year land management scheme agreement.

CSF has been actively working with farmers in many ‘at risk’ bathing water catchments for some years and will continue to do so. If you would like further information and advice about what actions you can take to help reduce levels of livestock bacteria in water see the CSF pages on GOV.UK where contact details for your local CSFO can be found.