

Water Quality in Wales

Quick Guide

November 2015

This quick guide outlines the various Directives associated with improving water quality in Wales. This includes the *Water Framework Directive*, the *Bathing Water Directive* and the *Nitrates Directive*. It also examines whether Wales has met the targets of the Directives.

What is the Water Framework Directive?

The ***Water Framework Directive (2000/60/EC) (WFD)*** came into force in December 2000 and became part of UK law in 2003. The WFD introduces a consistent approach to water management and has replaced a number of previous European Directives.¹

The WFD is the most substantial piece of European Community water legislation to date and is designed to improve and integrate the way water bodies are managed throughout Europe. It applies to all surface freshwater bodies (including lakes, streams and rivers), groundwaters and associated ecosystems, estuaries and coastal waters out to one mile from low-water. The WFD aims to:

- reduce pollution and improve the condition of aquatic ecosystems;
- promote the sustainable use of water; and
- reduce the effects of floods and droughts.²

The WFD is implemented in stages based on river basins, rather than national or political boundaries, through River Basin Management Plans (RBMPs), (detailed later).³ Reviews of the RBMPs will take place every six years. Ultimately Member States must monitor, protect, enhance and restore all surface and ground water bodies.

The WFD classification scheme for water quality includes five status classes: **'high', 'good', 'moderate', 'poor' and 'bad'**. 'High' status is defined as the biological, chemical and morphological conditions associated with no or very low human pressure (the reference condition). Assessment of quality is based on the amount of deviation from the reference condition; 'Good status' means 'slight' deviation, 'moderate status' means 'moderate' deviation, and so on.

¹ Environment Agency, Planning and Research, Planning, Planning Policy, Managing and improving the water environment, introduction to the Water Framework Directive ***Why the Water Framework Directive is needed*** [accessed 22 January 2015]

² OJ L 327, 22.12.2000 [accessed 23 March 2015]

³ European Commission, ***Water Framework Directive***, November 2010 [accessed 23 March 2015]



The general objective of the WFD is to achieve 'good status' for all inland and coastal waters by 22 December 2015.⁴ There are some exceptions where this is not possible for certain water bodies, and subject to the criteria set out in the Directive, Member States should aim to achieve good status by 2021 or 2027 or set a less stringent objective.

The ***Water Environment (Water Framework Directive) (England and Wales) Regulations 2003*** transposed the WFD into law in England and Wales and provides a timetable for its implementation.⁵

What is the Bathing Water Directive?

The ***Bathing Water Directive (2006/7/EC) (BWD)*** came into force in 2015 and aims to preserve, protect and improve the quality of the environment, and protect human health.⁶ It also seeks to improve management practices at all bathing waters and to standardise the information available to bathers across Europe. The BWD repealed the previous Directive 76/160/EEC.

The BWD introduces a new classification system with stricter water quality standards to the previous 76/160/EEC Directive. These bathing water classifications are either: 'excellent'; 'good'; 'sufficient'; or 'poor'. At least 'sufficient' bathing water quality is required for *all* bathing water bodies by the end of the 2015 bathing season.⁷

The ***Bathing Water Regulations 2013*** guide the stages of implementation of the BWD.⁸ The Regulations came into effect on 31 July 2013. They take into account the changes in Wales with the formation of Natural Resources Wales (NRW) and make some important changes with regard to the management of privately operated bathing waters. From the 2016 bathing season every local authority which controls a bathing water must display bathing water classifications provided by NRW. This must be in the form of a classification symbol and should include advice against bathing, where appropriate.

The Blue Flag Award scheme (managed by Keep Wales Tidy) makes awards to beaches that achieve the 'excellent' water quality standard under the BWD.⁹ This award has become more difficult to achieve following the reform in the Directive's water quality standards.

The *Bathing Water Directive* and the *Water Framework Directive* are inter-dependent. Areas designated as bathing waters under the BWD are designated protected areas under the WFD and must be managed in accordance with the requirements of both Directives.¹⁰ In addition, failure to comply with the WFD and ensure good water quality in inland waters that drain into bathing waters could result in failure to comply with the BWD.

⁴ 'Good status' means both 'good ecological status' and 'good chemical status'.

⁵ ***The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003***, SI 2003/3242 [accessed 23 March 2015]

⁶ *OJ L 64, 4.3.2006, p. 37–51* [accessed 23 March 2015]

⁷ *OJ L 64, 4.3.2006, p. 37–51* [accessed 23 March 2015]

⁸ ***Bathing Water Regulations 2013, SI 2013/1675*** [accessed 23 March 2015]

⁹ Keep Wales Tidy, ***Blue Flag*** [accessed 13 March 2015]

¹⁰ ***The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003***, SI 2003/3242 [accessed 23 March 2015]



What is the Nitrates Directive?

The **Nitrates Directive (91/676/EC)** aims to reduce and prevent the pollution of water by nitrates from agriculture.¹¹ Compliance with this Directive **directly impacts on compliance with the Water Framework Directive and Bathing Water Directive**. Member States are required to identify surface and groundwater bodies that are, or could be, high in nitrates from agricultural sources. Once such a water body has been identified, all land draining into that water body is designated as a Nitrate Vulnerable Zone (NVZ) and a code of 'Good Agricultural Practice' will apply to that area. Water bodies in NVZs must then be monitored every four years for eutrophication¹² and nitrate levels.

The **Nitrate Pollution Prevention (Wales) (Amendment) Regulations 2012** came into force in June 2012 and make provision for the implementation and enforcement of the *Nitrates Directive* in Wales, including the designation of NVZs and the actions required of farmers with land in NVZs to reduce nitrate pollution.

The timing and volume of application of chemical fertiliser, manure and slurry to land in NVZs is tightly restricted, both annually and during specific closed periods, depending on soil and vegetation type. As such, farmers in NVZs are required to keep detailed records and risk maps for their farms. Further restrictions on equipment used for slurry spreading and the storage of manure under the Regulations came into force in January 2012.¹³

Compliance with the Nitrates Directive

Compliance with the *Nitrates Directive* can have initial costs for farmers in NVZs, for example some slurry storage facilities are estimated to cost around £80,000.¹⁴ However, there is support available to farmers:

- Under the Rural Development Plan (RDP) for Wales (2014-2020), of the Common Agricultural Policy, eligible farmers can access 80 per cent funding towards Nutrient Management Planning and advice on the NVZ Regulations through Farming Connect's Advisory Service.

Under the 2014-2020 RDP, financial support is available through the Sustainable Production Grant Scheme to improve resource and business efficiency. This includes funding for manure/slurry storage and applications for projects in NVZs will be prioritised.¹⁵

¹¹ **OJ L 375, 31.12.1991** [accessed 23 March 2015]

¹² Eutrophication is caused by an excess of nutrients (principally nitrates and phosphates) in the water which increases the growth and decomposition of plants and reduces oxygen levels in the water.

¹³ **Nitrate Pollution Prevention (Wales) (Amendment) Regulations 2012**, SI 2012/1238 (W.151) [accessed 23 March 2015]

¹⁴ Welsh Government Press Release, **NVZ grant helps Welsh farmers**, 28 January 2011 [accessed 23 March 2015]

¹⁵ Welsh Government, **Sustainable Production Grant Scheme**, 18 August 2015 [accessed 9 November 2015]

Has Wales met the targets of the Directives?

Water Framework Directive

There are three **river basin districts** identified in Wales – Western Wales, Severn and Dee. The Severn and Dee districts straddle the border with England.¹⁶ The Welsh Government is responsible for river basin districts lying wholly in Wales (Western Wales district) and the Welsh Government and Defra have joint responsibility for river basin districts that are partly in Wales and partly in England.¹⁷ NRW leads on the development of the Western Wales and Dee RBMPs whilst the Environment Agency leads on the development of the Severn RBMP. **In Wales, 36 per cent of all water bodies achieved Good Ecological Status in 2012.¹⁸ In 2014, 42% of water bodies achieved good ecological status.** The updated plans for each river basin district in Wales are due to be published in December 2015 and will cover the period 2015 – 2021.

Nitrates Directive

NVZ designations in Wales were updated in October 2013 and **around 2.4 per cent of Wales is currently within an NVZ.**¹⁹ The next four year review cycle is currently underway. Monitoring data is being collected and analysed to determine the status of nitrate levels in Welsh waters. This information will be used to review the existing NVZ designations and determine if any further waters should be designated.

Bathing Water Directive

There are currently 102 identified bathing waters in Wales, compared with 88 in 2011.²⁰ **In 2015, all 102 Welsh identified bathing waters met the new stricter standards for bathing water quality. There were 82 'excellent' classifications, 16 'good' and four 'sufficient'. No bathing waters in Wales were classified as poor.**²¹

Under the previous system, in 2014 all 102 waters met 'mandatory' standards and 90 met the more stringent 'guideline' standards.²² By comparison, in 1990 only 70 per cent passed the 'mandatory' standard and 18 per cent passed the 'guideline' standard.²³ NRW analysis of water samples has shown that the top five sources of pollution are:

- 01. Pollution from sewage** – bacteria from sewage can enter waters as a result of system failures or overflows or directly from sewage works;
- 02. Water draining from farms and farmland** – manure from livestock or poorly stored slurry can wash into rivers and streams resulting in faecal material entering the sea;
- 03. Animals and birds on or near beaches** - dog, bird and other animal faeces can affect bathing water as they

¹⁶ Welsh Government, *Water Framework Directive*, 21 January 2015 [accessed 23 March 2015]

¹⁷ *The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003*, SI 2003/3242 [accessed 23 March 2015]

¹⁸ NRW, *Consultation on the proposed update to Wales' river basin management plans* [accessed 26 February 2015]

¹⁹ Welsh Government, *Nitrates Directive*, 31 October 2014 [accessed 22 January 2015]

²⁰ Welsh Government, *Bathing water quality and beaches in Wales*, 7 November 2014 [accessed 13 March 2015, information in link has since been updated]

²¹ Welsh Government, *Bathing water quality and beaches in Wales*, 2 November 2015 [accessed 9 November 2015]

²² Welsh Government, *Bathing water quality and beaches in Wales*, 7 November 2014 [accessed 13 March 2015, information in link has since been updated]

²³ Environment Agency, *Bathing Waters Working in partnership in England and Wales*, November 2010



often contain high levels of bacteria (much higher than treated human waste);

04. Water draining from populated areas - water draining from urban areas following heavy rain can contain pollution from a variety of sources, including animal and bird faeces;

05. Domestic sewage – misconnected drains and poorly located and maintained septic tanks can pollute surface water systems.

Further information

For further information on **Water Quality in Wales**, please contact **Elfyn Henderson** (Elfyn.Henderson@assembly.wales) Research Service.

See also:

- Natural Resources Wales [Water Framework Directive](#) webpage
- Welsh Government [Bathing Water Quality](#) webpage
- Welsh Government [Nitrates Directive](#) webpage

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