



BRIEFING PAPER

Number CBP 7246, 27 November 2015

Water Framework Directive: achieving good status of water bodies

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Summary

Clean water is a significant, and often undervalued, resource. It is important for many reasons, including human health, farming and food, healthy wildlife and habitats, bathing, fishing and other leisure activities.

Efforts to improve the quality of water bodies in the UK have been underway for a number of years. The EU Water Framework Directive requires the UK to achieve 'good' status of all water bodies (including rivers, streams, lakes, estuaries, coastal waters and groundwater) by 2015, but in 2012 only 36% of water bodies were classified as 'good' or better. There has been very little change in this overall status classification since 2008.

Monitoring of water quality is a devolved issue so separate approaches are taken in England, Wales, Scotland and Northern Ireland. However, overall compliance with European requirements is measured by the UK's overall status classification.

Surface waters are assessed against their ecological and chemical status; groundwater is measured by its quantitative and chemical status. The key source of information on the measures being taken to improve water quality in a particular area is the relevant River Basin Management Plan. These are currently being updated and are expected to be published in the UK by the end of 2015, once approved by the Secretary of State.

The Directive recognises that, in specific and limited circumstances, the 2015 deadline of achieving 'good' status may not be met. The UK may therefore rely on relevant waivers to allow it to extend the deadline (to a maximum of 2027) or meet less stringent environmental objectives. The Environment Agency is aiming to achieve good status in at least 60% of waters by 2021 and in as many waters as possible by 2027.

The Department for Environment, Food and Rural Affairs is taking a number of actions to manage and improve water quality, including:

- Ensuring catchments are managed economically and efficiently;
- Reducing agricultural pollution (otherwise known as diffuse pollution);
- Controlling urban pollution (otherwise known as non-agricultural diffuse pollution);
- Monitoring and reducing chemical pollutants; and
- Managing waste-water, sludge and septic tanks.

This note sets out the recent policy background to improving water quality in the UK; sets out some useful facts and figures for water bodies in each of England, Wales, Scotland and Northern Ireland; provides an explanation of the requirements of the Water Framework Directive and explains what happens if the requirements are not met. The various actions being taken by the government to manage and improve water quality are also explained and a brief explanation of the offence of water pollution is included.

Unless otherwise stated, this note focuses on England. Information on Wales, Scotland and Northern Ireland is included where possible. Further information is available for MPs and their staff on an enquiry by enquiry basis.

1. Overview of water quality in the UK

1.1 Background

Efforts to improve the quality of water bodies (including rivers, streams, lakes, estuaries, coastal waters and groundwater) in the UK have been underway for a number of years. Water quality affects, and is affected by, many sectors, including health, energy, environment, agriculture, leisure and food.

Under previous standards, improving water quality was largely achieved through tackling point sources of pollution (such as discharges from sewage treatment works or from industrial processes). The approach has since developed into a catchment-based approach whereby activities and issues within a water catchment area are looked at and addressed as a whole. Most work in managing and protecting water bodies in the UK is now governed by the EU's Water Framework Directive which was adopted in 2000.

The Natural Environment White Paper

In June 2011, the Coalition Government published [The Natural Choice: Securing the Value of Nature](#)¹ which was the first White Paper on the natural environment for twenty years. The Natural Environment White Paper noted that a sustainable supply of good-quality freshwater for our economy, society and environment depends on functioning water ecosystems.²

The White Paper set out a long term goal of all water bodies in England to be in excellent health by 2050. The Coalition Government set out interim aims of increasing the proportion of water bodies in good ecological status (GES) from 26% (in 2011) to 32% by 2015 and as many as possible to GES by 2027.³ These aims tie in with the requirements of the Water Framework Directive (see section 2.1 below).

The Water for Life White Paper

In December 2011, the [Water for Life](#) White Paper⁴ was published and described a reform of water management and the water industry, which included valuing water as a precious resource. It noted that the benefits of a clean, healthy aquatic environment are significant and undervalued and explained that clean water:

- reduces the need for water companies to carry out costly and carbon intensive treatment processes to make it fit to drink;
- improves habitats that support greater biodiversity;
- improves the quality of waters for bathing, angling and other leisure activities; and

Clean water is important for human health, farming and food, healthy habitats, bathing, fishing and other leisure activities

¹ Defra, [The Natural Choice: Securing the Value of Nature](#), Cm 8082, June 2011 [accessed 06.07.15]

² Ibid. para 2.68

³ Ibid. para 2.69

⁴ Defra, [Water for life](#), Cm 8230, December 2011 [accessed 15.07.15]

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- improves the quality of supplies of fish and shellfish.⁵

The [Water Act 2014](#) put in place a legislative framework for the reform of the water industry to tackle some of the challenges identified by the *Water for Life* White Paper. In relation to water quality, the Water Act 2014 places impetus on the reform of the water abstraction regime in England by requiring the Secretary of State to lay a report setting out progress on this by 2020.⁶ More information on the progress towards reform of water abstraction can be found in section 3.1 below.

More information on the reform of the water industry can be found in the Library Briefing Paper: [Increasing competition in the water industry in England and Wales](#).⁷

1.2 UK facts and figures

Overall in the UK, 3938 out of 10,763 surface water bodies were classified as 'good' or better in 2012, which is equivalent to 36% (excluding unassessed water bodies). There has been very little change on this overall status classification since 2008.

Monitoring of water quality is a devolved matter so separate data is available for England, Wales, Scotland and Northern Ireland. However, overall compliance with European requirements is measured by the UK's overall status classification.

Box 1: England

- In England there are 136,000 kilometres of rivers, over 5,700 permanent lakes and 234,000 ponds.⁸
- In 2014, 21% of surface water bodies in England were classified as being of 'good' status.⁹
- Environment Agency data for 2013 shows that 24% of surface water bodies were at good status or better (ecological and chemical assessment); 25% of surface water bodies were at good ecological status. 69% of groundwater bodies were at good quantitative status in 2012 and 88% of chemical tests across all groundwater bodies showed good status.¹⁰

Box 2: Wales

- In the Western Wales river basin district there are 814 water bodies in total, made up of 668 rivers, 62 lakes, 2 canals, 24 coastal waters,

⁵ Defra, [Water for Life](#), Cm 8230, December 2011, para 3.2 [accessed 06.07.15]

⁶ [Water Act 2014](#), section 57

⁷ House of Commons Briefing Paper [CBP 7259](#) July 2015

⁸ National Audit Office, [Environmental protection briefing for the House of Commons Environmental Audit Committee](#), June 2014, p6 [accessed 21.07.15]

⁹ Defra, [England natural environment indicators](#), 8 May 2013 (updated 23 July 2015) [accessed 9 October 2015]

¹⁰ Environment Agency, [Water Framework Directive Classification 2013 progress update](#), October 2013 [accessed 21.07.15]

25 groundwater bodies, 27 transitional water bodies and 6 surface water transfer bodies.¹¹ In the Dee river basin district (cross-border with England) there are 115 water bodies in total.¹²

- In 2012, 37% of all water bodies achieved 'good' ecological status and Natural Resources Wales aimed to achieve 50% by 2015.¹³ In 2014, 42% of water bodies in Wales achieved 'good' ecological status.¹⁴

Box 3: Scotland

- In Scotland there are around 125,000 km of rivers and 220 km of canals, over 25,500 lochs and around 19,000 km of coastline. Rivers and lochs cover about 2% of Scotland's land area (containing about 90% of the UK's surface freshwater).¹⁵
- There are 3245 water bodies monitored in Scotland, 1673 of which were classified as 'good' status in 2013 by the Scottish Environmental Protection Agency.¹⁶ This is equivalent to about 52%.

Box 4: Northern Ireland

- There are over 15,000km of rivers and streams in Northern Ireland, of which approximately a third are monitored annually. About 22% of rivers and streams were at least a 'good' standard in 2012.¹⁷
- There are 21 lakes monitored in Northern Ireland, of which 3 achieved a 'good' standard in 2012. This is equivalent to about 14%.
- There are 23 bathing waters all of which met the Bathing Water Directive standards in 2013. Almost 80% of coastal waters are classified as 'high' or 'good', with the remaining coastal waters classified as moderate.
- There are 67 groundwater bodies, of which 65 are at good status in 2012. This is equivalent to about 97%.

¹¹ Natural Resources Wales, Water for life and livelihoods, [Western Wales river basin district](#), June 2013, Table 1 [accessed 21.07.15]

¹² Natural Resources Wales, Water for life and livelihoods, [Dee river basin district](#), June 2013, Table 1 [accessed 21.07.15]

¹³ Natural Resources Wales, [Local Authority services and the water environment](#), p8 [accessed 21.07.15]

¹⁴ National Assembly for Wales, [Water Quality in Wales](#), April 2015 [accessed 21.07.15]

¹⁵ Scotland Gov.uk, Scotland's environment, [Water](#) [accessed 21.07.15]

¹⁶ Scotland Gov.uk, [Water body classification](#) [accessed 21.07.15]

¹⁷ Northern Ireland Environment Agency, [2014 Northern Ireland Water Management Facts & Figures](#) [accessed 21.07.15]

1.3 Useful resources for local areas

Type of resource	Source	Area	Website / phone no.
Online search for quality of bathing water	Environment Agency	England, by name, district of postcode	http://environment.data.gov.uk/bwg/profiles/
Online search for quality of rivers, lakes, estuaries, coastal water, groundwater		England, by river basin district	http://maps.environment-agency.gov.uk/wiyby/wiybyController?topic=wfd_rivers&layerGroups=default&lang=_e&ep=map&scale=5&x=616990.7808316555&y=316011.9330253599
Water pollution hotline	Environment Agency, NRW, SEPA, DOENI	England, Wales, Scotland, Northern Ireland	0800 80 70 60
Online search for quality of bathing water	Natural Resources Wales	Wales	http://environment.data.gov.uk/wales/bathing-waters/profiles/
Advice note on the Water Framework Directive	Natural Resources Wales	Wales	Local authority services and the water environment
Online search for quality of drinking water	Scottish Water	Scotland, by local authority, catchment, water body name or category	http://www.scottishwater.co.uk/you-and-your-home/water-quality/waterqualitysearch
Online search for quality of all water bodies	Scottish Environmental Protection Area	Scotland, by water body category, local authority, catchment or water body name	http://www.environment.scotland.gov.uk/get-interactive/data/water-body-classification/

Online search for drinking water quality	Northern Ireland Water	Northern Ireland, by postcode	https://www.niwater.com/water-quality-results/
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2. Policy and legislation

2.1 EU Water Framework Directive

The [Water Framework Directive](#) (2000/60/EC)¹⁸ (WFD) was adopted in 2000 and provides a common framework for water management and protection in Europe.

The WFD draws together what has previously been a fragmented policy area and introduces a new integrated approach to the management of water quality. It establishes a system for the protection and improvement of all aspects of the water environment, including rivers, lakes, estuaries, coastal waters and groundwater.

The WFD requires all member states to achieve 'good' qualitative and quantitative status of all water bodies (surface water and groundwater) by 2015.¹⁹

Regulation in the UK

In the UK, regulation of water quality is devolved. The following table provides a quick overview on how the WFD is transposed and regulated in the UK:

The Water Framework Directive requires the UK to achieve good status of all water bodies by 2015.

	Regulations	Regulator	Latest reported status of water bodies
England	Water Environment (Water Framework Directive (England and Wales) Regulations 2003 (SI 2003 No. 3242) (as amended)	Environment Agency	21% of water bodies were classified as being of 'good' status in 2014. ²⁰
Wales	Water Environment (Water Framework Directive (England and Wales) Regulations 2003 (SI 2003 No. 3242) (as amended)	Natural Resources Wales	42% of water bodies in Wales achieved 'good' ecological status in 2014. ²¹

¹⁸ [Directive 2000/60/EC](#) of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (2000/60/EC), 23 October 2000 (as amended)

¹⁹ Ibid., Article 4

²⁰ Defra, [England natural environment indicators](#), 8 May 2013 (updated 23 July 2015) [accessed 9 October 2015]

²¹ National Assembly for Wales, [Water Quality in Wales](#), April 2015 [accessed 21.07.15]

Scotland	Water Environment and Water Services (Scotland) Act 2003 (as amended)	Scottish Environment Protection Agency	52% of water bodies were classified as being of 'good' status in 2013.
Northern Ireland	Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2003 (Statutory Rule 2003 No. 544) (as amended)	Department of Environment Northern Ireland	22% of rivers and streams; 14% of lakes; and 80% of coastal water were at least a 'good' standard in 2012. ²²

How is 'good' status of surface water bodies assessed?

Surface waters include estuaries, lakes, ponds, rivers, reservoirs and coastal waters (up to one nautical mile from the point it meets a river mouth).

Surface water status is measured by both its ecological and chemical status. It is assessed against the scale of high, good, moderate, poor and bad.

The **ecological status** of surface waters is assessed according to the following criteria:²³

- Biological quality: measured by composition and abundance of specified elements such as fish, benthic invertebrates, aquatic flora;
- Hydromorphological quality: measured by reference to elements such as river continuity, channel patterns, dynamics of flow or substrate of the river bed; and
- Physico-chemical quality: measured by reference to elements such as temperature, oxygenation, pH, nutrient conditions and the concentrations of specific pollutants (synthetic and non-synthetic).

Environment Agency data shows a 2.2% net improvement in the ecological status of rivers in England when monitoring data from 2006-8 is compared with monitoring data from 2011-13.²⁴

The **chemical status** of surface waters is assessed according to the following criteria:

- Chemical quality: measured by reference to environmental quality standards for chemical substances at European level. These

²² Northern Ireland Environment Agency, [2014 Northern Ireland Water Management Facts & Figures](#) [accessed 21.07.15]

²³ Water Framework [Directive 2000/60/EC](#), Annex V

²⁴ Environment Agency, [Water quality: the good news story](#), March 2015, p16 [accessed 08.07.15]

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standards specify maximum annual average concentrations for specific water pollutants.

The specific requirements differ depending on which type of surface water body is being monitored. Chemical status is measured as either good or fail. If part of a water body fails on any one of the criteria monitored, it will fail to achieve or lose good status. This is described as the "**one out all out**" approach.

The European Commission is required to review the adopted list of priority substances every 6 years. The latest review was in 2012²⁵ and led to a new Directive amending the original list of priority substances.

The new Priority Substances Directive (2013/39/EU)²⁶ sets out a list of 45 'priority' substances for surface waters which must stay below specified levels that are safe for water-bodies and human health.²⁷ The list includes several possible or known carcinogens, such as benzene, lead and naphthalene. This Directive has a transposition deadline of September 2015 and it is expected that this set of updated standards will apply for the second cycle of river basin management plans in the UK.²⁸

There is also a sub-set of 'priority' substances called the 'priority hazardous substances' list which are identified as such in the legislative list. Priority hazardous substances include cadmium and its compounds and mercury and its compounds. All member states must stop any discharge of priority hazardous substances by 2020.

How is 'good' status of groundwater bodies assessed?

Groundwater means all water which is below the surface of the ground and in direct contact with the ground or subsoil. Good groundwater status is measured by both its quantitative status and its chemical status. Its overall status is measured as 'good' or 'fail' and is determined by the poorer of the two measures.

Quantitative status measures the degree to which a body of groundwater is affected by direct and indirect abstractions. In simple terms, to achieve 'good' groundwater quantitative status, the available groundwater resource must not be exceeded by the long-term annual average rate of abstraction. Groundwater abstraction must not cause failure of 'good' ecological status in dependent surface waters either.

Chemical status is measured by reference to the concentration of specified pollutants and electrical conductivity. To achieve 'good' groundwater chemical status, the chemical composition of the groundwater body must be such that the concentrations of pollutants:

²⁵ See [COM/2011/876](#)

²⁶ [Directive 2013/39/EU](#) amending Directives 2000/60/EC and 2009/105/EC as regards priority substances in the field of water policy

²⁷ Note that this replaces the original list in Annex X of the WFD and the second list in the Environmental Quality Standards Directive (2008/105/EC). See [Annex I](#) of the Priority Substances Directive for a full list of priority substances.

²⁸ Defra, [Water Framework Directive implementation in England and Wales](#), May 2014, para 2.5

- do not exhibit effects of saline or other intrusions and changes in conductivity are not indicative of this;
- do not exceed the quality standards for chemical substances set by EU legislation;²⁹ and
- are not such that would result in failure to achieve the environmental objectives in associated surface waters or terrestrial ecosystems which depend directly on the groundwater body.³⁰

If part of a groundwater body fails on any one of the criteria monitored, it will fail to achieve or lose good status. This is described as the "**one out all out**" approach.

The Groundwater Directive (2006/118/EC) complements the WFD and requires measures to prevent or limit inputs of pollutants into groundwater to be operational so that WFD environmental objectives can be achieved by 2015. Annexes I and II of the Groundwater Directive (which provide Europe-wide environmental quality standards for pollutants, a minimum list of pollutants and indicators which member states should consider when establishing threshold values) are currently under review.³¹

Achieving 'good' status of water bodies

River Basin Management Plans

The WFD requires River Basin Management Plans (RBMPs) to be produced for each river basin district lying within UK territory. RBMPs set statutory objectives to be achieved for water bodies and summarise the measures needed to achieve them. There are 16 river basin districts wholly or partly within the UK with corresponding RBMPs:

- England: Anglian; Humber; Northumbria; North West; Severn (cross-border with Wales); South East; South West; and Thames.
- Wales: the Dee (cross border with England) and Western Wales river basin districts.
- Scotland: the Scotland river basin district. The Solway Tweed river basin district (cross border with England) is jointly managed by the Environment Agency and SEPA.
- Northern Ireland: North Eastern (wholly in NI), North Western and Neagh Bann (cross-border with the Republic of Ireland) and Shannon (cross-border with the Republic of Ireland but almost entirely within RoI and therefore managed by authorities in RoI).

River Basin Management Plans are the key source of information on the measures being taken to improve water quality in each river basin district in the UK.

The RBMPs for each river basin district are the key source of information on the water environment, setting objectives for every water body and summarising the measures which will be taken to achieve the relevant outcomes. River Basin Management Plans are publicly available and can be found on the relevant authority's website.

RBMPs must be updated every 6 years. In accordance with this requirement, the draft updates to the RBMPs for the UK were consulted

²⁹ In accordance with Article 17 of the Water Framework Directive

³⁰ Water Framework Directive, Annex V, Table 2.3.2

³¹ European Commission, River Basin Management, Groundwater: [Review of Annexes I and II of the Groundwater Directive 2006/118/EC](#) [accessed 24.07.15]

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on during 2013 and 2014 and updated plans are expected to be published by the end of 2015.^{32 33 34}

In England and Wales, the RBMPs are expected to be submitted to Ministers for approval by 22 September 2015 and published by 22 December 2015 in accordance with statutory guidance.³⁵

Reporting on progress

Overall in the UK, 3938 out of 10,763 surface water bodies were classified as 'good' or better in 2012, which is equivalent to 36% (excluding unassessed water bodies). There has been very little change on this overall status classification since 2008.

As a comparison across Europe, the European Environment Agency reported that 50% of surface waters were in poor ecological status in 2012 and 40% had unknown chemical status.³⁶ Groundwater status fairs better, with 90% of groundwater across the EU in 'good' status in 2012.³⁷

The table below shows the status classification of UK surface water bodies (WBs) between 2008 and 2012.

Status classification of UK surface water bodies under the Water Framework Directive, 2008-2012

	2008		2009		2010		2011		2012	
	No. of WBs	% of WBs								
High	441	4	420	4	400	4	401	4	444	4
Good	3458	32	3474	32	3554	33	3504	33	3494	32
Moderate	5200	48	5044	47	4841	45	4825	45	4778	44
Poor	1358	13	1453	14	1636	15	1633	15	1685	16
Bad	375	3	370	3	351	3	341	3	362	3
Unassessed	1		71		51		123		78	
Total (excluding unassessed)	10832	100	10761	100	10782	100	10704	100	10763	100

Defra, [Surface water status 2008-2012](#), 4 December 2014

³² Natural Resources Wales, [Local Authority services and the water environment](#), [accessed 21.07.15]

³³ Scottish Environment Protection Agency, [River Basin Management Planning](#), [accessed 24.07.15]

³⁴ Northern Ireland Executive, [Durkan invites public to comment on second cycle river basin management plans](#), 18 December 2014 [accessed 24.07.15]

³⁵ Defra, [River basin planning guidance](#), July 2014, Chapter 5 [accessed 24.07.15]

³⁶ European Environment Agency [European waters – current status and future challenges](#): Synthesis, November 2012, p14 [accessed 24.07.15]

³⁷ Ibid. p9

What if the 2015 deadline cannot be met?

In the Lords Sub-committee on agriculture, fisheries and environment 2012 Report [An Indispensable Resource: EU Freshwater Policy](#)³⁸ Richard Benyon (then Parliamentary Under Secretary of State for Defra) and his officials made it clear that 100% of UK waters would not reach good status by 2027, and that the provisions in the WFD on disproportionate cost and technical feasibility meant that a lower level than 100% was in keeping with the Directive. According to his officials:

the impact assessment we did at the start of the first cycle said, rather tentatively, that by projecting forward and taking account of where we thought we could foresee the benefits outweighing the costs of what might emerge as needing to be done, we would probably get to something like 75% good status by 2027.³⁹

In England, the Environment Agency agreed with Government Ministers in 2009 that 32% of waters in England would reach 'good' or 'good potential' status by 2015. Latest data from Defra states that England has 21% of water bodies currently classified as being of 'good' status. In October 2014, the Environment Agency acknowledged that it may take longer than originally thought to meet this target.⁴⁰ The Environment Agency wants to work with others with the aspiration of achieving good status in at least 60% of waters by 2021 and in as many waters as possible by 2027.⁴¹

The Environment Agency aims to achieve good status in at least 60% of waters by 2021.

Possible waivers

The WFD recognises that under specific and limited circumstances, it may not be realistic to meet the 2015 deadline for achieving 'good' status for all water bodies. Articles 4 and 5 allow a derogation (or waiver) in the following circumstances:

- 1 **The 2015 time limit can be extended** if to achieve 'good' status would be disproportionately expensive or the magnitude of improvement needed is only achievable in a timeframe exceeding the 2015 target for reasons of technical feasibility or the natural conditions do not allow timely improvement in the status of the water body.⁴²
- 2 **Less stringent environmental objectives can be met** if a water body is so affected by human activity or its natural condition is such that achieving 'good' status would be infeasible or disproportionately expensive and the environmental and socioeconomic needs served by the human activity cannot be achieved by other means which are a better environmental option and not entailing disproportionate costs.⁴³

The 2015 deadline can be extended to 2027 in certain circumstances.

Less stringent environmental objectives can be met in certain circumstances

³⁸ Lords European Union Committee Report [An Indispensable Resource: EU Freshwater Policy](#) 25 April 2012

³⁹ House of Lords European Union Select Committee, [An Indispensable Resource: EU Freshwater Policy](#), Thirty-Third Report of Session 2010-12, 25 April 2012, para 39

⁴⁰ Environment Agency, [Water Framework Directive Classification 2013 progress update](#), October 2013, p4 and p19 [accessed 21.07.15]

⁴¹ Environment Agency, [Severn Basin Management Plan Severn River Basin District](#), December 2009, p37 [accessed 21.07.15]

⁴² Article 4(4)

⁴³ Article 4(5)

- 3 **A temporary derogation can be granted** if the water body is affected by an exceptional natural cause or force majeure which could not reasonably have been foreseen. In particular, extreme flooding or prolonged drought or the result of circumstances due to accidents which could not reasonably have been foreseen.⁴⁴

In each case, specific conditions must be met for the derogation to be granted. No further deterioration can occur in the status of the affected body and the use of the derogation, and the reasons for it, must be specifically set out and explained in the relevant river basin management plan.

If the time limit is extended it must be for the purposes of phased achievement of the objectives for bodies of water. Extensions of the 2015 time limit are limited to a maximum of two further updates of the river basin management plan except in cases where the natural conditions are such that the objectives cannot be achieved within this period. Therefore, subject to the limited exceptions, 2027 is the maximum derogation for water bodies to reach 'good' status in the UK.

Possible penalties for non-compliance

The WFD is legally binding on all Member States. Fines for non-compliance are not automatic but follow a set process that is described in detail in a House of Commons Library Briefing Paper: [How the EU fines Member States](#).⁴⁵

In short, the European Commission, which will generally monitor progress, can start a process if it is concerned that Directives are not being implemented. This involves contacting the Government concerned to notify them of the Commission's concerns. The Government in question then has the opportunity to respond to the Commission. In so doing it may cite evidence of action taken to comply with European Law and progress made toward targets. The Commission would make a judgement based on the Government response and may then send the matter to the European Court of Justice as a breach of European Law. The Court may issue a fine (usually a daily rate plus a lump sum), although it usually gives notice that it will issue a fine unless certain actions are undertaken by a certain date.

It has been reported that Marianne Wenning, Director for quality of life, water and air in the European Commission's Environment Directorate told the European Parliament's environment committee (ENVI) that the Commission will take enforcement action against member states where necessary. The report states that:

According to Wenning, there are currently somewhere between 30-40 ongoing infringement proceedings under the WFD, Groundwater and Urban Wastewater Directives. "We are following up as much as we can, but in the end it's the member states that have to take the action," she said.

⁴⁴ Article 4(6)

⁴⁵ Library Briefing, [How the EU fines Member States](#), SN/IA/3958

However, she said that there had been “some good achievements” and that despite missing the target, the figures showed an improvement of 10% since 2009.⁴⁶

2.2 Bathing Water

A bathing water is a beach or inland site used by a large number of bathers. Bathing water quality is monitored throughout the bathing season. In England and Wales, this means from 15th May to 30th September each year.⁴⁷ Water quality information for bathers is available online from the relevant regulator (see 1.3 above).

Bathing water season in England and Wales is 15 May to 30 September each year.

Bathing waters are classed as protected areas under Annex IV of the Water Framework Directive and therefore require special protection because of their sensitivity to pollution or their economic, social or environmental importance. Protected areas must comply with the standards and objectives specified by the Directive under which they were established.

Bathing water in the UK is therefore protected by the Bathing Water Directive 2006/7/EC (replacing Directive 76/160/EEC) which states that all waters must achieve a 'sufficient' or better classification by end of the 2015 bathing season.⁴⁸ The new Directive introduces a new classification system (either 'excellent', 'good', 'sufficient' or 'poor') and sets stricter standards for bathing water quality, including protection from faecal pollution in waters used for swimming (i.e. pollution from agriculture, misconnections, sewerage and urban drainage).

The first classifications under the new Directive were completed at the end of the bathing water season in 2015. Defra reported that a total of 97% of England's bathing waters passed the new minimum standard; and 63.6% met the new 'excellent' standard.⁴⁹ A complete list of all bathing waters (along with their classifications) must be published annually. Defra published the [2015 classifications](#) in November 2015.

Pursuant to the previous requirements, Defra published the 2014 [summary compliance report](#) for the UK bathing waters in November 2014, which summarises the results against the mandatory microbiological standards set by the previous Directive (76/160/EEC) as follows:

Region	Mandatory Pass	Fail	Total	Compliance (%)
England	414	2	416	99.5
Wales	102	0	102	100
Scotland	82	2	84	97.6

⁴⁶ ENDS Report, [UK at risk of action for WFD failures](#), 14 October 2015 [subscription needed] [accessed 27 November 2015]

⁴⁷ Bathing Water Regulations 2013 ([SI 2013/1675](#)), Regulation 4

⁴⁸ Implemented in England and Wales by the Bathing Water Regulations 2013 ([SI 2013/1675](#))

⁴⁹ Defra, [Bathing water in the UK is improving](#), 5 November 2015 [accessed 27 November 2015]

Northern Ireland	22	1	23	95.7
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Bathing water classification signs

From the 2016 bathing season, every local authority which controls a bathing water must display the new bathing water classifications provided by the relevant regulator. This must be in the form of a classification symbol and should include advice against bathing, where appropriate. If a bathing water only met the “poor” classification in 2015 under the new Directive requirements, it must display an ‘advice against bathing’ symbol with information on the causes of pollution and mitigation measures being taken.

More information on the classification symbols used can be found on the EU website on [bathing water quality](#).

From 2016, local authorities must display signs with new bathing water classifications at every bathing water.

2.3 Drinking Water

In accordance with the Water Framework Directive, all bodies of water used for abstraction of water intended for human consumption must be identified within each river basin district, with the exception of those providing less than 10m³ a day (on average) or those serving less than 50 persons. Bodies of water providing more than 100m³ per day (on average) must also be monitored in accordance with additional requirements set out in the WFD.⁵⁰

In addition to achieving ‘good’ status under the WFD, the resulting drinking water must also meet the requirements of the [Drinking Water Directive](#) (98/83/EC) (as amended). These standards are based on advice from the World Health Organisation (WHO) and are regularly reviewed. UK regulations implement the Directive,⁵¹ but some aspects are stricter than, or in addition to, those defined by the directive, reflecting the high standards of water supplies in the UK.

For further information on drinking water quality requirements, refer to the Drinking Water Inspectorate guidance: [Drinking water safety](#).

Water quality is checked and regulated by independent drinking water inspectorates in England and Wales, Scotland and Northern Ireland. Latest figures for drinking water quality compliance with European standards are reported in the Regulators’ annual reports each year, and are as follows:

- [England 99.96%](#) for 2014 (reported July 2015 by the [Drinking Water Inspectorate](#))
- [Wales 99.98%](#) for 2014 (reported July 2015 by the [Drinking Water Inspectorate](#))

⁵⁰ See Water Framework Directive, Annex V

⁵¹ Pursuant to section 68 of the Water Industry Act 1991, drinking water must be wholesome at the time of supply. Wholesomeness is defined in accordance with requirements set out in the Water Supply (Water Quality) Regulations 2000 (as amended) in England; the Water Supply (Water Quality) Regulations 2001 (as amended) in Wales; and the Water Supply (Water Quality) (Scotland) Regulations 2001 in Scotland.

- [Scotland](#) **99.89%** for 2014 (reported by the [Drinking Water Quality Regulator](#) in July 2015)
- [Northern Ireland](#) **99.92%** for 2013 (reported by the [Northern Ireland Environment Agency](#) in August 2014)

2.4 Protected Areas

The Water Framework Directive sets a target that all water dependent protected areas under the [Habitats Directive](#) (92/43/EEC) or the [Birds Directive](#) (2009/147/EC) (known as Natura 2000 sites) need to meet their specific conservation objectives by 2015. The implementation of these Directives has recently been reviewed at UK level and is now also the subject of an EU 'Fitness Check' part of the EU Commission's deregulation process (due to conclude in Spring 2016).

In Wales, 65 out of 76 Habitats Directive protected areas and 4 out of 8 Birds Directive protected areas with water dependent features have actions underway or complete to maintain them or bring them into recovering of favourable condition. This equates to 23% (by area) of all relevant Welsh Natura 2000 sites.⁵²

The River Basin Management Plans for each river basin district will include a summary of the measures needed for water dependent Natura 2000 sites to meet their conservation objectives. For the second round of RBMPs, site improvement plans (known as SIPs) are being used to capture the priorities and new measures required for water dependent habitats on Natura 2000 sites.

Site improvement plans by region are listed on [Natural England's website](#).⁵³ In a May 2015 report on its Improvement Programme for England's Natura 2000 sites, Natural England found that diffuse water pollution affects most (92%) water dependent Natura 2000 sites and identifies diffuse water pollution as the main issue that needs to be tackled to achieve improvements (see 3.1 below).⁵⁴

Shellfish

In the 2009 River Basin Management Plans, shellfish waters were designated as protected areas under the Shellfish Waters Directive. Since then the Shellfish Waters Directive has been repealed and its requirements transferred to the Water Framework Directive.

When waters are designated as shellfish waters protected areas, the aim is to protect and improve water quality. This will support the growth of healthy shellfish (bivalve and gastropod molluscs) and contribute to good quality edible shellfish. There are 98 shellfish waters in England.

⁵² Natural Resources Wales, [Local Authority services and the water environment](#), p7 [accessed 21.07.15]

⁵³ Natural England, [Site improvement plans by region](#) [accessed 21.07.15]

⁵⁴ Natural England, [Improvement Programme for England's Natura 2000 Sites Programme Report](#), 21 May 2015, p34 [accessed 21.07.15]

They all have draft action plans to describe the issues which affect them and work planned to address these issues.⁵⁵

The quality of commercially harvested shellfish intended for human consumption must comply with EU Food Hygiene Regulations. More information on these regulations can be found on the [Food Standards Agency website](#).

2.5 Water pollution as an offence

In England and Wales, the principal water pollution offences are set out in the [Environmental Permitting \(England and Wales\) Regulations 2010](#) (as amended).⁵⁶ It is an offence to cause or knowingly permit a water discharge activity or groundwater activity, except under and to the extent authorised by, an environmental permit.⁵⁷ This would include the discharge of any poisonous, noxious, polluting or waste matter or any trade or sewage effluent into water bodies.⁵⁸

It is an offence to cause or knowingly permit pollution into water, unless specifically authorised by an environmental permit.

A person guilty of this offence is liable on conviction in a magistrates court to a fine of up to £50,000 or a sentence of up to 12 months (or both); or on conviction in a crown court to an unlimited fine or imprisonment of up to 5 years (or both).⁵⁹

Following the introduction of new environmental sentencing guidelines,⁶⁰ large companies who cause serious environmental damage can now face very large fines (up to 100% of a company's pre-tax net profits for a year). In June 2015, the Court of Appeal ruled against Thames Water Utilities Limited and upheld a £250,000 fine from September 2014 for polluting a 143 acre nature reserve within an area of Outstanding Natural Beauty with a discharge of raw sewage.⁶¹

The following regulations also address causes of water pollution, particularly in relation to diffuse pollution:

- The [Nitrate Pollution Prevention Regulations 2008](#) also aim to reduce agricultural nitrate pollution and the risk of further pollution occurring. These implement the [Nitrates Directive](#) (91/676/EEC) and are applicable within designated [Nitrate Vulnerable Zones in England](#) (currently covering 57% of England).
- The [Water Resources \(Control of Pollution\) \(Silage, Slurry and Agricultural Fuel Oil\) \(England\) Regulations 2010](#) set standards for storing silage, livestock slurry and agricultural fuel oil to minimise the risk of water pollution. Further information on the rules that must be followed and who is responsible is available in Defra [guidance](#).

⁵⁵ Defra [2010 to 2015 government policy paper: water quality](#), updated 8 May 2015 [accessed 21.07.15]

⁵⁶ Regulations 38(1) and 12(1)

⁵⁷ [Environmental Permitting \(England and Wales\) Regulations 2010](#), Regulation 12

⁵⁸ *Ibid.*, Schedule 21, para 3

⁵⁹ *Ibid.*, Regulation 38 and 39

⁶⁰ Sentencing Council, [Definitive Guideline for Environmental Offences](#), July 2014 [accessed 21.07.15]

⁶¹ Environment Agency news story, [Thames Water's £250,000 fine is upheld by the Court of Appeal](#), 4 June 2015 [accessed 21.07.15]

3. Taking action to improve water quality

3.1 UK Government position on improving water quality

Defra is working with regulators, local government, non-governmental organisations and a wide range of other stakeholders including local businesses, water companies, industry and farmers to manage water quality. Its actions include:

- Ensuring catchments are managed economically and efficiently;
- Reducing agricultural pollution (otherwise known as diffuse pollution);
- Controlling urban pollution (otherwise known as non-agricultural diffuse pollution);
- Monitoring and reducing chemical pollutants; and
- Managing waste-water, sludge and septic tanks.

The [UK Water Framework Directive Technical Advisory Group](#) (UKTAG) is a partnership of conservation and environmental groups that has been set up by the Government and is currently chaired by the Environment Agency. The group provides advice on the scientific and technical elements of the Water Framework Directive, such as setting objectives, classification and monitoring.

Abstraction reform

The [Water Act 2014](#) puts in place a legislative framework for the reform of the water industry to tackle some of the challenges identified by the *Water for Life* White Paper. In relation to water quality, the Act places impetus on the reform of the water abstraction regime in England by requiring the Secretary of State to lay a report setting out progress on this by 2020.⁶²

Water abstraction is regulated through a system of licences. These are issued to anybody that wishes to abstract (remove) water from water-bodies (sources of water). The current abstraction regulations for rivers and groundwater that aren't flexible enough to cope with expected future challenges: changing weather means some areas will have less water; others will see increased demand as the population grows.

Defra set out its plans for long-term reform of the abstraction system in the *Water for Life* White Paper. These plans are supported by Ofwat and the Environment Agency's '[Case for change](#)' which sets out the evidence for the reform.

Defra [consulted](#) on the abstraction reform proposals from December 2013 to March 2014 and published a [summary of responses](#) in July 2014. The Department has stated that it will take account of the responses and continue to work closely with stakeholders as it develops

⁶² [Water Act 2014](#), section 57

the proposals further. The Government is expected to legislate for abstraction reform early in this Parliament.

Managing catchments

In 2011, the government introduced a catchment-based approach, whereby water is managed within areas defined by the flow of rainfall. In England and Wales water bodies are grouped into 100 management catchments (which are in turn grouped into the river basin districts). The specific pressures on a catchment vary depending on the geology, climate and environmental sensitivity of the catchment as well as the type of land and water uses in the catchment (for example, farming practices, water supply, recreation and industrial activity). As water bodies within a catchment are connected, the different uses and activities can affect the quality and quantity of water in other parts of the catchment.

The government's objectives for its catchment-based approach were to deliver better outcomes by promoting a better understanding of the environment at a local level; and to encourage local collaboration and more transparent decision-making. An integrated approach from all relevant sectors, organisations and individuals is needed in order to address the relevant pressures on a catchment. More information on the policy framework to encourage an integrated catchment based approach can be found in the Defra policy paper: [Catchment Based Approach: Improving the quality of our water environment](#).⁶³

Catchment restoration fund

In general, catchment management measures are adopted on a plan by plan basis, if partner organisations (such as charities or water companies) have the resources to undertake the measures.

In 2011, Defra launched a £92 million fund to clean up England's rivers over a four year period.⁶⁴ Part of the funding (up to £24.55 million) was available as a catchment restoration fund to not-for-profit community groups and charities to restore natural features in and around watercourses; reduce the impact of man-made structures on wildlife in watercourses; and reduce the impact of diffuse pollution from rural and urban land use. The funding ended in March 2015 and the final [Annual Report](#) (2014-15) from the Environment Agency contains a list and locations of all funded projects and confirms that 42 projects were approved with a combined value of £24.5 million. As a result of these projects, the Environment Agency reports that over 300 water bodies received improvements and made a contribution towards improving ecological status.⁶⁵

⁶³ Defra policy paper: [Catchment Based Approach: Improving the quality of our water environment](#) May 2013 [accessed 21.07.15]

⁶⁴ Defra press release, [£110 million revamp for England's rivers](#), 13 April 2011 [accessed 21.07.15]

⁶⁵ Catchment restoration fund: [Environment Agency Final Annual Report 2014-15](#), July 2015, p3 [accessed 20.07.15]

Reducing agricultural pollution

Agricultural diffuse pollution

Diffuse pollution arises from many different sources and is therefore more difficult to monitor than pollution from a single source. Farming is one of the main sources of diffuse water pollution and contributes a range of pollutants into water bodies, including nutrients (such as nitrogen and phosphorus), sheep dip, pesticides and sediment. According to Defra, farming contributes around 50-60% of nitrates, 20-30% of phosphorus and 75% of the sediment getting into water sources.⁶⁶

Defra provides advice and some financial assistance to farmers with reducing pollution on their land. As part of this, Natural England runs the [catchment sensitive funding programme](#) in partnership with the Environment Agency and Defra which aims to reduce the level of diffuse pollution that farming can cause. This programme gives free advice and training to farmers in selected priority catchment areas in England.

Farmers and land managers in 77 catchments throughout England were also able to apply for water capital grants of up to £10,000 per holding for infrastructure works to help reduce water pollution from agriculture up to 30 April 2015.⁶⁷ Key information for 2015/16 can be found in Natural England's publication: [Countryside Stewardship Water Capital Grants 2015/16](#).

In addition, the cross-compliance part of the Common Agricultural Policy (CAP) sets a baseline of requirements on environmental protection (including protection of groundwater against pollution) that farmers must meet in order to qualify for their direct payments. If they do not meet these requirements they can have their payments reduced according to set penalties by the Rural Payments Agency.

More information on CAP can be found in the Library Briefing Paper: [CAP reform 2014-20: EU Agreement and Implementation in the UK and in Ireland](#).

Defra [consulted](#) on some new basic rules for farmers to tackle diffuse pollution from agriculture in England between 30 September-24 November 2015.⁶⁸ The rules aim to improve the efficiency of farms and help to reduce water pollution from agriculture, with a focus on phosphorus. If the proposals are taken forward, Defra's aim is to introduce legislation during 2016/17.

Reducing urban pollution

Defra held a [consultation](#) on tackling urban diffuse water pollution in 2012/13. Urban diffuse water pollution comes from a wide range of sources including, transport, construction work, run-off activities (such as car washing), discharges from contaminated land and misconnections

⁶⁶ Defra [2010 to 2015 government policy paper: water quality](#), updated 8 May 2015 [accessed 21.07.15]

⁶⁷ Water capital grants were funded by the [European Agricultural Fund for Rural Development](#) [accessed 21.07.15]

⁶⁸ Defra consultation, [New basic rules for farmers to tackle diffuse water pollution from agriculture in England](#) [accessed 9 October 2015]

(i.e. waste water draining to the wrong place). The consultation highlighted that understanding and resolving this problem is complicated for a number of reasons, including the fact that it is variable in its nature and can be low level and chronic. It may also be exacerbated by impacts of climate change and heavy rainfall. The consultation also highlighted that there is no established planning methodology for agreeing who needs to do what, where and when (and who should pay) to clean up water bodies suffering from urban diffuse water pollution.⁶⁹

The responses to the consultation were taken into account as part of the river basin planning consultations, but a separate strategy to tackle urban diffuse water pollution has not been published.

Role of water companies

Water companies in England and Wales are required to take certain environmental improvement actions to contribute towards WFD objectives under the National Environment Programme (overseen by the Environment Agency).

Due to the costs involved in treating water to remove pollution, it is also beneficial for water companies to promote catchment management. The extent of their expenditure is agreed with Ofwat (the water services regulator) through the price review process. More information can be found on individual water company's websites. Actions proposed by water companies in their business plans include:

- Catchment management schemes to improve the quality of raw drinking water; and
- Offering free advice to landowners on water protection measures.

Since 1990, water companies have spent £2 billion on improvements to protect bathing waters and they have pledged to invest a further £350 million over the next 5 years.⁷⁰

3.2 Calls for action

With the next round of RBMPs in mind, WWF, RSPB and the Angling Trust have also called for a "holistic framework" to be put in place to "deliver a healthy freshwater environment and the billions of pounds of net benefit to society by getting 75% of all water bodies to a healthy state by 2021."⁷¹

Chalk Streams

In 2014, a report by the World Wildlife Fund (WWF) highlighted that 77% of England's chalk streams are failing to meet the WFD 'good' status. It called on the government, the Environment Agency, Natural England and Ofwat to take a number of actions to address the status of chalk streams in England, including:

⁶⁹ Defra, [Tackling water pollution from the urban environment](#), November 2012, p17 [accessed 21.07.15]

⁷⁰ Defra press release, [England's waters cleanest since records began as bathing season begins](#), 15 May 2015 [accessed 21.07.15]

⁷¹ Angling Trust, RSPB, WWF, [Parliamentary briefing: protecting the UK's rivers](#), November 2014 [accessed 21.07.15]

- Giving a clear indication that chalk stream protection and restoration is a national priority;
- Legislating for comprehensive reform of water abstraction licensing by 2016;
- Reviewing progress for chalk stream protected areas to identify changes needed to achieve conservation targets;
- Putting in place new, improved measures in the updated RBMPs to restore protected chalk streams to good status.⁷²

Judicial review

The High Court granted WWF-UK, the Angling Trust and Fish Legal permission to bring a judicial review of the Environment Agency and Defra's implementation of the Water Framework Directive. The case focused on four protected Natura 2000 sites where it was claimed that agricultural pollution has been particularly harmful: Poole Harbour in Dorset, the river Eden in Cumbria, Marazion Marsh in Cornwall and the river Lugg in Herefordshire.

In a court settlement on 19 November 2015, Defra agreed to consider introducing mandatory water protection zones alongside voluntary measures by farmers.

Only one WPZ has been designated before this: in the river Dee catchment in England and Wales in 1999 following a series of accidental chemical pollution incidents.⁷³

⁷² WWF-UK, [The State of England's Chalk Streams](#), 2014 [accessed 21.07.15]

⁷³ ENDS Report, [Defra agrees water pollution measure in High Court settlement](#), 20 November 2015 [subscription only] [accessed 27 November 2015]

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