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# Consultation on transposition of Article 6 of the Groundwater Directive (2006/118/EC) in England and Wales

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# Contents

	<b>Page no.</b>
Introduction.....	1
Purpose scope and timing of the GwD.....	1
Requirements of the GwD and the general approach to transposition.....	2
Overview of Article 6 of the new Groundwater Directive (GwD).....	4
Comparison between Article 6 of the GwD and the requirements of the 1980 Directive.....	4
Using the existing Regulatory Regime as the basis for transposition of the GwD.....	8
Proposals for transposition of Article 6 of the GwD, including questions for consultation.....	9
Impact assessments.....	16
Timetable for amended regulations.....	16
Responses to consultation.....	17

## **Introduction**

1. This consultation paper explains the purpose and scope of the 2006 Groundwater Directive (“the GwD”), and makes specific proposals for transposition of Article 6 of the Directive through amendment of the Groundwater Regulations 1998. The proposed changes to the Regulations are somewhat complex, but ultimately not great. Essentially the Regulations would cover a slightly wider range of substances, but would allow more scope for a flexible and risk-based regulatory approach.

2. The detailed proposals are set out at paragraphs 20-40 of this paper, and a series of questions are listed seeking views on the changes. Any information on the impacts of the changes – in terms of costs and benefits – would be particularly welcome.

3. It is intended, once the Groundwater Regulations have been amended, to bring the groundwater authorisation regime which it contains into the Environmental Permitting Programme (EPP). This would not imply further substantive changes but would bring groundwater authorisations into line with other environmental permits. This is not being attempted at the same time as transposition of the GwD because the complexities of transposition, which involve accommodating the requirements of three overlapping European Directives, mean that it could not be achieved within the timescale necessary for transposition. Consultation on the transfer of groundwater into EPP will be carried out once the amended Regulations have been made.

The anomaly whereby regulation of groundwater under the 1998 Regulations is carried out by Defra on an England and Wales basis will be rectified in due course.

## **Purpose, scope and timing of the GwD**

4. The GwD was adopted on 12 December 2006 and came into force on 16 January 2007. It is known as a “daughter” Directive of the Water Framework Directive (WFD) in that it is intended to be understood, and function, alongside the WFD. The WFD sets out general provisions for the protection and conservation of groundwater but, in Article 17, it anticipates further detail being set out in separate European legislation. The GwD is legislation that sets out specific measures to prevent and control groundwater pollution. Both the WFD and the GwD together make up the complete new groundwater regime.

5. The GwD will operate alongside the 1980 Groundwater Directive (80/68/EEC) (“the 1980 Directive”) until December 2013, when the latter will be repealed under Article 22(2) of the WFD. The two Groundwater Directives adopt similar approaches to preventing groundwater pollution but there will need to be adjustments to the existing controls to accommodate the changes brought about by both the WFD and the GwD. Overall the GwD takes a slightly more comprehensive but more risk-based approach to pollution prevention and control than the 1980 Directive. However, the differences are not great and the existing system therefore provides a

good basis for a more flexible groundwater protection regime in future, using better regulation principles.

6. Member States have until 16 January 2009 to “*bring into force the laws, regulations and administrative provisions necessary to transpose [the new] Directive*”, although the timetable for the WFD requires us to transpose Article 6, which is about pollution prevention and control, earlier than this.

7. Transposition of technical requirements relating to “classification” and pollution trends under the Water Framework Directive, which are clarified in the GwD, will be consulted on separately. This paper makes only passing reference to those requirements in the section below and makes no specific proposals on them.

## **Requirements of the GwD, and the general approach to transposition**

8. The GwD fulfils the requirement at Article 17 of the WFD for “*measures to prevent and control groundwater pollution*”. In particular, it includes criteria for assessing good groundwater chemical status, for identifying pollution trends, and for establishing starting points for trend reversal. It also clarifies the requirement at Article 4(1)(b)(i) of the WFD that “*Member States shall implement the measures necessary to prevent or limit the input of pollutants into groundwater*”.

9. The three key elements of the GwD relate to:

- (i) **Chemical status** (Articles 3 and 4) – Member States must set “threshold values”, and use them and “standards” as triggers for investigation into whether the environmental and amenity requirements of good chemical status have been met;
- (ii) **Pollution trends** (Article 5) – Member States must identify significant and sustained upward trends and establish starting points for their reversal;
- (iii) **Prevention or limitation** (Article 6) – Member States must prevent inputs of hazardous substances, and limit inputs of all others to avoid pollution, subject to various exemptions.

10. The requirements relating to Articles 3-5 fall to Member States and their competent authorities and affect others only indirectly through WFD objective setting and programmes of measures. The requirements have been largely brought into domestic legislation through a 2006 Direction to the Environment Agency, though this may need to be adjusted and aligned with other aspects of WFD classification. Because the establishment of threshold values to be adopted for use in groundwater status classification, and the programmes of measures necessary to achieve “good status”, are closely linked to surface water standards and programmes of measures,

consultation on these aspects will be carried out as part of the WFD implementation. The threshold values themselves will be set at a local level, and consulted on, with other issues relating to classification. Some of the more technical issues relating to classification of water bodies have already been the subject of technical consultations by the UK environment agencies under the UK Technical Advisory Group (UKTag). Their consultation can be found at:

<http://www.wfduk.org>.

The results from those consultations have fed into draft Defra and Welsh Assembly Government guidance on River Basin Planning Volume 2 which went to consultation on 25 February 2008 and can be accessed at:

<http://www.defra.gov.uk/corporate/consult/river-basin/>.

It is anticipated that this will be followed by consultation on a statutory instrument relating to classification.

**11. This consultation focuses on the requirements of Article 6 of the GwD which has direct regulatory implications for persons using, or disposing of, or otherwise causing a release of, polluting substances which could enter groundwater.** Articles 3-5 of the GwD deal with status classification and trend assessment. Since these issues are not directly related to the Groundwater Regulations, they are not covered in this consultation. Similarly, the amended Regulations would not change the current requirements for agricultural sources of nitrates (though they would add to the range of available controls such as notice powers and codes of practice, allowing a more targeted and risk-based approach). This consultation, therefore, does not specifically address agricultural sources of nitrates. The proposals take into account European technical guidance on direct and indirect inputs adopted under Article 21 of the WFD which can be found at: <http://circa.europa.eu/Public/irc/env/Home/main>

12. It should be noted that, unlike the 1980 Directive, the WFD and the GwD do not exclude nitrates. However, measures to implement the Nitrates Directive are “basic measures” under the WFD and are the starting point to achieve nitrates objectives so far as agricultural sources are concerned. If meeting the objectives of the Nitrates Directive prove insufficient to meet the WFD objectives, measures for agricultural sources of nitrates might need to be supplemented.

13. The GwD, although it includes a 50mg/l “standard” for nitrates which is to be used for the purposes of classification and trend identification, respects the objectives of the Nitrates Directive and the way it operates. It does not, therefore, include any additional requirements for agricultural sources of nitrates beyond those already contained in the Nitrates Directive and the WFD. It does imply, however, potential controls over non-agricultural sources of nitrates.

## **Overview of Article 6 of the new Groundwater Directive (GwD)**

14. Article 6 of the GwD clarifies the objective at Article 4(1)(b)(i) of the WFD to “prevent or limit the input of pollutants into groundwater”, and the prohibition at Article 11(3)(j) of the WFD on direct discharges of pollutants into groundwater. It requires Member States to:

- prevent inputs of hazardous substances;
- limit the input of non-hazardous substances to avoid pollution;
- take action to address diffuse pollution wherever technically feasible to achieve good chemical status.

A range of exemptions to the prevention and limitation requirement is available to Member States (though it should be noted that these are not exemptions from the requirement to control pollution – for instance through use of authorisations - where necessary).

## **Comparison between Article 6 of the GwD and the requirements of the 1980 Directive**

15. Article 6 of the GwD covers the same general area as the 1980 Directive – i.e. pollution prevention. The differences are somewhat complex, but ultimately not great. In general the GwD is slightly wider in scope but will allow a more flexible and risk-based approach than the 1980 Directive, though the latter needs to continue to be implemented until December 2013.

16. The specific differences between Article 6 of the GwD, and the 1980 Directive include the following:

**a. Substances and activities covered**

<b>Difference</b>	<b>Comment</b>
<p><b>Article 6</b> requires Member States to prevent all inputs of hazardous substances, and limit all inputs of other substances into groundwater. (Inputs include <u>any</u> environmental inputs, e.g. from contaminated land.)</p> <p><b>The 1980 Directive</b> is aimed at preventing the introduction of List I substances, and limiting the introduction of List II substances. It does not specifically cover nitrates and discharges of matter containing radioactive substances.</p>	<p>In practice, List I is a very large subset of “hazardous substances”, such that they are almost coterminous. The group of “other substances” contains List II but is potentially large since any substance, given sufficient quantity, can cause pollution. Although nitrate is covered under Article 6, it is not a hazardous substance and therefore would need to be limited to avoid pollution – consistent with the UK policy on nitrates.</p> <p>All anthropogenic inputs are potentially subject to the requirements, not simply deliberate discharges, disposals or current activities, but this wider scope is balanced by a new set of exemptions (see below).</p> <p><i>(nb It is important to note here the clear distinction between</i></p> <p><i>(a) the range of substances which need to be prevented or controlled under Article 6 of the GwD (that is, all substances liable to cause pollution), and</i></p> <p><i>(b) the lists of substances which will be used, further to Articles 2-5 of the GwD, for classification and trend identification purposes (these are selected on the basis of risk to the WFD’s status and trends objectives – which is more restricted than the risk of pollution).</i></p> <p><i>The latter will be established on a groundwater body basis and threshold values determined for those substances will be used in assessing the status of (and trends in) relatively large groundwater bodies. There is no direct relationship between the threshold values set for groundwater bodies and the risk of pollution at a local scale.)</i></p>

**b. Measures necessary**

<b>Difference</b>	<b>Comment</b>
<p><b>Article 6</b> requires Member States to ensure that their programmes of measures established under the WFD include all measures necessary to prevent hazardous substances entering groundwater, and to avoid pollution by all other substances. This requirement is subject to a range of exemptions mentioned below in the table under “exemptions”.</p> <p><b>The 1980 Directive</b> requires specific authorisation of discharges to water, and of disposals to land, of listed substances. It requires Member States to take “<i>all appropriate measures they deem necessary to</i></p>	<p><b>Authorisation process:</b></p> <p>The authorisation process required under the 1980 Directive would need to continue at least until 2013 but the GwD allows more flexibility in terms of the control mechanisms and thereby facilitate modern regulatory approaches.</p> <p>We must also consider:</p> <ul style="list-style-type: none"> <li>(i) whether the need for authorisations should be extended to cover all “prevent or limit” (see (a) above);</li> <li>(ii) whether the authorisation regime needs to be adjusted in the light of the WFD and the new Directive,</li> <li>(iii) whether measures other than authorisation may be appropriate to prevent or limit the input of pollutants.</li> </ul> <p><b>Diffuse pollution, and flexible controls</b></p>

<p><i>prevent any indirect discharge of substances in list I due to [non-discharge and non-disposal activities]”;</i></p> <p>WFD Article 11(3)(j) prohibits direct discharges of pollutants into groundwater, subject to specific exclusions in that Directive.</p>	<p>We would also need to keep in mind that control of diffuse sources of pollution is required by both the WFD and in Article 6 of the GwD. Because diffuse pollution is particularly difficult to control, it is being separately considered as an issue which needs to be addressed to meet wider WFD objectives – not just those relating to groundwater. However, it may be that transposition of the GwD will provide opportunities to extend the toolkit available for addressing diffuse pollution whilst at the same time allowing more flexibility to address point sources of pollution.</p> <p>For instance, the Groundwater Regulations 1998, which set out an authorisation regime for discharges and disposals in accordance with the 1980 Directive, also give the Environment Agency (EA) powers to control other activities “in or on land” which may cause groundwater pollution, and allow Ministers to create codes of practice for potentially polluting activities. Such powers might be extended or supplemented, for example, by general binding rules – i.e. specific rules for those engaged in certain activities.</p> <p><b>Direct discharges of pollutants</b></p> <p>Article 6 of the new Groundwater Directive, in clarifying the objective at Article 4(1)(b)(i) of the Water Framework Directive to “prevent or limit the input of pollutants”, also refers directly to Article 11 of the WFD. It therefore sets out the objective to be achieved by Article 11(3)(j) of the WFD.</p>
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### c. Exemptions

<b>Description</b>	<b>Comment</b>
<p><b>Article 6</b> includes a requirement for diffuse pollution to be taken into account where technically possible. It also allows specific exemption from measures to prevent inputs of hazardous substances, and to limit pollution by other substances, of the following:</p> <ul style="list-style-type: none"><li>(i) direct discharges authorised under Article 11(3)(j) of the WFD;</li><li>(ii) de minimis inputs;</li><li>(iii) inputs due to accidents or exceptional circumstances of natural cause;</li><li>(iv) authorised artificial recharges;</li><li>(v) inputs which could not technically be prevented without measures which increased health or environmental risks, or were costly to remove from contaminated soil (which is consistent with the UK's approach to contaminated land);</li><li>(vi) an exemption relating to water management activities such as dredging.</li></ul> <p><b>The 1980 Directive</b> excludes</p> <ul style="list-style-type: none"><li>(i) discharges for domestic effluents from isolated dwellings not connected to sewers and outside areas protected for abstraction of drinking water;</li><li>(ii) discharges containing List I and II substances at levels too small to cause deterioration of water quality;</li><li>(iii) discharges of matter containing radioactive substances;</li></ul> <p>It also exempts:</p> <ul style="list-style-type: none"><li>- discharges into permanently unusable groundwater;</li><li>- discharges from mining or civil engineering from the restrictions on List I substances, providing these are re-injected into the same strata, and</li><li>- authorised artificial discharges.</li></ul> <p><b>WFD Article 11(3)(j)</b> also contains a range of specific exemptions relating to direct discharges to groundwater.</p>	<p>The overall range of the exemptions under Article 6 is similar to, but broader and more risk-based, than that of the 1980 Directive. It should be noted that these are exemptions to the requirement to “prevent or limit” rather than from any requirement for authorisation. The exclusions which apply exclusively to the 1980 Directive – i.e. those relating to domestic effluents and radioactive substances – cannot be read into Article 6. This implies that any necessary controls over these activities and substances would need to be considered when implementing Article 6.</p>

## Using the existing Regulatory Regime as the basis for transposition of the GwD

17. As mentioned above, the differences between the GwD and the 1980 Directive, though complex in their detail, are not great overall. This points to a similar overall approach to the control of pollution. Therefore the existing Groundwater Regulations 1998, and the associated statutory framework to prevent groundwater pollution, which are based on the need to comply with the 1980 Directive, form a good basis for implementing Article 6. The existing regime comprises:

- (i) **The Groundwater Regulations 1998.** These implement the 1980 Directive, introducing
  - a regime for authorising the disposal of listed substances to land such that List I substances do not enter groundwater, and List II substances do not pollute groundwater;
  - powers to allow the EA to control non-disposal activities in or on land to avoid entry of List I substances or pollution by List II substances.
- (ii) Other related regimes including the **IPPC and Waste Licensing regimes.** Permits and licenses are treated as “authorisations” under the Groundwater Regulations 1998.
- (iii) **The Water Resources Act 1991 Part III.** This prohibits the unconsented entry to ground waters of any poisonous, noxious or polluting matter or any solid waste matter.
- (iv) **The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003.** These regulations implement the WFD introducing amongst other things a requirement to introduce measures (in programmes of measures) in order to achieve its objectives.

18. Amendments to the existing regime would be expressed, in the first instance, through amended Groundwater Regulations as set out in the proposals at paragraphs 20- 40 below.

19. As mentioned in the introduction, it is intended that once amended Groundwater Regulations have been put in place, the groundwater permit controls will be brought into EPP as soon as possible. This is expected to be in 2009. The amended Groundwater Regulations will form a good starting point for producing the detailed guidance which will be necessary for transposing groundwater into EPP .

## **Proposals for transposition of Article 6 of the GwD, including questions for consultation**

### **Article 6(1): General duty to include measures to prevent or limit inputs of pollutants in Programmes of Measures.**

20. Article 6(1) of the GwD sets out a general duty on Member States to ensure that programmes of measures established under Article 11 of the WFD include “all measures to prevent ...” inputs of hazardous substances, and “all measures necessary to limit” inputs of non-hazardous substances. This general duty would fall on the EA and, as such, it is proposed that this should be addressed through a simple extension of its existing duties.

### **Article 6(1)(a): Measures to prevent inputs of hazardous substances**

21. Article 6(1)(a) requires Member States to “take all measures necessary to prevent inputs into groundwater of any hazardous substances ...”. The ‘regulatory toolkit’ (i.e. measures available to be included in programmes of measures) therefore needs to include ‘all measures necessary to prevent inputs into groundwater of any hazardous substances’.

22. The 1980 Directive already requires Member States to ‘take necessary steps to prevent the introduction into groundwater of substances in List I’ (Article 3(a)). Article 4(1) of the 1980 Directive gives details of the steps required to comply with this obligation. They comprise, in essence, a prohibition of direct discharges, a prior investigation and authorisation requirement for the disposal or tipping for the purpose of disposal of List I substances that might lead to an indirect discharge, and the taking of ‘all appropriate measures Member States deem necessary to prevent any indirect discharge of List I substances due to other activities’

23. These requirements are implemented through the 1998 Groundwater Regulations (prohibition, prior investigation and authorisation requirements, groundwater notices and Codes of Practice provision). These requirements must continue to be implemented until December 2013 (when the 1980 Directive is repealed). Thereafter an equivalent overall level of protection for groundwater should be maintained.

24. Continued implementation of the 1980 Directive requirement to prevent the introduction of List I substances should be sufficient to meet the requirements of Article 6(1)(a) of the GwD as regards hazardous substances which are also List I substances (subject to the need to change the exemptions, discussed below). It should also meet the requirement under Article 11(3)(j) WFD to prohibit direct discharges of pollutants (as regards List I substances).

25. List I of the 1980 Directive (and the Groundwater Regulations 1998) covers most, but not quite all, hazardous substances. For any hazardous substances which are not also List I substances it is proposed that existing controls over List I substances be extended to any non-listed hazardous substance. This would avoid the need for two separate regimes and would be consistent with Article 11(3) of the WFD which prohibits direct discharges of all pollutants, including hazardous substances

***Question 1: Are you aware of any hazardous substances which do not fall within the groups of List I of the 1980 Directive?***

***Question 2: Do you consider that the proposed approach to the prevention of inputs of hazardous substances – i.e. to subject them to the controls on List I substances currently required by the 1980 Groundwater Directive, and the Groundwater Regulations 1998 – is practicable and fair?***

***Question 3: Are there any particular costs and benefits which you consider relevant to this proposal?***

26. Because List I is a subset of “hazardous substances”, it is also proposed that there may no longer be a need to refer to List I in the amended Regulations. Rather, hazardous substances should be referred to by their properties, which are defined at Article 2(29) of Directive 2000/60/EC (WFD), and should be clarified by a transparent process under the Joint Agency Groundwater Directive Advisory Group (JAGDAG) which was established in the 1990s for assessing List I substances. JAGDAG which includes the environment agencies, stakeholders and Defra, recommends whether specific substances are hazardous on the basis of toxicity, persistence and bioaccumulation. The Secretary of State may review any such decision of the EA on the classification of substances following public consultation. Although the group has not met recently, it developed a system and process and amassed a body of knowledge, for identifying hazardous substances. Further information on List I substances identified can be found online at:

[http://www.environment-agency.gov.uk/commondata/acrobat/final\\_determinations.pdf](http://www.environment-agency.gov.uk/commondata/acrobat/final_determinations.pdf)

***Question 4: Do you consider that there would be any practical consequences, costs or benefits resulting from the proposal to refer to hazardous substances by their properties?***

***Question 5: Do you consider that there would be practical consequences of moving to identification and clarification of hazardous substances by a transparent process under JAGDAG, and away from a list on the face of the Regulations?***

**Question 6: Do you consider that the proposed approach to hazardous substances would imply specific costs or benefits? (If so, please provide details where you are able to do so).**

**Article 6(1)(b): Measures to limit inputs of non-hazardous substances**

27. Article 6(1)(b) of the GwD requires Member States to take “all measures necessary to limit inputs [of non-hazardous pollutants] into groundwater so as to ensure that such inputs do not cause deterioration of significant and sustained upward trends in the concentration of pollutants in groundwater”. In other words, Member States are required to limit inputs of non-hazardous substances in order to avoid pollution, but the measures to be taken are not specified.

28. The 1980 Directive already requires Member States to ‘take necessary steps to limit the introduction into groundwater of substances in List II so as to avoid pollution’ (Article 3(b)). List II substances are, essentially, a large ‘sub-set’ of ‘non-hazardous pollutants’. Article 5 of the 1980 Directive gives more details of the steps required to comply with the obligation to limit discharges of List II substances. They comprise, in essence, a prior investigation and authorisation requirement for direct discharges of List II substances and the disposal or tipping for the purpose of disposal of List II substances that might lead to an indirect discharge, and the taking of all appropriate measures Member States deem necessary to limit all indirect discharges of List II substances due to other activities.

29. This requirement has been implemented in the UK through the 1998 Groundwater Regulations (prohibition, prior investigation and authorisation requirements, groundwater notices and Codes of Practice provision). The UK must continue to implement the requirement until December 2013 (when the 1980 Directive will be repealed). The WFD requires that any successor regime must give at least an equivalent level of protection to groundwater. It is proposed that transposition should use and build on these controls in order to give effect also to the requirements of the GwD and WFD and, without lessening the overall protection, to introduce a slightly more flexible approach as intended by the GwD.

30. Because the set of “non-hazardous substances” is greater than its sub-set of List II substances, and because the GwD envisages a “risk-based” approach, it is proposed that the EA be allowed much greater flexibility over the precise requirements of a permit. Ideally a general binding rule (plus a registration scheme) might satisfy this requirement for low risk disposals where possible. This would still mean that the permit should require the information set out at Articles 9 and 10 of the 1980 Directive and/or such other information as the EA considers necessary.

31. Although Article 11(3)(j) of the WFD specifies that direct discharges of all pollutants should be prohibited, subject to specific exemptions, it needs to be read alongside the introduction to Article 6 of the GwD, and Article 4(1)(b)(i) of the WFD.

These latter articles envisage a more risk-based approach to the control of non-hazardous substances. In particular, the GwD (and the 1980 Directive) clearly envisages that inputs of non-hazardous substances should be limited to avoid pollution (rather than prohibited outright). This approach is both more practical and more consistent with the broader intention of the WFD and the GwD.

***Question 7: Are you aware of specific non-hazardous substances which are currently not controlled under List II but which would be controlled under the new regime? If so, any information on the circumstances in which these substances are used would be helpful.***

***Question 8: Are you aware of any direct discharges of non-hazardous substances? If so, your views on the costs and benefits of preventing them absolutely, or of limiting them to prevent pollution would be helpful.***

***Question 9: Are there any other particular costs and benefits which you consider relevant to the proposal for dealing with non-hazardous substances?***

#### **Review of authorisations**

32. A four-yearly review cycle for authorisations is required under the 1980 Directive. It is proposed that, at the earliest opportunity consistent with the requirements of that Directive, that this should be changed to a requirement to review authorisations every six years (i.e. in line with the river basin planning cycles in the WFD), or at an alternative frequency where the EA considers that this is justified in relation to risk. It is also intended that the EA should determine the scope/extent of the review based on risk - i.e. to the likelihood/possibility that the discharge could adversely affect the quality of the receiving groundwater.

***Question 10: Do you consider that there would be any specific practical consequences, costs or benefits arising from a change from a 4-yearly cycle of reviews to reviews based on a 6-yearly cycle, or alternative frequency based on risk?***

***Question 11: Similarly, do you consider that there would be practical consequences, costs or benefits if the EA were to determine the scope/extent of reviews based on risk?***

#### **Article 6(2): Diffuse sources of pollution**

33. Article 6(2) of the GwD requires that “Inputs of pollutants from diffuse sources of pollution having an impact on the groundwater chemical status shall be taken into account whenever technically possible”. Since diffuse pollution is a particularly difficult issue to address it is being considered under the WFD on a wider basis than groundwater. However, there are mechanisms within the groundwater regime

which could helpfully contribute to tackling diffuse pollution. Although groundwater authorisations and notice powers under the Groundwater Regulations 1998 would normally cover point source pollution, codes of practice made under Regulation 21 can be used to target potential pollution from both point and diffuse sources. It is proposed that the potential role of notice powers and codes to address diffuse pollution be made more explicit by amending the 1998 Regulations which currently refer only to direct and indirect inputs.

***Question 12: Do you consider that there would be any specific practical consequences, costs or benefits arising from the proposal to explicitly extend notice powers and codes of practice to cover diffuse sources of pollution?***

**Article 6(3): Exemptions to the controls on hazardous and non-hazardous substances (Also covers, exemptions under Article 11(3)(j) WFD and exemptions under the 1980 Directive)**

***a) Exemptions to the prohibition on direct discharges of pollutants***

34. Article 11(3)(j) WFD prohibits direct discharges into groundwater and also provides for exemptions. The 1980 Directive also provided for exemptions to such requirements. In addition, Article 6(3) of the GwD introduces other exemptions which can apply to measures to prevent direct discharges.

35. These overlaps could be confusing and lead to some uncertainty. One approach could be **only** to apply the exemptions that are permitted by both the Groundwater Directives and Article 11(3)(j) of the WFD, namely:

- permissible to authorise, specifying conditions, de minimis discharges of substances for scientific purposes, for characterisation or protection or remediation of water bodies, provided they do not compromise achievement of environmental objectives (Article 2(b) of the 1980 Directive, so far as it overlaps with the sixth indent to Article 11(3)(j) WFD).
- permissible to authorise certain artificial recharges where no risk of pollution where the achievement of the environmental objectives for either the source or the groundwater body is not compromised (which fulfils the requirements at Article 11(3)(f) of the WFD, and where there is no risk of polluting the groundwater (which fulfils the requirement of Article 6 of the 1980 Directive).

However, this would be contrary to the intention of the Directives, and would also raise significant practical issues.

36. The proposed approach, therefore, is to apply all the exemptions at Article 6(3) of the GwD (as mentioned below at paragraph 39) to Article 11(3)(j) of WFD. This is appropriate because the GwD clarifies the intention of the WFD Article 4(1)(b)(i) objective to “prevent or limit” the input of pollutants into groundwater, and Article

11(3)(j) is merely a measure for achieving that objective. This does not mean that direct discharges would not still need to be controlled appropriately, even where an Article 6(3) exemption applies. This is because Article 6(3) provides exemptions from preventing or limiting inputs of pollutants, not exemption from necessary controls.

***Question 13: Do you consider that there would be any specific practical consequences, costs or benefits arising from allowing, where appropriate, Article 6(3) exemptions to be applied to direct discharges to groundwater? If so, please specify the exemption or exemptions to which you are referring.***

37. It is proposed that the exemptions indented at Article 11(3)(j) should be applied to direct discharges on the basis that they are generally in line with what is required under the 1980 Directive, as follows:

- First and third indents of Article 11(3)(j): these are more restrictive than the 1980 Directive (the application of permanently unsuitable is restricted to fewer circumstances) and the EA currently applies the “permanently unsuitable” exemption to direct discharges in accordance with Article 4(2) of the 1980 Directive;
- Indent 2 of Article 11(3)(j): this is directly equivalent to Article 4(3) of the 1980 Directive.
- Indent 4 of Article 11(3)(j): this covers matters outside the 1980 Directive and is, in any case, subject to a provision that there should be no present or future danger of deterioration in the quality of the receiving groundwater – similar to the existing *de minimis* provision.
- Indent 5 is roughly equivalent to Article 4(3) of the 1980 Directive, the only difference being that it would allow general binding rules (plus registration) to be used as authorisations.
- Indent 6, which allows discharges of small quantities of substances for scientific purposes, is related to the overall objectives of the WFD.

***Question 14: Do you consider that there would be any specific practical consequences, costs or benefits arising from allowing, where appropriate, the exemptions at Article 11(3)(j) of the WFD in relation to direct discharges to groundwater? If so, please specify the exemption or exemptions to which you are referring.***

b) *Exemptions to the other measures to prevent or limit inputs of pollutants*

38. Some of these exemptions in the 1980 Directive are not also included in the GwD. It is proposed that, in order to avoid risking under-implementing the GwD and the WFD, the exemptions in the 1980 Directive may only be used where they also occur in the new Directive. On that basis the following exemptions would be disapplied:

- (i) those relating to radioactive substances;
- (ii) domestic effluent from isolated dwellings not connected to a sewerage system and away from drinking water sources;
- (iii) those which relate to inputs to permanently unsuitable groundwater (in practice there are only one or two of these, according to the EA).

**Question 15: Do you consider that there would be any specific practical consequences, costs or benefits arising from the removal of certain exemptions in the 1980 Directive which are not replicated in either the WFD or the GwD?**

39. Conversely, on the basis that the intention of the GwD is to ensure a risk-based approach to groundwater protection, it is proposed that the exemptions at Article 6(3) of the GwD, which relate to prevention of inputs of hazardous substances, and limitation of inputs of non-hazardous substances (not to the controls which may be necessary to achieve these objectives), be applied as follows:

Art 6(3)(a): Direct discharges should be addressed, in relation to hazardous and non-hazardous substances, in accordance with paragraphs 31-34 above.

Art 6(3)(b): This exemption relates to inputs of a quantity and concentration so small as to obviate any present or future danger of deterioration in the quality of the receiving groundwater - it relates to "inputs" rather than "discharges" but is generally equivalent to that in the 1980 Directive;

Art 6(3)(c): This exemption relates to "*accidents or exceptional circumstances of natural cause that could not reasonably have been foreseen, avoided or mitigated*". Since it is not possible to prevent or limit such inputs it would be appropriate to include the exemption in the amended regulations.

Art 6(3)(d): This exemption allows artificial recharges, which are permitted under Article 6 of 80/68/EEC and Article 11(3)(f) of the WFD, to be allowed to continue, subject to authorisation.

Art 6(3)(e)(i): This allows exclusion of inputs which are "*incapable of being prevented or limited without using measures which would increase risks to human health or to the quality of the environment as a whole*". It would seem that not allowing exemption of such inputs would create situations unintended under either the Groundwater Directives or the WFD.

Art 6(3)(e)(ii): This relates to inputs which are incapable of being prevented or limited without using disproportionately costly measures to remove quantities of pollutants from, or otherwise control their percolation in, contaminated ground or subsoil. Since (a) the new Directive recognises the practical point that it is not always appropriate to remove pollutants already in the ground on

the basis of disproportionate cost and technical feasibility, (b) this is consistent with the WFD, and (c) this exemption does not relate to discharges per se, and therefore falls under the heading of “all appropriate measures” in the 1980 Directive, this exemption could be used. This would also be consistent with the UK’s risk-based approach to land contamination.

Art 6(3)(f): This exemption was introduced to address particular problems in another Member State in relation to dredging activities. It is proposed that the substantive element – interventions in surface waters for management purposes, such as cutting, dredging, relocation and deposition of sediments – should be combined with the exemption at Article 6(3)(e)(i), as an instance of where the latter would apply.

***Question 16: Do you consider that there would be any specific practical consequences, costs or benefits arising from allowing, where appropriate, the exemptions at Article 6(3) of the new Directive to be applied.***

40. The use of these exemptions would be at the discretion of the EA, and conditional upon the final paragraph of Article 6(3) being adhered to:

*“The exemptions provided for in points (a) to (f) may be used only where the Member States’ competent authorities have established that efficient monitoring of the bodies of groundwater concerned, in accordance with point 2.4.2 of Annex V to Directive 2000/60/EC, or other appropriate monitoring, is being carried out.”*

### **Impact assessments**

41. A UK Post conciliatory partial Regulatory Impact Assessment (RIA) carried out for the GwD identified that it would be cost-neutral as it does not add any burdens beyond what is already required under the WFD. The clarification brought by the GwD may, in fact, allow a more cost-effective approach to be used in achieving the objectives of the WFD. The RIA has been used as the basis to extend the Impact Assessment (IA) to transposition options for Article 6 of the GwD. This also shows no, or very little, additional cost. An executive summary of the Post-conciliatory Partial Regulatory Impact Assessment and extended IA for transposition of Article 6 of the GwD are published along with this consultation.

## **Timetable for amended regulations**

42. Although there is a 16 January 2009 transposition date in the Groundwater Directive, the superior implementation timetable of the WFD in practice requires the process of reviewing groundwater authorisations to start as soon as possible in 2008 (because they are subject to statutory review over a four year cycle) to ensure they are WFD and GwD compliant by December 2012. This is because proper implementation of the WFD entails (a) making operational programmes of measures

by 22 December 2012 (Article 11(7) WFD); (b) meeting environmental objectives under Article 4(1)(b) WFD. For these reasons, it is anticipated that amended Groundwater Regulations should be ready to be made and laid in Autumn 2008.

43. The following timetable for the amended regulations is therefore currently proposed:

July 2008: draft Regulations on the basis proposed in this consultation document;

October 2008: Regulations made (taking consultation responses into account) by Ministers and laid before Parliament;

November 2008: Regulations come in to force.

## Responses to this consultation

44. We would like to receive your comments on the approach proposed in this consultation paper.

45. In your response please:

- explain who you are, where relevant who you represent and include your name and address;
- order your comments under the same headings as the consultation paper and;
- include a summary of your comments if they are more than three pages long.

46. We need to receive your response by **20 August 2008**. Please send it

- by email (in Word or Rich format ) to:  
[GroundwaterConsultation@defra.gsi.gov.uk](mailto:GroundwaterConsultation@defra.gsi.gov.uk)  
and copied to [water@wales.gsi.gov.uk](mailto:water@wales.gsi.gov.uk) .

- or by post to:

Graeme Henton  
Water Quality Division  
Defra  
Area 2B Ergon House  
Horseferry Road  
London SW1P 2AL

and copied to:  
Water Branch  
Climate Change and Water Division  
Welsh Assembly Government  
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