

# Public Consultation On the Review of Annexes I and II of the Groundwater Directive

*This document does not represent an official position of the European Commission. It is a tool to explore the views of interested parties. The suggestions contained in this document do not prejudice the form or content of any future proposal by the European Commission.*

The Groundwater Directive (GWD, 2006/118/EC) on the protection of groundwater against pollution and deterioration is a daughter directive of the Water Framework Directive (WFD, 2000/60/EC). Its purpose is to establish specific measures to prevent and control groundwater pollution. These measures include criteria for: (1) the assessment of good chemical status (2) the identification and reversal of environmentally significant pollutant trends and (3) preventing or limiting inputs of pollutants into groundwater. Annexes I and II of the GWD contain Europe-wide environmental quality standards for pollutants, a minimum list of pollutants and indicators for which Member States should consider establishing threshold values, guidelines for the establishment of threshold values and information to be provided by Member States on those pollutants and indicators. Article 10 of the GWD requires the Commission to review Annexes I and II of the Directive every six years and come forward with legislative proposals, if appropriate. This public consultation will provide input to the first review of the Annexes. This consultation is intended for stakeholders, experts and practitioners in public authorities involved or interested in the implementation of the GWD. As part of the review, a background document has been prepared on possible amendments to the GWD (the background paper is available on the consultation web page). The structure of this questionnaire follows the four main challenges identified in the background paper for the review of Annexes I and II of the Directive:

- Update of the list of substances regulated at EU and national level to new scientific and technical information (Annex I and Annex II part B of the GWD)
- Insufficient comparability of threshold values across Member States and hence of the assessment of groundwater chemical status (Annex II part A)
- Insufficient transparency and reporting as regards the assessment of groundwater chemical status (Annex II part C)
- Knowledge gaps related to the occurrence and risk assessment of substances of concern, including emerging environmental contaminants (general problem which affects future reviews).

**This questionnaire includes specific questions on these four challenges and broad questions on the Annexes as a whole. It should take approximately 15 – 30 minutes of your time. Your answers are saved as long as a network connection is established. If your browser is closed it might be possible to recover answers, but this however cannot be guaranteed. For this reason, we encourage you not to interrupt the session once you have started the questionnaire. You may wish to download the background paper and the text of the questionnaire from the main consultation page in order to examine the questions and elaborate on your replies before starting an on-line session.**

Once you have submitted your answers, you will have the option to download a copy of your answers.

Unless you specify otherwise, your contribution will be published on the Commission's website. In the introductory section, you will be given the opportunity to indicate whether you wish your contribution to be published anonymously.

Questions marked with an asterisk \* require an answer to be given.


## A. Introductory Questions

Please answer the following questions regarding yourself and/or the organisation or public authority submitting the response.


1. Please indicate your name (i.e. the name of the person submitting the response). *[Format: title; first name; last name]* \* (maximum 200 characters)

1a. Are you responding to this consultation as an individual or on behalf of an organisation or public authority? (Please choose **one** response) \*

- As an individual citizen
- On behalf of an organisation
- On behalf of a public authority

 1a.i. Do you currently work on groundwater or water issues, or have you done so in the past? (Please choose **one** response) \*

- Yes, groundwater has been a focus of my professional work
- Yes, water management has been a focus of my professional work
- Yes, groundwater and water management have been one aspect of my professional work
- No

 1a.ii. What type of organisation do you represent? (Please choose **one** response) \*

- Business / industry (including enterprises and business associations)
- NGO / civil society (including environmental groups)
- Research organisation (including universities and public research institutes)
- Other



1a.iii. Please indicate the full name of your organisation. \* (maximum 400 characters)



1a.iv. Please provide your Register ID *if applicable*. (maximum 200 characters)



1a.v. What type of public authority do you represent? \*

- National
- Regional
- Local
- Other



1a.vi. Please indicate the full name of the authority. \* (maximum 400 characters)

1b. Please indicate the country where you or, if applicable, your organisation or public authority is located. \*

- |                                      |                                      |                                      |
|--------------------------------------|--------------------------------------|--------------------------------------|
| <input type="radio"/> Austria        | <input type="radio"/> Belgium        | <input type="radio"/> Bulgaria       |
| <input type="radio"/> Croatia        | <input type="radio"/> Cyprus         | <input type="radio"/> Czech Republic |
| <input type="radio"/> Denmark        | <input type="radio"/> Estonia        | <input type="radio"/> Finland        |
| <input type="radio"/> France         | <input type="radio"/> Germany        | <input type="radio"/> Greece         |
| <input type="radio"/> Hungary        | <input type="radio"/> Ireland        | <input type="radio"/> Italy          |
| <input type="radio"/> Latvia         | <input type="radio"/> Lithuania      | <input type="radio"/> Luxembourg     |
| <input type="radio"/> Malta          | <input type="radio"/> Netherlands    | <input type="radio"/> Poland         |
| <input type="radio"/> Portugal       | <input type="radio"/> Romania        | <input type="radio"/> Slovakia       |
| <input type="radio"/> Slovenia       | <input type="radio"/> Spain          | <input type="radio"/> Sweden         |
| <input type="radio"/> United kingdom | <input type="radio"/> Rest of Europe | <input type="radio"/> Outside Europe |

2. Unless you specify otherwise, your contribution may be published under your name or, if you are responding on behalf of an organisation or public authority, the name of the organisation or authority, on the Commission's website. Please indicate here if you wish your contribution to be anonymous. (For full information please refer to the Specific Privacy Statement point 3) \*

- You may identify the author/source of this contribution when publishing it
- Please make this contribution anonymous

## B. Main challenges to address in the review of Annexes I and II of the Directive

The background paper identifies four main challenges for the review of Annexes I and II of the GWD:

- Updating the list of substances;
- Insufficient comparability of threshold values;
- Insufficient transparency and reporting; and
- Knowledge gaps related to substances of concern including emerging contaminants.

3. Do these four main challenges cover the most important issues for the review of Annexes I and II of the GWD? \*

- Yes
- No
- Don't know

4. Should any other challenges be considered? If so, which and why? Do you have any other comments on the list of four main challenges. (maximum 1800 characters)

### C. List of substances: pollutants regulated in Annex I of the Directive

Annex I of the GWD establishes the following groundwater quality standards:

Pollutant	Quality standards
Nitrates	50 mg/l
Active substances in pesticides, including their relevant metabolites, degradation and reaction products (1)	0,1 µg/l 0,5 µg/l (total) (2)

(1) 'Pesticides' means plant protection products and biocidal products as defined in Article 2 of Directive 91/414/EEC and in Article 2 of Directive 98/8/EC, respectively.


(2) 'Total' means the sum of all individual pesticides detected and quantified in the monitoring procedure, including their relevant metabolites, degradation and reaction products.

As noted in the background paper, amendments to the current legislation are recommended where substantial new and robust data have become available since the GWD entered into force, provided that they are of European-wide concern. The background paper notes that with the findings of the first River Basin Management Plans (for more information please see [http://ec.europa.eu/environment/water/participation/map\\_mc/map.htm](http://ec.europa.eu/environment/water/participation/map_mc/map.htm)), it can be investigated whether there is significant evidence for the revision of the list of substances for which EU-wide quality standards are set (Annex I) and the list of substances for which the establishment of threshold values shall be considered (Annex II Part B).


5. Should any of the naturally occurring or synthetic substances on Part B of Annex II be moved to the list in Annex

I? (Please choose **one** response) \*


- No
- Yes, one or more substances from Part B of Annex II should be moved to the list (please specify in the follow-up questions)
- Don't know

 5aa. Should any of the substances or ions or indicators which may occur both naturally and/or as a result of human activities be moved from Part B of Annex II to the list in Annex I? (Please choose **one or more** responses)


- Arsenic
- Cadmium
- Lead
- Mercury
- Ammonium
- Chloride
- Sulphate


 5ab. Should any of the man-made synthetic substances be moved from Part B of Annex II to the list in Annex I? (Please choose **one or more** responses)

- Trichloroethylene
- Tetrachloroethylene

 5ac. Should the parameter indicative of saline or other intrusions be moved from Part B of Annex II to the list in Annex I?

- Conductivity

 5b. Please describe briefly the reasons for your suggestions in your answer to Questions 5aa, 5ab, 5ac. (maximum 1800 characters)

 5c. Please indicate appropriate EU-wide quality standards for the substance(s) you suggest adding to Annex I and explain their derivation. (maximum 1800 characters)



5d. Please provide information or expert judgement regarding the feasibility, costs and benefits of introducing quality standards for the substances you suggest. (maximum 1800 characters)

6. Apart from the substances in Part B of Annex II, should any other substances be added to the list in Annex I?

\*

- No
- Yes, one or more substances not on Part B of Annex II should be added to the list (please specify in the follow-up question)
- Don't know



6a. Please specify which substance(s) should be added to the list in Annex I.

(maximum 1800 characters)



6b. Please describe briefly the reasons for your suggestions in your answer to question 6a.

(maximum 1800 characters)



6c. Please indicate appropriate EU-wide quality standards for the substance(s) you suggest adding to Annex I and explain their derivation.

(maximum 1800 characters)



6d. Please provide information or expert judgement regarding the feasibility, costs and benefits of introducing quality standards for the substances you suggest.

(maximum 1800 characters)

7. Do you have any further comments regarding the review of Annex I?

(maximum 1800 characters)

## D. List of substances: pollutants and indicators regulated in Part B of Annex II

Part B of Annex II of the GWD establishes a minimum list of pollutants and their indicators for which Member States have to consider establishing threshold values in accordance with Article 3:

1. Substances or ions or indicators which may occur both naturally and/or as a result of human activities

- Arsenic
- Cadmium
- Lead
- Mercury



- Ammonium
- Chloride
- Sulphate

2. Man-made synthetic substances

- Trichloroethylene
- Tetrachloroethylene

3. Parameters indicative of saline or other intrusions

- Conductivity

8. As noted in the background paper, only the substances/parameters currently listed in Annex I and Annex II Part B have been identified, according to the latest information from Member States, as being of Europe-wide concern. If you have new information concerning substances that should be identified as being of Europe-wide concern which would justify listing them in Annex II Part B, please specify these substances and provide the information you consider would justify their inclusion in Annex II Part B. If you do not think substances should be added, please write "None".

\*

(maximum 1800 characters)

9. Should any other changes be made to the list of pollutants in Annex II Part B?

\*

- Yes
- No
- Don't know



9a. Please specify the changes you propose.

(maximum 1800 characters)



9b. Please provide any information or expert judgement regarding the feasibility, costs and benefits of the changes you propose.

(maximum 1800 characters)

## E. Threshold values (Annex II Part A)


The background paper notes several issues concerning the provisions for the establishment of threshold values (TVs) in Part A of Annex II. These include in particular a lack of comparability across Member States in terms of the threshold values set and the methodologies used to determine them.


According to Part A of Annex II, in establishing threshold values (TVs) for substances, Member States should take into account several factors, including their natural background levels (NBLs). As noted in the background paper, different methodologies have been applied across the EU to address the relationship between TVs and NBLs.

10. Should Annex II provide further specifications regarding NBLs and the relationship between TVs and NBLs in order to make TVs more comparable across Member States? (Please choose **one or more** responses)

\*

- No
- Annex II should specify a uniform procedure for the determination of NBLs
- Annex II should specify how TVs should be set in relation to NBLs
- Annex II should be amended to state that NBLs are not taken into account in the setting of TVs but should instead be considered later, if necessary, in the status assessment
- Yes, other (please provide further detail in the follow-up question)
- Don't know

 10a. Please describe the reasons for your choices. (maximum 1800 characters)

 10b. Please provide any information or expert judgement regarding the feasibility, costs and benefits of the options listed in question 10.

(maximum 1800 characters)

## F. Transparency and reporting (Part C of Annex II)

Annex II Part C lays down all information to be reported (where feasible) by the Member States within the River Basin Management Plans as regards the pollutants and their indicators for which TVs have been established.

The background paper identifies the following key areas where the extent of reporting by Member States has varied significantly:

- The number of groundwater bodies at risk and the pollutants contributing to this classification
- The methodologies for determining NBLs and establishing the relationships between TVs and NBLs
- In terms of the compliance regime, methods of aggregation of monitoring results and the approach for determining the acceptable extent of exceedance of the quality standards (as per Art. 4(2)(c)(i) and Annex

III(3)).

## F1. Clarifying reporting requirements

The background paper notes that Member States seem to differ in their interpretation of the requirement in Part C of Annex II for them to provide information 'where feasible'. Distinguishing more clearly between reporting obligations which are mandatory and those which are to be reported 'where feasible' would contribute to more consistent reporting across Member States.

Part C currently requires Member States to "provide, where feasible:

- (a) information on the number of bodies or groups of bodies of groundwater characterised as being at risk and on the pollutants and indicators of pollution which contribute to this classification, including the observed concentrations/values;
- (b) information on each of the bodies of groundwater characterised as being at risk, in particular the size of the bodies, the relationship between the bodies of groundwater and the associated surface waters and directly dependent terrestrial ecosystems, and, in the case of naturally-occurring substances, the natural background levels in the bodies of groundwater;
- (c) the threshold values, whether they apply at the national level, at the level of the river basin district or the part of the international river basin district falling within the territory of the Member State, or at the level of a body or a group of bodies of groundwater;
- (d) the relationship between the threshold values and
  - (i) in the case of naturally-occurring substances, the observed background levels,
  - (ii) the environmental quality objectives and other standards for water protection that exist at national, Community or international level, and
  - (iii) any relevant information concerning the toxicology, eco-toxicology, persistence, bioaccumulation potential, and dispersion tendency of the pollutants."

11. Should there be an obligation for Member States to provide (where relevant but otherwise unconditionally) the following information listed in Part C of Annex II? (Please choose **one** response)

\*

- Yes, all elements listed in Part C (a) to (d)
- Yes, some of the elements (a) to (d). (Please specify below)
- No, there should be no obligation to provide the information listed in Part C
- Don't know



11a. Please specify which of the following elements listed in Part C should have to be reported. (Please choose **one or more** responses) \*

- a) information on the number of bodies or groups of bodies of groundwater characterised as being at risk and on the pollutants and indicators of pollution which contribute to this classification, including the observed concentrations/values
- b) information on each of the bodies of groundwater characterised as being at risk, in particular the size of the bodies, the relationship between the bodies of groundwater and the associated surface waters and directly dependent terrestrial ecosystems, and, in the case of naturally-occurring substances, the natural background levels in the bodies of groundwater
- c) the threshold values, whether they apply at the national level, at the level of the river basin district or the part of the international river basin district falling within the territory of the Member State, or at the level of a body or a group of bodies of groundwater
- d) the relationship between the threshold values and: (i) in the case of naturally-occurring substances, the observed background levels, (ii) the environmental quality objectives and other standards for water protection that exist at national, Community or international level, and (iii) any relevant information concerning the toxicology, eco-toxicology, persistence, bioaccumulation potential, and dispersion tendency of the pollutants.



11b. Please describe the reasons for your choice.

(maximum 1800 characters)



11c. Please provide any information or expert judgement regarding the feasibility, costs and benefits of the options.

(maximum 1800 characters)


## F2. Reporting on groundwater bodies at risk


In order to improve transparency and the quality of reporting the following elements could be added to the reporting requirements in Part C of Annex II concerning groundwater bodies at risk:

- The pollutants and indicators of pollution posing a risk for each GWB at risk;
- The usage criteria/environmental criteria;
- The ranges of NBLs for those pollutants and indicators; and
- The extent of exceedance.

12. Should Part C of Annex II incorporate these specifications in the mandatory reporting requirements for groundwater bodies at risk? (Please choose **one** response) \*

- No
- Yes, all of the specifications
- Yes, some specifications (please specify in the follow up question)
- Don't know

 12a. Please describe the reasons for your choice. If you chose 'some specifications', please indicate which ones. (maximum 1800 characters)


 12b. Please provide any information or expert judgement regarding the feasibility, costs and benefits of the options.


(maximum 1800 characters)

### F3. Reporting on methodology for deriving NBLs

13. Should Part C of Annex II include an obligation to report the methodology for deriving NBLs? (Please choose **one** response) \*

- No
- Yes
- Other (please specify in the follow up question)
- Don't know

 13a. Please describe the reasons for your choice. (maximum 1800 characters)


 13b. Please provide any information or expert judgement regarding the feasibility, costs and benefits of the options. (maximum 1800 characters)


#### F4. Reporting on reasons for not establishing TVs

14. In several cases, Member States have not specified TVs for all pollutants and indicators listed in Part B of Annex II. Should Part C of Annex II include an obligation to report the reasons for not establishing TVs? (Please choose **one** response)

\*

- No
- Yes
- Other (please specify in the follow up question)
- Don't know

 14a. Please describe the reasons for your choice. (maximum 1800 characters)

 14b. Please provide any information or expert judgement regarding the feasibility, costs and benefits of the options. (maximum 1800 characters)

## F5. Reporting on the compliance regime


As noted in the background paper, the reporting of certain elements of the compliance regime could considerably contribute to enhanced transparency and comparability of status assessments. Such elements would comprise the level, method and period of aggregation of monitoring results and the definition and identification of the acceptable extent of exceedance (according to GWD Article 4.2.c.i and Annex III 3) when assessing chemical status.


15. Should Part C of Annex II include an obligation to report certain elements of the compliance regime? (Please choose **one or more** responses)

\*

- No
- Report the method, level and period of aggregation of monitoring results
- Report the definition and identification of the acceptable extent of exceedance when assessing chemical status
- Other (please specify in the follow-up question)
- Don't know



 15a. Please describe the reasons for your choices. (maximum 1800 characters)

 15b. Please provide any information or expert judgement regarding the feasibility, costs and benefits of the options.  
(maximum 1800 characters)

**F6. Other mandatory reporting obligations**

16. Should any other changes be made to the list of information subject to mandatory reporting? If so, please specify.  
(maximum 1800 characters)

**G. Strengthening the knowledge base for emerging substances of concern**

**G1. Mechanism for gathering monitoring data**

The background paper highlights on-going research concerning substances of concern, including emerging contaminants and their synergistic effects, and notes that efforts thus far have focused on surface water: consequently, there is a relative lack of knowledge of contaminants in groundwater and the possible relevance of their presence as mixtures. European-wide data gathering would therefore increase the knowledge base on groundwater pollutants.

17. Should a mechanism for systematic gathering of monitoring data on groundwater contaminants of concern, including emerging contaminants, be established at EU level and should these data be reported to an EU-wide chemical monitoring database? (Please choose **one** response)

\*

- Yes, and it should be a mechanism with compulsory Member State contribution
- Yes, and it should be a mechanism with voluntary Member State contribution
- No
- Don't know



17a. Please describe briefly the reasons for your choice.

(maximum 1800 characters)



17b. Please provide any information or expert judgement regarding the feasibility, costs and benefits of the options. (maximum 1800 characters)

## G2. Further provisions for substances and pollutants of concern

18. Should Annex II specify the mandatory establishment of TVs for and/or monitoring of all pollutants and indicators listed in Annex II Part B? (Please choose **one** response)

\*

- No
- All Annex II Part B pollutants/indicators should be monitored but no TV should be established for them
- TVs should be established for all Annex II Part B pollutants/indicators but they should not be subject to mandatory monitoring
- All Annex II Part B pollutants/indicators should be monitored and a TV should be established for them
- Other (please specify in the follow up question)
- Don't know



18a. If you consider that monitoring should be mandatory, please comment on the monitoring characteristics (monitoring type), e.g. frequency, duration, spatial distribution.

(maximum 1800 characters)



18b. Please describe the reasons for your choice.

(maximum 1800 characters)



18c. Please provide any information or expert judgement regarding the feasibility, costs and benefits of the options.

(maximum 1800 characters)

19. Do you have any further comments regarding provisions in Annexes I and II of the GWD to address substances and pollutants of concern, including emerging contaminants?

(maximum 1800 characters)

## H. Further comments and follow-up

20. Do you have any further comments regarding the review of Annexes I and II of the GWD?

(maximum 1800 characters)

21. We may wish to contact some respondents by email or telephone for further information, in particular regarding information and expert judgement on the feasibility, costs and benefits of the options. If you are available for follow-up, please provide your email address and/or telephone number.

(maximum 400 characters)