COUNCIL OF THE EUROPEAN UNION Brussels, 9 November 2005 (OR. en) 12062/05 Interinstitutional File: 2003/0210 (COD) ENV 395 CODEC 71 OC 596

LEGISLATIVE ACTS AND OTHER INSTRUMENTS

Subject: Common position adopted by the Council with a view to the adoption of a Directive of the European Parliament and of the Council on the protection of groundwateragainstpollution.

COMMON GIDDELINES Consuftation deadline: 18.11.2005

DIRECTIVE 2005/.../EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of

on the protection of groundwater against pollution

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof, -

Having regard to the proposal from the Commission,

Having regard to the Opinion of the European Economic and Social Committee1,

Having regard to the Opinion of the Committee of the Regions2,

Acting in accordance with the procedure laid down in Article 251 of the Treatl, -

Whereas:

(1) Groundwater is a valuable natural resource which should be protected from chemical pollution. This is particularly important for groundwater-dependent ecosystems and for the use of groundwater in water supply for human consumption.

(2) Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment ~ction Programme1 includes the objective to achieve water quality levels that do not give rise to significant impacts on, and risks to, human health and the environment.

(3) In order to protect the environment as a whole, and human health in particular, detrimental concentrations of harmful pollutants in groundwater should be avoided, prevented or reduced.

(4) Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policl sets out general provisions for the protection and conservation of groundwater. As provided for in Article 17 of that Directive, measures to prevent and control groundwater pollution should be adopted, including criteria for assessing good groundwater chemical status and criteria for the identification of significant and sustained upward trends and for the definition of starting points for trend reversals.

(5) Having regard to the need to achieve consistent levels of protection for groundwater, quality standards and threshold values should be established, and methodologies based on a common approach should be developed, in order to provide criteria for the assessment of the chemical status of bodies of groundwater.

(6) Quality standards for nitrates, plant protection products and biocides should be set as Community criteria for the assessment of the chemical status of bodies of groundwater, and consistency should be ensured with Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sourcesl, Council Directive 91/414/EEC of 15 July 1991 concerning the placing of plant protection products on the market2, and Directive 98/8/EC of the European Parliament and of the Council of 16 February 1998 conce~ning the placing of biocidal products on the markee, respectively.

(7) Groundwater chemical status provisions do not apply to high naturally-occurring concentrations of substances or ions or their indicators, contained either in a body of groundwater or in associated bodies of surface water, due to specific hydro-geological conditions, which are not covered by the detinition of pollution. Equally, they do not apply to temporary, spatially-limited changes in flow direction and chemical composition, which are not regarded as intrusions.

(8) Criteria should be established for the identitication of any significant and sustained upward trends in pollutant concentrations and for the detinition of the starting point for trend reversal, taking into account the likelihood of adverse effects on associated aquatic ecosystems or dependent terrestrial ecosystems.

(9) Member States should, where possible, use statistical procedures, provided they complywith international standards and contribute to the comparability of results of monitoring between Member States over long periods.

(10) In accordance with the third indent of Article 22(2) ofDirective 2000/60/EC, Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution by certain dangerous substances1 is to be repealed with effect from ,. 22 December 2013. It is necessary to ensure the continuity of the protection provided by Directive 80/68/EEC with regard to measures aimed at preventing or limiting both direct and indirect inputs of pollutants into groundwater.

(11) It is necessary to distinguish between hazardous substances, inputs of which should be prevented, and other pollutants, inputs of which should be limited. 'Annex VIII to Directive 2000/60/EC, listing the main pollutants relevant for the water environment, should be used to identify hazardous and non-hazardous substances which present an existing or potential risk of pollution.

(12) In order to ensure consistent protection of groundwater, Member States sharing bodies of groundwater should coordinate their activities in respect of monitoring, the setting of threshold values, and the identification of relevant hazardous substances.

(13) In certain circumstances, Member States should be authorised to grant exemptions from measures to prevent or limit the input of pollutants into groundwater.

(14) It is necessary to provide for transitional measures to apply during the period between the date of implementation of this Directive and the date from which Directive 80/68/EEC is repealed.

(15) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 19991aying down the procedures for the exercise of implementing powers conferred on the Commission1,

HAVE ADOPTED THIS DIRECTIVE:

Article 1 Purpose

I. This Directive establishes specific measures provided for in Article 17(I) and (2)of Directive2000/60/ECin order to prevent and control groundwaterpollution. These measures include in particular:

(a) criteria fur the assessment of good groundwater chemical status; and

(b) criteria for the identitication and reversal of significant and sustained upward trends and for the detinition of starting points for trend reversals.

2. This Directive also complements the provisions preventing or limiting inputs of pollutants into groundwater already contained in Directive 2000/60/EC, and aims to prevent the deterioration of the status of ali bodies of groundwater.

Article 2 Definitions

For the purposes of this Directive, the following detinitions shall apply in addition to those laid down in Article 2 of Directive 2000/60/EC:

(1) "groundwater quality standard" means an environmental quality standard expressed as the concentration of a particular pollutant, group of pollutants or indicator of pollution in groundwater, which should not be exceeded in order to protect human health and the environment;

(2) "threshold value" means a groundwater quality standard set by Member States in accordance with Article 3;

(3) "significant and sustained upward trend" means any statistically significant increase of concentration of a pollutant, group of pollutants, or indicator of pollution, which presents an environmental risk for which trend.reversal is identified as being necessary in accordance with Article 5;

(4) "input of pollutants into groundwater" means the direct or indirect introduction of pollutants into groundwater as a result of human activity.

Article 3 Criteria for assessing groundwater chemical status

1. For the purposes of the assessment of the chemical status of a body or a group of bodies of groundwater pursuant to Section 2.3 of Annex V to Directive 2000/60/EC, Member States shall use the following criteria:

(a) groundwater quality standards as referred to in Annex I; .

(b) threshold values to be established by Member States in accordance with the procedure set out in Part A of Annex Tlfor the pollutants, groups of pollutants and indicators of pollution which, within the territory of a Member State, have been identified as contributing to the characterisation ofbodies or groups ofbodies of groundwater as being at risk, taking into account at least the list contained in Part B lof Annex 11.

2. Thresholdvalues can be established 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 a Member State, or at the level of a body or a group of bodies of groundwater.

3. Member States shall ensure that, for bodies of groundwater shared by two or more Member

States and for bodies of groundwater within which groundwater flows across a Member State's boundary, the establishment ofthreshold values is subject to coordination between the Member States concerned, in accordance with Article 3(4) ofDirective 2000/60/EC.

4. Where a body or a group ofbodies of groundwaterextends beyondthe territory of the Community,the Member State(s)concernedshall endeavourto establish thresholdvalues in coordinationwith the non-MemberState(s)concerned, in accordancewith Article 3(5) of Directive 2000/60/EC.

5. Member States shall establish threshold values pursuant to paragraph 1(b) for the first time by 22 December 2008 at the latest.

All threshold values established shall be published in the river basin management plans to be submitted in accordance with Article 13 of Oirective 2000/60/EC, and including a summary of th~ information set out in Part C of Annex II.

6. Member States shall amend the list of threshold values whenever new information on pollutants, groups of pollutants, or indicators of pollution indicates that a threshold value should be set for an additional substance, that an existing threshold value should be amended, or that a threshold value previously removed from the list should be re-inserted, in order to protect human health and the environment.

Threshold values can be removed from the list when the body of groundwater concerned is no longer at risk from the corresponding pollutants, groups of pollutants, or indicators of pollution.

Any such changes to the list of threshold values shall be reported in the context of the periodic review of the river basin management plans.

7. The Commission shall publish a report by 22 Oecember 2009 at the latest on the basis of the information provided by Member States in accordance with paragraph 5.

Article 4

Procedure for assessing groundwater chemical status

1. Member States shall use the procedure described in paragraph 2 to assess the chemical status of a body of groundwater. Where appropriate, Member States may group bodies of groundwater in accordance with Annex V to Oirective 2000/60/EC when carrying out this procedure.

2. A body or a group of bodies of groundwater shall be considered to be of good chemical status when:

(a) the values for the groundwaterquality standardslisted in Annex I and the relevant threshold values established in accordancewith Article 3 and Annex II are not exceeded at any monitoringpoint in that body or group of bodies of groundwater;or

(b) the value for a groundwaterquality standardor threshold value is exceeded at one or more monitoringpoints but an appropriateinvestigationin accordancewith Annexm confirmsthat:

(i) on the basis of the assessmentreferred to in paragraph3 of Annex m, the concentrations of pollutants exceeding the groundwater quality standards or threshold values are not considered to present a significant environmental risk, taking into account, where appropriate, the extent of the body of groundwater which is affected;

(ii) the other conditions for good groundwaterchemical status set out in Table 2.3.2 in AnnexV to Directive2000/60/ECare being met, in accordance with paragraph4 of Annexm to this Directive;

(iii) where appropriate, the requirements of Article 7(3) of Directive 2000/60/EC are being met, in accordance with paragraph4 of Annex III to this Directive;

(iv) the ability of the body of groundwater or of any of the bodies in the group of bodi~ of groundwater to support human uses has not been significantly impaired by pollution.

3. Member States shall publish a summary of the assessment of groundwater chemical status in the river basin management plans in accordance with Article 13 of Directive 2000/60/EC.

This summary, established at the level of the river basin district or the part of the international river basin district falling within the territory of a Member State, shall also include an explanation as to the manner in which exceedances of groundwater quality standards or threshold values at individual monitoring points have been taken into account in the final assessment.

4. If a body of groundwater is classified as being of good chemical status in accordance with paragraph 2(b), Member States, in accordance with Article 11 of Directive 2000/60/EC, shall take such measures as may be necessary to protect aquatic ecosystems, terrestrial ecosystems and human uses of groundwater dependent on ~e part of the body of groundwater represented by the monitoring point or points at which the value for a groundwater quality standard or the threshold value has been exceeded.

Article 5

Identification of significant and sustained upward trends and the definition of starting points for trend reversa/s 1. Member States shall identify any significant and sustained upward trend in concentrations of pollutants, groups of pollutants or indicators of pollution found in bodies or groups of bodies of groundwater identified as being at risk and define the starting point for reversing that trend, in accordance with Annex IV.

2. MemberStates shall reverse trends which present a significantrisk of harm to the quality of aquatic ecosystemsor terrestrial ecosystems, to human health, or to actual or potential legitimateuses of the water environment, through the programmeof measures referred to in Article 11ofDjrective 2000/60/EC, in order progressively to reduce pollution of groundwater.

3. Member States shall define the starting point for trend reversal as a percentage of the level of the groundwater quality standards set out in Annex I and of the threshold values established pursuant to Article 3, on the basis of the identified trend and the environmental risk associated therewith, in accordance with Part B, paragraph 1 of Annex IV.

4. In the river basin management plans to be submitted in accordance with Article t 3 of Directive 2000/60/EC, Member States shall summarise:

(a) the way in which the trend assessment from individual monitoring points within a body or a group ofbodies of groundwater has contributed to identifying, in accordance with Section 2.5 of Annex V to that Directive, that those bodies are subject to a sustained and significant upward trend in concentration of any pollutant or a reversal of that trend; and

(b) the reasons for the starting points defined pursuant to paragraph 3.

5. Where necessary to assess the impact of existing plumes of pollution in bodies of groundwater that may threaten the achievement of the objectives in Article 4 of Oirective 2000/60/EC, and in particular, those plumes resulting from point sources and contaminated land, Member States shall carry out additional trend assessments for identified pollutants in order to verify that plumes from contaminated sites do not expand, do not deteriorate the chemical status of the body or group ofbodies of groundwater, and do not present a risk for human health and the environment. The results of these assessments shall be summarised in the river basin management plans to be submitted in accordance with Article 13 of Oirective 2000/60/EC.

Article 6

Measures to prevent or limit inputs of poliutants into groundwater

I. In order to achieve the objective of preventing or limiting inputs of pollutants into groundwater, established in accordance with Article 4(1)(b)(i) of Oirective 2000/60/EC, Member States shall ensure that the programme of measures established in accordance with Article 11 of that Oirective includes:

(a) ali measures necessary to aim to prevent inputs into groundwater of any hazardous substances. In identifying such substances, Member States shall in particular take account of hazardous substances belonging to the families or groups of pollutants referred to in points 1 to 6 of Annex VIII to Directive 2000/60/EC, as well as of substances belonging to the families or groups of pollutants referred to in points 7 to 9 of that Annex, where these are considered to be hazardous;

(b) for pollutants listed in Annex VIII to Directive 2000/60/EC which are not considered hazardous, and any other non-hazardous pollutants not listed in that Annex considered by Member States to present an existing or potential risk of pollution, ali measures necessary to limit inputs into groundwater so as to ensure that such inputs do not cause deterioration of good groundwater chemical status, do not cause any significant and sustained upward trends in the concentrations of pollutants in groundwater, and do not otherwise cause pollution of groundwater. Such measures shall take account of established best practice, including the Best Environmental Practice and Best Available Techniques specified in the relevant Community legislation.

For the purpose of establishing measures referred to in points (a) o~ (b), Member States may, as a first step, identify the circumstances under which the pollutants listed in Annex VIII to Directive 2000/60/EC, in particular essential metals and their compounds referred to in point 7 ofthat Annex, are to be considered hazardous or non-hazardous.

2. Inputs of pollutants from diffuse sources of pollution having an impacton the groundwater chemical status shall be taken into account whenevertechnically possible.

3. Without prejudice to any more stringent requirements in other Community legislation, Member States may exempt from the measures required by paragraph 1 inputs of pollutants that are:

(a) the result of direct discharges authorised in accordance with Article 11(3)0) of Directive 2000/60/EC;

(b) considered by the competent authorities to be of a quantity and concentration so small as to obviate any present or future danger of deterioration in the quality of the receiving groundwater;

(c) the consequ, ences of accidents or exceptional circumstances of natural cause that could not reasonably have been foreseen, avoided or mitigated;

(d) the result of artificial recharge or augmentation of bodies of groundwater authorised in accordance with Article 11(3)(f) ofDirective 2000/60/EC;

(e) considered by the competent authorities to be not technically feasible to prevent or limit without using:

(i) measures that would increase risks to human health or to the quality of the environment as a whole; or

(ii) disproportionately costly measures to remove quantities of pollutants from, or otherwise control their percolation in, contaminated ground or subsoil; or

(f) the result of interventions in surface waters for the purposes, amongst others, of mitigating the effects off1oods and droughts, and for the management ofwaters and waterways, including at internationallevel. Such activities, including cutting, dredging, relocation and deposition of sediments in surface water, shall be conducted in accordance with general binding mles, and, where applicable, with permits and authorisations issued on the basis of such mles, developed by the Member States for that purpose, provided that such inputs do not compromise the achievement of the environmental objectives established for the water bodies concerned in accordance with Article 4(I)(b)(ii) of Directive 2000/60/EC.

4. The competent authorities of the Member States shall keep an inventory of the exemptions referred to in paragraph 3 for the purpose of notification, upon request, to the Commission.

Article 7 Transitional arrangements

In the period between ... ·and 22 December 2013, any new authorisation procedure pursuant to

Articles 4 and 5 of Directive 80/68/EEC shall take into accouilt the requirements set out in Articles 3, 4 and 5 of this Directive.

Article 8 Technical adaptations

Annexes 11,III and IV may be adapted to scientific and technical progress in accordance with the procedure referred to in Article 21(2) ofDirective 2000/60/EC, taking into consideration the period for reviewing and updating river basin management ptans, as referred to in Article 13(7) of that Directive.

Article 9 Implementation Member States shall bring into force the laws, regutations and administrative provisions necessary to comply with this Directive before ...*. They shall forthwith inform the Commission thereof.

When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

Article 10 Enlry inloforce

This Directiveshall enter into force on the twentiethday followingthat of its publication in the Official Journal of Ihe European Union.

Arlicle 11 Addressees

This Directive is addressed to the Member States. Done at ..., For Ihe European ParliamenI The PresidenI For Ihe Counci/ The PresidenI

ANNEX I GROUNDW ATER QUALITY STANDARDS

For the purposes of assessing groundwater chemical status in accordance with Artic1e 4,the following groundwater quality standards will be the quality standards referred to in Table 2.3.2 in Annex V to Directive 2000/60/EC and established in accordance with Artic1e 17 of that Directive.

Pollutant	Quality standards	Comment
Nitrates	50 mg/l	For activities falling within the scope of Directive 91/676/EEC, programmes and measures required in relation to this value (i.e. 50 mg/l) will be in accordance with that Directive ¹ .
Active substances in pesticides, including their relevant metabolites, degradation and reaction products 2	0,1 μg/l 0,5 μg/l (total) ³	

1- Activities outside the scope of Directive 91/676/EECare not covered by this provision.

²⁻ "Pesticides" means plant protection products and biocidal products as defined in Article 2 ofDirective 91/414/EEC and in Article 2 ofDirective 98/8/EC, respectively.

3- "Total" means the sum ofall individual pesticides detected and quantified in the monitoring procedure.

2 The results of the application of the quality standards for pesticides in the manner specified for the purposes of this Directive will be without prejudice to the results of the risk assessment procedures required by Directive 91/414/EEC or Directive 98/8/EC.

3 Where, for a given body of groundwater, it is considered that the groundwater quality standards could result in failure to achieve the environmental objectives specified in Article 4 of Directive 20()0/60/EC for associated bodies of surface water, or in any significant diminution of the ecological or chemical quality of such bodies, or in any significant damage to terrestrial ecosystems which depend directly on the body of groundwater, more stringent threshold values will be established in accordance with Article 3 and Annex 11to this Directive. Programmes and measures required in relation to such a threshold value will also apply to activities falling within the scope of Directive 91/676/EEC.

ANNEX II THRESHOLD VALUES FOR GROUNDWATER POLLUT ANTS ANDINDICATORS OF POLLUTION

PART A: GUIDELINES FOR THE ESTABLISHMENT OF THRESHOLD VALUES BY MEMBER STATESIN ACCORDANCE WITH ARTICLE 3

Member States will establish threshold values for all pollutants and indicators of pollution which, pursuant to the characterisation performed in accordance with Article 5 of Directive 2000/60IEC, characterise bodies or groups ofbodies of groundwater as being at risk offailing to achieve good groundwater chemical status.

Threshold values will be established in such a way that, should the monitoring results at a representative monitoring point exceed the thresholds, this will indicate a risk that one or more of the conditions for good groundwater chemical status referred to in Article 4(2)(b) (ii), (iii) and (iv) are not being met

When establishing threshold values, Member States will consider the following guidelines:

- 1. The determination of threshold values should be based on:
- (a) the extent of interactions between groundwater and associated aquatic and dependent terrestrial ecosystems;
- (b) the interference with actual or potentiallegitimate uses or functions of groundwater;
- (c) ali pollutants which characterise bodies of groundwater as being at risk, taking into account the minimum list set up in part B;

(d) hydro-geological characteristics including information on background values and water balance.

2. The determination of threshold values should also take account of the origins of the pollutants, their possible natural occurrence, their toxicology and dispersion tendency, their persistence and their bioaccumulation potential.

3. The determination ofthreshold values should be supported by a control mechanism for the data collected, based on an evaluation of data quality, analytical considerations, and background levels for substances which may occur both naturally and as a result of human activities.

PART B: MINIMUM LIST OF POLLUTANTSANDTHEIR INDICATORS FOR WHICH MEMBER STATES HAVE TO CONSIDER ESTABLISHING THRESHOLD VALUES IN ACCORDANCE WITH ARTICLE 3

1. Substan~es or ions which may occur both naturally and 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 1 Conductivity

With regard to saline concentrations resulting from human activities, Member States may decide to establish threshold values either for sulphate and chloride or for conductivity.

PART C :INFORMA TION TO BE PROVIDED BY MEMBER STATES WITH REGARD TO THE POLLUT ANTS AND THEIR INDICA TORS FOR WHICH THRESHOLD VALUES HAVE BEEN ESTABLISHED

Member States will summarise, in the river basin management plans to be submitted in accordance with Article 13 of Directive 2000/60/EC, the way the procedure set out in Part A of this Annex has been followed.

In particular, MemberStateswill provide, where feasible:

(a) information on the number of bodies or groups ofbodies 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 levei, at the levei 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 levei of a body or a group ofbodies of groundwater;

- (c) the relationship between the threshold values and:
- (i) in the case of naturally-occurringsubstances, the observedbackgroundlevels,
- (ii) the environmental quality objectives and other standards for water protection that exist at national, Community or internationallevel, and
- (iii)any relevant information concerning the toxicology, eco-toxicology, persistence, bioaccumulation potential, and dispersion tendency of the pollutants.

ANNEX III ASSESSMENT OF GROUNDW ATER CHEMICAL STATUS

1. The assessment procedure for determining the chemical status of a body or a group of bodies of groundwater will be carried out in relation to all bodies or groups ofbodies of groundwater characterised as being at risk and in relation to each of the pollutants whichcontribute to the body or group of bodies of groundwater being so characterised.

2. In undertakingany investigations referred to in Article 4(2)(b),Member States will take into account:

(a) the information collected as part of the characterisation to be carried out in accordance with Article 5 of Directive 2000/60/EC and with .8ections 2.1, 2.2 and 2.3 of Annex 11thereto;

(b) the results of the groundwater monitoring network obtained in accordance with Section 2.4 of Annex V to Directive 2000/60/EC; and

(c) any other relevant information including a comparison of the annual arithmetic mean concentration of the relevant pollutants at a monitoring point with the groundwater quality standards set out in Annex I and the threshold values set by Member States in accordance with Article 3 and Annex 11.

3. For the purposes of investigating whether the conditions for good groundwater chemical status referred to in Article 4(2)(b)(i) and (iv) are met, Member States will, where relevant and necessary, and on the basis of appropriate aggregations of the monitoring results, supported where necessary by concentration estimations based on a conceptual model of the body or group of bodies of groundwater, estimate the extent of the body of groundwater having an annual arithmetic mean concentration of a pollutant higher than a groundwater quality standard or a threshold value.

4. For the purposes of investigating whether the conditions for good groundwater chemical status referred to in Article 4(2)(b)(ii) and (iii) are met, Member States will, where relevant and necessary, and on the basis of relevant monitoring results and of a suitable conceptual model of the body of groundwater, assess:

(a) the amounts and the concentrations of the pollutants being, or likely to be, transferred from the body of groundwater to the associated surface waters or directly dependent terrestrial ecosystems;

(b) the likely impact of the amounts and concentrations of the pollutants transferred to the associated surface waters and directly dependent terrestrial ecosystems;

(c) the extent of any saline or other intrusions into the body of groundwater; and

(d)the risk from pollutants in the body of groundwater to the quality ofwater abstracted, or intended to be abstracted, from the body of groundwater for human consumption.

5. Member States will present the groundwater chemical status of body or a group ofbodies of groundwater on maps in accordance with Sections 2.4.5 and 2.5 of Annex V to Oirective 2000/60/EC. In addition, Member States will indicate on these maps all monitoring points where groundwater quality standards and/or threshold values are exceeded, where relevant and feasible.

ANNEX IV IDENTIFICATION AND REVERSAL OF SIGNIFICANT AND SUSTAINED UPWARD TRANDS

PART A: Identification of sifnificant and sustained upwrad trends

Member States will identify significant and sustained upward trends in all bodies or groups of bodies of groundwater that are characterised as being at risk in accordance with Annex II to Oirective 2000/60/EC, taking into account the following requirements:

in accordance with Section 2.4 of Annex V to Oirective 2000/60/EC, the monitoring programme will be so designed as to detect significant and sustained upward trends in concentrations of the pollutants identified pursuant to Article 3 of this Directive;
 the procedure for the identification of significant and sustained upward trends will be based on the following elements:

(a) monitoring frequencies and monitoring locations will be selected such as are sufficient to:

(i) provide the information necessary to ensure that such upward trends can be distinguished from natural variation with an adequate level of confidence and precision;

(ii) enable such upward trends to be identified in sufficient time to allow measures to be implemented in order to prevent, or at least mitigate as far as practicable, environmentally significant detrimental changes in groundwater quality. This identification will be carried out for the first time by 2009, if possible, and will take into account existing data, in the context of the report on trend identification within the first river basin management plan referred to in Article 13 ofDirective 2000/60/EC, and at least every six years thereafter;

(iii) take into account the physical and chemical temporal characteristics of the body of groundwater, including groundwater flow conditions and recharge \ rates and percolation time through soil or subsoil.

(b) the methods of monitoring and analysis used will conform to' international quality control principles, including, if relevant, CEN or national standardised methods, to ensure equivalent scientific quality and comparability of the data provided;

(c) the assessment will be based on a statistical method, such as regression analysis, for trend analysis in time series of individual monitoring points;

(d) in order to avoid bias in trend identification, all measurements below the quantification limit will be set to half of the value of the highest quantification limit occurring in time series, except for total pesticides;

3. the identification of significant and sustained upward trends in the concentrations of

substances which occur both naturally and as a result of human activities will consider the data collected before the start of the monitoring programme in order to report on trend identification within the first river basin management plan referred to in Article 13 of Directive 2000/60/EC, where such data is available.

PART B: STARTINGPOINTSFOR TRENDREVERSALS

According to Article 5, Member States will reverse identified significant and sustained upward trends where these trends present a risk of harm to associated aquatic ecosystems, to directly dependent terrestrial ecosystems, to human health or to actual or potentiallegitimate uses of the water environment, taking into account the following requirements:

I. the starting point for implementing measures to reverse significant and sustained upward trends will be when the concentration of the pollutant reaches 75% of the parametric values of the groundwater quality standards set out in Annex I and of the threshold values established pursuant to Article 3, unless:

(a) an earlier starting point is required to enable trend reversal measures to prevent most cost-effectively, or at least mitigate as far as possible, any environmentally significant detrimental changes in groundwater quality;

(b) a different starting point is justified where the detection limit does not allow for establishing the presence of a trend at 75% of the parametric values; or

(c) the rate of increase and the reversibility of the trend are such that a later starting point for trend reversal measures would still enable such measures to prevent most cost-effectively, or at least mitigate as far as possible, any environmentally significant detrimental changes in groundwater quality.

For activities falling within the scope of Directive 911676/EEC, the starting point for implementing measures to reverse significant and sustained upward trends will be established in accordance with that Directive and with Directive 2000/60/EC;

2. once a starting point has been established for a body of groundwater characterised as being at risk in accordance with Section 2.4.4 of Annex V to Directive 2000/60/EC and pursuant to Part B, paragraph I of this Annex, it will not be changed during the six-year cycle of the river basin management plan required in accordance with Article 13 of Directive 2000/60/EC;

3. trend reversals will be demonstrated, taking into account relevant monitoring provisions contained in Part A, paragraph 2.

27.4.2006 EUROPEAN PARLIAMENT 2004 - 2009 Session document FINAL A6-0146/2006 *** II

RECOMMENDATION FOR SECOND READING

on the Council common position for adopting a directive of the European Parliament and of the Council on the protection of groundwater against pollution (12062/1/2005 - C6-0055/2006 - 2003/0210(COD)) Committee on the Environment, Public Health and Food Safety Rapporteur: Christa KlaB RR\367996EN .doe PE 367.996v02-00 EN EN Symbols for procedures

* Consultation procedure

majority of the votes cast

- **I Cooperation procedure (first reading) majority of the votes cast
- **II Cooperation procedure (second reading) majority of the votes castoto approve the common position majority of Par/iament 's component Members. to reject or amend the common position
- *** Assent procedure majority of Par/iament 's component Members except in cases covered by Articles 105. 107. 161 and 300 of the EC Treaty and Article 7 of the EU Treaty
- ***IICodecision procedure (first reading) majority of the votes cast
- ***II Codecision procedure (second reading) majority of the votes cast, to approve the common position majority of Par/iament's component Members. to reject or amend the common position
- ***III Codecision procedure (third reading)
 - majority of the votes castoto approve the joint text

(The type of procedure depends on the legal basis proposed by the Commission.) Amendments to a legislative text In amendments by Parliament, amended text is highlightedin bold italics. Highlighting in normal ita/ics is an indication for the relevant departments showing parts of the legislative text for which a correction is proposed, to assist preparation of the final text (for instance, obvious errors or omissions in a given language version). These suggested corrections are subject to the agreement of the departments concerned.

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DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION on the Couneil eommon position for adopting a directive of the European Parliament and of the Couneil on the protection of groundwater against pollution (12062/112005 - C6-0055/2006-2003/0210(COD»

(Codeeision procedure: second reading)

The European Parliament,

having regard to the Council common position (12062/112005- C6-0055/2006), having regard to its position at first reading1 on the Commission proposal to Parliament and the Council (COM(2003)0550)2,

having regard to the amended Commission proposal (COM(2005)0282)3,

having regard to Article 251(2) of the EC Treaty,

having regard to Rule 62 of its Rules of Procedure,

having regard to the recommendation for second reading of the Committee on the Environment, Public Health and Food Safety (A6-0146/2006),

1. Approves the common position as amended;

2. Instructs its President to forward its position to the Council and Commission.

Council common position Amendments by Parliament

Amendment 1 Title

Proposal for a directive of the European Parliament and of the Council on the protection of groundwater against pollution Proposal for a directive of the European Parliament and of the Council on the protection of groundwater against pollution and deterioration

Justification

Reinstatement of Amendment 1 from the first reading, adopted on 28 April 2005. The precautionary principle and the minimisation of pollution are central to European water policy. Accordingly, clarification is needed that the directive deals with the protection of groundwater against both pollution and deterioration. The distinction between prevention and restoration has clearly not been properly understood. Prevention is particularly important because the purification of groundwater -iffeasible at all - is a very costly and time-consuming processo.

Amendment 2 Recital 1

(1) Groundwater is a valuable natural resource which should be protected from chemical pollution. This is particularly important for groundwater-dependent ecosystems and for the use of groundwater in water supply for human consumption.

(1) Groundwater is a valuable natural resource and as such must be protected from deterioration and chemical pollution. This is particularly important for groundwaterdependent ecosystems and for the use of groundwater in water supply for human consumption.

Justification

Reinstatement of Amendment 2 from the first reading, adopted on 28 April 2005.

These additional changes are particularly important because bodies of groundwater are independent ecosystems and must be protected as such. This must be clearly stated at least once.

Amendment 3 Recital 1 a (new)

(1a) Groundwater is the most sensitive and the largest body offreshwater in the European Union and in particular also the primary source of public drinking water supplies. The levei of protection against new discharges, emissions and losses must be at least comparable to that for surface water of good chemical status. Pollution or deterioration frequently gives rise to irreversible damage.

Justification

Reinstatement of Amendment 4from thefirst reading, adopted on 28 April 2005. In some EU Member States, e.g. Austria and Germany, drinking water is largely drawn from groundwater and in most cases supplied directly to consumers with no chemical treatment. Any treatment processes which are carried out are merely intended to prevent corrosion, by removing iron and manganese, or to improve the appearance/taste of the water; they do not involve purification.

Amendment 4

Recital1 b (new)

(lb) Groundwater must be protected in such a way that good quality drinking water can be achieved by simple purification, as specified in the objectives set out in Article 7(2) and (3) of Directive 2000/60/EC of the European Parliament and of the Council of 23 October2000 establishing aframework for Community action in thefield of water policy¹ ¹ OJ L 327, 22.12.2000, p. 1. Directive amended by DecisionNo 2455/2001/EC(OJL 331, 15.12.2001, p.1).

Justification

Reinstatement of Recital 2 in the text adopted by the European Parliament atfirst reading. Groundwater is the most important source of drinking water in Europe. Measures to protect groundwater should therefore be preventive and designed topreserve this situation and improve matters where this is not the case.

Amendment 5

Recital 3

(3) In order to protect the environment as a whole, and human health in particular, detrimental concentrations of harmful pollutants in groundwater should be avoided, prevented or reduced.

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Amendment 6

Recital 6 a (new)

(6a) The protection of groundwater may in some areas require a change in farming orforestry practices, which could entail a loss of income. This issue should be addressed when the rural development plans under the reformed common agricultural policy are drawn up.

Justification

Reinstatement of Amendment 8from thefirst reading, adopted on 28 April 2005. Annex Ilays down binding groundwater quality standards only in respect of nitrates and pesticides. These substances are chiejly released as a result offarming practices. The reports on the implementation of the nitrates directive showjust how difficult, costly and time-consuming the process of reducing such pollution is. Community aid must therefore be provided under the CAPo

Amendment 7 Recital 13

(13) In certain circumstances, Member States should be authorised to grant exemptions from measures to prevent or limit the input of pollutants into groundwater.

(13) Member States which in certain circumstances grant exemptions from measures to prevent or limit the input of pollutants into groundwater should do so on the basis of appropriate, evident and transparent criteria and justify these exemptions in the river basin management plans.

Justification

Recital 13, which was inserted only in the Council draft, isformulated toa vaguely and gives the impression that it might be possible to grant exemptions arbitrarily. The amendment adopts the wording of Recital 30 in the Water Framework Directive and clearly indicates the needfor exemptions to be based on transparent criteria.

Amendment 8

Recital 13 a (new)

(13a) The impact on the environmental protection level and on the functioning of the internal market of different groundwater quality standards (threshold values), as applied by the Member States following their revision, should be analysed.

Justification

Reinstatement of Amendment 9from the first reading, adopted on 28 April 2005. This EP cal! is al! the morepressing because, according to the common position, the Member States wil/ befree to decide whether to lay down threshold values and, if so, for which substances /isted in Annex IL Part B.

Amendment 9

Recital 13 b (new)

(13b) Research should be conducted in order to provide better criteriafor ensuring groundwater ecosystem quality and protection. Where necessary, the findings obtained should be taken into account when implementing or revising this Directive.

Justification

Reinstatement of Amendment 95 from the first reading, adopted on 28 April 2005.

Amendment 10

Recital 14 a (new)

(14a) In Une with Article 11(3)(1)of Directive 2000/60/EC, groundwater storage and recovery should be considered as an allowable practice under permit and acknowledged as a valuable method of water resources management.

Justification

Retabling recital 15, as adopted by the European Parliament infirst reading. Artificial recharge schemesfor groundwater bodies are used as a natural regulating system by providing storage for surface water, and hereby levelling out the seasonal variations of the surface water availability and providing a steady and sustainable source for production of drinking water. The acknowledgement of allowing this practice under permit needs to be emphasized.

Amendment 11

Article 2, point 3

(3) 'significant and sustained upward trend' means any statistically significant increase Dfconcentration of a pollutant, group of pollutants, or indicator of pollution, which presents an environmental risk for which trend reversal is identified as being necessary in accordance with Article 5;

(3) 'significant and sustained upward trend' means any statistically and environmentally significant increase of concentration of a pollutant, group of pollutants, or indicator of pollution in groundwater for which trend reversal is identified as being necessary in accordance with Article 5;

Justification

Reinstatement of Amendment 18 from the first reading, adopted on 28 April 2005.

Theproposed amendment would require Member States tofocus their efforts on reversing trends which might have environmental/y significant consequences. This approach would also be effective in environmental and cost terms. Retaining the words 'which presents an environmental risk' would amount to acceptance of a 'topping-up trend '.

Amendment 12 Article 2, point 4 a (new)

(4a) 'deterioration' means any slight, anthropogenically induced and persistent increase in concentrations of pollutants in relation to the status quo in the groundwater.

Justification

Reinstatement of Amendment 21 from the first reading, adopted on 28 April 2005.

All the terms used in the legislative text and which arefundamental to the interpretation of the legislative text and the purpose of the directive must be defined. In the water framework directive, Article 2, point 33, defines only the term 'pollution '. This gives rise to conceptual confusion - not least in the water framework directive itself - which may have a significant bearing on groundwater protection.

Amendment 13

Article 2, point 4 b (new)

(4b) 'background concentration' means the concentration of a substance in a groundwater body corresponding to no, or only very minor, anthropogenic alterations to undisturbed conditions.

Justification

Reinstatement of Amendment 22 from the first reading, adopted on 28 April 2005. All the terms used in the legislative text and which arefundamental to the interpretation of the legislative text and the purpose of the directive must be defined. The wording has been brought into line with that of the common position.

Amendment 14 Article 2, point 4 c (new)

(4c) 'the baseline concentration ' of a substance in a groundwater body is the average concentration measured during the reference years 2007 and 2008 on the basis of the monitoring programmes established under Article 8 of Directive 2000/60/EC.

Justificattion

Reinstatement of Amendment 24 from the first reading, adopted on 28 April 2005. All the terms used in the legislative text and which arefundamental to the interpretation of the legislative text and the purpose of the directive must be defined.

Amendment 15

Artic1e3, paragraph 1, subparagraph 1 a (new)

The groundwater quality standards and threshold values applicable to good chemical status shall be based on the human and ecotoxicological cr;ter;a underp;nn;ng the defin;t;on of pollut;on ;n Art;cle 2(33) of D;rect;ve 2000/60/EC.

Justification

Reinstatement of Amendment 27. from the first reading, adopted on 28 April 2005.

The criteria governing admissible concentrations of pollutants in groundwater which are not sufficient to alter good chemical status must be based on the concept of risk underpinning the definition of pollution in Article 2(33) of the water.framework directive. The general expert view is that this threshold is defined by the human and ecotoxicological threshold values for groundwater.

Amendment 16 Artic1e4, paragraph 2, point (a)

(a) the values for the groundwater quality standards listed in Annex I and the relevant threshold values established in accordance with Artic1e3 and Annex II are not exceeded at any monitoring point in that body or group of bodies of groundwater; or RR\367996EN.doc

(a) the values for the groundwater quality standards listed in Annex I and the relevant threshold values established in accordance with Artic1e3 and Annex II are not exceeded at any monitoring point in that body or group of bodies of groundwater and, on the basis of relevant mon;tor;ng results, there is no ev;dence that the cond;t;ons set out ;n po;nt 2.3.2.of Annex V to Directive 2000/60/EC are not being met, or

Justification

Available information and monitoring resultsfor surface waters and terrestrial ecosystems should be systematically used to supplement the relatively sparse information on chemical status based on groundwater monitoring networks. Based on EP amendments 29 and 65.

Amendment 17

Article 4, paragraph 2, point (b) (iii)

(iii) where appropriate, the requirements of Article 7(3) of Directive 2000/60/EC are being met, in accordance with paragraph 4 of Annex IU to this Directive;

(iii) the requirements of Article 7(3) of Directive 2000/60/EC are being met, in accordance with paragraph 4 of Annex IU to this Directive;

Justification

These words should be deleted to ensure that ali groundwater identified for drinking water abstraction is alwaysfully protected. Reinstates parts of Parliament 's amendment 29, to ensure that ali groundwater identified for drinking water abstraction is always fully protected.

Amendment 18 Article 4, paragraph 2 a (new)

2a. Where, in a body or group of bodies of groundwater, the natural geogenically determined levels of pollutants or indicators of pollution for which threshold values have been laid down pursuant to Part B of Annex II, are above these values, the natural contents plus the prescribed threshold values shall define the point of transition from good to poor status.

Justification

Reinstatement of Amendment 91 from the first reading, adopted on 28 April 2005.

Since naturallevels of pollutants, which differ very widely in Europe, cannot be taken into account when quality standards are laid down, it must be made clear what should happenif the naturallevels - the so-called background concentrations - already exceed the quality standards. In such cases, the higher naturallevels should be regarded as the quality standard/threshold value.

Amendment 19 Article 4, paragraph 2 b (new)

2b. Compliance with the standards shall be based on a comparison with the arithmetic means o/ the monitoring values at each of the measurement points in the body or group of bodies of groundwater characterised as being at risk pursuant to the analysis to be carried out under Article 5 of Directive 2000/60/EC. Measurements at individual points which are not compliant with the standard shall determine the classification only where the measurement point is, according to expert verification pursuant to Annex I and Annex II to this Directive, representative of the pollution of the body of groundwater or a part thereof.

Justification

Reinstatement of Amendment 28 from the first reading, adopted on 28 April 2005.

Classification of the body of groundwater as having good or poor status on the basis of measurements is a keyfeature of the directive. Theprovisions governing classification must therefore be absolutely clear. 1fa measuring point is not representative of the body of groundwater, or at least apart of it, it will not be used to determine classification. Classification of a body of groundwater thus also always requires an assessment by experts.

Amendment 20 Article 4 a (new) Article 4ª Revision of the list of groundwater quality standards set out in Annex I and of the list of threshold values which the Member States must lay down pursuant to Annex. 11 Five years after the entry into force of this Directive and thereafter every six years,the Commission shall:

- review the list of groundwater quality standards set out in Annex I and the list of threshold values laid down pursuant to Part B of Annex 11011the basis, in particular, of the information provided by the Member States through the management plans, scientific and technical progress and an opinion of the commiUee referred to in Article 16(5) of Directive 2000/60/EC;

- draw up, taking particular account of the comparability of the threshold values laid down by the Member States, the impact of those threshold values on the competitiveness of the economic sectors concerned, compliance with the deadlines laid down and an assessment of the progress made towards reducing groundwater pollution, a summary report and, if necessary, submit proposals for adirective amending the list of pollutants, groups ofpollutants and indicators of pollution and/or related pollutant concentrations in accordance with the procedure laid down in Article 251 of the Treaty.

Justification

Reinstatement of Amendment 36 from the jirst reading, adopted on 28 April 2005.

This amendment is intended to ensure that the list of pollutants and groundwater quality standards (threshold values) are reviewed at regular intervals and that Parliament is involved in the legislative processo However, it is also essential that the threshold values to be laid down by the Member States should be assessed on the basis of competition-related considerations. The wording of the amendment has been brought into line with the terminology used and deadlineslaid downin the commonposition.

Amendment 21

Article 5, paragraph 2

2. Member States shall reverse trends which present a significant risk of harm to the quality of aquatic ecosystems or terrestrial ecosystems, to human health, or to actual or potentiallegitimate uses of the water environment, through the programme of measures referred to in Article 11 of Directive 2000/60/EC, in order progressively to reduce pollution of groundwater.

2. Member States shall reverse trends which present, by comparison with the baseline concentration, a significant risk ofharm to the quality of aquatic ecosystems or terrestrial ecosystems, to human health, or to actual or potential legitimate uses of th~ water environment, through the programme of measures referred to in Article 11 ofDirective 2000/60/EC, in order progressively to reduce pollution and prevent deterioration of groundwater.

Justification

Reinstatement of Amendment 38 from thefirst reading, adopted on 28 April 2005. Theprogramme of measures must also seek to prevent deterioration (see Article 1(2) of the common position).

Amendment 22 Article 6, paragraph 1, subparagraph 1, point (a)

(a) all measures necessary to aim to prevent inputs into groundwater of any hazardous substances. In identifying such substances, Member States shall in particular take account of hazardous substances belonging to the families or groups of pollutants referred to in points 1 to 6 of Annex VIII to Directive 2000/60/EC, as well as of substances belonging to the families or groups of pollutants referred to in points 7 to 9 of that Annex, where these are considered RR\367996EN .doe

(a) all measures necessary to prevent inputs into groundwater of any hazardous substances. In identifying such substances, Member States shall in particular take account of hazardous substances belonging to the families or groups of pollutants referred to in points 1 to 6 of Annex VIII to Directive 2000/60/EC, as well as of substances belonging to the families or groups of pollutants referred to in points 7 to 9 of that Annex,where these are considered

to be hazardous; to be hazardous. Substances which have beenauthorisedunder an EU authorisation procedure on the basis of a risk assessment for groundwater or compliance with a precautionary value for preserving the purity of groundwater or which are currently undergoing such an authorisation procedure shall not be classified as hazardous for the purposes of this Directive;

Justification

If a substance has already been assessed under an authorisation procedure governed by European law by means of intensive studies to ascertain its harmlessness to groundwater and found to be safe, and its use has been authorisedfor precisely dejined purposes, it would be contradictory to classify it elsewhere in Community law as 'hazardous'. Theproposed amendment is therefore intended to ensure that Community law is coherent

The phrase "aim to" creates legal uncertainty and weakens the existing regime provided for by Directive 80/68/EEC. The amendment re-instates the Parliament's jirst reading position on Article 6 and brings the legislation in line with Art. 3 and 4 of the existing Groundwater Directive 80/68/EEC.

Amendment 23

Article 6, paragraph 1, subparagraph 1, point (b)

(b) for pollutants listed in Annex VIII Directive 2000/60/EC which are not considered hazardous, and any other nonhazardous pollutants not listed in that Annex considered by Member States to present an existing or potential risk of pollution, all measures necessary to limit inputs into groundwater so as to ensure that such inputs do not cause deterioration of good groundwater chemical status, do not cause any significant and sustained upward trends in the concentrations of pollutants in groundwater and do not otherwise cause pollution of groundwater.

(b) for pollutants listed in Annex VIII to Directive 2000/60/EC which are not considered hazardous, and any other nonhazardous pollutants not listed in that Annex considered by

Member States to present an existing or potential risk of pollution, all measures necessary to limit inputs into groundwater so as to ensure that such inputs do not cause deterioration of groundwater. Such measures shall take account, at least, of established best practice, including the Best Environmental Practice and Best Available Techniques specified in the relevant Community

Such measures shall take account of established best practice, including the Best Environmental Practice and Best Available Techniques specified in the relevant Community legislation.

legislation.

Justification

Theprevention offresh instances of the deterioration and/or pollution of groundwater by new inputs is the key area covered by this directive (and aiready by Directive 80/68/EEC, which will cease to apply in 2013). The relevant emissions principie should be based strictly on the precautionary principie, the principie of prevention and the principie of combating environmentaipollution, as iaid down in the EC Treaties.

Amendment 24 Article 6, paragraph 1, subparagraph 2

For the purpose of establishing measures referred to in points (a) or (b), Member States may, as afirst step, identify the circumstances under which the pollutants listed in Annex VIII to Directive 2000/60/EC, in particular essential metais and their compounds referred to in point 7 of that Annex, are to be considered hazardous or non-hazardous.

deleted Justification The wording should be deleted because it creates confusion. Procedures to identify hazardous substances are clearly iaid down in the existing directive and in the Water Framework Directive. Water Framework Directive dejinitions and established Community procedures for . identifying hazardous substances must be respected for groundwater

Amendment 25 Article 6, paragraph 1, subparagraph 2 a (new)

The programme of measures may comprise appropriate measures of a legal, administrative or contractual nature.

Justification

Reinstatement of Amendment 40 from the first reading, adopted on 28 April 2005. In thefield of woundwater protection, in addition to legal and administrative instruments, voluntary and contractual measures based on cooperation are increasingly proving their worth. In the interests of effective groundwater protection, and with due regard for the principle of proportionality, priority should be given to contractual and cooperative instruments in cases when they can be used to achieve objectives to the same dewee.

Amendment 26 Article 6, paragraph 2

2. Inputs of pollutants from diffuse sources of pollution having an impact on the groundwater chemical status shall be taken into account whenever technically possible. deleted Justification Those words should be deleted because they weaken controls on diffuse pollution and create legal uncertainty. Very small quantities of pollutants, which do not pose a risk, are already covered by the exemptions inparawaphs 3 a-d.

Amendment 27 Article 6, paragraph 3, point (f)

(f) the result of interventions in surface waters for the purposes, amongst others, of mitigating the effects of floods and droughts, and for the management of waters and waterways, including at internationallevel.Such activities, including cutting, dredging, relocation and deposition of sediments in surface water, shall be conducted in accordance with general binding mles, and, where applicable, with permits and authorisations issued on the basis of such mles, developed by the Member States for that purpose, provided that such inputs do not compromise the achievement of the environmental objectives established for the water bodies concerned in accordance with Article 4(1)(b)(ii) ofDirective 2000/60/EC.

(f) the result of interventions in surface waters for the purposes, amongst others, of mitigating the effects of floods and droughts, and for the management of waters and waterways, including at internationallevel. Such activities, including cutting, dredging, relocation and deposition of sediments in surface water, shall be conducted in accordance with general binding mles, and, where applicable, with permits and authorisations issued on the basis of such mles, developed by the Member States for that purpose, provided that such inputs do not compromise the achievement of the environmental objectives established for the water bodies concerned in accordance with Article 4(1)(b) of Directive 2000/60/EC.

Justification

The whole of subparagraph (I)(b) is relevant, i.e. not only point (ii) but also points (i) 'prevention' and (iii)'upward trend resultingfrom the impact ofhuman activity'.

Amendment 28

Article 6, paragraph 3, subparagraph 1 a (new) The exemptions provided for in points (a) to (f) may be granted only where the Member States' competent authorities have established that the groundwater, and in particular its quality, is being monitored.

Justification

Reinstatement of Amendment 46from thefirst reading, adopted on 28 April 2005. This reservation concerning the monitoring of inputs which maypose a risk to groundwater, which is contained in Directive80/68/EEC, has notyet been incorporated into Directive 2000/68/EC or this directive. It is, however, the most important instrument for ensuring that the precautionary provisions are implemented and enforced. Article 8 of Directive 2000/60/EC covers only general quality monitoring of the status of bodies of groundwater and cannot, as a rule, be used to regulate such inputs.

Amendment 29

Artic1e6, paragraph 4

4. The competent authorities of the Member States shall keep an inventory of the exemptions referred to in paragraph 3 for the purpose of notification, upon request, to the Commission.

4. The competent authorities of the Member States shall keep an inventory of the exemptions referred to in paragraph 3 for the purpose of notification, upon request, to the Commission and shall provide a summary of exemptions in addition to the programme ofmeasures used under Article 11 of Directive 2000/60/EC.

Justification

Following the general principie of the WaterFramework Directive the application of exemptions must always be reported

Amendment 30 Artic1e6 a (new) Article 6a

Measurement methods

1. Each Member State shall submit to the Commission a complete description of measurement methodsfor each of the substances for which a Community-wide or national groundwater quality standard has been set.

2. The Commission shall determine whether the measurement methods are fully comparable and whether differences between methods may lead to distortions likely to causefaulty or unequal application of this Directive in the Community. Local climate conditions and soil types shall be the decisivefactors.

3. On the basis of itsfindings, the Commission shall approve or reject the measurement methods submitted by the Member States.

4. Jf the Commission rejects the measurement methods submitted by a Member State, that Member State shall submit revised measurement methods for approval by the Commission in accordance with the provisions of paragraphs 1 to 3.

5. Approved measurement methods shall be operational in all Member States by the date specified in Article 8 of the Directive 2000/60/EC.

Justification

Reinstatement of Amendment 41 from the jirst reading, adopted on 28 April 2005. Agreement on techniques for measuring groundwater pollution is essent for equal and fair transposition of this directive. Each Member State should measure pollution on the basis of comparable threshold values. The Commission should therefore be given the authority to approve measurement techniques, provided that these are equivalent with regard to environmental goals.

Amendment 31 Artic1e6 b (new) Article 6b

Research and dissemination The Commission, in agreement with the Member States, shall encourage the dissemination of known methods of measuring and calculating parameters for the description and monitoring of aquifers and shall promote new research to improve the technologies availablefor the monitoring and management of groundwater bodies and their quality, including with regard to groundwater ecosystems.

Justification

Reinstatement of Amendment 100from thejirst reading, adopted on 28 April 2005. Parliament regards it as essential that Community research programmes should earmark morefunding for research into groundwater as an ecosystem.

> Amendment 32 Artic1e6 c (new) Article 6c water sources

Protection of spas and medicinal water sources

The Commission and the Member States shall establish a common methodology for defining protection areasfor aquifers which supply spas and medicinal water sources, with the aim of ensuring that these areas are respected when industrial and urban activities are planned.

Justification

Spas and medicinal water sources were not inc/uded in the Commission 'sproposal despite thefact that they are the highest quality waters in the European Union. Special protection needs to be introduced for aquifers which supply them and preventive measures adopted at surface level.

Amendment 33

Article 8

Annexes 11,111 and IV may be adapted to scientific and technical progress in accordance with the procedure referred to in Artic1e21(2) of Directive 2000/60/EC, taking into consideration the period for reviewing and updating river basin management plans, as referred to in Article 13(7) of that Directive.

Part A of Annex 11and Annexes 111and IV may be adapted to scientific and technical progress in accordance with the procedure referred to in Artic1e21(2) of Directive 2000/60/EC, taking into consideration the period for reviewing and updating river basin management plans, as referred to in Artic1e 13(7) of that Directive.

Justification

Reinstatement of Amendment 55 from the jirst reading, adopted on 28 April 2005.

Part A should be covered by the comitology procedure, but Part B should notoPart B of Annex IL whichthe Counci/ has reworded, contains the list of substancesfor which the Member States must at least lay down groundwater quality standards (threshold values). That list cannot be amended using the comitology procedure, but only in accordance with the procedure laid down in Article 251 of the Treaty, on the basis of codecision with Parliament.

Amendment 34

Article 8, paragraph 1 a (new)

The Council shall establish a common methodology for cataloguing aquifers in preparation for the implementation of the Inspire programme. In this connection the Member States shall begin to collect data as soon as this Directive comes into force. Justification

A methodologyfor the col/ection of data must be established inpreparation for the introduction of the Inspire programme (concerning the digital recording of groundwater bodies) which is currently proceeding through Parliament. For this reason the Member States must become involved in the data-col/ection methodology.

Amendment 35

Article 10, paragraphs 1 a and 1 b (new)

The Commission shall draw up a report assessing in particular, in respect of each Member State, whether implementation of the Directive has given rise to differing levels of environmental protection, instances of deterioration of groundwater or distortions of competition.

On the basis of the conclusions of that report, the Commission shall if necessary submit a proposal to the European Parliament and the Council by 31 December 2015.

Amendment 36 Annex I, point 1, table, column 3, row 1, Comment deleted

For activitiesfalling within the scope of Directive 91/676/EEC, programmes and measures required in relation to this value (ie. 50 mg/l) will be in accordance with that Directive¹. ¹ Activities outside the scope of Directive 91/676/EEC are not covered by this provision.

Justification

Reinstatement of Amendment 60 from the first reading, adopted on 28 April 2005. Taken in conjunction with thefootnote, this comment could mean that differing demands are made on economic sectors with regard to pollution by nitrates. This is the subject of criticism by both Parliament and some Member States. This comment creates legal uncertainty.

Amendment 37

Annex I, point 1, table, column 3, row 2, Comment (new) The quality standard applies to ali bodies of groundwater, except where drinking water standards for pesticides and their relevant metabolites are more stringent than 0,1 pgll. For these areas, drinking water standards apply. The total concentration of pesticides and their metabolites in ali groundwater bodies shall not exceed 0,5 pg/l.

Justification

Reinstatement of amendment 62 adopted by the EP infirst reading. Quality standards for pesticides/metabolites in drinking water might be less than 0.1 pg/l. In such cases, the more stringent standard should apply. Directive 98/83/EC sets a threshold valuefor the sum of pesticides and related substances. This threshold should be inc/uded in this Directive as well, in order to ensure proper protection of the woundwater.

Amendment 38

Annex I, point 1, table, footnote 3

3 'Total' meansthe sum of all individual pesticides detected and quantified in the monitoring procedure.

3 'Total' meansthe sum of all individual pesticides detected and quantified in the monitoring procedure, including their relevant metabolites, degradation and reaction products.

Justification

New Counci/ text; without this addition, the text of the footnote could be misunderstood.

Amendment 39

Annex 11, Part B, point 1

1. Substances or ions which may occur both naturally and as a result of human activities Arsenic Cadmium Lead Mercury Ammonium Chloride Sulphate

1. Substances or ions which may occur both naturally and as a result of human activities Arsenic Cadmium Lead Mercury Ammonium

1a. Indicators which may occur both naturally and as a result of human activities Chloride Sulphate

Justification

Reinstatement of Amendment 90from thejirst reading, adopted on 28 Apri/ 2005. It should be made clear that chloride and sulphate are not pollutants.

Amendment 40

Annex 111,point 4 (-a) (new)

(-a) the impact of the pollutants in the groundwater body

Justification

This is the precondition if the requirements laid down in letters (a) to (d) are to be valid

Amendment 41

Annex IV, Part B, introductory part

According to Article 5, Member States will reverse identified significant and sustained upward trends where these trends present a risk of harm to associated aquatic ecosystems, to directly dependent terrestrial ecosystems, to human health or to actual or potentiallegitimate uses of the water environment, taking into account the following requirements:

According to Article 5, Member States will reverse identified significant and sustained upward trends taking into account the following requirements:

Justification

The ecosystem groundwater must beprotected as such against pollution and deterioration (see Article 4 of Directive 2000/60/EC, Article 1 of the common position and the statement of the Counci/ 's reasons under 11 Objective: 'withparticular emphasis on prevention as groundwater quality is generally long and difficult to restore, even once the source of pollution has been removed').

Amendment 42 Annex IV, Part B, point 1 (c) (c) the rate of increase and the reversibility of the trend are such that a later starting point for trend reversal measures would still enable such measures to prevent most cost-effectively, or at least mitigate asfar as possible, any environmentally significant detrimental changes in groundwater quality. deleted

Justification

In keeping with the precautionary principle, this exception is unacceptable (see also justification for Amendment 28). There can be no question of a risk being recognised and no measures taken.

Amendment 43

Annex IV, Part B, point 1, subparagraph 2

For activities alling within the scope 01 Directive 91/676/EEC, the starting point lor implementing measures to reverse significant and sustained upward trends will be established in accordance with that Directive and with Directive 2000/60/EC; deleted

Justification

Annex IV deals with trend reversal, which represents an important precautionary instrumento The same rules should apply to all the economic sectors concerned (see alsojustification for the amendment to Annex /, table, column 3, Comment). Consistent with Rapporteur's amendment 36 and EP amendment 60, adopted atfirst reading on 28th April2005.

EXPLANATORY STATEMENT

Following the lengthy discussions held and the clearer understanding of the problem gained since the entry into force of the water framework directive, Parliament had been expecting a better directive on groundwater protection which lays down clear, effective provisions geared to specific objectives. In Parliament's view, neither the Commission proposal nor the Council's common position fulfils the remit issued in Article 17 of Directive 2000/60/EC.

Parliament's main criticisms can be summarised as follows:

- The common position contains only minor substantive improvements in the area of groundwater protection by comparison with the existing legislation, i.e. the water framework directive (2000/60/EC) taken in conjunction with Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances, which will not remain in force beyond 2013, however.
- The issue of groundwater as an independent ecosystem is ignored.
- As a result, the groundwater protection requirements are not geared to maintaining groundwater in the most natural state possible.
- The good quality of drinking water from groundwater, which in many parts of Europe can be supplied direct from source without treatment, can therefore no longer be guaranteed.
- The principle of comprehensive and preventive groundwater protection has been abandoned, and that of receptor-based, piecemeal groundwater protection is now set in stone.
- No clear distinction is drawn between prevention and restoration. The key area covered by the groundwater daughter directive must be prevention, Le. new inputs must not be allowed to tum into long-term problems requiring large-scale restoration measures.
- Significant matters are left to the discretion of the Member States, in particular when it comes to assessing the chemical status of groundwater, laying down the criteria for the reversal of upward trends in concentrations of pollutants and to defining starting points for trend reversals.
- This approach in itselfrules out the uniform implementation of the provisions e.g. concerning the identification and reversal of trends -of both the water framework directive and this daughter directive.
- It also runs counter to or rules out the comparability at EU level of the threshold values, assessments of the chemical status of groundwater and possible protection or restoration measures, even in cases where other circumstances are in fact similar.
- The task of dealing with the most serious groundwater problem brought to light by the inventory -nitrate pollution of groundwater -is left almost exclusively to the nitrates directive. In addition, many undefined concepts and descriptions are employed and some passages of the common position are vague and difficult to understand.
- Clarification of the principle that the assessment of the good chemical status of groundwater should be carried out on the basis of quality standards, as called for in Article 17 of the water framework directive, has not come about. By the same token, the criteria for establishing national threshold values are so vague as to rule out the establishment of comparable restoration provisions or protection levels, as has been achieved in the case of surface water, even though grou!Idwater represents our largest body of water and our real drinking water reserve.

The very fact that significant matters are left to the discretion of the Member States raises the question of why the groundwater daughter directive, in the forro set out in this common position, is necessary as an item of European legislation. Moreover, the many vague wordings requiring further interpretation employed in the common position are not consistent with the principle of

better regulation, will not lead to any simplification of Community legislation and will certainly not make for effective implementation in the Member States.

One welcome feature of the common position is that the requirement to lay down national threshold values for the substances listed in Annex II, Part B, will put pressure on the Member States to take action. Regrettably, the experience gained with the transposition by the Member States of the nitrates directive shows that it often takes lengthy and difficult infringement proceedings against the Member States to make that hope a reality.

If it is to accept the common position, Parliament therefore regards further improvements, as set out in the amendments, as essential.

(1) The protection objectives and groundwater as an ecosystem

The emissions-related approach taken in the old groundwater directive (80/68/EEC) must be fully incorporated into the new directive with a view to ensuring that groundwater protection is based on the precautionary principle, involving measures to prevent or limit the deterioration of groundwater by means of new inputs. The aim of Article 4 of Directive 2000/60/EC is to protect the ecosystem groundwater as such against pollution and deterioration.

(2) PollutionIdeterioration

That approach is closely bound up with the issue of the clarity of the concepts employed. The ban on deterioration called for in the water framework directive must be enforced more effectively. With that aim in view, it is also important that the concept of 'deterioration' should be defined in Article 2 of this directive. This will serve to clarify the conceptual confusion between pollution and deterioration, clarification which Directive 2000/60/EC has failed properly to bring about. This also applies to the provisions set out in Article 6(1)(b). In the case of the pollutants listed in Annex VIII to Directive 2000/60/EC, the wording employed in the common position would allow for groundwater to be topped up by means ofnew, indirect inputs until the poor chemical status threshold has been reached. Already at first reading, Parliament tabled a number of amendments seeking to change that approach. Although these pollutants 'present an existing or potential risk of pollution', this provision might give rise to new long-term problems requiring restoration measures. This is not consistent with a strict precautionary approach and runs counter to the direct ban on discharges laid down in Article 11(3)0) of Directive 2000/60/EC and to Article 6(1)(a) of the common position. The implications for the implementation of the directive would be as follows: direct discharges of such pollutants are banned, but seepage through a passage in the ground, irrespective of soil conditions, would be allowed.

(3) Relationship between the groundwater protection directives and the nitrates directive

Both the initial inventory carried out with a view to implementing the water framework directive and the report on Directive 91/676/EEC, the so-called nitrates directive, for the period from 2000 to 2003 show that the measures taken, including the requirement to comply with good agricultural practice, have not led to any substantial decrease in groundwater pollution in catchment areas used for agricultural purposes. Both the nitrates directive, on the one hand, and the water framework directive and the groundwater daughter directive, on the other, lay down requirements to be met by the farming industry. It is vital, therefore, to avoid duplicating provisions and to clarify the relationship between the various directives. In your rapporteur's view, the relevant provisions of the common position -the 'comment' in Annex I and the provisions in Annex IV -fail to do this. These provisions instead create further confusion and offer more scope for differing interpretations. Parliament rejects this and regards it as essential that the farming industry, as the economic sector chiefly affected by these provisions, should receive Community aid under the CAP.

(4) National threshold values/revision clause

In keeping with the approach employed in the common position, the Member States are solely responsible for laying down the groundwater quality standards (threshold values) for the substances listed in Annex 11,Part B, which provide the criteria for classification as being of good chemical status and for trend reversal if upward trends in groundwater pollution are identified. Your rapporteur takes the view that this runs counter to the objective of comprehensive groundwater protection and that distortions of competition will be the inevitable result of differing implementing arrangements in the Member States.

The aim of European legislation must be to lay down uniform, European provisions. Parliament is convinced that it is particularly important, therefore, that the impact and effectiveness of this approach should be reviewed once a given period has expired. That review must also cover the list of pollutants, groundwater quality standards and threshold values set out in Annexes I and II and, ifnecessary, lead to a revision of the directive with the direct involvement of Parliament under the codecision pursuant to Article 251 of the Treaty.

PROCEDURE

Title	Common position adopted by the Council 23 January 2006 with a view to the adoption of a Directive of the European Parliament and of the Council on the protection of groundwater against pollution		
References	12062/1/2005 - C6-0055/2006 - 2003/0210 (COD)		
Date of Parliament's first reading – P number	28.4.2005 P6_TA(2005)0145		
Commission proposal	COM(2003)0550 - C5-0447/2003		
Amended Commission proposal	COM(2005)0282		
Date receipt of common position announced in plenary	15.2.2006		
Committee responsible Date announced in plenary	ENVI 8.10.2003		
Rapporteur(s) Date appointed	Christa Klaß 27.7.2004		
Previous rapporteur(s)			
Discussed in committee	22.2.2006 25.4.2006		
Date adopted	25.4.2006		
Result of final vote	+1 50 		
Members present for the final vote	Liam Aylward, Johannes Blokland, John Bowis, Frederika Brepoels, Hiltrud Breyer, Dorette Corbey, Chris Davies, Avril Doyle, Mojca Drčar Murko, Edite Estrela, Jillian Evans, Karl-Heinz Florenž, Matthias Groote, Françoise Grossetěte, Cristina Gutiérrez-Cortines, Gyula Hegyi, Dan Jorgensen, Christa Klaß, Eija-Riitta Korhola, Urszula Krupa, Aldis Kuškis, Marie-Noëlle Lienemann, Jules Maaten, Riitta Myller, Péter Olajos, Dimitrios Papadimoulis, Vittorio Prodi, Frédérique Ries, Dagmar Roth-Behrendt, Guido Sacconi, Carl Schlyter, Horst Schnellhardt, Richard Seeber, Jonas Sjöstedt, Bogusław Sonik, Maria Sornosa Martinez, Antonios Trakatellis, Thomas Ulmer, Anja Weisgerber, Åsa Westlund and Anders Wijkman.		
Substitute(s) present for the final vote	Margrete Auken, Bairbre de Brûn, Christofer Fjellner, Vasco Graça Moura, Jutta D. Haug, Henrik Lax, Miroslav Mikolášik, Alojz Peterle Pál Schmitt, Claude Turmes and Glenis Willmott		
Substitute(s) under Rule 178(2) present for the final vote			
Date tabled	27.4.2006		
Comments (available in one language only)			

COMMISSIONOFTHE EUROPEANCOMMUNITIES

Brussels, 19.9.2003 COM(2003) 550 final 2003/0210 (COD)

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the protection of groundwater against pollution (presented by the Commission)

EXPLANATORY MEMORANDUM

1.INTRODUCTION

1.1 important natural resource. It acts as a reservoir from which good quality water can be abstracted for drinking and for use in industry and agriculture. It is also valuable in maintaining wetlands and river flows, acting as a buffer through dry periods. Groundwater moves slowly through the ground and so the impact of human activities may last for a relatively long time. It may be difficult to clean up, even once the source of pollution has been removed, so we need to focus on preventing pollution in the first place. Groundwater provides base flow for surface water systems and so its quality may affect the quality of those surface waters. In other words, the effects of human activity on groundwater quality may impact on the quality of associated aquatic ecosystems and directly dependent terrestrial ecosystems. Groundwater is much more widely present than surface water, so it is even more difficult to prevent pollution, and to monitor and restore water quality.

2.2 In addition to the mles in Directive 80/68/EEC on the protection of groundwater against pollution caused by certain dangerous substances, groundwaterprotection is also a feature of the Water Framework Directive 2000/60/EC (WFD),2which is the basic legislationfor the protectionofEurope's aquatic environment. Article 17 of the WFD requires that on the basis of a proposal from the Commission, the European Parliament and the Council shall adopt specific measures to prevent and control groundwaterpollution by defining common criteria on good chemical status and on quality trends. This proposal for a Groundwater Daughter Directive meets that requirement.

2 - GROUNDWATER: A RESOURCEAT RISK

2-1-Groundwater generally flows slowly so takes a long time to carry pollutants from their source. This means that pollution that occurred some decades ago - whether from agriculture, industry or other human activities - may still be threatening groundwater quality. These processes are difficult to observe and measure and so there is often a lack of awareness and/or evidence of the risks of groundwater pollution. Recent reports3,4 show that pollution from domestic, agricultural and industrial sources is increasing, either directly through discharges (eftluent) or indirectly from the spreading of fertilisers or through leaching from landfill, some of it illegal. While point sources have caused most of the pollution identified to date, there is evidence that diffuse sources are having an increasing impact on groundwater.

2.. Consequently the prevention of groundwater pollution is of critical importance. It must be a key aim of European legislation for the following reasons:

Once groundwater has been polluted, the consequences last for longer than surface water pollution (months, years and sometimes decades) because, in most cases, groundwater moves slowly underground. Moreover, it is usually either not practical or else very expensive to clean up the groundwater afterwards. Again, it is both impractical and bad strategy to provide comprehensive treatment to remove certain pollutants, such as pesticides and other organic trace substances.Contaminateddrinking water is a health hazard and, once contamination has occurred, drilling new wells is expensive and in many instances not feasible. It is, therefore, preferable to prevent or reduce the risk of pollution rather than to deal with the consequences.

Groundwater is an important resource, which is used for drinking water, and by industry and agriculture, and should be protected for present and future use.

Groundwater provides the base flow (Le. the water whicl1feeds rivers ali year round) for surface water systems, many of which are used for water supply and recreation. In many rivers, more than 50% of the annual flow is derived from groundwater, which travels a long way. In low-flow periods in summer, more than 90% of the flow in some rivers may come from groundwater. Hence, deterioration of groundwater quality may directly affect other related aquatic and terrestrial ecosystems.

3. CURRENT POLICY

3.1. Rules to protect against groundwaterpollution have been in place since the adoption of Directive 80/68/EEC. This Directive provides a protection framework by preventing the direct discharge of high priority pollutants (List 1) and subjecting the discharge of other pollutants (List II) to an authorisation procedure preceded by a thorough investigationon a case-by-casebasis. Monitoring is required only for those specific cases of authorisation and is not generally required for ali groundwater bodies. According to Article 22(2) of the WFD, Directive 80/68/EEC should be repealed in 2013, after which the protection regime should be continued through the WFDand the present GroundwaterDaughter Directive.

3.2. The WFD requires the achievement of good groundwater status and to that end provides for the monitoring of groundwaterbodies as well as measures to protect and restore groundwater. While the WFDprovides a general framework for groundwater protection, Article 17 of the Directive provides for the adoption of specific criteria for the assessment of good chemical status and the identification of significant and sustainedupwardtrends and for the definition of starting points for trend reversals.

3.3. Besides the existing groundwater directive (80/68/EEC) and the WFD, groundwater protection also features in other environmental legislation and policies, e.g. the Landfill Directive (99/31/EC), 5 the Drinking Water Directive (80/778/EEC as amended by Directive 98/83/EC),6the Nitrate Directive (911676/EEC),7the Plant Protection Products Directive (911414/EEC),8the Biocides Directive (98/8/EC) and the Commission Communication Towards a Thematic Strategy for Soil Protection.

3.4. In addition, groundwaterprotection affects agricultural production. This is reflected by the cross-referenceto Directive 80/68/EEC in the Commission'srecent proposals on common rules relating to the review of the Common Agricultural Policy.11 Already, Regulation (EC) No 1259/1999 allows Member States to make payments granted directly to farmers under the various common market organisation rules dependent on their compliance with national implementing rules on groundwater protection.

4. PREPARATION OF THE PROPOSAL

4.1. The debates leading up to final agreement on the Water Framework Directive (which was adopted on 23 October 2000) were difficult and covered very different conceptual approaches to groundwater protection. As it proved iJIIpossible to achieve agreement on detailed provisions relating to groundwater, the WFD included a provision, Article 17, stipulating that the European Parliament and the Council shall at a future date and on the basis of a proposal from the Commission, adopt specific measures to prevent and control groundwater pollution. These would include criteria for assessing the good chemical status of groundwater (Article 17.2a), for identifying significant and sustained upward trends, and for defining a starting point for trend reversal (Article 17.2b).

4.2. The Commission initiated a discussion with stakeholders to prepare the proposal referred to in Article 17(1) and (2) of the WFD. It established an Expert Advisory Forum (EAF) on

groundwater, made up of representatives of Member States, stakeholders (NGOs, industrial associations and Commission departments) and observers from the Associated and Candidate Countries. The first meeting of the EAF on Groundwater (on 26 November 2001) discussed an issue paper prepared by the Commissionand provided guidance on the lines to be followedwhen developing a legislativeproposalon groundwater protection.

4.3. An extended issue paper was presented and discussed at the second meeting of the EAF on Groundwateron 25 and 26 March 2002. The first elements of a legislative proposal for a groundwater directive were presented at the third EAF Groundwater meeting on 25 June 2002, and the main draft outline of the GWD was presented at the fourth EAF Groundwater meeting on 8 October 2002. Overall, the proposal has received a positive response from Member States. NGOs have been more critical with respect to the prevent/limit clauses, which they considered not sufficiently stringent, and did not agree with the proposal of EU wide quality standards on nitrates and pesticides, which they found too lax with respect to agricultural pollution risks. The element of the proposal, which gave rise to the most comment, was the delay in establishing lists of pollutants and thresholds. However, the Commission considers that it is not possible to establish lists at present because there is not enough scientific data.

4.4. The GWD proposal is designed to complement the WFD. This already contains extensive provisions on groundwater, and in particular on: co-ordinated administration of fiver basins (Article 3); environmental objectives, in particular the no-deterioration clause and the protect and limit provisions (Article 4); requirements for analysing the characteristics of the river basin district, reviewing the environmental impact of human activity and analysing the economics of water use (Article 5); establishment of a register of protected areas (Article 6); identification of waters for the abstraction of drinking water and the establishment of safeguard zones for those bodies of water (Article 7); monitoring requirements (Article 8); the principle of recovery of the costs of water services, including

environmentaland resourcecosts (Article 9); establishmentof a programmeof measures (Article 11); issues which cannot be dealt with at Member State level (Article 12); establishment of a management plan for each river basin district (Article 13); requirements for public information and consultation (Article 14), which should be complemented by education on good environmental practices; reporting requirements(Articles 15and 18); plans for future Communitymeasures (Article 19); technical adaptationsto scientificand technical progress (Article 20); the RegulatoryCommittee (Article21); repealing clauses and transitionalprovisions (Article 22); penalties (Article 23).

5.OVERVIEW OF THE PROPOSAL

5.1. The proposal for a Groundwater Daughter Directive sets out criteria for assessing the chemical status of groundwater, as required by Article 17.2a of the WFD. It was not considered appropriate to list new quality standards that would be applied uniformly to ali groundwater bodies throughout Europe, because of the natural variability of groundwater chemical composition and the present lack of monitoring data and knowledge. This decision was fully in line with the principies of good govemance set out in the Sixth Environmental Action programme,12 namely that "sound scientific knowledge and economic assessments, reliable and up-to-date environmental data and information, and the use of indicators will underpin the drawing-up, implementation and evaluation of environmental policy". Clearly drinking water quality standards would be of only limited value for assessing groundwater quality, since they are designed to protect human health and are not necessarily appropriate as environmental standards. The only EU-wide quality standards that are directly linked to groundwater protection at this stage are those referring to nitrates (Directive 911676/EEC), and plant protection and biocidal products (Directive 911414/EEC and Directive 98/8/EC respectively). These have therefore been included in the proposal.

5.2.A workshop on the BASELINEproject held on 27 January 2003 (and funded by DG RTD under the Fifth Framework Programme) stressed the difficulty of setting uniform quality standards for groundwater, and emphasised the need to consider aquifer characteristicsand pressures fromhuman activity.

5.3. The present proposal also establishes criteria for identifying and reversing significant and sustained upward trends in pollution from human activity, taking into account the need to prioritise actions according to the environmental significance of these trends. It proposes a common methodology for testing the statistical significance of these trends.

5.4. Groundwater monitoring requirements are covered by the Water Framework Directive and so are not repeated in this Directive.

6. THE ARTICLES OF THE PROPOSAL

6.1. The purpose of the Groundwater Daughter Directive (Article 1) is to establish specific measures to prevent and control groundwater pollution. These include special criteria for assessing good chemical status, criteria for identifying significant and sustained upward trends in the concentration of pollutants in groundwater and criteria for defining the starting points for trend reversals.

6.2. Article 2 gives more definitions to supplement the WFD definitions, in particular on threshold values, significant and sustained upward trends and indirect discharges into groundwater.

6.3. Article 3 establishes criteria for the assessment of good groundwater chemical status, specifying the compliance regime for quality standards set out in Annex I to this Directive as well as for threshold values for pollutants, of which requirements are developed in the subsequent article.

6.4. Article 4 provides requirementregarding pollutant threshold values. For groundwater bodies which are considered to be at risk following the analyses of pressures and impact carried out in accordance with Article 5 of the WFD, Member States are to establish threshold values for pollutants, the lists of which are to be reported by Member States at the latest on the 22 June 2006, following the recommendations set out in Annex 111to the Directive. The Commission then has to decide whether to propose EU-wide environmental quality standards on the basis of these lists. These . criteria will guarantee that chemical status is evaluated in a comparable way throughoutEurope and that any related decision-makingis harmonised.

6.5. Article 5 sets out specific criteria for identifying significant and sustained upward trends in pollutant concentrations and for defining starting points for trend reversals. There are technical specifications in Annex IV to the Directive.

6.6. Article 6 introduces an additional provision to ensure that groundwater bodies are adequately protected. In the existing groundwater directive (80/68/EEC), there are provisions (Articles 4 and 5) for preventing and limiting the direct and indirect discharge of dangerous substances into groundwater. In the WFD there are general provisions for preventing or limiting the input of pollutants into groundwater and for preventing the deterioration of the status of all bodies of groundwater (Article 4.1(b)(i). In addition, the WFD as part of its basic package of management measures (Article 11) prohibits, with certain exceptions, the direct discharge of pollutants into groundwater. However, the WFDsays nothing about indirect discharges of pollutants into groundwater. This means that when Directive 80/68/EEC is repealed there will be no specific legislation on indirect discharges. Accordingly, Article 6 of this new Directive is intended to ensure

the continuity of the protection regime established by Directive 80/68/EEC after its repeal by also establishing a link with the list of main pollutants indicated in Annex VIII of the WFD.

6.7. Transitional arrangements(Article 7) ensure continuity of the protection provided by Directive 80/68/EEC as regards prior investigation and authorisation of indirect discharges.

6.8. Based on Article 8, Annexes 11to IV to the Directive may be adapted to scientific and technical progress, according to the Committee procedure established in Article 21 of the WFD.

7. LINK TO SUSTAINABLEDEVELOPMENT AND THE SIXTH ENVIRONMENTAL ACTION

PROGRAMME

7.1. The Sixth Environmental Action Programme (6EAP) contains some objectives on the management of natural resources. The overall objective is to achieve better resource efficiency and pollution control. It also calls for a number of measures to be adopted to achieve these objectives. One of these is the present Groundwater Daughter Directive, which is also part of the broader water policy framework of the WFD.

7.2. The assessment of chemical status is based on selecting those pollutants that put groundwater at risk and threshold values for those pollutants that take into account the natural variability of European ground waters. This approach is necessary, since at present there is not enough monitoring data and consolidated knowledge. As mentioned in paragraph 5.1, this is fully in line with the principles of good governance set out in the 6EAP.

8. POLITICAL DIMENSION

8.1. Groundwater is a resource under increasing pressure from human activities. But for . many people it is "out of sight, out of mind". While the need to protect drinking water is well understood because of its environmental value, Member States do not all agree on how to manage groundwater protection. While most Member States support the concept of good groundwater protection, the majority considers assessing chemical status on the basis of compliance with a long list of pan-European quality standards is not the right way to achieve this protection. However, there are some Member States that would like to see EU standards established.as soon as possible. Accordingly, the Commission's proposal envisages listing substances for which EUwide standards for groundwater already existo For other substances, Member States should establish threshold values based on the criteria in the proposal. In the light of the action taken at national level, the Commission will decide whether it is appropriate to make proposals to extend the list of substances covered by EU standards.

9. COST/BENEFIT ANALYSIS

9.1. The proposal is accompaniedby an Extended Impact Assessment carried out in the first quarter of 2003. It should be noted that the total quality assessment costs, the costs of the monitoring and clean-up measures required by the river basin management plan, and the administrativecosts are already covered under the WFD. The proposed Groundwater Daughter Directive provides clear additional specifications, which should result in a more harmonised approach to defining and monitoring groundwaterstatus than the existing WFD specifications.

9.2. The proposal thus represents a costlbenefit improvementover the existing situation. At present there are no common references (selected pollutants and related thresholds) and no common criteria for groundwater, which makes it difficult to achieve comparable chemical status throughout Europe. This could result in considerable economic losses and risks. If a body of

groundwater is wrongly considered to be of poor chemical status, unnecessary restoration measures may be taken, wasting considerableamounts of money. Conversely, if because of the wrong data it is considered to have good chemical status, then evidence of deterioration might be overlooked, together with possible damage to the environment and human health. Any such doubts will not only have adverse effects on decision-making, but will also result in a loss of public confidence.

2003/0210 (COD) Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the protection of groundwater against pollution

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION, Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Economic and Social Committee,

Having regard to the opinion of the Committeeof the Regions,

Acting in accordance with the procedure laid down in Article 251 of the Treaty,

Whereas:

(1) Groundwater is a valuable natural resource which should be protected from pollution in its own right.

(2) DecisionNo 160012002/ECof the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme17includes the objective to achieve levels of water quality that do not give rise to unacceptable impactson, and risks to, human health and the environment.

(3) In order to protect the environment as a whole, and human health in particular, concentrations of harrnful pollutants in groundwater should be avoided, prevented or reduced.

(4) Council Directive 2000/60/EC of 23 October 2000 establishing a framework for ommunity action in the field of water pOlicy18sets out extensive provisions for the protection and conservation of groundwater. As provided for in Article 17 of that Directive, measures to prevent and control groundwater pollution should be adopted, including criteria for assessing good chemical status and criteria for identifying significant and sustained upward trends and for defining starting points for trend reversals.

(5) Quality standards, threshold values, and assessment methods should be developed in order to provide criteria for the assessment of the chemical status of bodies of roundwater.

(6) Criteria need to be established for identifying any significant and sustained upward trends in pollutant concentrations and for defining the starting point for trend reversal, taking into account the likelihood of adverse effects on associated aquatic ecosystems or dependent terrestrial ecosystems.

(7) By virtue of Article 22, paragraph 2, third indent, of Directive 2000/60/EC, Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution by certain dangerous substances19 will be repealed with effect from 22 December 2013. It is necessary to ensure the continuity of the protection regime set up by Directive 80/68/EEC with regard to both direct and indirect discharge of pollutants into groundwater by also establishing a link with relevant provisions of Directive 2000/60/EC.

(8) It is necessary to provide for transitional measures as regards the period between the date of implementation of this Directive and the date from which Directive 80/68/EEC is repealed.
(9) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Subject matter

This Directive establishes specific measures as ~et out in Article 17(1) and (2) of Directive 2000/60/EC in order to prevent and control groundwater pollution. These measures include in particular:

(a) criteria for the assessment of good groundwater chemical status; and (b) criteria for the identification and reversal of significant and sustained upward trends This Directive also establishes a requirement to prevent or limit indirect discharges of pollutants into groundwater.

Article 2

Definitions

For the purposes of this Directive, the following definitions shall apply in addition to those laid down in Article 2 ofDirective 2000/60/EC:

1. 'threshold value' means a concentration limit for a pollutant in groundwater, exceedanceof whichwouldcausea bodyof groundwateror groundwaterbodiesto be characterisedas having poor chemical status.

2. 'significant and sustained upward trend' means any statistically significant increase of concentration f a pollutant as compared to concentrations measured at the start of the onitoring programme referred to in Article 8 of Directive 2000/60/EC, taking into consideration quality standards and threshold values.

3. 'indirect discharges to groundwater' means discharge of pollutants into groundwater after percolation through the ground or subsoil.

Article 3

Criteria for assessing good groundwater chemical status

For the purposes of the characterisation to be carried out under Article 5 of Directive 2000/60/ECand under sections 2.1 and 2.2 of Annex II thereto, a body or group of bodies of groundwatershall be considered as having good groundwaterchemical statuswhen: (a) with regard to any of the substances referred to in column 1 of Annex I to this Directive, the measured or predicted concentration does not exceed' the quality standardslaid down in column2 thereof;

(b) with regard to any other polluting substances, it can be demonstrated, in accordance with the indications given in Annex II to this Directive, that the concentration of the substancecomplies with indent 3 of the definition set out in section 2.3.2 of AnnexV to Directive 2000/60/EC.

Article 4

Threshold values

1. On the basis of the characterisation process to be carried out under Article 5 of Directive 2000/60/EC and under sections 2.1 and 2.2 of Annex II thereto, in accordance with the procedure described in Annex II to this Directive, and taking account of the economic and social costs, Member States shall, by 22 December 2005, establish threshold values for each of the pollutants, which within their territory have been identified as contributing to the characterisation of bodies or group of bodies of groundwateras being at risk. Member States shall as a minimum establish threshold values for the pollutants referred to in parts A.I and A.2 of Annex III to this Directive. These threshold values shall inter alia be used for the purposes of carrying out the review of groundwater status as provided for in Article 5.2 of Directive 2000/60/EC. Those threshold values can be established at the national level, at the level of the river basin district or at the level ofbody or group ofbodies of groundwater.

2. At the latest by 22 June 2006, Member States shall provide the Commission with a list f all pollutants for which they have established threshold values. For each pollutant on the list, Member States shall provide the information set out in part B of Annex III to this Directive.

3. On the basis of the information provided by Member States in accordance with paragraph 2, the Commission shall publish a report, accompanied, if appropriate, by a proposal for a directiveamendingAnnex I to this Directive. Before publishingthe report and before adopting any legislativeproposals amending Annex I to this Directive, the Commission shall seek the opinion of the Committee referred to in Article 16(5)ofDirective 2000/60/EC.

Article 5.

Criteria for the identification of significant and sustained upward trends and thedefinition of starting points for trend reversals

Member States shall identify any significant and sustained upward trend of concentrations of pollutants found in bodies of groundwater, or groups of bodies, and define the starting point for reversing that trend, in accordance with Annex IV to this Directive.

For those bodies of groundwater where significant and sustained upward trends in pollutant concentrations are identified, Member States shall reverse the trend through the programme of measures referred to in Article 11 of Directive 2000/60/EC, in order progressively to reduce pollution of groundwater.

Article 6

Measures to prevent or limit indirect discharges into groundwater

In addition to the basic measures set out in Article 11(3) of Directive 2000/60/EC, Member States shall ensure that the programme of measures for each river basin district includes the prevention of indirect discharges to groundwater of any of the pollutants referred to in points 1 to 6 of Annex VIII to that Directive.

Furthermore, with regard to the pollutants referred to in points 7 to 12 of Annex VIII to Directive 2000/60/EC, the programme of measures set out in Article 11(3) of that directive shall include the provision that any indirect discharges to groundwater shall only be permitted on condition that the discharges does not put at risk the achievement of good groundwater chemical status.

Article 7

Transitional arrangements

In the period between [insert date Dfimplementationas in Article 9(1) Dfthis Directive] and the 22 December 2013 prior investigations and authorisations pursuant to Articles 4 and 5 of Directive 80/68/EECshalltake into account the requirements out in Articles 3, 4 and 5 of this Directive. Article 8

Technical adaptations

Annexes 11to IV to this Directive may be adapted to scientific and technical progress in ccordance with the procedure referred 2000/60/EC, considering the period of reviews and updating of the river basin management plan, as referred to in Article 13(7) ofDirective 2000/60/EC. to in Article 21(2) of Directive

Article 9

Implementation

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive at the latest [18 months afier the date of entry into force of this Directive]. They shall forthwith inform the Commission thereof. When Member

States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

Article 10

Entry into force

This Directive shall enter into force on the twentieth day of its publication in the Official Journal of the European Union.

Article 11

Addressees

This Directive is addressed to the Member States. Done at Brussels, For the European Parliament - The President / For the Council - The President

ANNEXI GROUNDWATER QUALITY STANDARDS

Pollutant	Quality standards ^{21, 22}	Coment
Nitrates	50 mg/L	The quality standard applies to all bodies of groundwater, with exception of the nirate- vulnerable zones identified under Directive 91/676/ECC ²³ . For these areas, Article 4(1) (c0 of the Directive 2000/60/EC applies
Active ingredientes in pesticides, including their relevant metabolites, degradation and reaction products ²⁴	0,1 μg/L	

21 - Where for a given body of groundwater, it is considered that the groundwater quality standards could result in failure to achieve the environmentalobjectives specified in Article 4 of Directive 2000/60/EC for associated surface waters or result in any significant diminution of the ecological or chemical quality of such bodies, or any significant damageto terrestrial ecosystemswhich depend directly on the body of groundwater,more stringent threshold values shall be established in accordance with Article 4 and AnnexIV to this Directive.

22 - Compliance with the standards shall be based on a comparison with the arithmetic means of the monitoring values at each of the sampling points in the body or group of bodies of groundwater characterised as being at risk pursuant to the analysis to be carried out under Article 5 of Directive 2000/60/EC.

23 - OJ L 375, 31.12.1991,p. 1.

24 - Pesticides refer to plant protection products and biocidal products as defined by Article 2 of Directive 91/414/EECand Article 2 ofDirective 98/8/EC, respectively.

ANNEX 11

ASSESSMENT OF GROUNDWATER CHEMICAL STATUS FOR POLLUTANTS FOR WHICH COMMUNITY QUALITY STANDARDS DO NOT EXIST

The assessment procedure for testing compliance to good groundwater chemical status for pollutants for which Communityquality standards do not exist shall be carried out in relation to all bodies of groundwater characterised as being at risk and in relation to each of the pollutantswhich contributeto the body or group of bodies of groundwaterbeing so characterised.

The assessmentprocedure shall in particular address the following issues:

(a) the information collected as part of the characterisation to be carried out under Article 5 of Directive 2000/60/EC and under sections 2.1 and 2.2 of Annex 11 thereto;

(b) environmental quality objectives and other standards for water protection that exist at national, Community or internationallevel;

(c) any relevant information concerning the toxicology, ecotoxicology, persistence and bioaccumulation potential concerning the pollutant or related substances;

(d) the estimated amounts and the concentrations of the pollutants transferred from the body of groundwater to the associated surface waters and/or dependent terrestrial ecosystems;

(e) the estimated impact of the amounts and concentrations of the pollutants as determined in (d) on the associated surface waters and dependent terrestrial ecosystems;

(f) an assessment based on (d) and (e) as to whether the concentrations of the pollutants in the body of groundwater are such as would result in failure to achieve the environmental objectives specified in Article 4 of Directive 2000/60/EC for associated surface waters or any significant deterioration of the ecological or chemical quality of such bodies or any significant damage to terrestrial ecosystems which depend directly on the body of groundwater.

ANNEXIII

THRESHOLD VALUES FOR GROUNDW ATER POLLUT ANTS

PART A.I: MINIMUM LIST OF SUBSTANCES OR IONS, WHICH MAY BOTH OCCUR NATURALLY AND AS A RESULT OF HUMAN ACTIVITIES, FOR WHICH MEMBER STATES ARE REQUIREO TO ESTABLISH THRESHOLO VALUES IN ACCORDANCE WITH ARTICLE4.2

Substance or ion

Ammonium Arsenic Cadmium Chloride . Lead Mercury Sulphate

PART A.2: MINIMUM LIST OF MAN-MADE SYNTHETIC SUBSTANCES FOR WHICH MEMBER STATES ARE REQUIREO TO ESTABLISH THRESHOLO VALUES IN ACCORDANCE WITH ARTICLE 4.2

Substance

Trichloroethylene Tetrachloroethylene

25 - This list should be complemented by Member States for all pollutants which have been identified to characterise bodies of groundwater at being at risk following the analysis carried out under Article 5 of Directive 2000/60/EC.

PART B: INFORMATIONTOBEPROVIDEDBYMEMBERSTATESWITHREGARDTOTHELISTOF POLLUTANTSFORWHICHTHRESHOLDVALUESHAVEBEENDETERMINED

In accordance with Article 4(2) and section 2 of Annex 11to this Directive, for each of the pollutants that characterise bodies of groundwater as being at risk, Member States shall provide as a minimumthe following information:

- 1. INFORMATIONON BODIESOF GROUNDWATERCHARACTERISEDAS BEINGAT RISK
- 1.1 Information on the number of bodies of groundwater characterised as being at risk in which the selected pollutants contribute to this classification.
- 1.2 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 dependent terrestrial ecosystems and, in case of naturallyoccurring substances, the background levels in the bodies of groundwater.
- 2. INFORMATION ONTHE ESTABLISHMENTOF THRESHOLDVALUES
- 2.1 The threshold values, whether they apply at the national level, or at the level of the river basin district, or for individual bodies or groups ofbodies of groundwater.
- 2.2 The relationshipbetween the threshold values and, in the case of naturally occurring substances, the observed background levels.
- 2.3. The manner in which economic and social costs were taken into account in establishingthe threshold values.

ANNEXIV

IDENTIFICA TION ANDREVERSAL OF SIGNIFICANT AND SUSTAINED UPWARD TRENDS

1. IDENTIFICATION OF SIGNIFICANTANDSUSTAINEDUPWARDTRENDS Member States shall identify significant and sustained upward trends, taking into account the following requirements:

1.1 In accordancewith Section 2.4 of Annex V to Directive 2000/60/EC, the monitoring programmeshall be adjusted to detect any significant and sustained upward trends of concentrations of the pollutants identified pursuant to Article 4 of this Directive.

1.2 The procedure for the identification of significant and sustained upward trends shall be based on the following procedure:

- (a) the assessment shall be based on arithmetic mean values of the mean values of the individual monitoring points in each bodies or groups of bodies of groundwater bodies, as calculated on the basis of a quarterly, a half-yearly or an annual monitoring frequency.
- (b) in order to avoid bias in trend identification, all measurements below the limit of quantification shall be eliminated for the calculation.
- (c) the minimum number of data values and the minimum length of time series are laid down in the following table. The time series shall not exceed 15 years.

Monitoring frequency	Minimum number of	Maximum number of	Minimum number of
	years	years	measurements
Annual	8	15	8
Half-yearly	5	15	10
Quarterly	5	15	15

- (d) The missing of two or more subsequent data values should be avoided, and further requirements on the sampling scheme shall be considered to allow for calculations of reliable results.
- 1.3 The identification of significant and sustained upward trends in the concentrations of
- substances which occur both naturally and as a result of human activities shall consider data gathered before the start of the monitoring programme in order to report on trend identificationwithin the first River Basin ManagementPlan set out in Article 13of Directive 2000/60/EC.
- 1.4 Specific trend assessment shall be carried out for relevant pollutants in bodies of groundwaterthat are affected by point sources of pollution, including historical point sources, in order to verify that plumes from contaminated sites do not expand over a defined area and deterioratethe chemicalstatus of the groundwaterbody.
- 1.5 Similar1y,specific trend assessment shall be performed in those areas of groundwater bodies in which significant and sustained upward trends of concentrations of any pollutants identified pursuant to Article 4 of this Directive might result in adverse effects on associated aquatic ecosystems or dependent terrestrial ecosystems, or interference with existing or future uses of groundwater.
- 1.6 The identification of significant and sustained upward trends shall be based on the procedure for the assessment of chemical status specified in Annex II to this Directive.

2. STARTING POINTSFOR TRENDREVERSALS

- 2.1 Trend reversals shall be focused on trends which present a risk of harm to associated aquatic ecosystems, directly dependent terrestrial ecosystems, human health or legitimateuses of the water environment.
- 2.2 The procedure for identifying the starting point for a trepd reversal shall be established on a time basis, and at the minimum on the basis of monitoring data collected in accordance with

Article 8 of Directive 2000/60/EC. In this case, the reference points shall correspond to the start of the monitoring programme.

2.3 The minimumnumber of measurementvalues and the minimum length of time series for the analysis of trend reversal in years includes and depends on the selected monitoring frequency according to paragraph 1.2 item (c) of this Annex and is laid down in the followingtable. The time series shall not exceed 30 years.

Monitoring frequency	Minimum number of	Maximum number of	Minimum number of
	years	years	measurements
Annual	14	30	14
Half-yearly	10	30	18
Quarterly	10	30	30

- 2.4 There is a trend reversal if in the first section the slope of the trend line is positive, and in the second section negative. To allow for a reliable assessment of the trend reversal, it shall be ensured that the number of values before and after the break in the time series is adequateto the monitoring frequency.
- 2.5 The decision for reversing a trend shall also be based on the environmental significance of the upward and sustained increase in pollutant concentrations. As a recommended value, and in accordance with Article 17(4) of Directive 2000/60/EC, the starting point for trend reversal shall be at a maximum of 75% of the level of the quality standards set out in Annex I and/or of the threshold values established pursuant to Article 4.
- 2.6 If data obtained earlier than the start of the monitoringprogramme exist, they should be used for establishing the reference points for the identification of the starting point for trend reversal.

2.7 Once a reference point has been established, pursuant to paragraphs 2.1 and 2.2 above, it shall be used for the groundwater bodies characterised as being at risk and the associated substance, and shall not be changed.