Federal Ministry for the Environment, Nature Conservation

#### and Nuclear Safety

PO Box 120629, 53048 Bonn

Länderarbeitsgemeinschaft Wasser (LAWA)

Salvador-Allende-Str. 78-80e, 12559 Berlin



## Elements of a Council Directive on the Protection and Management of the Waters of the Community (Water Framework Directive)

Herausgegeben von der Länderarbeitsgemeinschaft Wasser (LAWA) Senatsverwaltung für Stadtentwicklung, Umweltschutz und Technologie Berlin/ Ministerium für Umwelt, Naturschutz und Raumordnung des Landes Brandenburg

Berlin, im Februar 1997

Nachdruck und Vervielfältigung, auch auszugsweise, nur mit Genehmigung des Herausgebers gestattet.

Die vorliegende Veröffentlichung ist zu beziehen bei der **Geschäftsstelle der Länderarbeitsgemeinschaft Wasser,** Salvador-Allende-Str. 78-80e, 12559 Berlin-Köpenick

### Elements of a Council Directive on the Protection and Management of the Waters of the Community (Water Framework Directive)

#### I. Underlying considerations

1. The sustainable use of the waters of the Community (surface waters, coastal waters, groundwater) as a resource of limited availability is indispensable to the safeguarding of public health and economic development in the Community. The protection of waters as a key element of the ecosystem, is an essential precondition for protecting the natural foundations of life. Since the management of waters, in terms of both resource utilisation and the conservation of water-dependent habitats, has impacts which transcend national borders, Community regulations are required to commit the Member States to treating waters with due care.

2. The Fifth European Community Environment Action Programme, as adopted pursuant to the Council Resolution of 1 February 1993, reaffirms the significance of water as an elementary source of life and as an indicator of the general quality of the natural environment. However, it is also recognized that the quality of waters in the Community is on the whole under threat and, in response, comprehensive management is being called for.

3. According to the findings of the public hearing at the Committee on the Environment, Public Health and Consumers of the European Parliament on 20 June 1995 and the conclusions of the Council of 18 December 1995 concerning the water protection policy of the European Community, the European Union

needs a new concept which builds on the progress achieved over the last two decades and prepares the Member States for the challenges they face in using this unique natural resource.

4. Against this background it is necessary to set out within a new Framework Directive the basic principles of a sustainable water management policy within the European Union and the structure of further-reaching Directives governing individual aspects of water protection and water management.

5. Future European water protection policy shall foster the sustainable development of waters. Within the scope of Article 130 r it shall be based on the precautionary and the "polluter pays" principle as well as on the principles of preventive action and prioritizing the rectification of environmental damage at source. It shall be based on the principle of gradually reducing the use of hazardous substances and extend to prohibiting certain substances. In view of the responsibility for future generations, provisions are to be established for the sustained protection, remediation of polluted waters and the environmentally appropriate use and management of waters.

6. These principles shall apply to all surface and subterranean water resources as well as coastal waters.

7. Adopting an integrated approach, European water protection policy shall cover groundwater, surface waters and coastal waters equally with regard to quantity, quality and structure and place them within a uniform framework. The protection and management of waters is to be geared to catchment area considerations. Avoidable impairment of waters is to be stopped.

2

8. With regard to the water quality of surface and coastal waters, the Framework Directive shall combine the concept of emission limit values, as indispensable requirements for discharges into water, with that of water quality objectives, set in relation to uses or particular nature of waters. The aim here is to establish a common protection standard, while leaving the Member States free to exceed this protection standard. The stricter criterion shall then apply in each case. The emission limit values shall be defined in accordance with the concept of the Council Directive on Integrated Pollution Prevention and Control and Council Directive 76/464/EEC of 4 May 1979. Discharges shall be limited in relation to the respective branches of industry, preferably by applying aggregate and active parameters, supplemented where necessary by respective parameters for specific substances.

9. In future a distinction may continue to be drawn between discharges from existing and from new installations, so as to enable the Member States to adjust gradually to the requirements of Community law.

10. Where these requirements also cover installations such as those contained in Annex I of the proposal for a Directive on Integrated Pollution Prevention and Control, the respective procedure provided for under this proposed Directive is to be coordinated with other relevant official licensing procedures.

11. Groundwater is a natural resource of vital importance to the supply of man's drinking water as well as for human health and the conservation of all ecosystems. On the other hand, groundwater - unlike surface waters - takes an

extremely long time to regenerate and is not amenable to fast-acting remediation measures.

12. Council Groundwater Directive 80/68/EEC of 17 December 1979 primarily provides for regulations against pollution from discharges of certain hazardous substances. Experience has since shown that the currently observed threat to groundwater is increasingly due to pollution from diffuse sources via the soil and the air and from non-sustainable water extraction.

13. From the standpoint of sustainability, groundwater is to be protected in such a way that the quality of uncontaminated groundwater is maintained and further impairment of previously contaminated groundwater is prevented and the pollution is cleaned up.

14. Diffuse inputs into groundwater and surface waters are to be avoided wherever possible or widely reduced by taking appropriate measures and following best environmental practice (e.g. good professional practice in agriculture). To this end, the instruments for promoting environmentally appropriate farming methods created under the 1992 reform of Community agricultural structural policy are to be applied consistently and brought into line with the imperatives of groundwater protection. This approach also comply with the requirements of cross-cutting responsibility pursuant to Art. 130 r Paragraph 2 Sentence 3 of the Treaty.

15. To safeguard drinking water supplies stronger measures shall - where necessary - be taken in the catchment areas to augment nationwide groundwater protection and to further mitigate the residual risks.

16. In the case of installations for handling water-hazardous substances and pipe systems for transporting water-hazardous substances it is necessary to have Community-wide provisions, covering all waters and industries, which take into account the special requirements of water protection. Such installations may only be built providing they comply with certain requirements, which are ranked according to the potential risk.

17. To ensure effective protection of waters in the Community, uses of surface waters and of groundwater must on principle be subject to official licensing so that sustainable water management can be guaranteed.

#### II. Provisions for a Framework Directive

#### **1.** Section: General Provisions

#### **1.1** Scope and objectives

(1) This Directive provides a framework of Community law for comprehensive protection and the management of the waters of the Community. As a constituent part of the ecosystem, the water resources shall be permanently protected and managed in such a way as to serve the common weal and, in harmony therewith, also the benefit of individuals. Good water quality is to be maintained or, in the long run, achieved. The use of waters is, in terms of quantity and quality management, to be geared to the protection goal of this Directive.

(2) The provisions of this Directive shall also secure the protection of the marine environment.

#### **1.2 Definitions**

Within the meaning of this Directive:

#### Waters of the Community are:

- all standing and flowing surface waters including estuaries situated on the territory of one or more Member States (surface waters),
- the territorial waters, as established by international law, on the seaward side of the low tide line or on the outer boundary of an estuary (coastal waters),
- all subterranean water in the saturated zone that is in direct contact with the soil or subsoil (groundwater);

#### Estuary:

the transitional area between the surface fresh waters and the coastal waters of the mouth of a river whose outer (seaward) boundaries are established by the Member States for the purposes of Art. 17 of Directive 91/27/EEC;

#### Quality grades:

classifications which indicate the state of surface waters;

#### Discharges:

any deliberate putting and introducing of substances into the waters of the Community;

#### Pollution:

any direct or indirect discharge of substances or heat by human beings into the waters of the Community if it results in the impairment of human health or water supply, in risk of damage to stocks of living organisms or to aquatic ecosystems, or in hindrance to other lawful uses of waters;

#### **Emissions**:

any direct or indirect release of substances or heat into waters from point sources or diffuse sources;

#### Emission limit values:

the mass expressed in relation to certain specified parameters, the concentration and/or the level of an emission which may not be exceeded in one or more periods. The emission limit values can be set for certain groups, families or categories of substances;

#### Quality objectives:

qualitative target values for surface waters;

#### Intervention:

measures which affect a stretch of water in such a way that its structure and especially its cross-section profile, its course and the water level are permanently altered;

#### Best available technology:

all activities, methods and ways of operating as defined in Annex I;

#### Best available environmental practice:

all measures and strategies for the protection of the environment as defined in Annex II;

Installation:

a stationary or mobile technical unit serving commercial or public purposes;

Existing installation:

an installation which is in operation or was licensed prior to the application of this Directive and was put into operation no later than a year after the application of this Directive commenced;

Installations for handling water-hazardous substances:

installations in which water-hazardous substances are stored, bottled, manufactured, treated, used, loaded or transported in pipelines.

#### 1.3 Principles

(1) The waters of the Community are to be protected and managed in such a way that the ecological functions of the waters are maintained or, as far as possible, restored, and their environmentally acceptable use by human beings, in particular for adequate drinking water supplies, is permanently safeguarded in terms of quantity and quality. In this respect, special consideration is to be given to the interaction between quantity and quality of water bodies and between surface waters, groundwater and coastal waters.

(2) Policies and programs outside the water management sphere are to take water protection goals into consideration.

(3) Any discharge, any other direct use of the waters of the Community or interventions in the structure of waters which are likely to cause permanent or not inconsiderable pollution or adverse change in the water balance require the prior authorization by the competent authority of the Member State concerned. The competent authorities regularly carry out a review of the licensed discharges and water abstractions.

(4) To achieve the objectives of Section I of this Directive, licensing shall take into account emission limit values which are determined by adopting the combined approach. The use of the best available technology for the prevention and control of pollution from water-relevant substances and from other direct uses of waters shall be prescribed in the form of minimum requirements. Moreover, the emission limit values are to be reviewed in relation to the desired quality objectives. Licensing shall be based on whichever requirements are more stringent. Article 13 of Directive 91/271/EEC on the treatment of municipal sewage remains unaffected. Licenses are to be subject to time limits.

(5) Where the licenses prescribed in Paragraph 2 refer to activities listed in Annex 1 of the Council Directive on the Integrated Pollution Prevention and Control, the licensing procedures and the licensing requirements are to be coordinated.

(6) The Member States establish a general legal framework which obliges anyone directly or indirectly using a water resource to apply due care in accordance with circumstances in order to prevent pollution of the water and to achieve a efficient, economical use of water, in particular by employing watersaving methods. The Member States work towards an economical use of water by means of economic instruments, e.g. a cost-covering water price.

(7) With regard to the measures and licenses the Member States are guided by the following principles:

- the principle of precautionary action, according to which measures to avoid potential impairment from the release of harmful substances must not be delayed on the grounds that there is no complete scientific proof of the causal connection between these substances, on the one hand, and the potential impairment, on the other;

- the polluter-pays principle, according to which the costs of preventing, combating and reducing pollution are to be borne by the originator;
- water resources are to be managed in such a way that the needs of today's generation can be met without depriving future generations of the possibility of meeting their own needs;
- groundwater is to be protected in all areas;
- material cycles are to be closed.

#### 2. Section: Surface waters and coastal waters

#### 2.1 Objective to be reached

(1) The Member States classify their surface waters, where these waters are not of minor importance, according to the following quality grades:

grade I: high quality, grade II: good quality, grade III: limited quality, grade IV: insufficient quality.

The classification must take account of the chemical, biological, structural and hydrological properties of the waters.

(2) In the case of waters of quality grades I and II the present quality is to be maintained.

(3) In the long term the general aim is to achieve quality grade II wherever the natural conditions and the function of the waters permit.

#### 2.2 Requirements for discharges

(1) Irrespective of the quality of a body of water, in granting licenses the competent authorities of the Member States establish requirements for discharges into a surface water resource of the Community. The criteria employed must at least be based on the best available technology or the requirements pursuant to Annex III.

(2) Compliance with limit values is to be checked at the point at which waste water directly leaves the installation, unless other points are stipulated in Annex III. Measurement methods other than those specified herein may be used provided that they are at least as appropriate in terms of their respective detection range, accuracy and correctness as the stipulations for the reference measurement methods.

(3) Where required to achieve compliance with the emission limit values listed in Annex III, respective minimum requirements for discharges into the sewage system are also be defined in the provision or permission pursuant to Article 11 Paragraph 1 of Directive 91/271/EEC. The requirements governed by Article 11 Paragraph 2 and Article 12 Paragraph 1 of Directive 91/271/EEC remain unaffected.

(4) In addition it is necessary to examine on the basis of the quality goals whether the requirements are to be tightened or whether the license may have to be refused.

(5) Taking due regard to the best available technology, the Commission is authorized under the procedure pursuant to Section 5.3 to amend Annex III of this Directive or bring it into line with scientific and technical progress. In so doing, the requirements are on principle to be established for industrial waste water of individual branches of industry and in the form of group and aggregate parameters. Where required, existing installations shall be subject to time limits within which dischargers must keep when adapting to meet the requirements.

#### 2.3 Introduction of solid substances

(1) The Member States take the necessary measures to ensure that solid substances or objects are not introduced into surface waters from land or from land-attached facilities with the aim of dumping them.

(2) Without prejudice to Article 14 of Directive 91/271/EEC on the treatment of municipal sewage, the requirements stipulated in Article 3 and 11 apply to muddy substances.

#### 2.4 Water abstraction

(1) Water abstractions are to be subject to licensing by the authorities.

(2) Divergent from 2.4.1 water abstractions of insignificant volume do not require licensing by the authorities.

#### 2.5 Measures and programs

(1) With respect to individual waters, the Member States take the measures required to achieve the established objectives. These measures may be

incorporated within programs. Given the natural characteristics and the functions of waters, they should contain the following provisions:

- the definition of quality grades which the body of water should demonstrate along its course;
- the uses which the body of water should serve and does in fact serve.

(2) Where, as a result of new activities or the expansion of existing activities, water quality is significantly affected, the measures and programs are to be examined and if necessary changed.

#### 2.6 Public participation

(1) Without prejudice to Council Directive 90/313/EEC of 7 June 1990 on free access to information about the environment, the Member States inform the public regularly of the recorded quality of waters.

(2) Before adopting the measures and programs of the type referred to in 2.5 the Member States offer the affected parties an opportunity to state their views. The Member States then inform the public in an appropriate manner of the measures and programs adopted.

#### 2.7 Instruments

Without prejudice to Article 92, 93 and 94 of the Treaty, the Member States may support natural and legal persons by employing economic instruments and, where appropriate, this may be done in the framework of existing Community programs for certain suitable geographical regions and spheres of activity.

#### 2.8 Coastal waters

(1) Coastal waters are to be managed as particularly sensitive constituent parts of the ecosystem worthy of special protection. With regard to their sensitivity to nutrients and persistent and bioaccumulating substances, special attention is to be paid to their protection when drawing up management objectives for surface waters flowing into them.

(2) The economic use of coastal landscapes must take into account the function of the coastal waters as a constituent part of the ecosystem.

# 2.9 Waters whose quality is impaired by measures taken in other Member States

(1) If a Member State takes the view that one of its waters is impaired by pollution or water engineering activity in another Member State or other Member States, it shall hold formal consultations in order to determine whether the transboundary pollution or the water engineering activity does in fact have a significant impact on the water quality. Should that be the case, the necessary measures are to be taken.

(2) If these consultations do not in time lead to an agreement, the Member States concerned refer the matter to the Commission and furnish it with all the necessary information. After hearing the affected Member States, the Commission produces a proposal as quickly as possible on which the parties can agree. Among other things this proposal shall take into consideration the principles and rules established in the ECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes.

#### 3. Section: Groundwater

#### **3.1** Uses of groundwater

(1) Any abstraction, withdrawal and releasing of groundwater as well as any impounding, lowering and diverting of groundwater by installations designed or suited to this purpose requires prior authorization by the competent authorities of the Member State concerned.

(2) Measures of insignificant scope do not require a license.

(3) Uses of groundwater may only be permitted if there is no reason to expect a detrimental change and the individual uses do not exceed the replenishment rate of the groundwater.

(4) Groundwater is to be protected in all areas irrespective of current or planned use. Its natural condition is to be maintained or, where possible, restored.

#### **3.2** Protection areas

(1) Where it is so required for the protection of groundwater used for drinking water supplies, protection areas may be established by the competent authorities of the Member States. In these protection areas certain actions that can have a detrimental effect on the quality of groundwater may be prohibited or only permitted subject to limitations.

(2) If the prohibitions or restrictions on certain actions refer to agricultural activities, the requirements of Directive 91/676/EEC, including the targets defined in the action programs pursuant in Article 5 of this Directive, are to be met. They may need to be specified in a legally binding form. Where appropriate, the competent authorities award grants pursuant to Ordinance (EEC) No. 2078/92 and Ordinance (EEC) No. 2080/92 and under the grants program drawn up on the basis of these Ordinances.

#### 4. Section: Installations for handling water-hazardous substances

#### 4.1 Compulsory licensing

(1) The installations must be constructed and operated in such a way that the danger of their contaminating a body of water or causing any other detrimental change to its properties can be ruled out. They must at least accord with the best available technology and require an official license.

(2) The Commission will specify in detail the basic requirements for the characteristics and operation of installations and introduce a classification of water-hazardous substances according to the level of danger. The potential risk is determined by the level of danger and quantity of water-hazardous substances as well as by local hydrogeological conditions.

#### 5. Section: Required procedures, final provisions

#### 5.1 Measuring and monitoring system

(1) In the Member States the methods of measurement and analysis shall be harmonized.

(2) It is incumbent upon the Member States to produce national water quality maps in a standardized form to facilitate comparison.

#### 5.2 Reports

(1) Every five years the Member States furnish the Commission with information on the implementation of this Directive in the form of a sectoral report which also refers to other relevant Community Directives. This report is to be compiled on the basis of a questionnaire or form drawn up by the Commission according to the procedure laid down in Article 6 of Directive 91/692/EEC. The questionnaire or form is sent to the Member States six months prior to commencement of the review period. The report is to be presented to the Commission within six months of the end of the five-year period under review. The first report covers the period from 2001 to 2005.

(2) The Commission submits the country reports to the European Environment Agency. Within nine months of receipt the latter compiles a Community report on the implementation of this Directive.

#### 5.3 Establishment of a committee

(1) The Commission is assisted by a committee composed of representatives of the Member States and chaired by the representative of the Commission.

- (2) The Committee shall assist the Commission with the following tasks:
- revising the Annexes in line with scientific and technical progress,
- producing technical specifications for a uniform water quality classification system,
- developing proposals in connection with waters which belong to several Member States,
- defining areas in which the additional use of economic instruments many be of advantage.

#### 5.4 Repeal or amendment of existing provisions

In further Directives, the Community shall work out more detailed provisions, for instance concerning the emission standards to be applied.

#### Annex I: Best available technology

The expression "best available technology" describes the most efficient and most advanced state of the development of activities and respective operating methods which allows specific technologies to be regarded as a viable basis for achieving emission values so that emissions into and effects on environment as a whole can in general be avoided or, where this is not possible, reduced. As for the constituent terms:

 "technology" means both the applied technology and the way in which a plant is planned, built, maintained, operated and closed down;

- "available" means that the technologies concerned are developed on a scale that, taking account of the cost-benefit ratio, makes their use in the respective sector of industry possible under economically and technically feasible conditions, irrespective of whether these technologies are used or produced within the Member State concerned;
- "best" refers to technology which is most effective in achieving a generally high protection standard for the environment as a whole.

In determining the best available technology consideration is to be given not only to the potential for effective waste water treatment but also to the following in particular:

- use of low-waste technology;
- use of less hazardous substances;
- promotion of recovery and recycling of substances produced and used in the individual processes and, where applicable, of waste;
- comparable processes, devices and operating methods which have been successfully tried and tested on an industrial scale;
- progress in technology and in scientific knowledge;
- type, effects and quantity of the respective emissions;
- starting dates for putting the new or the existing installations into operation;
- the time required for introducing an improved technology;
- a potentially more economical consumption of water and other raw materials as well as energy efficiency;
- the necessity to avoid or reduce as far as possible the overall incidence of emissions and the hazards facing the environment;
- the necessity to prevent accidents and mitigate their consequences;

the information published by the Commission pursuant to Article 16
Paragraph 2 of Directive 96/EC of the IPPC Directive or by international organizations.

Note 1:

As against the draft of the IPPC Directive, the qualification "as long as they are reasonably accessible to the operator" is omitted. The final definition of "best available technology" is to be formulated uniformly for this Framework Directive and the IPPC Directive.

Note 2:

Concerning "best available technology", economic aspects are to be taken into account when determining values for the respective branch of industry but not a second time in each specific case. Otherwise, not only would the environment be damaged but competition would be distorted.

#### Annex II: Best environmental practice

1. The expression "best environmental practice" refers to the most appropriate combination of supervisory measures and strategies for protecting the environment. When choosing for a specific case, the following catalogue of staggered measures shall at least be examined:

 informing and educating the public and users of the environmental consequences that occur from the choice of certain activities and certain products, their use and final disposal;

- developing and applying codes of conduct for good environmental practice covering all aspects of activity during the lifetime of a product;
- compulsory labeling which notifies the user of the environmental risks of a product, its use and final disposal;
- economizing on resources including energy;
- provision of collection and disposal systems for the general public;
- avoiding the use of hazardous substances or products and the production of dangerous waste;
- recycling, recovery and re-use,
- applying market economic instruments to activities, products or groups of products;
- introducing a licensing system which comprises a number of restrictions or a ban.

2. In order to determine which combination of measures in general or in specific cases represents best environmental practice, consideration shall above all be given to the following:

- environmental danger caused by the product, its production, its use and its final disposal;
- substitution by less environmentally polluting activities or substances;
- scope and application;
- possible advantages and disadvantages for the environment as a result of using substitute substances or activities;
- progress and changes in scientific knowledge and scientific understanding;
- time-limits on implementation:
- social and economic consequences.

3. The above shows that best environmental practice for a specific source changes in the course of time in the light of technical progress, economic and social factors and changes in scientific knowledge and scientific understanding.

4. Should the reduction in inputs achieved by applying best environmental practice not lead to environmentally acceptable results, additional measures are to be employed and best environmental practice is to be redefined.

#### Annex III

This annex comprises:

- Annexes I and III of Directive 82/176/EEC
- Annexes I and III of Directive 83/513/EEC
- Annex I of Directive 84/156/EEC
- Annexes I and III of Directive 84/491/EEC
- Annexes I and II of Directive 86/280/EEC, each without Part B.