

COMMISSION OF THE EUROPEAN COMMUNITIES

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Brussels, 15.06.1994

94/0152 (SYN)

Proposal for a
COUNCIL DIRECTIVE
on the ecological quality of water

(presented by the Commission)

EXPLANATORY MEMORANDUM

1. Justification of the proposal

1.1 Reference to the 5th Action Programme

In its resolution of 28 June 1988 the Environment Council invited the Commission to submit proposals for legislation required at Community level to improve the quality of surface waters in the Community, in the light of the conclusions of the Community Water Policy Ministerial Seminar in Frankfurt on 27 and 28 June 1988.

The Community's 5th Environment Action Programme, Towards Sustainability, approved by Council Resolution⁽¹⁾ of 1 February 1993, requests the presentation of a proposal for a directive concerning improvement of the ecological quality of surface waters.

Pursuant to the results of the European Council in Edinburgh, the Commission intends with the present proposal to simplify and increase the consistency of Community surface water legislation.

1.2 Scientific Basis

Even though improvements have been obtained in the quality of some surface waters in recent years, the general quality in all Member States needs to be improved and the Commission believes that Member States need to carry out a systematic assessment of water quality and that supplementary measures need to be taken in individual Community surface waters in order to preserve and improve water quality.

The proportion of coastal waters and estuaries damaged by pollution or eutrophication has risen in recent years and is still on the increase. Acidification still poses a problem to inland water bodies. Pollutants unnoticed in the past threaten to become important, particularly pesticides, and more generally, micropollutants.

With the adoption of Directive 91/271/EEC concerning Urban Waste Water Treatment⁽²⁾ and Directive 91/676/EEC concerning the Protection of Waters against Pollution caused by Nitrates from Agricultural Sources⁽³⁾, a decisive step has been taken to reduce water pollution in Community surface waters from the two major sources of water pollution.

Furthermore, the most important industrial discharges causing water pollution will be regulated once the Commission's proposal for a Council Directive on integrated pollution prevention and control⁽⁴⁾ is adopted.

(1) OJ No C 138, 17.5.1993, p. 1.

(2) OJ No L 135, 21.5.1991, p. 40.

(3) OJ No L 375, 31.12.1991, p. 1.

(4) COM(93) 423 final.

These actions, taken together, will constitute the baseline requirements in the whole Community to protect the quality of surface waters by limiting pollution from a number of important sources.

The implementation of these Directives alone will, however, not in itself ensure good water quality in all Community surface waters as there are also many other factors contributing to unsatisfactory water quality throughout the Community.

These other factors contributing significantly to the deterioration of water quality may be point sources, diffuse sources or other anthropogenic factors.

This proposal will ensure that Member States take the necessary complementary measures beyond the baseline requirements to polluting activities in order to ensure that a good ecological water quality will ultimately be achieved.

Also, this proposal will replace existing water quality legislation for waters designated as fish waters and shellfish waters and, if the Council acting upon a proposal from the Commission adopts a revision of the Directive⁽⁵⁾ relating to the quality of water intended for human consumption, the Commission will consider whether the existing Community legislation concerning the quality required of surface water intended for the abstraction of drinking water can be repealed.

Some sources of pollution are regulated, directly or indirectly, at Community level by other, more specific, Directives concerning water quality according to designated use,⁽⁶⁾ water intended for human consumption⁽⁷⁾ and the protection of water from pollution by dangerous substances⁽⁸⁾. Other sources are regulated by purely national legislation in the Member States, especially pollution by substances appearing in list II in the Directive on dangerous substances.

For some waters, owing to their transboundary character, the Community and the Member States have entered into international commitments obliging contracting parties to take measures to reduce emissions of certain pollutants from various sources of pollution.

⁽⁵⁾ Council Directive 80/778/EEC, OJ No L 229, 30.8.1980, p. 11.

⁽⁶⁾ Council Directive 76/160/EEC, OJ No L 31, 5.2.1976, p. 1,
Council Directive 78/659/EEC, OJ No L 222, 14.8.1978, p. 1,
Council Directive 79/923/EEC, OJ No L 281, 10.11.1979, p. 47,
Council Directive 75/440/EEC, OJ No L 194, 25.7.1975, p. 26 and
Council Directive 79/869/EEC, OJ No L 271, 29.10.1979, p. 44.

⁽⁷⁾ Council Directive 80/778/EEC, OJ No L 229, 30.8.1980, p. 11.

⁽⁸⁾ Council Directive 76/464/EEC, OJ No L 129, 18.5.1976, p. 23,
Council Directive 86/280/EEC, OJ No L 181, 4.7.1986, p. 16,
Council Directive 82/176/EEC, OJ No L 81, 27.3.1982, p. 29,
Council Directive 84/156/EEC, OJ No L 74, 17.3.1984, p. 49,
Council Directive 83/513/EEC, OJ No L 291, 24.10.1983, p. 1, and
Council Directive 84/491/EEC, OJ No L 274, 17.10.1984, p. 11.

There is, however, at Community level no general and comprehensive mechanism or procedure to ensure that the measures taken are sufficient to guarantee that surface water quality in the Community approaches a good ecological quality and to ensure the necessary concertation between Member States on transboundary water and coordination with a view to fulfilment of international obligations entered into by the Member States and/or the Community.

This proposal will provide the necessary mechanism to ensure an efficient compliance with international obligations.

1.3 Environmental objective to be achieved

According to "The State of the Environment in the European Community"⁽⁹⁾, 25% of the rivers and canals in the Community have water which is not suitable for the production of drinking water. The purpose of the present proposal is to ensure that this and a number of other problems of a similar nature are adressed properly.

The environmental objective to be reached is to maintain water quality of Community waters where it is already good and ultimately achieve good ecological water quality elsewhere. The Commission has drawn up this proposal with procedural requirements aiming to reach this objective.

A body of water is considered to be of good ecological quality when the self-purification of the water body is maintained, the diversity of naturally occurring species is preserved and the structure and quality of the sediments are able to sustain the naturally occurring biological community of the ecosystem (see also point 2.8 on Proportionality).

The protection of ground water from pollution will be considered in separate proposals which the Commission will present as a follow-up of the Den Haag Ministerial Seminar on Ground water (26-27 November 1991) and the Council Resolution of 25 February 1992⁽¹⁰⁾.

The current proposal, however, will already help to maintain or improve the quality of ground water through better protection of surface water which may percolate into ground water and may be interconnected to aquifers.

2. Subsidiarity and Costs

2.1 What are the objectives of the proposed action compared with the obligations of the Community?

The present proposal has been elaborated to meet the requirements of Article 130r of the Treaty in order to preserve, protect and improve the quality of Community surface waters by preventive action at the sources of pollution.

⁽⁹⁾ COM(92) 23 final.

⁽¹⁰⁾ OJ No C 59, 6.3.1992, p. 2.

Community action is needed in order to protect the water environment, and in particular to

- ensure the availability of good quality fresh surface water for abstraction for all legitimate purposes in all places at all times;
- safeguard the recreational potential of Community surface waters;
- coordinate Member States' efforts to improve surface water quality, inter alia to comply with the international obligations of the Community;
- ensure the solution of transboundary problems of water pollution.

2.2 Is the proposed action based on an exclusive competence of the Community or a competence shared with the Member States?

The main objective of this proposal is to preserve and improve the ecological quality of surface waters in accordance with the objectives mentioned in Article 130r of the EEC Treaty.

Therefore, the legal basis for the proposal is Article 130s(1) of the EEC Treaty and the competence is shared between Member States and the Community.

2.3 What is the Community dimension of the problem?

All Member States are concerned by this action.

The supplementary measures needed to ensure the availability of clean water may, in many waters, not be substantial, but are nevertheless necessary in order to ensure that the water resource will be available for legitimate human, economic and recreational uses.

Even though a number of national and international programmes for improvement of surface water quality already exist covering certain waters, a large number of Community surface waters are not covered by such systematic efforts. Experience shows that, unless Community action is taken, the establishment of such programmes requires a triggering event, e.g. the accidental fire at Sandoz in 1986 which led to the Rhine Action Programme, or the Torrey Canyon, Amoco Cadiz, Exxon Valdez and Braer oil spill accidents which have promoted many initiatives at the Community and international level.

2.4 Which solution is most efficient comparing the means of the Community and of the Member States?

The action which is necessary in order to reach the operational objectives defined by Member States will vary according to regional conditions.

Other Community water legislation defines the baseline measures to protect surface waters against pollution and to improve ecological quality. These measures include treatment of urban waste water, prevention of diffuse pollution with nitrates from agricultural sources and the limitation of discharges of certain dangerous substances. Furthermore, the proposal on integrated pollution prevention and control will, when adopted, add baseline measures to limit discharges of pollution into surface water from the most important industrial sectors.

The action to be pursued under the present proposal therefore comprises only the necessary additional action over and above these baseline measures. This additional action will ensure that Member States will be able to benefit fully from the substantial investments made in the implementation of the measures already decided or taken.

These should include for consideration such actions as reduction of discharges of pollution not covered by existing measures, introduction of environmentally friendly practices in certain sectors, e.g. agriculture, fisheries and transportation, regulation of products whose use may give rise to pollution, regulation of sources of air pollution which give rise to subsequent water pollution, etc. Also, it could include positive action such as measures to ensure free passage for aquatic organisms and ensuring their habitats.

In order to obtain the most cost-efficient solutions, careful consideration must in each case be given to which mix of additional action will be the most appropriate and to how it is ensured that the different actions taken will form a coherent whole.

Furthermore, it must be considered that other Community policy areas such as e.g. fisheries, agriculture, regional policy and transport interact with water quality policy. Actions taken in these areas may influence the ease with which certain actions to improve water quality may be taken just as actions to improve water quality may significantly influence reaching the objectives of these other policy areas.

Experience shows that, in these sectors, no significant action is taken unless there are legally binding Community provisions, even though Member States and the Community have entered into political commitments to do so. This is particularly the case for nutrients and pesticides emanating from activities which are otherwise subject to extensive regulation at Community level, e.g. agriculture.

The point of departure is therefore that some of the additional action to improve water quality is most efficiently taken by Member States while other action is most efficiently taken by the Community, including such action in other Community policies as is considered necessary in order to allow Member States to take effective action to curb pollution from the sectors concerned.

Furthermore, due to the transboundary movements of a number of surface waters and the associated transport of pollutants, isolated actions by individual Member States will often not be cost-effective, if effective at all. This is e.g. the case in the North Sea area with its associated river basins as well as within a number of its river basins.

There is thus, according to Article 130r of the Treaty, an obligation for the Community to act in order to contribute to the pursuit of the improvement of water quality.

The principle of division of tasks between the Community and the Member States is, among other, reflected in the implementation of a number of international water protection conventions to which the Community and some or all of the Member States are contracting parties. In such conventions a series of measures have been agreed of which some are to be implemented at the Community level while others are to be implemented by Member States alone.

There is at present no Community obligation for Member States to take this additional action to improve water quality and therefore also no way to ensure that the Community measures with a positive impact on water pollution are complemented by concerted measures in Member States to ensure the overall efficiency of Community water policy.

This proposal seeks to fill this gap. In accordance with Articles 130r and 3b of the Treaty, it leaves it to Member States to decide, in accordance with regional and local conditions and in respect of the protection of any other waters affected, which action is necessary to improve water quality.

2.5 Which added value will the envisaged action of the Community bring and what would be the costs of inaction?

The purpose of the present proposal is to create the necessary framework to make Member States define and implement the supplementary measures, over and above measures already contained in Community legislation, to obtain a good ecological quality of their surface waters. It is therefore a proposal to ensure that Member States will be able to reap the full benefits of the considerable investments and efforts put into the implementation of Community legislation on urban waste water, nitrates from agricultural sources, discharges of dangerous substances and, when adopted, the proposal concerning industrial pollution prevention and control. Among other, the proposal will ensure that surface water after simple treatment will be a suitable resource in industry, agriculture and for domestic purposes.

The benefits are those associated with an ecological quality of surface waters and their sustainable use: increased possibilities for recreational use by the local population, conservation of nature values and species, increased tourism potential, improving the potential for fishery and, especially for fresh waters, the qualitative and quantitative improvement of an important resource for the production of water suitable for drinking, agricultural, industrial and recreational use and other uses essential for human and economic activity. Water also has an essential role in the preservation of any ecosystem. Fresh surface water is presently the raw material for production of an estimated 30% of the Community's drinking water.

Some of the benefits (e.g. nature conservation and recreational use) can not be meaningfully quantified in monetary terms. Others (e.g. tourism and fisheries potential), can only be quantified with great difficulty and with considerable uncertainties. Finally, for surface water abstracted for different uses, the benefits may be equated with the savings in treatment expenses for this water as a result of implementation of the proposal.

The easily quantifiable part of the benefits may therefore be expressed as the additional costs of providing advanced treatment of abstracted surface waters in order to remove pollution before use. According to information provided at the Commission's Conference on Drinking Water in September 1993, the costs of advanced treatment to remove pesticides in 1% of the total of currently abstracted surface water would require investments of the order of ECU 5 000 million.

Furthermore, the proposal will improve the consistency in Community water policy and modernize it in a number of respects. Among other the proposal will ensure that:

- the full benefits of the considerable investments, already made or decided, to improve surface water quality will be protected;
- all surface waters in the Community will be covered by Community water policy in contrast to the present situation where the main surface water quality directives only apply to waters either designated or identified by Member States;
- all toxic or harmful chemical substances having deleterious effects on the environment will be covered instead of selected substances according to the annexes of existing surface water quality directives;
- in line with modern understanding of surface water quality, water quality will be monitored and classified in terms of biological as well as chemical quality;
- monitoring and classification of the quality of surface waters in the Community will be carried out so that the classification according to quality will be comparable across the Community;
- Member States will carry out programmes within certain deadlines in order to improve water quality, where necessary, to reach a good ecological quality of the waters and report on these programmes to the Community;
- a framework is available for the efficient implementation of obligations entered into by the Community and the Member States according to international conventions and other international commitments.

It is not possible to give any exact global estimate of the costs of implementing the proposal, as the need for improvements in individual waters and the pace at which Member States will choose to make such improvements are unknown today. Such costs will, according to the polluter pays principle, be borne by the polluters themselves.

It is expected that the investments in supplementary measures necessary to achieve good ecological quality of the surface waters concerned will fall mainly in the following categories:

1. restoration projects to accelerate recovery of damaged fresh water bodies;
2. measures in industries not covered by the proposal concerning integrated pollution prevention and control;
3. measures in agriculture and aquaculture to reduce pollution of surface waters.

Apart from these investments, there may be derived costs where water abstraction has to be reduced in order to be able meet the objectives of the proposal.

Based on experience from actions and programmes implemented by one or more Member States, it is, however, possible to give rough estimate of what the implementation of the present proposal could cost in the Member States. To obtain the extra costs in Member States following the adoption of this proposal, a deduction should be made for investments already decided or made according to national legislation or otherwise.

River and lake restoration in order to accelerate recovery of damaged waters are possible as components under the integrated programmes, event though the proposal contains no obligation to include such activities. The maximum investment for such restauration is estimated at ECU 400-600 million.

The Rhine river basin has been used as the basis for estimation of the industrial investment necessary in order to comply with the proposal. The Rhine basin, which represents almost 30% of the industrial output of the Community, has been chosen firstly because the costs of the Rhine Action Programme under the International Commission for the Protection of the Rhine, which has similar objectives to those of this proposal, are well known and secondly, because of the high concentration of industry and population in this area. The density of industrial output in the part of the Rhine basin covered by the Rhine Action Programme is thus 3.4 times the Community average, while the population density is almost twice the Community average.

Based on the size of the investments decided in the Rhine Action Programme, the necessary total industrial investments in the Community to give a sufficient protection of the water environment may be estimated to be of the order of ECU 15 000-20 000 million. By far the major part of this investment concerns the implementation of requirements to industry following from the proposal on integrated pollution prevention and control when adopted and Community legislation already in force concerning dangerous substances and urban waste water treatment. Thus, additional industrial investments under this proposal are not expected to exceed ECU 2 000 million.

Experience from the implementation of the Rhine Action Programme indicates that no appreciable adverse effect on industrial competitiveness is to be expected provided Member States take account of the adjustment to new conditions in the elaboration of integrated programmes.

Especially as concerns agriculture, it is foreseen that the recently agreed adjustments of the Common Agriculture Policy will help enable farmers to take those supplementary measures also deemed necessary to reach the objectives of the integrated programmes.

In order to prevent that certain sectors, including agriculture, could have elevated costs as the result of a too rapid implementation of measures to be taken to improve water quality under the integrated programmes, the proposal makes no requirements to the pace at which such measures are required, thus giving the sectors the possibility of adapting to new conditions. The decisions concerning the pace at which to proceed are left to the Member States.

The total additional investments in Member States following the adoption of the present proposal are therefore not expected to exceed ECU 3 000 million. Total annual Community environmental investments in the year 2000 have been estimated by an environmental consultancy company to be of the order of ECU 100 000 million. Assuming a ten-year period

for full implementation of the measures to be taken under this proposal, the estimated investment will correspond to well below 1% of total annual environmental investments in the period concerned.

The costs for Member States of monitoring, establishment of inventories and of planning are the management costs necessary in order to implement the integrated programmes in a cost-efficient manner. With the increasing role of environmental expenditure in the economy, a solid knowledge of the state of the environment becomes vital to ensure coherence between the objectives to reach and the means to reach them, including the necessary investments.

The present proposal has been elaborated with the emphasis on a management framework to establish coherence between the environmental objectives, the knowledge concerning the quality of the surface water environment and pollution sources, and the decisions on the measures to be taken. The management costs of this proposal may be regarded as the costs of establishing this coherence and thus avoiding possible substantial additional treatment costs for abstracted water.

Based on information on the extent of monitoring of surface water quality and the costs of such monitoring in selected Member States, it is estimated that present annual expenditure in the Member States is approximately ECU 150 million. This figure includes the costs of monitoring according to the Directives which will be repealed with the adoption of the present proposal. The expenditure is expected to rise to approximately ECU 500 million annually on implementation of this proposal. The additional costs are thus of the order of ECU 350 million annually, or approximately ECU 1 per citizen.

According to official statistics, approximately 170 000 million m³ of surface water are abstracted annually in the Community for different uses. This amount includes, for some Member States, water used as cooling water and for irrigation and does therefore not directly reflect the quantity of water which has to meet stringent quality standards such as water for domestic purposes and some industrial applications. No systematic data are available concerning the amounts of water used for different purposes in the Community. Probably well below half of this water has to meet stringent quality requirements.

The purely economic cost of not implementing the present proposal may be equated with the costs necessary to provide special treatment for the part of this water which can no longer live up to the necessary quality requirements. Based on this conception, the investment costs, in a scenario where the present proposal is not adopted, will exceed the investments necessary to implement the proposal if more than about 0.5% of the surface water abstracted has to be subjected to advanced treatment to remove pollution (e.g. pesticides).

2.6 Which instruments does the Community dispose of?

The possible instruments in this case are a Council Regulation, Council Directive and a Council Recommendation. However, a Recommendation would not be sufficient to ensure that the necessary measures are taken by Member States.

2.7 Will a Directive defining the general objectives to be achieved, leaving the implementation to the Member States, be sufficient?

There are several underlying reasons for the deterioration of the quality of surface water resources which vary for individual waters. Therefore, a procedural approach has been chosen rather than a traditional regulatory approach targeted on the remaining important sources of pollution causing deterioration in individual Community waters.

The proposal is a supplement to existing Community legislation concerning the sources of water pollution which are responsible for the bulk of environmental problems in Community surface waters (urban waste water, nitrates from agriculture and dangerous substances).

Rather than imposing a number of measures defined at Community level on all polluters, this procedural approach allows the elaboration of solutions tailored to the needs in individual waters. In this way, a more cost-effective improvement of water quality is allowed compared to detailed Community regulation, applicable everywhere, of potential sources of insufficient water quality.

The instrument chosen to implement the present proposal is a Council Directive. The directive as such fixes only the general objectives and aims to be attained by the Member States, and leaves to them the choice of appropriate means and ways to achieve these objectives. In doing so, the Member States should take into account the specific conditions of each body of water concerned by this proposal.

2.8 Proportionality

In the drafting of this procedural proposal emphasis has been placed on the application of the subsidiarity principle, in accordance with Article 3b of the EC Treaty and the results of the Edinburgh Summit.

In view of the diversity of climatic and hydrological conditions in the different regions of the Community, it is not possible to establish a precise, quantified definition of ecological quality applicable to all Community waters. The definition of ecological quality in this proposal is therefore expressed in qualitative terms and Member States are themselves required to define an operational target for the improvement of ecological water quality.

The proposal also leaves it to Member States to define means of meeting these targets and the pace at which they are to be met within the general framework of the Directive.

Finally, it is for Member States to ensure that the most cost-effective combination of measures is taken, taking account of the sources (point and diffuse) at which pollution may be reduced in the most economical way.

3. Results of consultations with affected partners

The present proposal has been drawn up in close contact and consultation with the scientific community and with the Member States. The Commission has been assisted in drawing up this proposal by a network of relevant scientific institutions in Member States.

In 1989 a seminar open to the public and with participation of representatives from Member States' competent authorities, industry, the water industry and scientific institutions was held to discuss the possibility of working out a proposal for a directive on ecological water quality. In December 1991 an international conference with more than 300 participants from competent authorities in Member States, scientific institutions and industry was held to discuss the application of the underlying principles of the draft proposal in relation to river quality management. In summary, the conclusion of these events was that there was agreement on the general framework, that the approach taken is appropriate for the Community and that the practical example of surface water managements demonstrate the feasibility of the approach.

Two meetings of national experts from Member States have been held as part of the preparation of the proposal, in September 1989 and in June 1991. The result of these meetings was general support for the need for a directive to complement existing directives, the need to define an ecological quality target and to fix aims to improve the quality of surface waters, to establish a common simplified classification system for surface water quality and to establish integrated programmes based on the application of best available techniques and best environmental practices and avoiding too heavy administrative burdens. Also, there is agreement in principle about the range of elements to be considered in the evaluation of the quality of surface water. The comments received from Member States have been taken into account in the elaboration of the present proposal (Articles 3, 5, 6, 10, 11 and 12).

The proposal has been discussed at a consultation meeting with the EFTA countries.

Furthermore, the provisions about consultation of the public and the interested parties will ensure that these will be consulted before integrated programmes, as provided for in Article 6, defining the measures to be taken are finalized and adopted.

Finally, the Commission has, while drafting the proposal, received numerous comments from economic sectors, notably industry and agriculture, expecting to be affected by the integrated programmes.

4. Description of legislative situation in Member States

In areas not covered by Community legislation, there is much variation between Member States' legislation aiming at improving surface water quality. Some Member States have very advanced monitoring and planning systems for maintaining and improving surface water quality, while other Member States have less ambitious programmes. All Member States have some monitoring activities, mainly resulting from obligations under Community legislation.

A number of Member States already have national or regional administrative structures in place to address the problems of improving surface water quality. Thus, in the United Kingdom there is a National Rivers Authority responsible for monitoring and improving water quality in England and Wales. In France the Agences de Bassin established for different river basins are responsible for overall coordination and administration in order to ensure the quality of fresh surface waters. In Spain La Dirección General de Calidad de las Aguas which was established in 1991 and the autonomous regions are responsible for monitoring water quality and licensing polluting discharges. The present proposal will enable these institutions to tackle a number of important pollution problems more efficiently.

In order to implement the proposal Member States will need:

- to define operational quality targets for all Community surface waters;
- to set up a monitoring system for water quality and an inventory of discharges and of sources of diffuse pollution;
- to draw up integrated programmes to meet the operational quality targets;
- to implement the measures contained in these programmes.

The extent of the extra effort required to implement this proposal varies and depends on the present use of quality objectives, monitoring, inventories and regulation of polluting activities.

5. Explanation of provisions of the proposal

A. Ecological Quality

The proposed Directive requires that for each water or for groups of waters Member States set an operational quality target for good ecological quality as defined in Article 2 of the proposal and that they draw up integrated programmes with the ultimate aim of meeting these targets.

The Directive provides an exception (Article 10) for waters of insignificant size and with an insignificant effect on the quality of other waters.

The specification and the adaptation to local conditions of "ecological quality" for individual surface waters is left to Member States (Article 5 and Annexes I and II). As already indicated, the Directive only gives general outlines of factors to be considered in defining operational targets.

The definition by Member States of operational targets is thus an important part of the preparation of integrated programmes.

B. Monitoring, Detection of sources of pollution and Integrated Programmes

Monitoring and assessment of the water quality (Article 3 and 4, Annex V) are based on:

1. Regular measurement of the quality of the waters concerned (Article 3).
2. Regularly updated inventories of sources of pollution comprising point sources as well as sources of diffuse pollution (Article 4).

It is expected that Member States will be able to utilize data from existing monitoring systems used in conjunction with other Council Directives and with national legislation.

In the technical specifications to be drawn up by the Commission for monitoring and classification of surface waters (Article 3) and for pollution inventories (Article 4), due consideration will be given to establishing a harmonized basis for the data in order to enable comparison of data between different Member States.

These specifications will thus ensure the comparability of monitoring data and quality classifications from the second and following determinations of ecological water quality under this proposal. The first determination will have to comply with the requirements of Annex V of the proposal in order to ensure the highest possible degree of comparability of monitoring data and quality classifications. This first determination is expected to a large extent to build on the existing monitoring systems, including those set up according to Community legislation.

The integrated programmes (Article 6, and Annex VI) will contain all measures to control water pollution, i.e. existing Community and national legislation and other legal commitments (e.g. under international agreements), as well as new initiatives to reduce pollution and meet the operational targets which have been defined by the Member States themselves.

These measures will include codes of good agricultural practice and action programmes established in accordance with the Council Directive concerning the protection of waters against pollution caused by nitrates from agricultural sources⁽¹¹⁾.

Otherwise, the measures contained in the programmes will be based on the implementation of Best Environmental Practices and, as far as point sources are concerned, also on Best Available Technology. These are defined in Annexes III and IV.

The integrated programmes are to contain detailed information about the measures to be taken, indicating who is to take them and when they are to be taken, and about anticipated investment requirements and reductions in pollution.

Article 6(5) requires the competent authorities in the Member States to make the necessary changes to the integrated programmes when new polluting activities are initiated or when existing polluting activities are expanded significantly. It will be left to the competent authorities in Member States, in accordance with the principle of subsidiarity, to judge whether these changes will affect water quality significantly, and if so to go through a phase of public consultation in accordance with Article 7.

The main rule of the Directive is that Member States implement the measures contained in the programmes.

They may do this by ensuring that individuals or groups of individuals, as well as other entities responsible for measures and practices, are legally bound to reduce pollution in the way foreseen in the programmes. Alternatively, economic instruments may be used to encourage compliance with the Directive.

Under the Directive there is no Community obligation to meet the operational targets provided that all measures foreseen in the programme have been executed. This is justified because unexpected or unforeseen circumstances, mainly due to natural characteristics of the ecosystem concerned, might interfere or make it difficult or impossible to reach the assigned operational targets (see also part E hereafter).

⁽¹¹⁾ OJ No L 375, 31.12.1991, p. 1.

C. Information of the public

Public consultation before finalizing integrated programmes is provided for in Article 7 of the proposal. This serves the purpose of informing both the general public and the parties which will have to implement the measures contained in the programme, allowing them to react and state their points of view before final decisions are made.

The proposal allows parties with a specific interest at least two months to submit their comments. Member States are expected to explain the extent to which they have taken account of such comments.

D. Use of Economic Instruments

Article 8 of the proposed Directive mentions the use of economic instruments by Member States in the implementation of the Directive. The Commission is of the opinion that Member States should be encouraged to apply such instruments as an effective means of motivating polluters to comply with the integrated programmes.

Community financial support could be allocated from the existing financial instruments for certain programmes or part of programmes in eligible geographical areas and for certain sectors of intervention.

E. Cases where not all the targets can be reached

The proposed Directive provides as a general requirement that all Community surface waters should be covered by integrated programmes aiming to meet targets for good ecological quality.

There are, however, two exceptions to the requirement that the programmes should aim at achieving good ecological quality: In exceptional cases, where:

1. there is existing heavy pollution as a result of past pollution, e.g. in harbours, or pollution from third countries making it extremely difficult or impossible to improve ecological quality, and where effective measures to prevent deterioration are being implemented (Article 11);

and

2. exclusively natural phenomena make it impossible to achieve good ecological quality, e.g. in volcanic lakes and in naturally acid rivers (Article 12), and where effective measures are taken by the Member State concerned to preserve the quality of these special ecosystems.

In order to benefit from these exceptions, Member States must follow the procedure as outlined in Articles 11 and 12.

It should be emphasized that the obligation to apply Best Available Technologies and Best Environmental Practices and to prevent pollution applies to all relevant sources of man-made pollution.

F. Reports

Member States must report on the implementation of the Directive every three years (Article 14).

Reports from Member States will form the basis of a Community report drawn up and published by the Commission.

The Commission will also make a comparative assessment of the application of the Directive in Member States and of the quality of Community surface waters. This assessment may include all aspects of the application of the proposed Directive, including aspects not covered by national reports. The assessment will be sent to the Council and to the Parliament.

G. The Committee

In implementing the proposed Directive the Commission will be assisted by a Committee with experts from each Member State (Article 16).

The Committee will be expected to assist the Commission in the following tasks:

1. Adapting the annexes to the Directive to scientific and technological progress.
2. Assessment of the monitoring systems and of the integrated programmes and establishment of technical specifications for monitoring systems and inventories.
3. Decisions relating to waters common to more than one Member State.
4. Identification of sectors where economic instruments will be useful.

H. Repeal or Amendments of Existing Community Acts

When the present proposal is implemented in Member States' legislation it is proposed that Directive 78/659/EEC⁽¹²⁾ on the quality of fresh waters needing protection or improvement in order to support fish life and Directive 79/923/EEC⁽¹³⁾ on the quality required of shellfish waters are repealed, as the objectives of these Directives are covered by the proposal for the waters concerned.

These existing surface water quality directives define are designed to protect fishlife and shellfish in waters designated for these purposes by the Member States. The protection envisaged in these directives is based on the compliance of a number of physical, chemical and microbiological parameters with limit values defined in their annexes. Given the fact that these directives only apply in areas designated by Member States and that their scope is completely covered by this proposal and by the Council Directive 91/492/EEC⁽¹⁴⁾ laying down the health conditions for the production and the placing on the market of live bivalve molluscs, these surface water quality directives are no longer considered necessary.

⁽¹²⁾ OJ No L 222, 14.8.1978, p. 1.

⁽¹³⁾ OJ No L 281, 10.11.1979; p. 47.

⁽¹⁴⁾ OJ No L 268, 24.9.1991, p. 1.

In order to maintain continuity in the measures taken to protect surface waters against pollution, the Commission will ensure that the existing surface water legislation is fully enforced until the repeal date.

For Directive 75/440/EEC⁽¹⁵⁾ concerning the quality required of surface water intended for the abstraction of drinking water in the Member States and Directive 79/869/EEC⁽¹⁶⁾ concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States, a repeal has not been included in this proposal as some of the objectives of these acts relate specifically to problems of human health and drinking water production which are not covered by the present proposal. However, if the Council acting upon a proposal from the Commission adopts a revision of Directive 80/778/EEC⁽¹⁷⁾ relating to the quality of water intended for human consumption, it will be possible to incorporate these Directives in a revised Directive and to repeal them.

In this case, the Commission will consider the possibility that Member States set quality objectives and establish and implement programmes to improve fresh surface waters intended to the abstraction of drinking water in the framework of this proposal on ecological water quality.

Finally, once the present proposal has been adopted, the Commission will consider amending the annexes of Council Decision 77/795/EEC⁽¹⁸⁾ establishing a common procedure for the exchange of information on the quality of surface fresh water in the Community in order to bring this Decision into line with the present proposal.

6. Business Impact Assessment

No Business Impact Assessment with special emphasis on SMEs is necessary for this proposal. It is, in general, difficult to predict the impact of the proposal on enterprises until more is known about which measures Member States will consider necessary in order to improve water quality and how Member States intend to implement such measures.

7. Financial statement

A financial statement is annexed to this memorandum.

⁽¹⁵⁾ OJ No L 194, 25.7.1975, p. 26.

⁽¹⁶⁾ OJ No L 271, 29.10.1979, p. 44.

⁽¹⁷⁾ OJ No L 229, 30.8.1980, p. 11.

⁽¹⁸⁾ OJ No L 334, 24.12.1977, p. 29.

Proposal for a
COUNCIL DIRECTIVE
on the ecological quality of water

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community, and in particular Article 130s(1) thereof,

Having regard to the proposal from the Commission⁽¹⁾,

In cooperation with the European Parliament⁽²⁾,

Having regard to the opinion of the Economic and Social Committee⁽³⁾,

Whereas the fifth Community environmental action programme approved by the Council Resolution of 1 February 1993⁽⁴⁾ calls for the conservation of nature and natural resources;

Whereas the conclusions of the Community Water Policy Ministerial Seminar in Frankfurt in 1988 highlighted the need for Community legislation covering ecological quality, with the detailed content to be worked out at national or regional level;

Whereas in its resolution of 28 June 1988⁽⁵⁾ the Council asked the Commission to submit proposals to improve ecological quality in Community surface waters;

Whereas measures need to be taken to protect surface fresh water resources, which are under increasing pressure from the continuous growth in demand for good quality water for all purposes, and in particular to protect ecosystems and to satisfy the need for good quality drinking water;

Whereas Community action and a Community framework are needed, in accordance with the principle of subsidiarity, to lay down overall principles in order to ensure that sufficient amounts of good quality fresh surface water are available at all times, to coordinate Member States' efforts to improve surface water quality *inter alia* to comply with the international obligations of the Community, to contribute to the solution of transboundary pollution problems and to safeguard the recreational potential of Community surface waters;

Whereas existing Community surface water standards or quality objectives apply only to certain surface waters and cover only limited aspects of water quality;

(1) OJ No C

(2) OJ No C

(3) OJ No C

(4) OJ No C 138, 17.5.1993, p. 1.

(5) OJ No C 209, 9.8.1988, p. 3.

Whereas experience has shown that in spite of efforts by the Community and the Member States to control water pollution the proportion of coastal waters and estuaries damaged by pollution is on the increase and pollution still poses a problem to inland waters;

Whereas there is a need for a comprehensive framework and measures covering all relevant aspects of water quality, in order to protect water in the Community from further deterioration and in order to attain the high level of environmental protection aimed at in the Treaty;

Whereas, the measures concerning all aspects of surface water quality should take into account the necessity of ensuring equitable conditions of competition in the energy sector;

Whereas such measures should apply to all the surface waters of the Member States, including territorial sea and internal waters, but for practical reasons Member States should be authorized to exclude artificially created waterways which form part of a sewage collection system and waters of insignificant size which have no significant effect on the quality of other waters;

Whereas it is necessary to determine existing levels of pollution in surface waters and to draw up inventories of the various sources of pollution and other anthropogenic factors affecting water quality in order to decide on the measures needed to improve water quality; whereas, to ensure the comparability of data from the various Member States, the Commission should establish technical specifications for the above;

Whereas a common definition of ecological quality and good ecological quality should be established; whereas operational targets should be set for ecological quality, to ensure that good quality water is available to meet the needs of ecosystems and for all other needs, in particular drinking water production; whereas, in accordance with the principle of subsidiarity these targets are best identified and adopted by Member States;

Whereas, where the existing level of ecological quality is already good, it should be so maintained; whereas Member States may identify areas of high ecological interest where a high level ecological water quality should be maintained or achieved;

Whereas, taking into account existing Community requirements, Member States must aim to meet operational targets by defining and implementing the necessary measures within integrated programmes to improve water quality;

Whereas both the general public and the individuals responsible for polluting activities should be properly informed of planned measures and of progress in improving surface water quality and should be able to contribute to the decision-making process by expressing their opinions before final decisions on the necessary measures are adopted;

Whereas, in certain sectors, it may be considered more expedient to bring about the necessary changes in trends and practices by means of economic instruments rather than through binding legal provisions;

Whereas the Member States concerned should take concerted action in those cases where polluting activities in one Member State affect water quality in other Member States; whereas, failing agreement in such cases, a procedure must be established in order to ensure that the objectives of the Directive are met;

Whereas in certain cases it may, for historical reasons or because of pollution from third countries, be difficult or impossible to achieve ecological water quality; whereas an appropriate procedure should be established to ensure that Member States prevent any deterioration in the quality of the waters concerned;

Whereas in certain cases natural conditions may make it very difficult to improve the ecological quality of surface water; whereas the quality of such waters should be maintained;

Whereas Member States should carry out the necessary checks and surveillance to ensure that measures adopted are carried out and that they have the desired effect on water quality;

Whereas, in view of the procedural nature of this Directive, it is important that the Commission, the Member States and the public be able, by means of reports, to follow the progress achieved in improving surface water quality in the Community as a whole;

Whereas a committee should be set up to assist the Commission in matters relating to the implementation of this Directive;

Whereas technical progress requires prompt adaptation of the technical specifications laid down in the Annexes to this Directive; whereas, in order to facilitate the introduction of the necessary measures, a procedure should be set up under which the Commission can adopt such adaptations with the assistance of the said committee;

Whereas the implementation of programmes adopted under this Directive will achieve a level of protection of surface waters at least equivalent to that provided for by Council Directive 78/659/EEC⁽⁶⁾, as last amended by Directive 91/692/EEC⁽⁷⁾, and by Council Directive 79/923/EEC⁽⁸⁾, as amended by Directive 91/692/EEC; whereas these Directives should therefore be repealed,

HAS ADOPTED THIS DIRECTIVE:

Article 1

Scope

1. This Directive concerns the adoption of measures in each Member State for the control of pollution of surface waters from point sources, sources of diffuse pollution and other anthropogenic factors affecting surface water quality.

These measures shall be designed to maintain and improve the ecological quality of Community surface waters, with the ultimate aim of achieving good ecological quality.

2. Without prejudice to Article 18, this Directive does not affect the implementation of existing provisions in directives on water protection.

⁽⁶⁾ OJ No L 222, 14.8.1978, p. 1.

⁽⁷⁾ OJ No L 377, 31.12.1991, p. 48.

⁽⁸⁾ OJ No L 281, 10.11.1979, p. 47.

Article 2

Definitions

For the purposes of this Directive:

1. ecological water quality is an overall expression of the structure and function of the biological community taking into account natural physiographic, geographical and climatic factors as well as physical and chemical conditions, including those resulting from human activities. The aesthetics of the area should also be taken into account.

Ecological water quality is determined by the state of the relevant elements listed in Annex I,

2. good ecological water quality is the quality which is suitable for the needs of the ecosystem, taking into account the need to maintain the capacity for self-purification, and which satisfies the relevant elements listed in Annex II,
3. high ecological water quality is the quality inherent in a given ecosystem which is demonstrated not to be significantly influenced by human activities,
4. "Community surface waters" means all surface waters within the territory of each Member State, together with their internal waters and territorial sea defined according to international law,
5. "best environmental practice" means all the rules set out in Annex III,
6. "best available technology" means all the rules set out in Annex IV.

Article 3

Measurement and monitoring system

1. Member States shall set up a measuring and monitoring system to determine the ecological quality of surface waters.
2. Member States shall determine the ecological quality of their Community surface waters for the first time by 31 December 1998 at the latest and shall repeat this exercise every three years.
3. For the initial determination of ecological water quality Member States shall use the measurement and monitoring methods which most closely meet the provisions of Annex V, while for all subsequent operations they shall comply with the technical specifications to be drawn up by the Commission by 31 December 1999 in accordance with the procedure laid down in Article 16. These specifications shall, inter alia, ensure the comparability of monitoring data and of the determinations of ecological water quality.
4. The European Environment Agency shall provide the objective information necessary for the establishment of the technical specifications referred to in paragraph 3.

Article 4

Detection of sources of pollution

1. Member States shall identify, and conduct a qualitative and quantitative assessment of, point sources of pollution and diffuse pollution in Community surface waters. They shall also assess the effects of any other anthropogenic factors which impair or might impair the ecological quality of surface waters. The technical specifications for this purpose shall be drawn up by the Commission by 31 December 1996 in accordance with the procedure laid down in Article 16.
2. The first assessment shall be completed by 31 December 1998. Thereafter assessments shall be carried out every three years.
3. The European Environment Agency shall provide the objective information necessary for the establishment of the technical specifications mentioned in paragraph 1.

Article 5

Operational targets

1. Member States shall, by 31 December 1998, define for all the Community surface waters located on their territory as well as for their internal waters and territorial sea operational targets for good ecological water quality.
2. For waters achieving good ecological quality, the operational targets shall be defined so as to maintain a good ecological quality.
3. For waters achieving a good or high ecological quality located in areas considered by the Member States concerned as being of a high ecological interest, the operational targets shall be defined so as to maintain or achieve a high ecological quality.

The Member States shall inform the Commission for the first time by 31 December 1998 of the list of these areas.

4. The operational targets shall include the relevant elements which have a significant effect on water quality.

Article 6

Integrated programmes

1. Member States shall adopt, publish and implement integrated programmes designed to improve the quality of Community surface waters with the ultimate aim of reaching the operational targets adopted by Member States in accordance with Article 5 for the waters concerned.

For waters already achieving good ecological quality Member States shall take action where appropriate with a view to ensuring that the operational targets continue to be met.

2. These integrated programmes shall include the elements listed in Annex VI. The programmes shall be adopted and communicated to the Commission before the beginning of the period which they cover.
3. The first integrated programme is to cover the period from 1 January 1999 to 31 December 2001. It will be followed by a series of six-year programmes starting with the programme for 2002-2007.
4. Each programme shall be revised and if necessary modified whenever a significant effect on ecological water quality may arise as a result of the introduction of new activities or the expansion of existing activities.

Article 7

Public information and consultation

1. Member States shall inform the public concerned of the findings obtained in accordance with Articles 3 and 4 and allow them a period of at least two months in which to comment on the programmes referred to in Article 6 before these are adopted.
2. When programmes are revised in accordance with Article 6(4), the public consultation referred to in paragraph 1 shall be compulsory only in cases where the proposed changes are liable to have a significant negative impact on the expected results of the programme concerned.
3. Member States shall inform the public concerned about the programmes adopted and of their reasons for adopting them.
4. After adoption or revision of programmes in accordance with Article 6, Member States shall inform the public in an appropriate manner.

Article 8

Instruments

1. Member States shall ensure that the measures and practices required under the integrated programmes are legally binding on natural and legal persons, both public and private.
2. As an alternative to applying paragraph 1, Member States may, in sectors specified by the Commission in accordance with the procedure laid down in Article 16, make use of economic instruments designed to encourage natural persons and public and private undertakings to comply with the provisions of this Directive. This paragraph shall be without prejudice to the application of Articles 92, 93 and 94 of the Treaty.

Article 9

Waters affected by pollution from other Member States

1. If a Member State considers that any of its waters are affected by pollution from one or more other Member States it may notify the facts to the Member State or Member States concerned and to the Commission.

Following such notification, the Member States concerned shall hold formal consultations to ascertain whether such transboundary pollution is indeed having a significant effect on ecological water quality and, if this is the case, to implement jointly Articles 3 to 8.

2. If the consultations referred to in paragraph 1 do not lead to agreement in time to meet the deadlines referred to in Articles 3 to 6 the Member States concerned shall refer the matter to the Commission and shall provide it with all the necessary information.

Having consulted the Member States concerned, the Commission shall adopt a decision as soon as possible, if necessary establishing a programme as defined in Article 6, in accordance with the procedure laid down in Article 16 and notify it to those Member States.

Article 10

Small, insignificant waters

1. Member States may identify the following surface waters for the purpose of exemption from the provisions of this Directive:

(a) artificially created waterways which form part of a sewage system,

(b) waters falling into one of the following categories:

- lakes, or groups of interconnected lakes, with a total surface area of less than 1 km² which are hydrologically isolated from other surface waters,
- fresh or brackish waters, including tributaries of such waters, discharging less than 20 million m³ annually, as a long-term average, into marine waters where it can be shown, for any pollutant, that the exempted waters do not individually, or together with other exempted waters in the Member State, contribute more than 5% of the total anthropogenic pollution load in the receiving water originating in that Member State,
- other fresh waters discharging less than 2 million m³ annually, as a long-term average, into fresh or brackish waters, including lakes which are part of a river system, where it can be shown that for any pollutant that the exempted waters do not individually, or together with other exempted waters, contribute more than 5% of the total anthropogenic pollution load in the receiving water, including downstream areas, originating in that Member State.

2. Member States shall, by 31 December 1998, inform the Commission of the waters identified in accordance with paragraph 1, stating the reasons for exempting them. The detailed format for communicating such information shall be drawn up by the Commission in accordance with the procedure laid down in Article 16.

Article 11

Cases where it is difficult to improve ecological water quality

1. In cases where it may prove extremely difficult or even impossible to improve the ecological quality because of heavy past pollution, e.g. in ports, or because of pollution from third countries, the Member State concerned shall inform the Commission by 31 December 1998 at the latest, specifying the exact geographical limits of the waters concerned and the nature of the problems encountered. The detailed format for communicating such information shall be drawn up by the Commission in accordance with the procedure laid down in Article 16.
2. Member States shall take effective measures, including the application of Best Environmental Practices and Best Available Techniques to all relevant sources of pollution, to prevent any deterioration in the quality of these waters. They shall provide the Commission with specific information concerning this action in the report provided for in Article 14.

Article 12

Cases where natural conditions are unfavourable

1. Member States may designate special ecosystems where, for natural reasons, it is very difficult to improve the ecological quality of surface water.
2. Member States shall notify these designated ecosystems to the Commission by 31 December 1998 at the latest, specifying their exact geographical limits and describing the natural conditions which prevent the improvement of ecological water quality. The detailed format for communicating such information shall be drawn up by the Commission in accordance with the procedure laid down in Article 16.
3. Member States shall take effective measures, including the application of Best Environmental Practices and Best Available Techniques to all relevant sources of pollution, to preserve the water quality of these special ecosystems. They shall provide the Commission with specific information concerning this action in the report provided for in Article 14.

Article 13

Inspections, checks and surveys

Member States shall carry out inspections, checks and surveys on the implementation of this Directive.

Article 14

Reports

1. At intervals of three years Member States shall send information to the Commission on the implementation of this Directive, in the form of a sectoral report which shall also cover other relevant Community directives. The report shall be drawn up on the basis of a questionnaire or outline drafted by the Commission in accordance with the procedure laid down in Article 6 of Directive 91/692/EEC. The questionnaire or outline shall be sent to the Member States six months before the beginning of the period covered by the report. The report shall be sent to the Commission within nine months of the end of the three-year period covered by it.

The first report shall cover the years 1999, 2000 and 2001.

The Commission shall publish a Community report on the implementation of this Directive within nine months of receiving the reports from Member States.

2. Member States shall provide any additional information requested by the Commission as rapidly as possible, and in any case within three months at the latest. If this information does not exist or is not available the Commission may request a survey as provided for in Article 13.
3. The fulfilment of these reporting obligations does not exempt Member States from other reporting requirements resulting from provisions in the Treaty, and in particular those obligations following from rules concerning State aid.

Article 15

Amendments to the Directive

The Commission is authorized to amend and adapt the Annexes, in accordance with the procedure laid down in Article 16, to scientific and technical progress and to changes in the conditions of their application.

Article 16

Setting up of a committee

The Commission shall be assisted by a committee composed of the representatives of the Member States and chaired by the representative of the Commission.

The representative of the Commission shall submit to the committee a draft of measures to be taken. The committee shall deliver its opinion on the draft within a time limit which the chairman may lay down according to the urgency of the matter. The opinion shall be delivered by the majority laid down in Article 148(2) of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission. The votes of the representatives of the Member States within the committee shall be weighted in the manner set out in that Article. The chairman shall not vote.

The Commission shall adopt measures which shall apply immediately. However, if these measures are not in accordance with the opinion of the committee, the Commission shall communicate the measures to the Council forthwith. In that event, the Commission shall defer application of the measures which it has decided for a period of three months from the date of communication.

The Council, acting by a qualified majority, may take a different decision within the time limit referred to in the previous paragraph.

Article 17

Implementation

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 31 December 1997 at the latest. They shall immediately inform the Commission thereof.

When Member States adopt these provisions, these shall contain a reference to this Directive or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States.

2. Member States shall communicate to the Commission the main provisions of national law which they adopt in the field covered by this Directive.

Article 18

Repeal

Directives 78/659/EEC and 79/923/EEC are repealed with effect from 1 January 1999.

Article 19

Entry into force

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

Article 20

Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the Council
The President

Ecological Water quality - Working definitions

The ecological quality of water systems is determined by the state of those representative elements from the following list which are relevant to the individual waters concerned:

1. Dissolved oxygen.
2. Concentrations of toxic or other harmful substances in water, sediment and biota.
3. Levels of disease in animal life, including fish, and in plant populations due to anthropogenic influence.
4. Diversity of invertebrate communities (planktonic and bottom-dwelling) and key species/taxa normally associated with the undisturbed condition of the ecosystem.
5. Diversity of aquatic plant communities, including key species/taxa normally associated with the undisturbed condition of the ecosystem, and the extent of macrophytic or algal growth due to elevated nutrient levels of anthropogenic origin.
6. The diversity of the fish population and key species/taxa normally associated with the undisturbed condition of the ecosystem. Passage, insofar as it is influenced by human activity, migratory fish.
7. The diversity of the higher vertebrate community (amphibians, birds and mammals).
8. The structure and quality of the sediment and its ability to sustain the biological community in the ecosystem.
9. The riparian and coastal zones, including the biological community and the aesthetics of the site.

Good Ecological Water Quality - Specifications

Member States shall, based on the precautionary principle, fix the operational targets to be reached in accordance with this Directive within the framework of representative elements from the following list which are relevant to the individual waters concerned:

1. Dissolved oxygen should allow survival and reproduction of indigenous animals
2. Concentrations of toxic or other harmful substances in water, sediment and biota should not go beyond levels which have been demonstrated to pose no threat to aquatic species and should not prevent the normal uses of the water body.
3. There should be no evidence of elevated levels of disease in animal life, including fish, and in plant life due to anthropogenic influence.
4. The diversity of invertebrate communities (planktonic and bottom-dwelling) should resemble that of similar water bodies with insignificant anthropogenic disturbance. Key species/taxa normally associated with the undisturbed condition of the ecosystem should be present.
5. The diversity of aquatic plant communities should resemble that of similar water bodies with insignificant anthropogenic disturbance.

Key species/taxa normally associated with the undisturbed condition of the ecosystem should be present. There should be no evidence of excessive macrophytic or algal growth due to elevated nutrient levels of anthropogenic origin.

6. The diversity of the fish population should resemble that of similar water bodies with insignificant anthropogenic disturbance.

Key species/taxa normally associated with the undisturbed condition of the ecosystem should be present. There should be no significant artificial hindrance to the passage of migratory fish.

7. Higher vertebrate life (amphibians, birds and mammals) should reflect that of similar water bodies with insignificant anthropogenic disturbance. Key species/taxa normally associated with the undisturbed condition of the ecosystem should be present.
8. Sediment structure and quality should allow the occurrence of biological communities typical of the region.
9. The status of riparian and coastal zones should, in non-urban areas, reflect either the absence of any significant influence by human activity, or care for the preservation of the biological community and for the aesthetics of the site.

Definition of Best Environmental Practice (BEP)

1. Best environmental practice means the most appropriate combination of measures to prevent diffuse pollution or to ensure the environmentally safe operation of pollution control facilities. Best environmental practices include practical measures and good environmental conduct as well as the instruments used to promote the introduction of measures and changes in conduct.

In determining which activities are to be subject to best environmental practices the following must be taken into account:

- the precautionary principle;
- the ecological risk associated with:
 - (a) the activity,
 - (b) the production, utilization and final disposal of products used in the activity,
 - (c) the extent of the activity;
- the possibility of modifying the activities or replacing them with less polluting activities.

In setting the deadlines for compliance with BEP the social and economic implications of different rates of introduction of BEP must be considered.

2. In determining what is the BEP for a particular source of diffuse pollution, at least the following aspects shall be considered:

2.1 Measures:

- providing the public with collection systems for waste which presents an environmental hazard;
- providing systems for recuperation and recycling and/or safe disposal of waste which would otherwise present an environmental hazard;

2.2 Conduct and promotional instruments:

- establishment of codes of good conduct and of environmental practice;
- information and education of the public and consumers concerning the ecological consequences of the choice of products and of conduct;

- the use of systems of authorization or licensing in order to ban or restrict certain practices;
- the use of economic instruments to limit the environmental repercussions of certain activities or the use of certain products.

Best Available Techniques (BAT)

"Best Available Techniques" signifies the latest stage in the development (state of the art) of activities, processes, and their methods of operation which indicate the practical suitability of particular techniques for preventing or where, that is not practicable, minimizing emissions to the environment as a whole, without predetermining any specific technology or other techniques.

"Techniques" include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned. The techniques must be industrially feasible, in the relevant sector, from a technical and economic point of view.

"Available" techniques means those developed on a scale which allows implementation in the relevant industrial context, under economically viable conditions, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator.

"Best" means most effective in achieving a high overall level of protection for the environment as a whole, taking into account the potential benefits and costs which may result from action or lack of action.

In selecting the best available techniques special consideration should be given to:

- the use of low-waste technology;
- the furthering of recovery and recycling of substances used in the process, where appropriate;
- comparable processes, facilities or methods of operation which have recently been successfully tried out;
- technological advances and changes in scientific knowledge and understanding;
- the nature and volume of the emissions concerned;
- time limits for installation of the techniques;
- the consumption of raw materials (including water) and energy used in the process and their nature; and
- the need to prevent or minimize the overall impact of the emissions on the environment.

ANNEX V

Parameters to be measured, sampling methods, sampling frequency and sampling points

1. Each Member State shall organize at national level the compilation and analysis of the data required to measure ecological water quality and to classify aquatic ecosystems according to quality. Member States shall each adopt their own national system comprising the parameters to be measured, the methods of measurement, the sampling methods, the sampling frequency and the sampling points which best correspond to regional conditions and the nature of the waters tested. The parameters selected shall represent the most sensitive indicators of ecological quality in terms of the items and parameters considered in the definition of the ecological quality of the waters concerned as well as the parameters needed to assess whether the operational targets fixed in accordance with Article 5 are being met. Measurement methods may include remote sensing.
2. The national systems adopted must be notified to the scientific community in each country and must provide the best possible guarantees as regards accuracy and comparability of data. In each case details of the systems used shall be published. Any further change to a national system must improve data quality and the comparability of the data collected before and after the change must be proven by the Member States.
3. The Member States shall organize, at national level, calibration between the laboratories collecting and analysing the data and shall take account in their national system of the systems used by Member States sharing the same water bodies.
4. When devising their national systems, the Member States shall prepare maps with colours graded across the spectrum giving a visual indication of how far ecological water quality deviates from the good ecological quality. These maps shall form part of the report provided for in Article 14.

Integrated Programmes

Each integrated programme shall include the following elements:

1. The operational targets adopted in accordance with Article 5 together with the reductions in pollution and other measures deemed necessary in the programme. The programme may take account of the long-term objectives of subsequent programmes. It shall include a timetable of the measures to be carried out and an estimate of the specific results expected.
2. A plan of the specific measures to be implemented, including:
 - 2.1 compliance with any existing legal obligations under relevant Community law, in particular regarding reduction of pollution;
 - 2.2 use of best available techniques, where necessary, defined by Member States in accordance with Annex IV, for point sources of pollution where there are no requirements under Community law concerning the pollution in question;
 - 2.3 use of best environmental practices, where necessary, defined by Member States in accordance with Annex III, for all relevant sources of diffuse pollution where there are no requirements under Community law concerning the pollution in question;
 - 2.4 limitation of water abstraction from the surface water in question and from aquifers interconnected to it to an extent which is compatible with maintaining a surface water level allowing the operational targets for the surface water in question to be met;
 - 2.5 any other operation to improve the environment, including integrated management of surface water resources where this is necessary to attain good ecological quality.
3. Additional measures taken by Member States in cases where the measures laid down at 2 above fail to bring about a large enough reduction in pollution to meet the operational targets of the integrated programme.
4. Financial investment required and the names of the natural persons and public or private undertakings responsible for carrying out specific measures, and the planned implementation dates.
5. The regulations, laws and administrative provisions and all other means required for proper implementation of the integrated programme.
6. An assessment, every three years, of the results of the integrated programme being conducted, which is notified to the Commission.

FINANCIAL STATEMENT
VOLET 1 : FINANCIAL CONSEQUENCES

1. **Title of the action**
Council Directive on Ecological Water Quality
2. **Budget lines concerned**
B4-304 Environmental Legislation, Projects (XI/B/1)
3. **Legal Basis**
EC Treaty, Art. 130s(1),
Towards Sustainability, COM (92) 23 final, table 11
Resolution of the Council of the European Communities and the
Representatives of the Governments of Member States of 1
February 1993 on a Community Programme of Policy and Action In
Relation to the Environment and Sustainable Development (OJ No
C 138, 17.5.93, p.1).
4. **Description of the Action**
See annexed proposal for a Council Directive

Summary :

the Directive proposal requires

from Member States :

- to define operational quality objectives for surface waters
- to measure, monitor and classify surface water quality
- to prepare pollution inventories for surface waters
- to prepare and implement integrated programmes to improve quality of surface waters
- to report to the Commission every three years

from the Commission:

- to draw up technical specifications for methods for measuring and monitoring surface water quality
- to draw up technical specifications for the identification and qualitative and quantitative assessment of point sources and non-point sources of pollution
- identify and specify sectors in which the use of economic instruments are suitable to encourage compliance with the directive proposal
- adopt decisions on transboundary pollution where Member States are not able to reach agreement
- negotiations with third countries concerning transboundary pollution
- evaluate waters exempted from the general provisions of the directive by Member States
- evaluate Member States' implementation of the directive and publish a triannual report on the implementation
- amend and adapt the annexes of the directive to technical progress
- chair regulatory committee

5. **Classification of expenditure or receipts**
DNO and CD
- There are no receipts following this action
6. **Type of expenditure or receipts**
- Studies to supply the necessary technical and scientific advice and publications linked to the realization of the objectives of this action.
- There are no receipts following this action.
7. **Financial implications for operating appropriations (Budget part B)**

7.1 **Budgetary implications for 1994-1998.**

B4-304, studies	1994 : 300.000 ECU
	1995 : 100.000 ECU
	1996 : 0 ECU
	1997 : 60.000 ECU
	1998 : 45.000 ECU

as from the year 2002 a report will be published every 3 years requiring in the relevant years 330.000 ECU to cover technical evaluation of data and publication of the reports. As the proposal repeals Directives 78/659/EEC (quality of fishwaters) and 79/923/EEC (quality of shellfish waters) there will be concurrent reductions in reporting costs concerning these Directives.

8. **Anti-fraud dispositions**
- According to article 9 of "general terms and conditions etc.", it will be explicated in contracts that all work performed is the property of the Commission
- Final payment of contractors will only take place after reception and examination of the reports requested.

VOLET 2 : ADMINISTRATIVE EXPENSES (Budget part A)

Budget line concerned :

- Titles A1 and A2 : expenditure related to persons working with the Institution
- A2510 (meeting expenses of committees where consultation is a compulsory part in the making of Community acts)

1. **Increase in personnel**
- Adoption of the proposal will mean no permanent, net increase of A-grade personnel. The expert (END) presently occupied with the preparation of the Directive will, in 1994, be substituted in 1994 by an A-grade official, and, until 1999, by 1 further temporary official responsible for implementation of the Directive. The temporary official will be necessary to put into place the necessary technical infrastructure to implement the proposal, of note a Community monitoring and classification system and a system for elaboration of inventories of point source and diffuse pollution.

- Cost : 1 A-grade official from 1994 - 90.000 ECU/yr
- 1 Temporary A-grade official 1994-99 - 90.000 ECU/yr

- The resources shall be found by either internal reallocations or within the framework of the Commissions decision on the resource programming.

2. Expenses for meetings from 1994 (In 1993 prices)

Travel expenses Committee meeting (proposal Art. 17)
 24 x 620 ECU/meeting x 2 meetings/yr - 29.760 ECU/yr

VOLET 3 : ELEMENTS OF COST-EFFECTIVENESS ANALYSIS

1. Objectives and coherence with financial programming

1.1 See annexed proposal for a council directive and 5th Environment Action Programme: Towards Sustainability, COM(92) 23, Table 11.

1.2 yes, the action is foreseen in the comments to budgetline B4-304

1.3 protection of surface waters

2. Justification of the action

The benefits of the action are mainly improved surface water quality with a number of derived economic and non-economic benefits associated with this : improved access to good quality water suitable for production of drinking water for the population, water for industry, agriculture etc., improved conditions for leisure and tourism, fisheries, fish and shell fish farming and other activities dependent on good quality surface water, preservation of plant and animal species.

2.1a The solution chosen to maintain and improve (where relevant) the quality of surface water is based on the fact that generalized pollution which is found all over the Community is already regulated by existing Directives: the dangerous substances Directive (76/464/EEC), the urban waste water Directive (91/271/EEC) and the nitrates from agriculture Directive (91/676/EEC). The residual surface water pollution problems are mainly individual and specific for individual waters. A cost-effective solution for obtaining the necessary reductions in pollution must therefore be individualized. The present procedural proposal ensures this, within the framework of the principle of subsidiarity, by requiring of Member States to take the necessary steps to ensure that the objectives of the proposal are met at a pace decided by the individual Member States. It is foreseen that different waters in different Member States will require different actions depending on their particular characteristics.

Thus, the present proposal ensures, on the one hand, that steps are taken, where necessary, in order to improve or maintain surface water quality while, on the other hand, only requiring specific action by Member States where this is necessary.

The cost scenario corresponds to the minimum administrative costs in obliging Member States to improve surface water quality as the actual costs of administration of the framework directive will be born by Member States and the costs of implementation of the measures adopted according to the Directive will be born by natural and legal persons in Member States as decided by the Member States. It is, due to the procedural nature of the proposal and the large liberty left to Member States to decide at which pace to move, not possible foresee the exact investments and costs for polluters resulting from implementation of the Directive. This information is expected to be a key factor in the decision of Member States on at which pace to move. The total investments in Member States following the adoption of the present proposal are, however, not expected to exceed 3 000 MECU.

2.1b derived effects may be costs for natural and legal persons in Member States. As the Directive is a framework directive leaving it to Member States to decide at which pace to proceed, the question of who will be subject to bear such effects as well the extent of these will be largely in the hands of the Member States. The proposal is based on the subsidiarity principle by setting out general objectives and leaving how to reach these aims to Member States.

2.1c No multiplier effects foreseen

3. Follow-up and evaluation of the action

3.1 Triannual reports from Member States including analysis of progress made in relation to water quality and accounts of the measures taken to improve water quality.

3.2 Reports from Member States every 3 years, starting in 2002 and covering the period 1999-2001

3.3 The pace at which different Member States will wish to proceed in order to improve surface water quality is the main uncertainty in the evaluation of the impact of the Directive, both on the environment and on the economy.

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