



**'Capacity Building on the European Community's
Environmental Policy'**

EU Water Policy and Challenges for Regional and Local Authorities

Background Paper for the Seminar on Water Management

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1. Introduction to EU Water Policy

1.1. Developments so-far and guiding principles

The problem of water pollution and the resulting deterioration of water resources was one of the first policy areas to be addressed by EU environmental policy. The first pieces of legislation were accepted by the Council as early as 1973. Today the *acquis communautaire* related to water issues comprises around 25 Directives and other Decisions covering the various aspects of the management of this important natural resource. The last major impetus towards a sustainable management of the EU's water resources was made in 2000 with the development of the Water Framework Directive (WFD), which combines many of the previous directives and regulations and fundamentally redefines the approach to water resources management.

In the past EU water law was basically focusing on several distinct issues and problems. Directives crafted in the era preceding the WFD were for example:

- *Directive concerning the quality required for surface water intended for the abstraction of drinking water in the Member States (75/440/EC)*
- *Directive on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community (76/464/EEC)*
- *Directive concerning the quality of bathing water (bathing water directive, 76/160/EEC)*
- *Directive relating to the quality of drinking water intended for human consumption (drinking water directive, 80/778/EEC)*
- *Directive on the protection of groundwater against pollution caused by certain dangerous substances (80/68/EEC)*
- *Directive concerning urban waste water treatment (UWWT directive, 91/271/EEC)*

These Directives either regulate the emission of certain substances into water bodies (*emission limit values or emission standards*) or the quality of receiving waters (*quality objectives*) related to the water body's suitability as drinking water, as habitat for fishes or for other uses. This approach was in line with the priorities set out in the 1973 First EU Action Programme on the Environment.

Other principles applied in various directives in the field of water management were

- the *source-oriented approach*, which comprised measures targeted at specific industrial sectors (successfully implemented in the case of titanium dioxide, Directive on waste from the titanium dioxide industry, 78/176/EEC),
- the *preventative approach* directed at preventing and limiting the pollution of groundwater by dangerous substances released from point and diffuse sources, upon which bases the Directive concerning the protection of waters against pollution caused by nitrates from agricultural sources, 91/676/EEC),
- the *product standards approach* which led to the development of regulations for detergents
- such as the *Directive on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community (76/464/EEC)*.

When numerous of the initially drafted directives were up for revision, it became clear that there was only little integration of the different approaches in a legal system, which was dealing with the highly complex, multi-level ecological system of water resources. This finally constituted the decisive momentum for the drawing up of the Water Framework Directive, which matches the integrative nature of water management.

2. Challenges for Regional and Local Authorities

2.1 General Challenges

The transposition of the legal requirements of EU directives into national legislation is the first necessary step towards successful implementation. This formal compliance has been accomplished in Latvia and Lithuania for several of the directives relating to water management¹. The clarification of the legal competence and the actual responsibilities for the requirements of the directives is crucial for a successful implementation on the ground. The different actors need to be clearly specified and informed about their tasks and roles in the implementation process.

The general challenges for the local and regional authorities in implementing the provisions of the European *acquis communautaire* on water can be described as follows:

- Providing the *technical systems*
 - for collecting and treating waste water and
 - for the treatment of drinking water to the standards of the Drinking Water Directive,
- Providing the *financing* for the measures to be taken under the WFD and the other directives, in particular for the upgrading/building of waste water treatment plans,
- *Integrating the different aspects of water management*, identifying synergies and enabling the efficient management of water resources at the local level,
- Establishing an *effective horizontal co-operation* between local authorities in order to account for the integrative river basin management approach, as well as vertical co-operation among the different levels of administration,
- Setting up efficient *monitoring systems* to facilitate effective enforcement of the directives,
- Ensuring *sufficient administrative capacity* at the regional and local level by providing sufficient financial resources, information and technical expertise,
- Enhancement of *public participation* and the transparency of policy processes.

Technical Systems

Meeting the stringent quality standards often requires sophisticated technical equipment, for example in the area of waste water treatment as well as the treatment of drinking water. In the case of the Urban Waste Water Directive specific technical provisions are made with respect to the secondary and tertiary treatment of sewage (see detailed description of the UWWT Directive in the second part). Municipalities need to comply with these requirements from a technical point of view. In many cases this poses substantial financial challenges.

Financing

The financing of the measures and strategies in water resource management oftentimes poses the biggest challenge. Whereas charges for drinking water might be used to finance the prior treatment and distribution of this resource, establishing a direct connection between resource protection and the user of this resource is not possible in many cases. There are possibilities of making those pay who contribute to the pollution of those resources, such as sewerage charges for private households, effluent charges for operations of waste water treatment plants and industries, as well as taxes on fertilisers and pesticides; mostly affecting agricultural users.

¹ Latvia has transposed all EU Directives pertaining to water management, except the WFD.

These instruments are set to provide effective incentives for reducing negative impacts on water resources. Problems arise with the enforcement of these regulations as they usually require extensive monitoring and reporting systems in order to be effective. In the case of taxes, these measures will need to be co-ordinated on the national level, while charges are generally set and collected at the municipal level.

For water, Accession Countries may also apply for the so-called ISPA funds². Ensuring that the available funds will be re-invested and correctly allocated at the regional and local level therefore requires persistent lobbying by the municipalities at the national level.

An interesting aspect of the WFD when it comes to financing are the provisions concerning the recovery of costs for water services. The costs for these services not only has to reflect the operating costs but also environmental and resource costs. These new development should be proactively used by local authorities to promote cost recovery systems at this level.

Integration of water management strategies

Many of the water management issues are interlinked and therefore pose relatively complex problems. On the other hand this also means that one well-chosen management strategy might address several problems at the same time. It is crucial for the local authorities with limited financial resources to identify the connections among the various issues related to water management in order to choose the most cost-effective measures. The first step in this process is the detailed analysis of the local situation, i.e. the characteristics of the local watersheds, the community structure, the industrial profile, the economic facts about the water uses. A comprehensive understanding of the factors influencing the quality of ground and surface waters will help in identifying the synergies between different management approaches.

Co-operation

In many cases the extent of a catchment or water body is not limited to only one local authority. This is explicitly reflected by the river basin management approach of the WFD. Secondly, when it comes to the installation of technical equipment, the most cost-efficient solution might be setting-up regional facilities, which serve several municipalities. These are only two reasons why promoting co-operations across levels of governance and among different regions is inevitable for successful water management. Regional authorities should be in regular communication with both the local authorities within their administrative territory and other regional authorities. This will not only allow for co-ordination and efficiency of operations, but also provide a way to share experiences about best implementation practices.

Public participation and transparency

Water quality directly affects human health. Therefore the aspect of public participation is propagated by all directives in the area of water management. For once, public participation entails the information of the public about the quality of drinking or bathing waters, especially but not only in the case of non-compliance.

Secondly, public participation should be supported in the monitoring of water quality and even in developing river basin management plans as well as other planning processes. In this context the group of relevant stakeholders, which probably not only comprises citizens or citizen groups, but also water utilities, operators of sewage treatment plants, industries and environmental interest groups, should be actively involved. It is the task of the regional and local authorities to provide for the appropriate structures to facilitate the consultation and active involvement of these stakeholders.

² Instrument for Structural Policies and Pre-Accession are one of the three financial instruments (with Phare and Sapard) to assist the candidate countries in the preparation for accession. (Introduction to pre-accession strategy). Over the period from 2000 to 2006, a total of EUR 1 040 million a year (at 1999 prices) will be made available for infrastructure projects in the field of environment and transport.

Capacity-Building

Regional authorities, mainly responsible for planning, enforcement and control, often are not able to fulfil their tasks because of a lack of administrative and/or financial capacity. The same applies to regional authorities that are responsible for the technical implementation. As the EU directives put intensive burden on these authorities, there is an urgent need for capacity building. The following approaches should be considered in this context:

- Facilitating access to relevant EU legislation in an easy and understandable way, preferably in the native language,
- providing details on implementation mechanisms, funding possibilities and best practice examples from other Member States and Accession Countries,
- Dissemination of relevant information to regional and local authorities,
- Providing technical training to local and regional authorities on technical solutions and financing mechanisms,
- Exchange of experiences and advising local authorities with respect to 'best communal practices'.

2.2 Challenges specific to the Water Framework Directive

Although the WFD affects national legislation in the first place, its implementation process might still have considerable implications for local and regional authorities, which will be briefly outlined below.

- The WFD requires the establishment of river basin management districts, which follow the catchment areas of the river basin. This new administrative structure will likely collide with the traditional administrative districts and will therefore necessitate an even closer co-operation among neighbouring regions.
- The first phase of the WFD requires a detailed assessment of the characteristics of the river basins, national government will rely largely on the knowledge of the regional and local authorities for these analyses.
- Similarly, close-co-operation across governance level is required for the monitoring of the river basins as well as the development of the river basin management plans until 2009 as these need to take into consideration the respective local conditions.
- Regional and local authorities also need to become active when it comes to fulfilling the public participation requirements of the WFD. Information, consultation and active involvement takes place at the local level as well and therefore falls into the responsibility of those authorities.

2.3 Challenges specific to the Urban Waste Water Treatment Directive

The Directive mandates the treatment of domestic sewage, industrial waste water and urban surface run-off. The standard of the required treatment is dependent on the sensitivity of the respective receiving water. Waste water treatment traditionally is a responsibility of the municipalities. Therefore this area is likely to pose the most significant and pressing challenges, which at the same time will possibly require the largest financial investments.

- Presently, not all households and industrial facilities are connected to sewage and waste water collection systems. The connection of close to 100% of the households and industries to waste water collection should be the goal. The collection of waste water is mandatory for all

agglomerations³ larger than 2000 p.e.⁴ Agglomerations smaller than 2000 p.e., although exempt from specific requirements are still obliged to take appropriate measures for collection and treatment of sewage to comply with the quality objectives and requirements of the EU. The Directive allows for derogations in the case of excessive costs and thus for alternative solutions. However, this requires the costs to be assessed as well as the identification of possible alternative solutions.

- Not all waste water treatment plants comply with the requirements of the Directive. Waste water treatment plants need to be upgraded according to the requirements of the Directive. This especially might be a problem in agglomerations with more than 2000 p.e. since here secondary treatment is required. For agglomerations of this size considerable financial investment have to be expected to ensure compliance with technical standards (agglomerations above 10.000 p.e. are required to install tertiary treatment in sewage plants).
- The treatment and disposal of sewage sludges oftentimes does not comply with the requirements of the Directive. Sludges may pose a problem, as they possibly contain undesired substances, due to indirect industrial discharges into municipal collection systems. This contamination hinders the recycling of sludges for agricultural uses. It may also cause a problem when sludges are landfilled, as this requires appropriate facilities, which prevent those substances from reaching ground- and surface waters.
- The necessary data for the calculation of sewage treatment capacity are not available for all municipalities. In order for the municipalities to set up appropriate treatment systems, the p.e. needs to be calculated for each agglomeration. Similarly, it needs to be assessed whether the receiving water is sensitive, normal or less sensitive in order to provide for a sufficient level of protection. It is the task of the municipalities to collect these data.
- The extensive monitoring requirements as well as the technical operations of a waste water treatment plant necessitate extensive lab analyses. Laboratories need to be adequately equipped in order to effectively monitor water quality. Currently, this is not the case for all laboratories.

2.4 Challenges specific to the Drinking Water Directive

The Drinking Water Directive sets very ambitious water quality standards in order to maintain safe drinking water resources. Whereas the monitoring of the quality is also regulated, the Directive does not specify the treatment of the water. The quality of drinking water is not solely in the responsibility of the municipalities. However, a close co-operations of authorities across different levels is necessary in order to meet the complex requirement.

- The major challenge with respect to the Drinking Water Directive arises from the monitoring requirements. Especially the microbiological analyses are very sophisticated, require extensive training as well as expensive equipment.
- The standards set by the Directive are fairly ambitious (i.e. with respect to iron and lead). This might especially pose a problem in areas with certain natural background conditions, since treatment cost will be fairly high. This necessitates co-operations at the regional level to combine effort in water treatment in order to reduce costs.

³ 'Agglomeration' in the sense of the Directive means an area where the population and /or economic activities are sufficiently concentrated for urban waste water to be collected and conducted to an urban waste water treatment plant or to a final discharge point. The term municipality refers to administrative units. The terms are not necessarily congruent.

⁴ Population equivalent: One population equivalent is the organic-biologically degradable pollution load with a biochemical oxygen demand in five days of 60 g oxygen per day.

- Another aspect are the challenges resulting from the so-called 'tapwater approach' of the new Drinking Water Directive. Since the quality targets need to be reached at the tap (i.e. where the water is used), representative sampling is difficult, since often domestic water distribution systems significantly alter the quality of drinking water provided by the water utilities (lead pipes). Due to the localised approach municipalities are now assigned more responsibility with respect to the monitoring of drinking water.

2.5 Challenges specific to the Bathing Waters Directive

The Bathing Waters Directive in its current form contains a very ambitious monitoring requirement for bathing waters, which is costly to maintain. Improvements in terms of efficiency are expected from the new Bathing Waters Directive, which is scheduled to enter into force in 2003. Still, the challenges the Directive entails for the municipalities are not negligible.

- The designation of the bathing waters clearly lies within the responsibility of the municipalities. This is also the case for the security of usage, the maintenance of the water body and the beach, as well as the compliance with hygienic requirements in those areas. Municipalities are therefore required to assess the suitability of a water body as a bathing water on a regular basis, taking into consideration all possible factors influencing the quality of the bathing water.
- Similar to the Drinking Water Directive the Bathing Water Directive entails comprehensive monitoring and sampling requirements, which have to be performed by the municipalities themselves or delegated to regional/national authorities.
- The Bathing Waters Directive furthermore contains extensive requirements pertaining to the information and involvement of the public. This is clearly the task of the municipalities. They need to diligently inform the public about non-compliance and deviations from quality targets. On the other hand the public needs to be involved in developing measures for the remediation of polluted bathing waters. Setting up the appropriate structures and assuring the access to information is a major task.

2.6 Challenges specific to the Nitrates Directive

The Nitrates Directive aims at controlling a pollution source, which is hard to control per se: diffuse pollution of ground and surface waters. As a preventative approach however, it may set an example for the avoidance of water pollution at the source as opposed to end-of-pipe mitigation. In this context local authorities will be confronted with the following challenges.

- One of the instruments for reducing pollution from nitrates is the development of a code of good agricultural practice. This code needs to be disseminated among farmers. Local authorities need to pay utmost attention to the potential of this instrument. The information and education of farmers about sustainable land management practices and the appropriate use of fertilisers and pesticides might be the most cost-efficient measure when it comes to controlling diffuse sources.
- Some of the provisions of the Nitrates Directive will have to be regulated by national legislation. However, it will be the task of the local authorities to help with the enforcement of these regulations. Due to the diffuse nature of this pollution, this requires a substantial administrative effort, including monitoring.

- The Nitrate Directive also requires the designation of potentially affected areas. Since local authorities have the best knowledge about the situation, their assistance will be needed in this task.

The preceding analysis of the challenges and tasks for the local and regional authorities may seem overwhelming at first sight. However, it also shows that there is a potential for combining efforts on the one hand and demonstrates the importance of a careful analysis of the potential options for measures on the other. Putting the emphasis on the right strategy and the right measures might lead to sustainable successes at the lowest cost.

3. Acquis Communautaire for the Management of Water Resources

Whereas the first chapter briefly outlines the European policy approach in the area of water management, the currently applicable directives are presented in greater detail in the following chapter.

3.1 Water Framework Directive (2000/60/EC)

The 'Directive establishing a framework for Community action in the field of water policy' (short Water Framework Directive, WFD) entered into force 22 December 2000. It effects far-reaching changes in the water policy and management of the EU Member States. The main goals can be summarised as follows:

- all waters, including surface waters, groundwater and coastal waters, are to reach a good status⁵ until 2015, water bodies of good or high status are to be maintained at that level,
- measures undertaken to protect water resources are to be drafted under the consideration of cost-efficiency criteria.

The design of the overall goals require a fundamentally different approach to water management. According to the Directive it is the water body and its overall ecological quality, which is now constituting the centre of water policy and not only the use of water as a resource. The continual improvement of the ecological quality⁶ of a water body through sustainable management practices therefore obtains top priority.

A second important aspect is the integrated management approach for all river basins. It not only considers the water itself but rather the entire catchment area and thus all factors influencing water quality. All pressures, such as significant point and diffuse sources, water abstractions as well as morphological changes are to be considered and to be evaluated with respect to their effect on the respective ecosystem. The establishment of river basin management districts as the reference unit for the programmes of measures as well as the consideration of coherent groundwater bodies, requires the co-operation of water management agencies beyond regional and national borders.

Apart from these far-reaching administrative changes, the WFD is also characterised by its strong emphasis on economic aspects. It requires that water uses are subject to an economic analysis in the first phase of the implementation of the Directive (until 2004), secondly the cost recovery principle is established for water services (by 2009). Furthermore, economic methods are to be used to identify the most cost-efficient measures in drawing up the programmes of measures.

⁵ Surface waters have to achieve a good ecological and a good chemical status, whereas the target for groundwater is the good chemical and good quantitative status. In the case of heavily modified water bodies where a good status cannot be reached the so-called 'good ecological potential' has to be reached,

⁶ The quality of water bodies is defined by a comprehensive set of biological, chemical and morphological indicators.

Another element is the strong emphasis on public participation. The public participation requirements of the WFD exceed those of mere information of the public, but mandate the active involvement of all interested parties.

Due to the implementation of the WFD several directives currently regulating the management of water resources already have been or will be repealed according to the following timetable.

Legislation to be repealed	Date of Repeal
Directive 76/464/EEC (Article 6 only): dangerous substances	22/12/2000
Directive 74/440/EEC: surface waters for drinking	22/12/2007
Decision 77/795/EEC: exchange of information	22/12/2007
Directive 79/869/EEC: measurement and sampling	22/12/2007
Directive 78/659/EEC: fishlife	22/12/2013
Directive 80/68/EEC: groundwater	22/12/2013
Directive 76/464/EEC (except article 6): dangerous substances	22/12/2013

The WFD's ambitious goals have to be reached within a relatively short period. The transposition into national law needs to be accomplished by December 2003. At the practical level an analysis of the characteristics of the river basins as well as an economical analysis of the water uses in these areas have to be completed by the end of 2004. This information will provide the necessary input for the monitoring programmes (by 2006). The publication of the River Basin Management Plans including the programmes of measures is required by 2009.

Acknowledging the challenge of implementing the requirements the EU has initiated the a common implementation strategy (CIS). This strategy is to ensure the exchange of ideas and approaches for implementing the WFD among the water authorities of the Member States. Several international expert working groups were formed under the CIS developing guidelines on the interpretation of certain aspects of the WFD⁷. They will provide valuable input to the implementation processes in the various Member States and Accession Countries.

3.2 Council Directive concerning Urban Waste Water Treatment (91/271/EEC)

General

The Urban Waste Water Treatment Directive (UWWT) aims at the reduction of the pollution of freshwater, estuarial and coastal water resources resulting from domestic sewage, industrial waste water and urban surface run-off. The Directive establishes standards and compliance mechanisms pertaining to the collection as well as the treatment and discharge of the waste water resulting from the sources mentioned above and generally referred to as 'urban waste water'. It also regulates the disposal of sewage sludge.

The Directive entered into force in 1991, formal compliance was due on 30 June 1993. Member states are required to send a 'situation report' about the most recent developments related to the implementation of the Directive every two years, starting in 1995.

Specifications

The approach taken in the Directive is the classification of areas according to the sensitivity of the respective water sources (i.e. used as a drinking water sources, high level of eutrophication, compliance with EU water standards). Standards of differing stringency apply to the various classes (sensitive, normal and less sensitive areas). According to the three categories of receiving waters, different minimum standards for sewage treatment are set. The Directive introduces mechanical-biological treatment as a minimum standard, and further treatment (i.e. tertiary treatment) in sensitive areas. Furthermore the Directive foresees that all agglomerations greater

⁷ Examples for these areas are the declaration of heavily modified water bodies, the public participation requirements, the monitoring provisions, the determination of significant pressures and impacts as well as general aspects of river basin management.

than 2000 p.e. are required to have collecting systems for waste water by the end of either 2000 or 2005, depending on their size (cut-off size: 15,000 p.e.). The treatment requirements are more stringent for larger agglomerations. Those smaller towns or villages (less than 2000 p.e.), which are not obliged by the Directive to install secondary treatment systems are still required to provide 'appropriate' treatment sufficient to ensure compliance with quality objectives or the requirements of other EU legislation. The following table gives an overview of the respective deadlines and requirements:

	12/1998	12/2000	12/2005
Sewerage collection	> 10,000 p.e. in sensitive areas	> 15,000 p.e. In normal and less sensitive areas	> 2,000 p.e. in all areas
Primary treatment		> 15,000 p.e. in less sensitive areas ¹	> 10,000 p.e. in less sensitive areas
Secondary treatment		> 15,000 p.e. in normal areas	> 2,000 p.e. in normal and sensitive areas ²
More advanced treatment	> 10,000 p.e. in sensitive areas		
if sewage is collected in agglomerations < 2,000 p.e., appropriate treatment should be applied			
¹ for > 150,000 p.e. primary treatment only in exceptional circumstances			
² appropriate treatment for discharges to coastal waters			

The Directive sets targets and limit values the treatment efforts must reach, moreover monitoring and evaluating procedures for the results are specified. In the case of excessive costs for treatment systems, alternative systems may be used achieving the same level of environmental protection. Finally the disposal of sewage sludges is also regulated, while the dumping of these sludges at sea or other surface waters was mandated to be phased out by 1998.

With respect to industrial waste water, discharges into collecting systems and treatment plants is to be subject to prior regulation and/or specific authorisation, and subject to forms of pre-treatment are specified in an Annex. These include the provision that the resulting sludge can be disposed of safely in an environmentally acceptable manner.

3.4 Council Directive concerning the Quality of Bathing Waters (76/160/EEC)

General

It is the general objective of this Directive to ensure the good quality of bathing waters over time. This goal is not only motivated by public health considerations, but also for reasons of amenity. The main issue in achieving this goal is the prevention of the pollution of bathing waters by sewage effluents. The Directive entered into force in 1976 and formal compliance was required by 10 December 1977. In October 2002 the European Commission proposed a new directive in order to provide more modern and simple rules to ensure clean bathing waters across the EU (COM(2002)581), which is expected to enter into force in 2003. The following paragraphs will lay out the requirements of the old Directive as well as the proposed regulations.

Specifications

The original Directive defines bathing waters as fresh or sea water, in which bathing is explicitly authorised or not explicitly prohibited and traditionally practised by a large number of bathers. The Directive establishes 19 physical, chemical and microbiological parameters with the coliform counts being the most important one, as these indicates faecal sewage. For thirteen of these parameters the Directive sets imperative (I) and guide (G) values. The Member States are required to establish their own quality goals for bathing waters, which are not less stringent than the I values. The Directive furthermore contains provisions pertaining to the monitoring of water quality, sampling methods, the handling and analysis of samples. The regulations allow for

derogations resulting from special geographical or exceptional weather conditions. The Commission needs to be informed about these periods. In general the Member States are required to report on their compliance with the Directive in biannual intervals.

The proposed new Bathing Waters Directive is intended to deliver three clear benefits: first, improved health standards through reducing allowed faecal concentrations and thus the risk of contracting gastro-enteritis and respiratory diseases. The new proposal sets out standards that have to be respected – the obligatory standards and tougher standards, which the Member States should encourage. Further improvements are to be incurred through more efficient management including prior assessments of likely contaminant sources at each bathing site as well as an extensive information and the active involvement of the public. Thirdly, the new directive will simplify the monitoring requirements for the Member States as it only requires the monitoring of two indicators instead of 19. The classification of water quality will be determined on the basis of a three-year trend and not on the basis of a one-year result. In the case that the revised Bathing Waters Directive should be accepted this year, Member States will have two years to transfer it into national law and another five years to comply with its requirements. It is also expected that the implementation of the Water Framework Directive will contribute to achieving a better quality in bathing waters.

3.5 Council Directive relating to the Quality of Water intended for Human Consumption (80/778/EEC and 98/83/EC)

General

Legislation related to drinking water is setting standards for the quality of water intended for drinking or the use in the manufacturing of food and beverages and is motivated by human health considerations. At the same time the drinking water directive supports environmental protection, since drinking water resources should be sufficiently free from contamination to allow for inexpensive treatment. The first European Directive in the area of drinking water originates from 1980. Directive 80/778 provides an extensive legal framework for ensuring consumer security for drinking water purposes. However, with the first proposals for this Directive dating from 1975 its scientific/technical basis as well as the managerial approach taken no longer reflect today's standards. Therefore a new directive (98/83/EC) will replace 80/778/EEC on 25 December 2003.

Specifications

The old and the new Drinking Water Directive work with the same definition of drinking water as "Water intended for human consumption means all water either in its original state or after treatment used for this purpose, regardless of its origin". The instruments used for the managing drinking water quality are standard-setting, i.e. the definition of physical, chemical and microbiological parameters, and the specification of detailed monitoring requirements. The new Directive is designed to provide more transparency. Since it requires the quality targets to be met at the point of use, i.e. the tap, it is often referred to as the tapwater directive.

While the old Directive contained 66 parameters, this number was reduced to 48 in the new Directive. The parametric values have been reviewed and were strengthened in accordance with the latest available scientific knowledge⁸. While achieving the parameter values of Annex A and B is mandatory, the parameters specified in Annex C are for monitoring purposes only. The main changes of the parametric values in the new version as compared to the old version are the following:

- Lead: reduced from 50 µg/l to 10 µg/l, 15 years transition period to allow for replacing lead distribution pipes,

⁸ WHO Guidelines, Scientific Committee on Toxicology and Ecotoxicology

- Pesticides: values for individual substances and for total pesticides were retained (0,03 µg/l and 0,5 µg/l) plus additional, more stringent ones introduced for certain pesticides (0,03 µl/l),
- Copper: value reduced from 3 to 2 mg/l,
- New standards were introduced for new parameters such as trihalomethanes, trichloroethene and tetrachloroethene, bromate, acrylamide etc.

The monitoring requirements are spelled out in Article 5 and specified in Annex II. Member States are required to set values according to the Annexes as well as for additional parameters where national demands so require in order to meet the general requirements. Annex II divides the parameters into those required for 'check monitoring' (subject to more frequent sampling) and those required for 'audit monitoring' (subject to less frequent sampling). The directive furthermore provides information on the reference methods to be used in analysing the sample.⁹

The parameters and methods of the directive are to be reviewed at least every five years. Member States are obliged to report to the Commission on the quality of their drinking water every three years. The Member States are furthermore required to inform the consumer on drinking water quality and measures taken to comply with the requirements of the Directive.

3.6 Council Directive concerning the Protection of Waters against Pollution caused by Nitrates from Agricultural Sources (91/676/EEC)

General

The Directive aims at mitigating the negative effects of fertilisation on drinking water sources and ecosystems by limiting the input of inorganic fertilisers and manure on farmland. The Directive entered into force in 1991

Specifications

The Directive details the specifications of water bodies potentially affected by pollution from nitrates. Among others, these include:

- surface waters , in particular those for the abstraction of drinking water,
- groundwater containing more than 50 mg/l nitrates,
- freshwater lakes, other freshwater bodies, estuaries, coastal waters and marine waters which are or may become eutrophic.

It furthermore requires those areas draining into such water bodies and possibly aggravating or contributing to the pollution to be designated as vulnerable zones. The designation of the zones is to be based on a one-year monitoring programme, which has to be repeated in regular intervals. In a third step, action programmes for these vulnerable zones must be developed, implemented and revised every four years. The measures required by the Directive as a minimum standard are the following:

- periods when the application of certain fertilisers is prohibited,
- limits on the quantities of fertilisers applied,
- a limit on the application of livestock manure per hectare to an amount containing no more than 170 kg N or 210 kg N during the first four year basis of the action programme,
- conditions relating to the available storage capacity on farms for livestock manure,
- a code of 'good agricultural practice'.

⁹ These reference methods are very detailed for the microbiological parameters. For the chemical parameters only the precision and the detection level are specified.

The Member States are furthermore required to report on the designation of vulnerable zones, the results of the water quality monitoring, the action programmes and the codes of good agricultural practice to the Commission on a four year basis.]

4. Conclusion

With the new Water Framework Directive, EU water policy has moved from an approach based on emission and quality targets to more integrated strategies, establishing the ecological quality of water bodies as the main goal to be achieved. In addition to the already existing tools in water management it also introduces economic aspects, such as the principle of cost recovery for water services. Due to its far reaching changes the WFD poses a major challenge for all EU Member States and for the Accession Countries in particular.

These challenges arise in addition to the ones resulting from other water-related directives, which will co-exist with the WFD, namely the Urban Waste Water Treatment Directive, the Bathing Water Directive and the Drinking Water Directive. Here oftentimes technological advances as well as the respective financial investments necessary constitute the major task to be performed during the next years. Along with this, the enhancement of the managing capacity at the local and regional level is necessary in order to meet requirements with respect to monitoring and enforcement as well as ensuring the active involvement of the public in decision-making. Here awareness raising might be the first step in the right direction.

Ensuring sufficient funding as well as identifying possible synergies necessitates the close co-operation of authorities between and across various administrative levels as well as the creation of a strong leverage for the local municipalities and their needs with respect to water management at the national level, when it comes to the allocation of available funds.

Acknowledging the multiple challenges and tasks that are faced by the local and regional authorities in the Accession Countries, one can still say that their current situation may also bear an tremendous opportunity for establishing the structures to ensure an integrative and sustainable management of their water resources for the future.

5. List of relevant directives for water management

Directive concerning the quality required for surface water intended for the abstraction of drinking water in the Member States (75/440/EC)

Directive on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community (76/464/EEC)

Directive concerning the quality of bathing water (bathing water directive, 76/160/EEC)

Decision establishing a common procedure for the exchange of information on the quality of surface fresh water in the Community (77/795/EEC)

Directive on waste from the titanium dioxide industry (78/176/EEC)

Directive on the quality of fresh waters needing protection or improvements in order to support fish life (78/659/EEC)

Directive on the quality required for shellfish waters (79/923/EEC)

Directive concerning the methods of measurement and frequency of sampling and analysis of surface water intended for the abstraction of drinking water in the Member States (79/869/EEC)

Directive relating to the quality of drinking water intended for human consumption (drinking water directive, 80/778/EEC)

Directive on the protection of groundwater against pollution caused by certain dangerous substances (80/68/EEC)

Directive on procedures for the surveillance and monitoring of environments concerned by waste from the titanium dioxide industry (82/883/EEC)

Directive concerning urban waste water treatment (UWWT directive, 91/271/EEC)

Directive concerning the protection of waters against pollution caused by nitrates from agricultural sources (91/676/EEC)

Directive on the quality of water intended for human consumption (98/83/EC)

Water Framework Directive (2000/60/EC)

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