Ensuring the Directive is put into place

This Directive is crucial for the environment and for our own well-being but it requires major investments. Estimate for the costs to the new Member States are of the order of €35 billion. The European Commission oversees the efforts of Member States in putting the terms of the Directive into place. Where a Member State is negligent, the Commission can take legal action against it in order to correct the problem. A Member State in breach of the rules can be fined.

This procedure is called an ‘infringement’. It can come about either as a result of a complaint made by a citizen or a Non-Governmental Organisation (NGO). Alternatively, the Commission can itself decide on its own initiative to pursue a case against a country that is failing in its duty.

To avoid reaching this unhappy situation, the Commission works closely with Member State authorities to assist and facilitate in the implementation of the necessary measures. Reports and public information are made available to the broader public and this itself can act as a lever for change and stimulus for progress.

The Directive requires Member States to report on the state of its waste water and the measures it has taken. The last reports issued can be seen at:


For further information:


Urban Waste Water Treatment Directive
The European Union’s commitment to protecting the environment from waste water discharges

The European Union has over 500 million inhabitants. The waste water generated by this large population and by industry is a major source of pollution. It can affect the quality of drinking and bathing waters. It can also increase biodiversity loss and hinder the objective set by the Water Framework Directive of achieving good ecological status in our waters by 2015.

The Urban Waste Water Treatment Directive is often perceived as costly but it addresses these challenges with great benefits to both our health and our environment.

Just like other water legislation of the European Union, the Directive has clear and binding objectives. However, it is fully flexible on the means to achieve such objectives. Thus it allows alternative solutions and encourages innovations both in waste water collection and treatment.

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Waste water can have a big impact on the quality of our water resources

Water is essential for our society and our health. Clean rivers, lakes and coastal waters are important for business and recreation. They also help create an identity for the areas in which we live.

Waste water, if not treated properly, can be very damaging to water quality. Impacts range from locally increased fish mortality to widespread problems such as the spread of algae threatening whole eco-systems due to over fertilisation by farmers.

The EU is protecting our water resources

The European Union has adopted comprehensive legislation aimed at preventing these problems and protecting the quality of our waters.


Key sources of pollution, such as urban waste water and nitrate pollution from agriculture, are dealt with by specific EU Directives that try to control the pollution at source.

Standards and basic principles for treating waste water

Waste water includes ‘used’ water and sewage from households as well as water that has been used in industries. Failure to treat and clean it will mean polluting seas and rivers with inevitable harmful consequences for wildlife, plants and our own health.

The Directive 91/271/EEC on urban waste water treatment aims at setting standards and defining the basic principles and methods for treating waste water. The main features of the Directive are as follows:

- Member States must ensure waste water collection and treatment for all villages and towns with a population of 2000 or more;
- Principles are established for the design, construction and maintenance of collecting systems and treatment plants;
- Waste water treatment plants must achieve minimum standards in their operations, including environmental standards for the water treated.

Waste water, even after treatment, can end up in areas deemed sensitive for the environment or health, or it may affect larger populations (over 10000). When this happens, more stringent treatment is required and higher standards have to be respected.

Complying with the EU rules

Deadlines have been defined for each environmental objective of the Directive. These deadlines have already expired for the 15 ‘older’ Member States. All of them must now meet the rules.

The 12 newer Member States, which joined the EU since 2004, were granted transitional periods which can extend the deadlines up to 2018. This gives time for the countries concerned to put the necessary infrastructure and equipment in place. As the implementation of this Directive represents a major financial challenge, the EU Cohesion Funds provide significant support to co-finance waste water infrastructure.

The Commission is satisfied with the high rate of transposition of the Directive, and the overall increasingly good results in implementation. The Implementation Report published by the Commission in 2009 showed that 95% of the waste water in EU-15 was addressed by collecting systems, and compliance for treated waste water also rated very high at approximately 85%. Regarding the 12 ‘new’ Member States, and as explained above, full implementation is still a challenge, but good progress is being made in order to reach similar results.

Understanding how waste water is treated

- Firstly, waste water is pre-treated, this includes the removal of stones, sand and fat/grease, using mechanical processes, such as screening, settlement or flotation.
- Then comes the primary treatment, involving the removal of suspended solid material by passing wastewater (sometimes after particular chemicals are added) through settlement or flotation tanks.
- The secondary biological treatment process sees wastewater passing through tanks where certain microorganisms are used to convert any remaining pollution into sewage sludge. A properly designed and operated treatment plant with secondary treatment can reduce the quantities of organic material by up to more than 90% and reduce the presence of faecal germs by up to 99%.
- More advanced treatment involves further stages, e.g. nutrient removal or disinfection. Nutrients, such as nitrates or phosphates, can be removed by biological processes (using nitrogen for example) and by adding chemicals (phosphorus for example). Disinfection techniques may involve UV radiation or ozone treatment.
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Protecting the environment from waste water discharges

Urban Waste Water Treatment Directive

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Karl Falkenberg
Director-General for Environment
European Commission