ECE/ASTANA.CONF/2011/INF/9

ENVIRONMENT FOR EUROPE
UN ENVIRONNEMENT POUR L'EUROPE
ОКРУЖАЮЩАЯ СРЕДА ДЛЯ ЕВРОПЫ
ЕУРОПА ҮШІН ҚОРШАҒАН ОРТА

ASTANA, 21–23 September 2011

Seventh "Environment for Europe" Ministerial Conference

Astana, Kazakhstan
21–23 September 2011

Establishing a Dynamic System of Surface Water Quality Regulation: Guidance for Countries of Eastern Europe, Caucasus and Central Asia

Executive Summary

Information document submitted by
the OECD/EAP Task Force Secretariat

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

EXECUTIVE SUMMARY

This Guidance document promotes the adoption of ambitious but feasible water quality requirements in Eastern Europe, Caucasus and Central Asia (EECCA) countries. It aims to build the capacity of senior and mid-level staff of water resources management and environmental protection authorities. It examines how water quality planning and regulation can evolve from the approach used in the former Soviet Union to one embedded in integrated water resources management.

The Guidance builds on the results of the pilot project conducted by the OECD/EAP Task Force Secretariat on surface water quality regulation in the Republic of Moldova and follow-up regional initiatives.

The work was financially supported by the Government of Finland. The full version of this document can be downloaded from www.oecd.org/env/eap

Learning from international good practices, countries of Eastern Europe, Caucasus and Central Asia (EECCA) are increasingly engaged in managing their water resources in accordance with the principles of integrated water resources management. This process requires that EECCA countries move beyond the "first generation" of their water-related laws and adopt a flexible system of water quality regulation that takes account of the constantly changing economic, social and environmental conditions.

The objective of this guidance document is to propose an approach to surface water quality regulation and management that would make it:

- Commensurate with the available resources;
- Flexible enough to respond to different and changing water uses and water quality conditions;
- Conducive to continual improvement of the surface water quality; and
- Consistent with the principles of integrated water resources management.

The diversity of water uses is at the core of the multi-functional nature of water quality management. Water uses and functions (aquatic ecosystem functioning, fishery, drinking water abstraction, bathing and irrigation) can be classified in a hierarchical order of increasing (or decreasing) water quality requirements. *Linking the hierarchy of water quality with the hierarchy of water uses through use-based classes with differentiated sets of surface water quality standards is the first key element of the proposed flexible approach to water quality regulation.*

The second essential element is the adjustable scope of regulation: the list of parameters to be regulated should be determined by a combination of factors, including water management objectives, water uses, discharges and impacts of pollutants, and monitoring and laboratory analysis capacity. Dynamic water quality regulations should also contain mechanisms for periodically revising the scope of regulation by removing or adding parameters and/or adjusting the respective limit values.

Another fundamental principle is multi-stage planning and management, where an overall water quality objective has to be achieved over the long-term through a number of successive steps. Each step would consist of a feasible and affordable water management programme with its own specific medium-term (five to ten-year) targets.

A regulatory framework supporting such multi-stage planning and management has to include an *iterative water quality planning process and a system of surface water quality standards with values corresponding to the respective medium-term targets*. An iterative water quality planning process involving multiple governmental and non-governmental stakeholders is designed to find a balance between the desired water uses and quality targets on the one hand and the available financial, technical and human resources on the other. Each iteration of this planning process should comprise the following steps:

1. Define water bodies based on the analysis of characteristics of the river basin, pressures on water quality and existing water uses;

2. Explicitly identify and agree desirable water uses for the defined water bodies;

3. Assess whether existing water quality conditions of the respective water bodies support the desired water uses;

4. Should the current water quality conditions fall short of the respective requirements, conduct an affordability analysis of measures needed to achieve them and, if necessary, reconsider the desired water uses; and

5. Set a target and respective regulatory requirements for the water body and develop a water quality management programme to achieve and/or maintain it.

Wastewater discharges should be regulated in accordance with the "combined approach": effluent limit values should based on best available techniques or statutory effluent standards (technique-based approach), unless the applicable surface water quality standard/objective requires stricter effluent conditions (environmental quality-based approach).

Regulating surface water quality in transboundary basins requires, at a minimum, that the riparian states agree on *joint criteria for the assessment of surface water quality*. Joint criteria are needed in order to assure that countries make compatible assessments and draw conclusions about the water quality. The next steps would be for the riparian states to establish *joint surface water quality targets to be achieved on both sides of the border* as well as coordinate their water management measures.

The present document offers guidance for the introduction and implementation of an approach to water quality regulation in line with the above-mentioned principles. It can be used by competent authorities in EECCA countries to further improve surface water quality regulation while taking into account their national policies, international commitments, institutional capacity, as well as available financial, technical and human resources.