

## EN2D: Develop inspection protocols for water abstraction and discharge points and receiving water bodies

REGULATORY FUNCTION: ENVIRONMENT		EN2D
<b>OBJECTIVE EN2</b> Environmental compliance of water and wastewater service operators, industries and agriculture is monitored through collected information on the status of water resources, its use and protection	<b>ACTION CARD EN2D</b>  <h1 style="margin: 0;">DEVELOP INSPECTION PROTOCOLS FOR WATER ABSTRACTION AND DISCHARGE POINTS AND RECEIVING WATER BODIES</h1>	
<b>COST:</b> Medium <b>FREQUENCY:</b> One time <b>TARGET GROUPS:</b> Regulators, service operators, Industrial and agricultural consumers, environmental authorities		
<b>DESCRIPTION</b> Environmental regulators may support national environment authorities or develop their own inspection mechanisms through regular inspection reports on environmental infringements. This action is performed in accordance to transparent inspection protocols, predefined and accessible to users. Guidelines must outline how the inspections are conducted, approved, and reported. Regulators must also transparently outline users' obligations and rights during inspection procedures and along the time sequence of audits.		
<b>EXPECTED OUTCOMES</b> <ul style="list-style-type: none"> <li>• Water abstraction points, discharge designated areas, and receiving water bodies are inspected.</li> <li>• Service operators are prevented from undertaking inappropriate practices.</li> <li>• Consumers are granted access to inspection reports and notes.</li> </ul>		
<b>EXAMPLE 1: CHINA</b> In <b>China</b> , the Environmental Protection Department of the Hong Kong Government outlined within its Guidelines for Assessment of Water Pollution, that assessments shall rely on the concept of <b>assimilative capacity</b> of the receiving water body and water quality objectives. Assimilative capacity will vary with the characteristics of each site and with the type and number of discharges or activities or affected beneficial uses. Quantification of the assimilative capacity of the receiving environment shall take into account physical processes, as well as all chemical, biochemical and biological processes. Sensitive receivers based on beneficial uses shall be identified, and water quality impacts shall be assessed with reference to water quality objectives or adopted criteria. Assimilative capacity of a water body is regarded as exceeded if the water quality objectives (WQOs) for the most sensitive target of the beneficial uses to be protected for that water body are exceeded.  In evaluating water pollution impacts, both point and non-point sources of water pollutants shall be considered. Non-point pollutants refer to substances which can be introduced into receiving water bodies as a result of urban or rural runoff. Point sources are related to specific discharges from municipal or industrial facilities.		
<b>EXAMPLE 2: IRELAND</b> In <b>Ireland</b> , the Environmental Protection Agency (EPA) has runs a monitoring programme to meet the goals of the EU Water Framework Directive (WFD), and to achieve 'good' status generally and to retain 'high' and 'good' status where such already exists. Towards these goals, EPA's work involves the following. <ul style="list-style-type: none"> <li>• Covers groundwater and surface waters: rivers, lakes, coastal and transitional waters.</li> <li>• Includes special sub-programmes for protected areas included in the Register of Protected Areas as defined in Article 6 of the WFD.</li> </ul>		

- Includes artificial and heavily modified water bodies, and these, apart from those under the canals monitoring programme, are monitored within the appropriate main monitoring programmes (rivers, lakes, or transitional and coastal waters).

There are three types of monitoring under the Water Framework Directive.

- Surveillance monitoring: aims to allow assessment of long term changes in natural conditions; efficient and effective design of future monitoring programmes; validation of impact assessment procedures detailed in Annex II of the Directive; and assessment of long term changes resulting from human activity.
- Operational monitoring: aims to establish the status of water bodies identified at being at risk of failing to meet their environmental objectives; and assess any changes in the status of such bodies resulting from programmes of measures.
- Investigative monitoring: is required where the reason for any exceedances is unknown; where surveillance monitoring indicates that the legislative objectives for a body of water are not likely to be achieved and operational monitoring has not already been established, in order to ascertain the causes of a water body failing to achieve environmental objectives; or to ascertain the magnitude and impacts of accidental pollution; and shall inform the establishment of a programme of measures for achieving environmental objectives and specific measures necessary to remedy the effects of accidental pollution.

EPA also encourages community monitoring through a 'green home' award programme. A ceremony takes place where participants success and efforts of householders to improve environmental actions within the home was acknowledged

#### **LINKS**

Hong Kong: <https://www.epd.gov.hk/eia/english/legis/memorandum/annex14.html>

Ireland EPA web site: <http://www.epa.ie/water/watmg/wfd/monitoring/>

#### **INTERNAL CAPACITIES NEEDED AND THE ROLE OF PARTNERS**

Developing inspection protocols for water abstraction and discharge points and receiving water bodies requires technical capacity in terms of understanding what to inspect, when and where to inspect, and how often. This involves both inspection of ecological status as well as parameters that affect ecological status, routinely and during pollution incidents. The exact parameters are decided upon based on knowledge of what levels and pollutants and volumes of water are triggers for potential worsening or improving trends. Development partners can support through technical advice and capacity development. This could include for example, participatory workshops to establish frameworks of parameters, thresholds and inspection protocols, based on a desk review of the situation and drawing on positive examples from similar contexts. Environmental authorities can support regulators by sharing their expertise.