FRESHWATER EIONET WORKSHOP 2009

STREAMLINING ANALYSIS OF SOE, NITRATES DIRECTIVE AND WFD MONITORING SITES

COMMENTS FROM SPAIN

SURFACE WATERS

The report states, in relation to surface waters

Rivers:
NiD monitoring network significantly bigger than SoE but smaller than WFD; very low proportion of NiD – SoE best matching sites but partly possible match with ID, problems with prefixes; good proportion of NiD – WFD best matching sites and few mistakes

Lakes:
no SoE data; almost the same number of NiD and WFD monitoring sites, good proportion of NiD – WFD best matching sites and few mistakes

1. The first and most important subject to take into consideration to understand the mismatches found in the comparison of the monitoring stations of the three reporting activities (NiD, WFD-article 8 and WISE-SoE 2008) is their time frames:

- **NiD** monitoring stations correspond to the four-year period 2004-2007. The report was delivered by April 2008.
- **WFD-article 8** monitoring stations correspond to the monitoring network established by Dec. 2006 in order to accomplish the mandate of article 8. The report was delivered by April 2007.
- **SoE** monitoring stations correspond to the situation during year 2007. The report was delivered by October 2008.

Although there is an overlapping period among the three reports, the complete match of the monitoring networks is not possible due to evolution that the monitoring networks have been suffering. In fact, from the initial design of the monitoring networks according to WFD-article 8, a huge implementation work has been performed in order to refine and improve them. For that reason, Spain does not consider the WFD-article 8 monitoring networks as definitive and they are absolutely not at a standstill. The design of the monitoring networks should be considered as an iterative procedure. The future WFD-article 13 reporting, that will be performed in December 2009, will reflect in a better way all the changes in the monitoring network design that have been necessary to achieve the desired results.

2. Another important issue to take into consideration when analyzing the mismatches among the three reports is the different objective of the monitoring networks included in the report.

- **NiD** includes all the monitoring stations that are necessary to ensure the good application of Directive 91/676/EC. In the former reporting activity, Spain has introduced a new conception of the nitrate's monitoring networks by including three different sub-programs:

a) Sub-program 1: Surveillance monitoring network of nitrates. General control of nitrate concentration and trophic status
b) Sub-program 2: Operational monitoring network of nitrates. Control of waters affected by pollution and control of the effectiveness of the implemented action programs
c) Sub-program 3: Control of nitrates in waters used for the abstraction of drinking water.

- **WFD-article 8** includes many different sub-programs according to the different objectives:
  a) Surveillance monitoring networks. Includes 5 different sub-networks:
     1. Evaluation of the general status of surface waters and the assessment of tendencies of long-term changes resulting from widespread anthropogenic activity
     2. Surveillance monitoring for the assessment of long-term changes in natural conditions
     3. Surveillance monitoring to ensure the information exchange among Member States
     4. Surveillance monitoring to assess transboundary emissions and emissions to the sea.
     5. Surveillance of river flows.
  b) Operational monitoring network.
  c) Reference sites monitoring network.
  d) Intercalibration sites monitoring network.
  e) EIONET-WATER monitoring network (now WISE-SoE)
  f) Investigative monitoring network
  g) Control of waters used for the abstraction of drinking water
- **SoE** rivers and lakes monitoring includes only one subprogram, design to give a global overview of water quality in Spain.

For that reason there is not a total correspondence between NiD-WFD and SoE programs.

- NiD Subprogram 1 is equal to WFD Subprogram a) 1.
- NiD Subprogram 2 is included in WFD Subprogram b) (all NiD Subprogram 2 should form part of WFD Subprogram b), but this includes more stations in WB at risk, where the pressure is not nitrates coming from agriculture)
- NiD Subprogram 3 should be the same as WFD Subprogram g)
- SoE equals to NiD Subprogram 1 and to WFD Subprogram a) 1.
- WFD Subrpograms a2, a3, a4, a5, c, d, e and f do not have any correspondance with SoE or NiD

GROUNDWATERS

The report states, in relation to groundwater: *"NiD monitoring network significantly bigger than SoE or WFD, low proportion of NiD – SoE best matching sites but few mistakes only; medium proportion of NiD – WFD best matching sites and few mistakes only".*

In this sense, it is necessary to remember that:

- In relation to the WFD monitoring network, Spain reported to the European Commission in March 2007 the stations of the groundwater chemical status monitoring network, established according to art. 8 of the WFD (3.266 stations). Since then, some stations have been removed, and others have been added to this monitoring network.

- With reference to the Nitrates Directive monitoring network, in September 2008 Spain sent to the European Commission the 2004-2007 Directive 91/676/CEE report, including the information on the stations that comprises the monitoring network for groundwater and its results (3.938 stations). These Directive 91/676/CEE monitoring stations reported, are the WFD art. 8 groundwater chemical status monitoring stations (with the minor changes mentioned above), and other stations that were previously included in the Nitrates Directive monitoring network only, but that have also been included into WFD art. 8 groundwater chemical status monitoring network, in order to ensure a homogeneous and coordinated implementation of both directives.

  However, WFD art. 8 groundwater chemical status monitoring network has probably not been updated with these changes (it will be updated in the 2010 WFD reporting), and that is why the Nid monitoring network is significantly bigger than the WFD or SoE.

- Finally, in relation to the SoE monitoring network, Spain sent in 2008 to the EEA the 793 stations that integrate the WISE-SOE: Groundwater monitoring network, that are a selection of the updated WFD art. 8 groundwater chemical status monitoring network that fulfil the requirements of the EEA Technical Report No. 7 "*EUROWATERNET. The European Environment Agency's Monitoring and Information Network for Inland Water Resources Technical Guidelines for Implementation*".

Therefore for groundwater, the NiD and WFD monitoring network is comprised of 3.938 stations, and 793 of them were selected for the WISE-SoE: Groundwater monitoring network.

This explains the differences mentioned in the EEA report between the WFD, NiD and SoE stations. In addition to this, the EEA report is based on a comparison of the monitoring network stations geographical coordinates, and not in a comparison of the codes, and there might be some slight differences in some stations geographical coordinates sent in the different reporting processes due to an updating. A comparison of the monitoring station codes would reflect a better matching.