



ECONOMIC COMMISSION FOR EUROPE

COMMITTEE ON ENVIRONMENTAL POLICY

**Ad Hoc Working Group on Environmental Monitoring**

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(Item 3 (b) of the provisional agenda)

## DATA COLLECTION FOR THE KIEV REPORT

### Addendum 3

## QUESTIONNAIRE FOR THE COLLECTION OF WATER RELATED DATASETS

Submitted by the European Environment Agency (EEA)

The data collection for producing the indicators in the Kiev report is executed by the European Topic Centres under contract by EEA. In Newly Independent States (NIS) the data collection will be supported by consultants of the TACIS programme, in Balkan countries by consultants of the EEA financed by the European Union stability pact fund.

### I. SCOPE OF THE DATA REQUEST

This document contains the questionnaires for the collection and transmission of the data sets required to formulate the water-related indicators for the Kiev report. The associated spreadsheets will be sent to country focal points in English only.

The name and co-ordinates of a Water Topic Centre partner who will be able to answer any questions arising from the questionnaires accompany each dataset. The questionnaires are ordered according to the numbering and descriptions given in the EEA's guidelines for the data collection of the Kiev report (<http://www.unece.org/env/europe/meeting1.htm#First>).

The indicators and datasets the questionnaires cover are summarized below.

Indicator	Datasets required for indicator	Ref
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Exploitation index/consumption index of water quantity	Total water abstraction by region	8.1
	Final water consumption by region	8.2
	Long term average renewable freshwater resources	8.3
N, P and organic matter in rivers	Annual concentrations of N, P and organic matter in rivers by catchment size	8.4
N and P in lakes	Annual concentrations of N and P in lakes by catchment size	8.5
Overall river water quality index: biological and physico-chemical classification. of river lengths less than 'good' in national classifications	River water quality by country	8.6
Pesticides in groundwater and surface waters	Annual average concentrations of pesticides in groundwater	8.7
	Annual average concentrations of pesticides in surface water	8.8
Nitrate in groundwater	Annual average nitrate concentrations in groundwater	8.9
Urban Waste Water treatment capacity	Capacity of UWWT plants	8.10
Drinking Water Quality	Number of samples failing European drinking water quality standards	8.11
Nutrient inputs to sea	Annual average N and P loadings to sea	8.12
Nutrient concentrations in sea and coastal waters	Annual average concentrations of N and P in marine and coastal waters	8.13
Bathing water quality	Annual average quality of bathing waters	8.14
Input and concentrations of hazardous substances in marine waters	Annual average loadings of hazardous substances to marine and coastal waters	8.15
	Annual average concentrations of hazardous substances to marine and coastal waters	8.16
Oil pollution from maritime transport and offshore activities	Regular marine oil spills	8.17
Number of natural disasters	Numbers of floods and droughts	10.2

The water questionnaires or datafiles can be returned electronically to the person mentioned in the instructions below with each of the datasets. If you prefer to return material by mail or send all files at once, please use the following address:

ETC Water  
Steve Nixon

WRc plc  
Henley Road Medmenham  
SL7 2HD Bucks  
United Kingdom  
Tel: +44 1491 636608  
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E-mail: [nixon@wrcplc.co.uk](mailto:nixon@wrcplc.co.uk)

## II. COLLECTION OF DATA ON WATER QUANTITY (FRESHWATER RESOURCES AND ABSTRACTIONS) AND EXTREME HYDROLOGICAL EVENTS

Datasets: 8.1, 8.2, 8.3 and 10.2

### A. Freshwater resources and abstractions

We require information on the freshwater resources and abstractions, in your country. The data will be used to formulate the following pressure indicators at country level: water exploitation index and water consumption index. We are asking you to provide data on freshwater resources at national level. The abstractions should be provided by source (surface and groundwater) and by economic sector (water abstractions for urban use, for agricultural use, for industrial use, for energy production, and for other purposes).

The requested information follows the concepts and definitions agreed between Eurostat and the EEA for the JQ2002 (OECD-Eurostat Joint Questionnaire 2002). The data required for the calculation of water resources are as follows:

Concept	Unit	Definition
Precipitation	Mm <sup>3</sup>	<i>Precipitation</i> : Total volume of annual atmospheric wet precipitation (rain, snow, hail, ...)
Actual Evapotranspiration	Mm <sup>3</sup>	<i>Actual evapotranspiration</i> : Total volume of evaporation from the ground, wetlands and natural water bodies and transpiration of plants. According the definition of this concept usually accepted in Hydrology, the evapotranspiration generated by all human interventions is excluded, except unirrigated agriculture and forestry.
Internal Flow	Mm <sup>3</sup>	<i>Internal flow</i> : Total volume of river run-off and groundwater generated exclusively by precipitation into a territory.
Actual external inflow	Mm <sup>3</sup>	<i>Actual external inflow</i> : Total volume of actual flow of rivers and groundwater, coming from neighbouring territories.
Total freshwater resources	Mm <sup>3</sup>	Internal flow plus actual external inflow

Long term annual average (LTAA): The minimum period of calculation for the LTAA is 20 years.

The data required on water abstractions are as follows:

#### Annual water abstraction by source

Concept	Unit	Definition
Total abstraction from surface	Mm <sup>3</sup>	Water removed from any source, either permanently or

and groundwater		temporarily. Mine water and drainage water are included.
Total abstraction from fresh surface water	Mm <sup>3</sup>	<i>Fresh surface water:</i> Water which flows over, or rests on the surface of a land mass, natural watercourses such as rivers, streams, brooks, lakes, etc., as well as artificial watercourses such as irrigation, industrial and navigation canals, drainage systems and artificial reservoirs. For purposes of this questionnaire, bank filtration is covered under surface water but seawater, permanent bodies of stagnant water both natural and artificial, and transitional waters, such as brackish swamps, lagoons and estuarine areas are not considered surface water.
Total abstraction from groundwater	Mm <sup>3</sup>	<i>Fresh groundwater:</i> Fresh water which is being held in, and can usually be recovered from, or via, an underground formation. All permanent and temporary deposits of water, both artificially charged and naturally, in the subsoil, of sufficient quality for at least seasonal use. This category includes phreatic water-bearing strata, as well as deep strata under pressure or not, contained in porous or fracture soils. For purposes of this questionnaire, ground water includes springs, both concentrated and diffused, which may be subaqueous. Excluded from ground water is bank filtration (covered under surface water).

#### Annual water abstraction by sector

Concept	Unit	Definition*
Abstraction for urban use	Mm <sup>3</sup>	Water abstracted to supply private households, commercial-industrial use and public services
Abstraction for agriculture: <ul style="list-style-type: none"> <li>• For irrigation</li> <li>• For other agricultural uses</li> </ul>	Mm <sup>3</sup>	Water abstracted to supply agriculture uses, including irrigation. Water abstracted for artificial application of water on lands to assist in the growing of crops and pastures. Water abstracted for other agricultural uses such as livestock
Abstraction for industry	Mm <sup>3</sup>	Water abstracted to supply industry excluding that supplied through the urban supply network
Abstraction for energy	Mm <sup>3</sup>	Water abstracted for the generation of electricity in power stations and cooling water used in cooling processes for thermal power generation
Abstraction for other uses	Mm <sup>3</sup>	Abstraction for environmental purposes, navigation and recreation.

\*Definition source: Sustainable water use in Europe. Section 1 Sectoral use of water (Environmental assessment report No 1,EEA.1999)

It is possible that the definitions and concepts used in your country are different. Please, in that case, add them to the data submitted in order to help us interpret your data and to ensure that like is compared with like. It is recognized that probably not all the above data will be available. So please submit those that you have.

We ask that you provide your most recent data (for most countries this would be for the year 2000), and provide as long a time series as possible. Please use the excel spreadsheet (“8-1 to 8-3.xls”) to submit your data.

## B. Extreme hydrological events

We require information on extreme hydrological events in your country. The information will be used to formulate indicators on water stress and climate change. We are asking you to provide data on the most common extreme hydrological events in your country. These are:

- Storms (intense rainfall events)
- Floods:
  - (a) Large basins (prolonged/peak from e.g. frontal systems or rapid snowmelt);
  - (b) Localized flash floods.
- Droughts

We are interested in obtaining information:

- on the main characteristics and features of each extreme event
- to consider these in relation to events at the same time in surrounding regions or countries
- to indicate whether such events are changing in their magnitude or frequency
- on measures/policies in place or planned to mitigate the impact of floods and droughts.

The information required on extreme hydrological events is as follows:

Type of event (storm, flood, drought)	Protection level <ul style="list-style-type: none"> <li>• Measures in place</li> <li>• Effectiveness</li> </ul>
Date(s)	Policies in place
Location (region, country)	Policies in perspective
Physical characteristics	Organizations or Institutions responsible
Description of impacts: <ul style="list-style-type: none"> <li>• Human</li> <li>• Economic</li> <li>• Environmental</li> </ul>	

It is recognized that not all of the requested data and supportive information will be immediately available and so we ask you to provide as much as you can at this time. Also, short-term local events may not have quantitative information available and a REMARKS entry is included in the spreadsheets to enter more qualitative or descriptive information or to provide a reference source for further and more detailed information on the particular event.

More widespread and persistent flood and drought events are difficult to define and we request that a specific station is identified to illustrate the characteristics of the event. Further information may be obtained from EEA Environment issue report No. 21 “Sustainable water use in Europe. Part 3: Extreme hydrological events: floods and droughts” 2001, which may be downloaded from the EEA web site ( [http://reports.eea.eu.int/Environmental\\_Issues\\_No\\_21](http://reports.eea.eu.int/Environmental_Issues_No_21) ).

An Excel spreadsheet (“10-2.xls”) will ask you to provide data and information. A key is given for each data sheet describing and defining the data and information fields. Please complete a separate sheet for each event within each type category. We ask that you provide your most recent information (for most countries this would be for the year 2000).

The data and information gathering about water resources, water abstractions and extreme hydrological events is the responsibility of Concha Lallana who is in the ETC/WTR Core Team at Water Research Centre, Medmenham UK (tel: +44 1491 636662, fax: +44 1491 636501, e-mail [lallana\\_c@wrcplc.co.uk](mailto:lallana_c@wrcplc.co.uk))

### III. COLLECTION OF DATA ON RIVERS

Datasets: 8.4 and 8.8

We require information on the water quality of the rivers in your country. The data will be used to formulate indicators on nitrogen, phosphorus, organic matter, pesticides and other hazardous substances in rivers. We are also seeking specific data from the following catchments.

River catchment	Countries within catchment
Volga	RU
Danube	DE, AT, SK, HU, HR, SB, RO, BG, UA, CH, PL, IT, CZ, SL, BA, AL, MD
Dniepr	RU, BY, UA
Severnaya Dvina	RU
Pechora	RU

We are asking you to provide data from all your monitoring stations. The data are required in a disaggregated form, that is the concentration measured in each sample taken. The requested information follows the concepts and structure of EUROWATERNET, which is the process by which the EEA obtains the monitoring and other information it requires for its needs.

The determinands required for the assessment of nutrients and organic pollution (in the BASIC network) are as follows:

Nitrate	Soluble reactive phosphorus or Orthophosphate	Biochemical oxygen demand
Total oxidized nitrogen		Chemical oxygen demand
Total inorganic nitrogen		Dissolved oxygen
Ammonium	Total phosphorus	Total organic carbon
Total nitrogen	Chlorophyll a	

It is recognized that probably not all the above determinands will be available. So please submit those that you have.

For pesticides and other hazardous substances (the IMPACT network), we ask that you send data on all those that are monitored in your country. In this case it will be particularly important that the Chemical Abstract Service (CAS) number of each monitored substance is also given.

In order to help us interpret your data and to ensure that like is compared with like, we also need supportive information for each monitoring station on its physical characteristics and on upstream catchment pressures. It is recognized that not all of the requested data and supportive information will be immediately available and so we ask you to provide as much as you can at

this time.

An Excel spreadsheet (“8.4 and 8.8.xls”) will ask you to provide data and information. A worksheet is provided for the BASIC and IMPACT stations/network, and for the physical characteristic and catchment pressure information. A key is given for each data sheet describing and defining the data and information fields. Additional information can also be found in the “Guidelines for the implementation of EUROWATERNET” which have been published by the EEA in Technical Report No. 7 (1998) (<http://reports.eea.eu.int/TECH07> – also available in Russian). We ask that you provide your most recent data (for most countries this would be for the year 2000), and provide as long a time series as possible for as many stations as possible.

The implementation of EUROWATERNET for rivers is the responsibility of Steve Nixon who is in the ETC/WTR Core Team at Water Research Centre, Medmenham UK (tel: +44 1491 636608, fax: +44 1491 636501, e-mail: [nixon@wrcplc.co.uk](mailto:nixon@wrcplc.co.uk))

#### IV. COLLECTION OF DATA ON LAKES

Dataset: 8.5 and 8.8

We require information on the water quality of the lakes in your country. The data will be used to formulate indicators on nutrient status and eutrophication, and if possible also on pesticides and other hazardous substances in lakes. The requested information follows the concepts and structure of EUROWATERNET, which is the process by which the EEA obtains the monitoring and other information it requires for its needs.

We ask primarily for the determinands below, if they are available:

Total nitrogen Nitrate Total oxidized nitrogen Ammonium,	Total phosphorus Chlorophyll a Secchi depth Orthophosphate	Conductivity Alkalinity
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For pesticides and other hazardous substances, we ask that you send data on all those that are monitored in your country. Please submit a list of Chemical Abstract Service (CAS) numbers of the monitored substances. For these determinands we ask you to:

1. Provide as long a time series as possible for as many lakes as possible;
2. Provide basic information on each lake such as surface area and geographical location coordinates.

You may provide either annual average values or individual sample data. We would prefer a data submission format to be a simple columnar format, for example similar to the spreadsheets “8.5-Lakes-chem\_format.xls” and “8.5-chem\_format.xls”.

Additional information can also be found in the “Guidelines for the implementation of EUROWATERNET” which have been published by the EEA in Technical Report No. 7 (1998) (<http://reports.eea.eu.int/TECH07> – also available in Russian).

The implementation of EUROWATERNET for lakes is the responsibility of Jens Bøgestrand of the National Environmental Research Institute, Denmark ( tel: +45 89 20 14 00, fax: +45 89 20 14 14, e-mail [jbo@dmu.dk](mailto:jbo@dmu.dk))

## V. COLLECTION OF DATA ON RIVER CLASSIFICATION SCHEME(S)

Dataset: 8.6

We require the results of your country's River Water Quality Classification scheme(s). In addition, in order to assess the data from all the national classifications, it is important that we know the details of the classification scheme(s) and the length of river or the number of monitoring stations on which the results are based. The information that we require is detailed below with illustrative examples.

Question/Information	Illustrative examples
<b>Basis</b>	
1. What is the basis of your river classification and/or assessment schemes?	<ul style="list-style-type: none"> <li>related to uses of the water;</li> <li>based on chemical concentrations;</li> <li>based on biological measures and/or indices;</li> <li>based on concentrations of toxic substances in water, biota and sediment;</li> <li>aesthetics (e.g. litter, colour odour);</li> <li>related to physical characteristics (e.g. habitat and flow) of the river.</li> </ul>
<b>Determinands</b>	
2. For each of the classification or assessment schemes identified in 1 please describe which determinands/measures are used to classify/categorize river water quality.	<ul style="list-style-type: none"> <li>dissolved oxygen concentration;</li> <li>biochemical oxygen demand concentration;</li> <li>river invertebrate community structure;</li> <li>habitat characteristics.</li> </ul>
<b>Summary statistics</b>	
3. For each determinand/measure described in 2 please give information on the summary statistic used in the classification.	<ul style="list-style-type: none"> <li>mean;</li> <li>median;</li> <li>95%ile value;</li> <li>summer or winter mean.</li> </ul>
4. From how many years data is the summary statistic formulated?	<ul style="list-style-type: none"> <li>one year's data;</li> <li>rolling mean of a number of successive years.</li> </ul>
<b>Sampling window</b>	
5. What is the sampling window for each determinand/measure described in 2?	<ul style="list-style-type: none"> <li>the whole year;</li> <li>summer;</li> <li>winter;</li> <li>specific months.</li> </ul>
<b>Sampling frequency</b>	
6. What is the sampling frequency for each determinand/measure and each sampling window?	<ul style="list-style-type: none"> <li>monthly samples;</li> <li>'n' samples taken over the winter period.</li> </ul>
<b>Class defining/limiting thresholds</b>	
7. For each classification of each determinand/ measure please give the number of classes and define the class limiting threshold for each of the classes by filing in the spreadsheet; worksheet 'Scheme(s) details'	<ul style="list-style-type: none"> <li>See examples in the spreadsheet; worksheet 'Scheme examples'</li> </ul>
8. How are the class limiting thresholds derived?	<ul style="list-style-type: none"> <li>values based on differences in biological quality;</li> <li>biological or other effects;</li> <li>frequency distribution of the observed measure or concentrations.</li> </ul>
<b>Classification rules</b>	
9. What assessment of site data is undertaken before assigning class to any particular river and/or monitoring site?	<ul style="list-style-type: none"> <li>assessment of the level of confidence for site/river data in relation to class limiting threshold.</li> </ul>
10. How is overall quality class derived or assigned?	<ul style="list-style-type: none"> <li>default to the class of the worst classification; determinand/measure;</li> <li>average of the classes of all classification; determinands/measures.</li> </ul>
<b>Presentation of results</b>	



11. How are the results of the classifications/ assessments presented, for example, to the public?	<ul style="list-style-type: none"> <li>• Coloured maps;</li> <li>• Pie charts;</li> <li>• Coloured symbols for each water 'use'.</li> </ul>
12. What is your reporting/survey period?	<ul style="list-style-type: none"> <li>• Every five years;</li> <li>• Every three years.</li> </ul>
<b>Results</b>	
13. What percentage of the monitored network falls into each class for each of your classification schemes? Please provide this information by completing the spreadsheet; worksheet 'Results'. Please provide data for as many years as possible but most importantly include the most up-to-date data (ideally from 2000).	<ul style="list-style-type: none"> <li>• See spreadsheet; worksheet 'results example'.</li> </ul>

Questions 7 and 13 should be answered by completing the excel spreadsheet. ("8.6.xls") to be provided. It would also be useful if you could send us a copy of your latest river quality assessment/classification reports. If your country presents the results of your river quality classification scheme(s) as coloured maps then please make sure that you provide us with the data used to create those maps.

We ask that you provide your most recent data (for most countries this would be for the year 2000), and provide data for all the years since the classification scheme began. It is recognized that not all countries at present have river quality classification schemes. If this is the case for your country then please tell us this.

This indicator is the responsibility of Zoe Trent who is in the ETC/WTR Core Team at Water Research Centre, Medmenham UK (fax: +44 1491 636501, e-mail: [trent\\_z@wrcplc.co.uk](mailto:trent_z@wrcplc.co.uk)).

## VI. COLLECTION OF DATA ON GROUNDWATER QUALITY

Datasets: 8.7 and 8.9

We require information on groundwater quality in your country. The data will be used to formulate indicators on nitrogen-compounds, dissolved oxygen and pesticides in groundwater. We are also seeking specific data from the groundwater bodies. The requested information follows the concepts and structure of EUROWATERNET, which is the process by which the EEA obtains the monitoring and other information it requires for its needs.

### A. Selection of groundwater bodies

The information and data obtained through EUROWATERNET is derived from existing national and/or regional monitoring networks within each Member Country. For EUROWATERNET-Groundwater Member Countries have been asked to select important groundwater bodies according to criteria described in the technical guidelines (EEA Technical Report No. 7 (1998)). These groundwater bodies are expected to be able to provide a general overview, based on truly comparable data, of the water quality of groundwaters on the European level. Important groundwater bodies as defined in the guidelines meet at least one of the three requirements below:

- > 300 km<sup>2</sup>;
- of regional, socio-economic or environmental importance in terms of quantity and quality;
- exposed to severe or major impacts.

Additional information can also be found in the “Guidelines for the implementation of EUROWATERNET” which have been published by the EEA in Technical Report No. 7 (1998) (<http://reports.eea.eu.int/TECH07> – also available in Russian).

## B. Groundwater quality data

We are asking you to provide data from all your monitoring stations. The data are required in a disaggregated form, that is the concentration measured in each sample taken. We ask that you provide your most recent data (for most countries this would be for the year 2000), and provide as long a time series as possible for as many stations as possible.

The determinants required for the assessment are as follows:

- \* Nitrate
- \* Ammonium
- \* Nitrite
- \* Dissolved Oxygen
- \* Pesticides.

**Pesticides:** The pesticide substances requested are those given in the Priority Substances List for the EU Water Framework Directive (see Table 1). Furthermore, please submit information on pesticide substances which are monitored and are supposed to be most important in terms of endangering groundwater in your country. In this case it will be particularly important that the Chemical Abstract Service (CAS) number of each monitored substance is also given.

Table 1: Pesticide substances listed in the Priority Substances List for the EU Water Framework Directive

CAS-No.	Substance	CAS-No.	Substance
15972-60-8	Alachlor	608-73-1	Hexachlorocyclohexane
1912-24-9	Atrazine	58-89-9	(gamma-isomer, Lindane)
470-90-6	Chlorfenvinphos	118-74-1	Hexachlorobenzene
2921-88-2	Chlorpyrifos	34123-59-6	Isoproturon
330-54-1	Diuron	122-34-9	Simazine
115-29-7	Endosulfan	1582-09-8	Trifluralin
959-98-8	(alpha-Endosulfan)		

It is recognized that probably not all the above determinands will be available. So please submit those that you have. The structure of the requested information will be described in the Excel file “8.7-and-8.9-Groundwater.xls” (Sheet\_Quality).

## C. Basic information

Please provide/complete a LIST of all groundwater bodies within your country which fulfil the criteria of the guidelines (EEA Technical Report No. 7 (1998)). Additionally, add some key information on each groundwater body, if available. Please use the Excel file “8.7-and-8.9-Groundwater.xls” (sheet: GW\_LIST).

In order to help us interpret your data and to ensure that like is compared with like, we also need

supportive information for each groundwater body - a brief general characterization of the (hydro)geologic system (please fill in the Excel-file Groundwater.xls (Sheet\_Body), one for each GW-body). Help will be provided in "8.7-and-8.9-Body\_help.doc".

For the particular sampling sites following information is requested:

- general information on the monitoring site (name, co-ordinates, type of use, well or spring)
- additional information on the co-ordinate system if co-ordinates are provided

The structure of the requested information will be described in the Excel file "8.7-and-8.9-Groundwater.xls" (Sheet\_mPoint).

It is recognized that not all of the requested data and supportive information will be immediately available and so we ask you to provide as much as you can at this time.

Alternatively to data provision by Excel-files an interface has been developed which allows for data submission of disaggregated data directly from your national database (in the "8.7-and-8.9-GW-Annex\_interface.doc" the interface for raw data submission will be defined). Information in the Annex is primarily intended for information technology experts who will most probably deal with the data queries and transfer. For those it might be more comfortable to export data in the required format.

#### **D. GIS map**

Please provide a digital MAP (GIS) of your country showing the boundaries of all groundwater bodies and the co-ordinates of all sampling sites. With these maps it is intended to give an overview of groundwater bodies in Europe. Map preferred as shape-format or \*.dxf or \*.e00 or \*.dgn or as \*.dwg-file.

Please give additional information on the GIS-map (as an ascii-text-file) on the reference year, the kind of projection and on the precision of the map (ideally between 1:50 000 and 1:200 000), units, spheroid, radius of sphere of reference, longitude of centre of projection, latitude of centre of projection, false easting, false northing. Furthermore, we would need a confirmation that the GIS-data can be used for the ETC/WTR-work under contract to the EEA. If a GIS map as described above is not available, a country map indicating the location of the groundwater bodies and a separate map for each groundwater body indicating the monitoring stations would be helpful, too.

The implementation of EUROWATERNET for groundwater quality is the responsibility of Johannes Grath of the Austrian Working Group on Water, Federal Environment Agency, Vienna (tel.: +43 1 31304 3510 or 3720, fax.: +43 1 31304 3700, e-mail: [grath@ubavie.gv.at](mailto:grath@ubavie.gv.at)).

Please note that all submissions during the current data collection are taken as validated.

### **VII. COLLECTION OF DATA ON URBAN WASTE WATER TREATMENT**

Dataset: 8.10

We require information on the percentage of the total population of your country connected to

different levels of wastewater treatment. The requested information should be filled in the Excel spreadsheet “8.10-uwwt.xls”, which is a slight modification of the joint OECD/Eurostat questionnaire. The indicator on urban wastewater treatment will be based on the returns from the OECD/Eurostat questionnaire.

The collection of data on urban wastewater treatment is the responsibility of Jens Bøgestrand of the National Environmental Research Institute, Denmark (tel: +45 89 20 14 00, fax: +45 89 20 14 14, e-mail: [jbo@dmu.dk](mailto:jbo@dmu.dk)).

## VIII. DRINKING WATER QUALITY

Dataset: 8.11

We require information on the quality of drinking water in your country. The data will be used to formulate indicators on drinking water supplies, overall quality and on exceedences of standards. The questionnaire is based on the EU Drinking Water Directive (80/778/EEC) rather than on the revised Directive (98/83/EC) adopted in November 1998. This is because compliance with most of the new standards is not required until 25 December 2003 and countries will not have reported under the new Directive. Consistency will also be maintained by using the original Directive’s requirements.

The questions follow the structure of the questionnaires developed for the Reporting Directive. Thus we are seeking information on water supplies, overall quality and more specific information on water supplies that have failed Maximum Allowable Concentrations (MACs) and Maximum Recommended Concentrations (MRCs) as defined by Directive 80/778/EEC.

Please supply the information in the excel spreadsheets (“8.11-Drinking water.xls”). It will contain the following sheets:

Water supplies:	Summary information on water supplies in your country.
Notes to water supplies:	Explanatory notes to help you complete the water supplies sheet.
Overall quality:	Aggregated summary information on the number of determinations for each parameter and the number complying and not complying with standard values. We request that data is provided for as many years as possible.
Notes to overall quality:	Explanatory notes to help you complete the overall quality sheet.
Supplies exceeding MACs and MRC:	More detailed information on specific supplies and parameters at which exceedence of standards has occurred. We again request that data is provided for as many years as possible.
Notes to supplies exceeding MACs and MRC:	Explanatory notes to help you complete the supplies exceeding MACs and MRC sheet.
Parameters:	The parameters will their MACs or MRCs as defined in Directive 80/778/EEC).
Notes to parameters:	Explanatory notes to help you complete the parameters sheet.

We recognize that it might not be possible for you to provide all the information that we are requesting. If this is the case, please provide what information you have available. In addition,

your data might not be in the preferred format. For example, it might be in relation to your own national standards and not be able to be re-calculated against EU standards. In this case, still please send us your data with an accompanying explanation of what your own drinking water standards are in terms of parameters and statistical expression.

The collection of information on drinking water quality is the responsibility of Steve Nixon who is in the ETC/WTR Core Team at Water Research Centre, Medmenham UK (tel: +44 1491 636608, fax: +44 1491 636501, e-mail: [nixon@wrcplc.co.uk](mailto:nixon@wrcplc.co.uk)).

## **IX. COLLECTION OF DATA ON NUTRIENT INPUT TO COASTAL WATERS**

### Dataset 8.12

We require information on the nutrient input to coastal waters in your country. The data will be used to formulate indicators on the development of nutrient inputs to different European sea areas.

For the HELCOM and OSPARCOM areas (the Baltic Sea and the North-east Atlantic) we will get the available data on nutrient input to the different sub-areas from the conventions, but we lack time series on nutrient input to the Mediterranean Sea, Black Sea and Caspian Sea areas.

<b>Sea area</b>	<b>Countries</b>
Baltic Sea (HELCOM)	Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden
Greater North Sea (OSPARCOM)	Norway, Sweden, Denmark, Germany, Netherlands, Belgium, France, United Kingdom
Arctic Waters (OSPARCOM)	Iceland, Norway
• Barents Sea	Norway, Russia
Celtic Seas (OSPARCOM)	Ireland, United Kingdom
Bay of Biscay and Iberian Coast (OSPARCOM)	France, Spain, Portugal
Mediterranean Sea (UNEP/MAP)	
• Western Mediterranean	Spain, France, Monaco, Italy, Malta
• Adriatic Sea	Italy, Slovenia, Croatia, Yugoslavia, Bosnia-Herzegovina, Albania,
• Aegean Sea	Greece, Turkey
• Eastern Mediterranean	Malta, Italy, Greece, Turkey, Cyprus
Black Sea (BSEP)	Turkey, Bulgaria, Romania, Republic of Moldova, Ukraine, Russia, Georgia
• Sea of Azof	Ukraine, Russia
Caspian Sea	Russia, Kazakhstan, Azerbaijan, Turkmenistan

We are asking you to provide data on annual nutrient input, Total nitrogen and Total phosphorus, to your coastal waters, preferably split between riverine load and direct point sources to the

major sub-areas of the European seas (see table above).

It is recognized that probably not all the requested input data will be available. So please submit those that you have. We ask that you provide your most recent data (for most countries this would be for the year 2000), and provide as long a time series as possible. An Excel spreadsheet will be sent to you to provide data and information.

The information and data should be send to: ETC/WTR Core Team, Water Research Centre, Medmenham UK (tel: +44 1491 636608, fax: +44 1491 636501, e-mail: [nixon@wrcplc.co.uk](mailto:nixon@wrcplc.co.uk)).

## **X. COLLECTION OF EUTROPHICATION DATA ON TRANSITIONAL AND COASTAL WATERS**

Dataset: 8.13

We require information on the water quality of the transitional and coastal waters in your country. The data will be used to formulate indicators on Secchi-depth, nitrogen, phosphorus, chlorophyll-a and oxygen in transitional and coastal waters.

Sea area	Countries
Baltic Sea	Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden
Greater North Sea	Norway, Sweden, Denmark, Germany, Netherlands, Belgium, France, United Kingdom
Arctic Waters	Iceland, Norway, Russia
Celtic Seas	Ireland, United Kingdom
Bay of Biscay and Iberian Coast	France, Spain, Portugal
Mediterranean Sea	Spain, France, Monaco, Italy, Slovenia, Croatia, Yugoslavia, Bosnia-Herzegovina, Albania, Greece, Malta, Cyprus, Turkey
Black Sea	Turkey, Bulgaria, Romania, Republic of Moldova, Ukraine, Russia, Georgia
Caspian Sea	Russia, Kazakhstan, Azerbaijan, Turkmenistan

We are asking you to provide data from representative monitoring stations. The data are required in a disaggregated form, that is for nutrients and chlorophyll-a the concentration measured in each sample taken in the uppermost 10 m of the water column, and for oxygen the concentration measured in the sample taken closest to the bottom. If the data are already reported to an international sea convention as HELCOM, OSPARCOM, UNEP/MAP, BSEP or ICES, please give us information on which stations you regard as representative (co-ordinates), and permission to request the data from the data consultant.

The determinants required for the assessment of Secchi-depth, nutrients, chlorophyll-a and oxygen are as follows:

Nitrate Nitrite or Nitrate + Nitrite Ammonium Total nitrogen	Soluble reactive phosphorus or Orthophosphate, Total phosphorus Chlorophyll a	Dissolved oxygen Secchi-depth
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It is recognized that probably not all the above determinands will be available. So please submit those that you have. The most needed are Nitrate+nitrite (or nitrate) and Phosphate. We ask that you provide your most recent data (for most countries this would be for the year 2000), and provide as long a time series as possible for as many representative stations as possible. An Excel spreadsheet (“8.13-Kiev-Marine.xls”) will ask you to provide data and information.

The information and data should be send to ETC/WTR Core Team, Water Research Centre, Medmenham UK (tel: +44 1491 636608, fax: +44 1491 636501, e-mail [nixon@wrcplc.co.uk](mailto:nixon@wrcplc.co.uk)).

## **XI. COLLECTION OF DATA ON BATHING WATERS QUALITY**

Dataset: 8.14

We require information on the quality of bathing waters in the fresh water zones and in the coastal zones (if any) in your country.

Within the EU, this information is collected under the framework of the Directive on the quality of bathing waters (Directive 76/160/EEC on Bathing Water Quality)<sup>1</sup>. This Directive is currently under review<sup>2</sup>.

We are asking you to provide data similar to the data provided by EU countries, which is annual aggregated data for all the beaches in your country. Although the requested information is not exactly of the same nature of the data collected under the concepts and structure of EUROWATERNET, which is the process by which EEA obtains the monitoring and other information it requires for its needs, we have presented it in a similar way, in order to ease your task.

An Excel spreadsheet (“8.14.xls”) will ask you to provide data and information. A worksheet is provided for the bathing water quality. A key is given describing and defining the data and information fields. You have the choice to express the results with reference to the EU directive, or by using your own national criteria. For the latter, your national reference documents should be provided to us in a separate way.

We ask that you provide your most recent data (for most countries this would be for the year 2000), and provide as long a time series as possible for as many beaches as possible.

The implementation of bathing water quality indicator is the responsibility of Michel Joanny who is in the ETC/WTR Core Team at Water Research Centre, Medmenham UK (tel: +44 1491 636594, fax: +44 1491 636501, e-mail [joanny\\_m@wrcplc.co.uk](mailto:joanny_m@wrcplc.co.uk)).

## **XII. COLLECTION OF DATA ON LOADS OF HAZARDOUS SUBSTANCES TO COASTAL WATERS IN YOUR COUNTRY**

Dataset 8.15

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<sup>1</sup> [http://europa.eu.int/water/water-bathing/index\\_en.html](http://europa.eu.int/water/water-bathing/index_en.html)

<sup>2</sup> [http://europa.eu.int/comm/environment/docum/00860\\_en.htm](http://europa.eu.int/comm/environment/docum/00860_en.htm)

We require information on loads of hazardous substances to coastal waters in your country. The data will be used to formulate indicators on the development of hazardous substance inputs to different European sea areas.

For the HELCOM and OSPARCOM areas (the Baltic Sea and the North-east Atlantic) we will get the available data on hazardous substances inputs to the different sub-areas from the conventions, but we lack time series on hazardous substances input to the Mediterranean Sea, Black Sea and Caspian Sea areas.

<b>Sea area</b>	<b>Countries</b>
Baltic Sea (HELCOM)	Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden
Greater North Sea (OSPARCOM)	Norway, Sweden, Denmark, Germany, Netherlands, Belgium, France, United Kingdom
Arctic Waters (OSPARCOM)	Iceland, Norway
• Barents Sea	Norway, Russia
Celtic Seas (OSPARCOM)	Ireland, United Kingdom
Bay of Biscay and Iberian Coast (OSPARCOM)	France, Spain, Portugal
Mediterranean Sea (UNEP/MAP)	
• Western Mediterranean	Spain, France, Monaco, Italy, Malta
• Adriatic Sea	Italy, Slovenia, Croatia, Yugoslavia, Bosnia-Herzegovina, Albania,
• Aegean Sea	Greece, Turkey
• Eastern Mediterranean	Malta, Italy, Greece, Turkey, Cyprus
Black Sea (BSEP)	Turkey, Bulgaria, Romania, Republic of Moldova, Ukraine, Russia, Georgia
• Sea of Azof	Ukraine, Russia
Caspian Sea	Russia, Kazakhstan, Azerbaijan, Turkmenistan

We are asking you to provide data on annual input of hazardous substances to your coastal waters, preferably split between riverine load and direct point sources to the major sub-areas of the European seas (see table above).

It is recognized that probably not all the requested input data will be available. So please submit those that you have. We ask that you provide your most recent data (for most countries this would be for the year 2000), and provide as long a time series as possible. An Excel spreadsheet ("8.15.xls") will ask you to provide data and information.

The information and data should be send to ETC/WTR Core Team, Water Research Centre, Medmenham UK (tel: +44 1491 636608, fax: +44 1491 636501, e-mail [nixon@wrcplc.co.uk](mailto:nixon@wrcplc.co.uk)).

## **XII. COLLECTION OF DATA ON HAZARDOUS SUBSTANCES IN MARINE AND COASTAL WATERS**



Dataset 8.16

We require information on the water quality of the transitional and coastal waters in your country. The data will be used to formulate indicators on hazardous substances in transitional and coastal waters.

Sea area	Countries
Baltic Sea	Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden
Greater North Sea	Norway, Sweden, Denmark, Germany, Netherlands, Belgium, France, United Kingdom
Arctic Waters	Iceland, Norway, Russia
Celtic Seas	Ireland, United Kingdom
Bay of Biscay and Iberian Coast	France, Spain, Portugal
Mediterranean Sea	Spain, France, Monaco, Italy, Slovenia, Croatia, Yugoslavia, Bosnia-Herzegovina, Albania, Greece, Malta, Cyprus, Turkey
Black Sea	Turkey, Bulgaria, Romania, Republic of Moldova, Ukraine, Russia, Georgia
Caspian Sea	Russia, Kazakhstan, Azerbaijan, Turkmenistan

We are asking you to provide data from representative monitoring stations. The data are required in a disaggregated form that is the concentration measured in each sample taken from the water column, sediment or biota.

If the data are already reported to an international sea convention such as HELCOM, OSPARCOM, UNEP/MAP, BSEP or ICES, please give us information on which stations you regard as representative (co-ordinates), and permission to request the data from the data consultant. We are requesting data on ALL the determinants which are measured in your coastal and transitional waters.

We ask that you provide your most recent data (for most countries this would be for the year 2000), and provide as long a time series as possible for as many representative stations as possible.

An Excel spreadsheet ("8.16-hazardous.xls") will ask you to provide data and information.

The information and data should be send to ETC/WTR Core Team, Water Research Centre, Medmenham UK (tel: +44 1491 636608, fax: +44 1491 636501, e-mail [nixon@wrcplc.co.uk](mailto:nixon@wrcplc.co.uk)).

**XIV. COLLECTION OF DATA ON OIL POLLUTION OF MARINE WATERS**

Dataset: 8.17

Background

EEA indicators cover different aspects of oil pollution of marine waters: accidental tanker oil spills, illegal discharges and discharges from refineries and offshore installations. Obviously,

only countries with coastlines are involved in the process of the collection of information needed for those indicators. In addition to that,

- Information on accidental tanker oil spills are provided to the EEA by the International Tanker Owner Pollution Federation (ITOPF),
- Information on illegal discharges are based on aerial surveillance by countries over the sea under their responsibility, and international co-ordination within the framework of Regional conventions such as the Bonn Agreement and the Helsinki Convention (HELCOM) for the Atlantic and the Baltic Sea.

As far as offshore installations and refineries are concerned, part of the information is streamlined through the OSPAR convention for the protection of the Marine Environment of the North-East Atlantic.

### **Data needed**

#### **A. Aerial surveillance of illegal discharges of oil at sea**

Any result of regular aerial surveillance of illegal discharges of oil to the sea operated on a country basis are welcomed.

#### **B. Refineries and offshore installations**

We require separate annual amounts of oil discharged from refineries and from offshore installations to the maritime area under the responsibility of the country.

Although the requested information is not exactly of the same nature of the data collected under the concepts and structure of EUROWATERNET, which is the process by which the EEA obtains the monitoring and other information it requires for its needs, we have presented it in a similar way, in order to ease your task.

An Excel spreadsheet ("8.17-Oil pollution.xls") will be sent to you to provide your data and information. Separate worksheets will be provided for the aerial surveillance and for discharges from refineries and offshore installations. A key will be given describing and defining the data and information fields.

We ask that you provide your most recent data (for most countries this would be for the year 2000), and provide as long a time series as possible for as many programme or refineries/installations as possible.

The implementation of oil pollution indicator is the responsibility of Michel Joanny at the ETC/WTR Core Team at Water Research Centre, Medmenham UK (tel: +44 1491 636594, fax: +44 1491 636501, e-mail [joanny\\_m@wrcplc.co.uk](mailto:joanny_m@wrcplc.co.uk)).