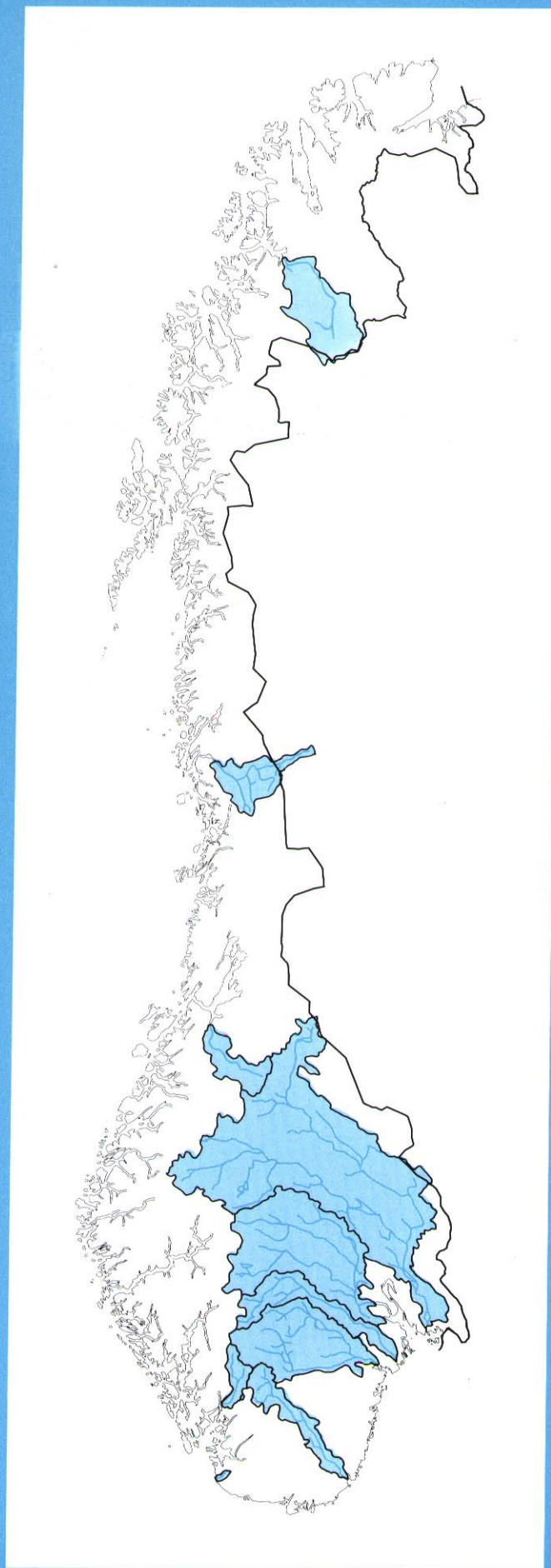

SFT Norwegian Pollution Control Authority

Contractor	SFT Norway
Performing institute	NIVA

Report 623/95

Paris Convention

Annual report on direct and riverine inputs to Norwegian coastal waters during the year 1994

A Principles, results and discussions

B Data report

TA 1262/1995

NIVA Norwegian Institute for Water Research

The National Environmental Monitoring Programme

Paris Convention

Annual report on direct and riverine inputs to Norwegian coastal waters during the year 1994

A Principles, results and discussion
B Data report

Oslo, October 1995
Project manager: Gjertrud Holtan
Co-workers: Dag Berge
Hans Holtan
Terje Hopen

NIVA Norwegian Institute for Water Research

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Abstract:

Riverine inputs of nutrients, selected heavy metals and organic micropollutants to Norwegian coastal waters from 10 main and 145 tributary rivers have been monitored during 1994. The inputs from rivers not monitored as well as direct discharges to marine waters along the coast from Sweden to Russia have been estimated. According to the results, total annual nutrient load to coastal waters from landbased sources, is approximately 4100 tonnes of phosphorus and 98100 tonnes of nitrogen. About 30 per cent of the phosphorus and 60 per cent of the nitrogen are inputs from the monitored rivers and tributaries. Most inputs of heavy metals are low, especially the riverine inputs of Cd, Pb and Hg. A few values of Cd and Pb are below the detection limits of the specific analysis, and about 50 % of the Hg-analyses except for the "Skagerrak-rivers", where more than 60 % of the Hg-values were above the detection limit. Most values of the different congeners of PCB were below the detection limit. The pesticide lindane is detected in most analyses in small amounts. Total load of this compound is estimated to about 89 kg. The largest yields from heavy metals comprise copper and zinc, with input estimates of 237 and 905 tonnes, respectively. Retention in the fjords is not included in the above mentioned values, which in several cases would reduce the actual load to open marine waters considerably.

4 keywords, Norwegian

1. Forurensningstilførsler
2. Norske kystområder
3. Elvetilførsler
4. Direkte tilførsler

4 keywords, English

1. Pollution inputs
2. Norwegian coastal waters
3. Riverine inputs
4. Direct discharges

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For the Administration

Dag Berge

Dag Berge

82-577-2862-4

PREFACE

The report presents the data from the 1994 monitoring of waterborne pollutants, both riverine and direct discharges, to the Norwegian coastal waters. The study is part of a joint monitoring programme under the "Paris Convention for the prevention of Marine Pollution from Landbased Sources". The Norwegian contribution is administered by the Norwegian Pollution Control Authority (SFT) which has contracted the Norwegian Institute for Water Research (NIVA) to perform the actual investigations.

The 1994-investigation lasted from January throughout December. This report is the Norwegian part of the 1994 study, divided into two parts:

A: Principles - Results and Discussion
B: Data Report.

The Programme Committee has consisted of Dag Rosland (SFT), Dag Berge and Hans Holtan (NIVA). The practical investigation is coordinated, and performed by Gjertrud Holtan (NIVA). The calculations of all data has been performed by Terje Hopen (NIVA). The names of all participants are given in paragraph 5.

We would like to express our gratitude to all participants of the investigation, especially to the local fieldworkers for the collection and transport of the samples. The contact persons at the County Environmental Agencies and at the Municipalities of Oslo and Bærum are acknowledged for continous support and goodwill. The contact persons at the Norwegian Water Resources and Energy Administration (NVE) and The Norwegian Meteorological Institute (DNMI), Per Lofsberg and Stein Kristiansen, are acknowledged for their kind cooperation.

Report A:

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SUMMARY AND CONCLUSIONS

In 1988, the Paris Commission decided to launch a comprehensive annual monitoring programme covering inputs of selected pollutants to Convention Waters. The programme was to commense in 1990, and continue the following years (PARCOM, 10/3/2-E).

The purpose is to provide the Commission, in accordance with Article 17(B) of the Paris Convention, with an assessment of the waterborne inputs to Convention waters. Another objective of the programme is to control the fulfillment of The Ministerial Declaration of the North Sea.

In 1987 the ministers of the environment from 9 North Sea states agreed to "take effective national steps in order to reduce nutrient inputs into areas where these inputs are likely, directly or indirectly, to cause pollution, and to achieve a substantial reduction (of the order of 50%) in inputs of phosphorous and nitrogen to these areas between 1985 and 1995".

This Declaration applies for the coastal zone from the Norwegian-Swedish border to Lindesnes (the southern most point of Norway). Further discharges of selected micropollutants to the whole North Sea area are to be reduced by 50-70% depending on the micropollutant in question.

In this report the results (1994) are given for riverine inputs of 10 main rivers and 145 tributaries. Thus the active monitoring programme covers drainage from 75 per cent of the main land areas. For discharges entering directly into marine recipients, i.e. sewage and industrial effluents, estimates are based on numbers from effluent control programmes. Area runoff of Total phosphorus, Total nitrogen, phosphates, nitrates and ammonia from these coastal zones are estimated by use of area specific runoff coefficients.

Greatest emphasis with regard to accuracy has been given to the input estimate of the Skagerrak region, as this is considered the most susceptible part of the North Sea. The Skagerrak reception of Norways total loads are 22 per cent of the phosphorus and 41 per cent of the nitrogen yield. In this region where 90 per cent of the area is river- monitored, more than 60 per cent of the P- and 75 per cent of the N-loads, are found in the riverine inputs.

According to the results of the 1994 investigation total annual nutrient loads to coastal waters from landbased sources in Norway are approximately 4100 tonnes of phosphorus and 98100 tonnes of nitrogen. Respectively 30 and 60 per cent of the grand total inputs of phosphorus and nitrogen are monitored in the main and tributary rivers. Riverine inputs of metals and micropollutants are low. A few of the concentrations found for Cd and Pb are lower than the detection limit requested from PARCOM. Therefore, two quantities have been estimated: one assuming that the true concentration is zero and the other assuming that the true concentration is the limit of detection. This provides maximum and minimum concentrations between which lies the true estimate. When evaluating inputs these data provide a basis for upper and lower estimates.

Inputs of cadmium are thus measured/calculated to be between 9.0 and 9.3 tonnes, mercury between 355 and 443 kg. The "below detection limit problem" also applies for the inputs of PCBs which are measured to be between 37.1 and 72.8 kg. The pesticide lindane was found in all analyses, but in small amounts. Assumably, lindane contamination in Norwegian rivers is mostly due to long range air pollution. Total load is estimated to about 89 kg. The largest share of heavy metals comprise copper and zinc, with input estimates of 237 and 905 tonnes, of which 79 and 85 % respectively, is river-monitored.

Retention of nutrients and micropollutants in the many treshold fjords of Norway is not included in the above given input figures. Estimates of retention of these substances would presumedly reduce the actual input to open marine waters.

For most Norwegian rivers the input to the sea, show large annual variations due to differences in water discharge. In order to use the data as a control of the fulfillment of the Ministerial Declaration of the North Sea, the chemical data from 1994 are in addition "normalized", i.e. 1994 chemical concentrations in river water have been multiplied with normal annual runoff (LTA) in the period 1961-90 (main rivers) and 1931-60 (tributary rivers).

1. INTRODUCTION

At the eighth meeting of the Paris Commission (Madrid, June 1986) it was decided to carry out a pilot project to test methods for estimating transport of pollutants from rivers to marine areas. The Norwegian part of the pilot study comprised the two rivers Glomma and Skienselva (Fig. 1). The project was carried out from August 1986 till August 1987, and reported in October 1987 (Lingsten, 1987).

At the Tenth Meeting of the Paris Commission (Lisbon, June 1988) the principles for the comprehensive study on riverine inputs were accepted. It was then decided to commence the study with measurements carried out in 1990, and continue the work in the following years (PARCOM, 10/3/2-E).

The purpose is to provide the Commission, in accordance with Article 17(B) of the Paris Convention, with an assessment of the waterborne inputs to Convention waters. Besides riverine inputs, the information sought also relates to direct discharges.

The objectives of this study are the following:

- To give a quantitative assessment, as accurately as possible, of all riverborne and direct inputs of selected pollutants to Convention waters on an annual basis;
- to report these data annually to the Paris Commission and review them periodically with regard to determining trends;
- for each country, to aim at monitoring on a regular basis 90% of the inputs of each selected pollutant;
- to control that the objectives of the Ministerial Declaration* for reducing the loads of heavy metals, organic micropollutants and nutrients to the North Sea in an order of 50 per cent, between 1985 and 1995, are fulfilled.

The study is to be completed for each calender year and submitted to PARCOM by the autumn following the year to which the data relate.

*
In 1987 the ministers of the environment from 9 North Sea states agreed to "take effective national steps in order to reduce nutrient inputs into areas where these inputs are likely, directly or indirectly, to cause pollution, and to achieve a substantial reduction (of the order of 50%) in inputs of phosphorous and nitrogen to these areas between 1985 and 1995".

This Declaration applies for the coastal zone from the Norwegian-Swedish border to Lindesnes (the southern most point of Norway). Further discharges of selected micropollutants to the whole North Sea area are to be reduced by 50-70% depending on the micropollutant in question.

2. RIVERSYSTEMS INCLUDED IN THE STUDY

2.1 General aspects

The length of the Norwegian mainland coast line including fjords and bays is 21347 km, and the length of the islands' coast line is 35662 km. (Table 1). Because of the length of the coast line, the great numbers of rivers, and retention processes in the fjords, in- and out-washing areas, monitoring of riverborne pollutants in Norway faces quite a few problems with respect to assessing their impact on coastal waters. Further, to measure 90 % of the load from the Norwegian rivers, a great number of rivers would have to be included, which would be extremely expensive. It was therefore decided that 8 of the major load bearing rivers should be monitored in accordance with the objectives of the comprehensive study. Further it was decided that 2 "unpolluted" rivers should be monitored at a reduced, but appropriate frequency. In these 10 rivers a number of investigations have been carried out during many years, and they have all been included in the National Monitoring Programme of Watercourses (SFT, 1980 - 1994).

These investigations have mainly concentrated on nutrients. Hence data on the load of the nutrients are satisfactory, while the data on heavy metals and organic micropollutants are rather insufficient. In addition to the ten rivers it was decided to estimate the load of 145 other rivers (tributaries) based on other 1994-monitoring programmes, and existing knowledge of the river systems concerned, supplemented with random samples taken in 1994.

The total drainage area of these monitored rivers is 229152 km², while the total area of mainland Norway is 323878 km² (Table 1). Totally 306747 km² of the drainage area is included in the investigation, of which 75 per cent is river monitored (Tables 4 and 5). It was of special importance to estimate the major loads to Skagerrak. In this region the monitored rivers and tributaries cover 94 per cent of the total area, whereof the main rivers alone 80 per cent.

The coastline is divided into subareas/-regions, comprising the drainage basins of the ten main rivers with tributaries, as shown in Fig. 1. Each subarea relates to one of the four discharge-/sub-regions (Fig. 1 and I.I-I.IV (Appendix I, Report B)) which are divided as follows (see also Table 4):

Barents Sea : From the Russian border (about $70^0$30"N, $70^0$30"E), to about $70^0$30"N, 21^0E

Norwegian Sea: Southwards of $70^0$30"N, to about 62^0 N

North Sea : Southwards of 62^0 N, to the Swedish border

- Skagerrak : From Lindesnes (the southernmost point of Norway), about $57^0$44"N to Sweden about $58^0$58"N, 11^0E.

Some key information about Norway and the adjacent oceans is given in Table 1.

Table 1. Norway: Population, areas and length of coastline.

Population	4.2 million
Area:	
- Mainland Norway	323878 km²
- The whole country incl. Svalbard and Jan Mayen	386958 km²
Coastline:	
- Length of the continental coastline	21347 km
- Not including fjords and bays	2650 km
- Length of the islands' coastline	35662 km

2.2 Riversystems monitored

The rivers chosen for the comprehensive study are the same as in 1990-1993 and presented in Table 2 and Fig. 1. The rivers marked 1 to 5, represent the major load bearing rivers in Norway. As mentioned in chapter 2.1, it was of special importance to estimate the major loads to Skagerrak (Fig. I.I, Appendix I, Report B) which is an important part of the North Sea, and considered to be most susceptible to pollutions. The five rivers (No 1 to 5) drain into the Skagerrak area. River Suldalslågen (No 7) and river Alta (No 10) are "unpolluted" riversystems where actual measurements have been carried out at a reduced frequency.

Orreelva (No 6) is draining the most intensive agriculture area in Norway especially concerning domestic animals (milk and meat production). Discharges from manure stores and silos together with area runoff from heavily manured fields are causing great problems (eutrophication, including toxic algal blooms) both in Orreelva and in the other water bodies in this area.

Orkla (No 8) is also draining agriculture area, but farming in this part of the country is rather extensive compared to the Orre area. More important in this area is the abandoned mines even if situated in the upper part of the watercourse. Several other rivers in this area also receive waste -water from abandoned mines (heavy metals).

Vefsna (No 9) is a watercourse where the runoff in periods is carrying quite a lot of suspended solids and as such is comparable with other rivers in this part of the country.

Fig. 1.
Norway. Main rivers and tributaries with drainage basins, the whole country divided into four discharge regions.

Source: Norwegian water recources and energy administration.
Design: NIVA.

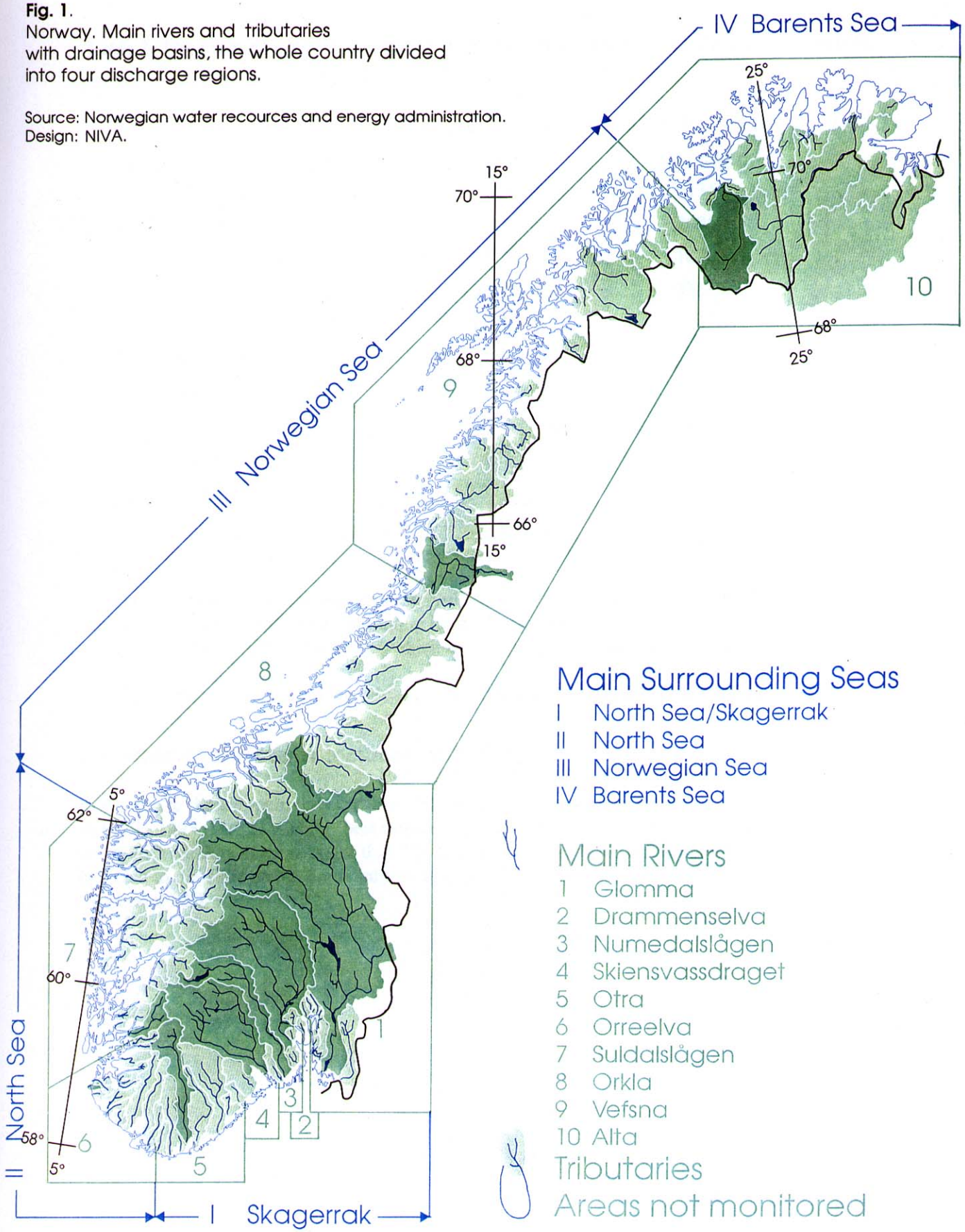


Table 2. The main rivers with catchment areas and long term average flow (LTA) 1961-90.

No	River	Catchment area, km^2 (at outlet)	LTA 1000 m^3/day (at outlet)
1	Glomma	41.918	61350
2	Drammenselva	17.034	28850
3	Numedalslågen	5.577	10200
4	Skienselva	10.772	23535
5	Otra	3.738	12870
6	Orreelva	105	335
8	Orkla	3.053	5710
9	Vefsna	4.122	15655
7	Suldalslågen	1.457	7420
10	Alta	7.373	7495
Total		95.149	

The ten water courses are all representing typical river systems in different parts of the country. As such they are very useful when estimating loads of comparable rivers, i.e corrections and adjustments in the estimates of load of tributaries, which are based on fewer data than the main rivers.

All these watercourses except Orreelva are regulated for hydroelectric power production.

2.3 Other riversystems included (tributaries)

In additon to the ten main rivers, it was determined to assess inputs from the same 145 river systems as in 1990 - 1993 (Fig. 1) using "best estimates" of concentrations and flows. In total all Norwegian rivers with catchment areas larger than 500 km^2, and several of the minor rivers (streams) also are included in the 1994 study. Some information about these rivers are shown in Tables 8.1-8.10 (Appendix VIII, Report B).

3. METHODOLOGY

3.1 Methodology for assessment of riverine inputs

In carrying out the Survey, the methodology described in the Commissions Document "Principles of the Comprehensive Study on Riverine Inputs" (1988 and 1993) and in the 1990-Report from Norway (Holtan et al., 1991*), was followed.

*In this document hereafter refered to as "The 1990-Report".

As for "Site selection" we refer to the abovementioned documents, but have chosen to repeat most of the text concerning "Sampling strategy and frequency", only with necessary adjustments.

Compared with the years 1990-1992 the programme was reduced in 1993, and also in 1994.

In all main rivers, except Suldalslågen and Alta it has been taken 12 samples at regular monthly intervals during the sampling period from January till December 1994 as prescribed in PARCOM 10/3/2/E.

For the "unpolluted" rivers Suldalslågen (No 7) and Alta (No 10), where, on the basis of existing knowledge, the concentration levels are very low, the requirement of 12 data sets per annum was found too stringent. These rivers were therefore sampled 4 times per annum. This sampling strategy should be sufficient enough to obtain a reliable estimate of the pollution load for these two rivers.

For the other rivers (tributaries), the concentrations are partly based on samples taken at the "standard" frequency (12, i.e. monthly, or more data sets per annum), which is the case in most rivers in the Skagerrak region. As for most rivers draining to the Norwegian Sea and the Barents Sea, the concentrations are based on measurements of samples taken at random (at least once) and compared with measurements from the last decade. With regard to the rest of the rivers, about 10 in the Orkla area, and nearly all draining to the Orre- and Suldalslågen areas, most data are from samples gathered in 1993.

For all main rivers except Suldalslågen and Alta the parameters lindane and PCBs have been monitored three times in 1994, in Suldalslågen and Alta, twice. For the other rivers these parameters and also Hg have been analyzed once in samples from the tributaries draining to the Skagerrak and up north from river Børselva in the Orkla area to river Grense Jacobselv in the Alta area (Appendix VIII, Report B). For the rest of the rivers the concentrations of lindane, PCBs and Hg are estimated on the basis of knowledge about the activity in the different drainage areas, the findings from the main rivers and samples/analyses from these areas in 1994 (paragraph 3.2.1).

The sample frequency for the main rivers is shown in Table 3.

Table 3. Sampling sites and frequency of the main rivers.

River/Location	J	F	M	A	M	J	J	A	S	O	N	D
Glomma at Sarpsfoss	x	x	x	x	x	x	x	x	x	x	x	x
Drammenselva upstr. outl.	x	x	x	x	x	x	x	x	x	x	x	x
Numedalslågen at Bommestad	x	x	x	x	x	x	x	x	x	x	x	x
Skienselva at Klosterf.	x	x	x	x	x	x	x	x	x	x	x	x
Otra upstream outlet	x	x	x	x	x	x	x	x	x	x	x	x
Orre upstream outlet	x	x	x	x	x	x	x	x	x	x	x	x
Orkla at Vormstad	x	x	x	x	x	x	x	x	x	x	x	x
Vefsna upstream Mosjøen	x	x	x	x	x	x	x	x	x	x	x	x
Suldalslågen upstream outlet		x				x		x		x		
Alta upstream Alta			x			x		x		x		

In 1994 the water samples were taken by local persons as in 1990 - 1993. The persons were carefully instructed in advance. The samples were sent to the laboratory at NIVA immediately after sampling, usually arriving a NIVA within 24 to 36 hours later.

3.2 Parameters monitored and analytical methods

3.2.1 Chemical parameters - detection limits and analytical methods

In 1994 the following parameters were monitored in accordance with the mandate: 4 nutrients (total phosphorus, orthophosphates, total nitrogen, ammonia and nitrates), 5 metals (copper, zinc, cadmium, lead and mercury), 1 pesticide (lindane) and a general parameter (suspended particulate matter, S.P.M.). PCBs were to be monitored on a voluntary basis for the 7 congeners (IUPAC numbers 28, 52, 101, 118, 138, 153 and 180).

As detailed information on methodology and obtainable limits of detection for all measured parameters were given in the 1990-Report, only new or improved methods will be described in this report.

As informed in the 1990-Report, the detection limits of the parameters Cd and Pb at the NIVA laboratory were above those requested from PARCOM. All Cd-, Pb- and also Cu- and Zn-samples from 1992 therefore have been analyzed at the Norwegian Institute for Air Research (NILU) where metal determinations are performed on an ICP-MS-instrument (NILU, 1990). On this instrument the recommended detection limits from Parcom (Cd: 10 ng/l, Pb: 0.1 µg/l) are obtainable.

According to PARCOM (10/3/2-E) it was necessary to choose an analytical method which would give at least 70 % of positive findings (i.e. above the detection limit).

As for Cd when determined on ICP-MS, more than 70 % of the findings in samples from the main rivers were positive (from 75 to 100%) and correspondingly in all main rivers for Pb (in 8 rivers 100%). As for the tributaries more than 70 % were above the detection limits both in the Cd- and Pb-samples.

From 1993 the limit of detection has been lowered from 2-1 ng/l (mercury) and from 0.05-0.03 ng/l (PCBs). This is a result of refinement and optimalization of the methods. As for mercury more than 70% of the findings in the 1994-samples from three of the main rivers were above the detection limit, Glomma and Numedalslågen (83%) and Alta (75%). As for the findings from tributary rivers in the

Skagerrak area 17 of 25 river samples were higher than the detection limit (68%). As for the other main and tributary rivers, although better, we still had problems to obtain representative values for mercury, which during most of the investigation period were below the detection limit. This was also the case with PCBs. For these parameters most of the measured concentrations were extremely low, and certainly below "PARCOM-detection limits" (Appendix VII - VIII, Report B).

However, we assume that these difficulties do not affect the main results and conclusions of the 1994-study. In those cases were the results recorded were less than the limits of detection, two load quantities have been estimated, one assuming that the true concentration is zero and the other assuming that the true concentration is the limit of detection. This provides maximum and minimum concentrations within which the true estimate will fall. When used to evaluate inputs these data provide upper and lower boundaries for the estimate.

Occasionally on a voluntary basis, the metals arsenic, total chromium and nickel have been determined in some of the samples from the main and tributary rivers and are stipulated for others (Report B). These parameters also were determined on ICP-MS at NILU.

3.2.2 Method used to estimate flow rate

For the period 1931-60 the annual specific runoff from the total area of Norway is estimated at 42.9 l/s km^2. Expressed in volumetric units this amounts to 438 km^3 water, which distributed over the whole country equals a mean runoff of 1350 mm. Mean annual runoff in Norway and from the sub-regions to the main surrounding seas for the period 1931-60 are shown in Table 4. For the main rivers mean annual runoff for the last LTA-period (1961-90) have been estimated. These values are preliminary and will be adjusted when edited and published by NVE, probably next year. For the main rivers mean annual runoff (1931-60 and 1961-90) together with annual runoff for the years 1985, 1990-1994 are shown in Fig. 2, mean annual and annual precipitation for the same stations and periods in Fig. 3. As for precipitation, normals for Norway based on the LTA-period 1961-90 were published in 1993 (DNMI, 1993).

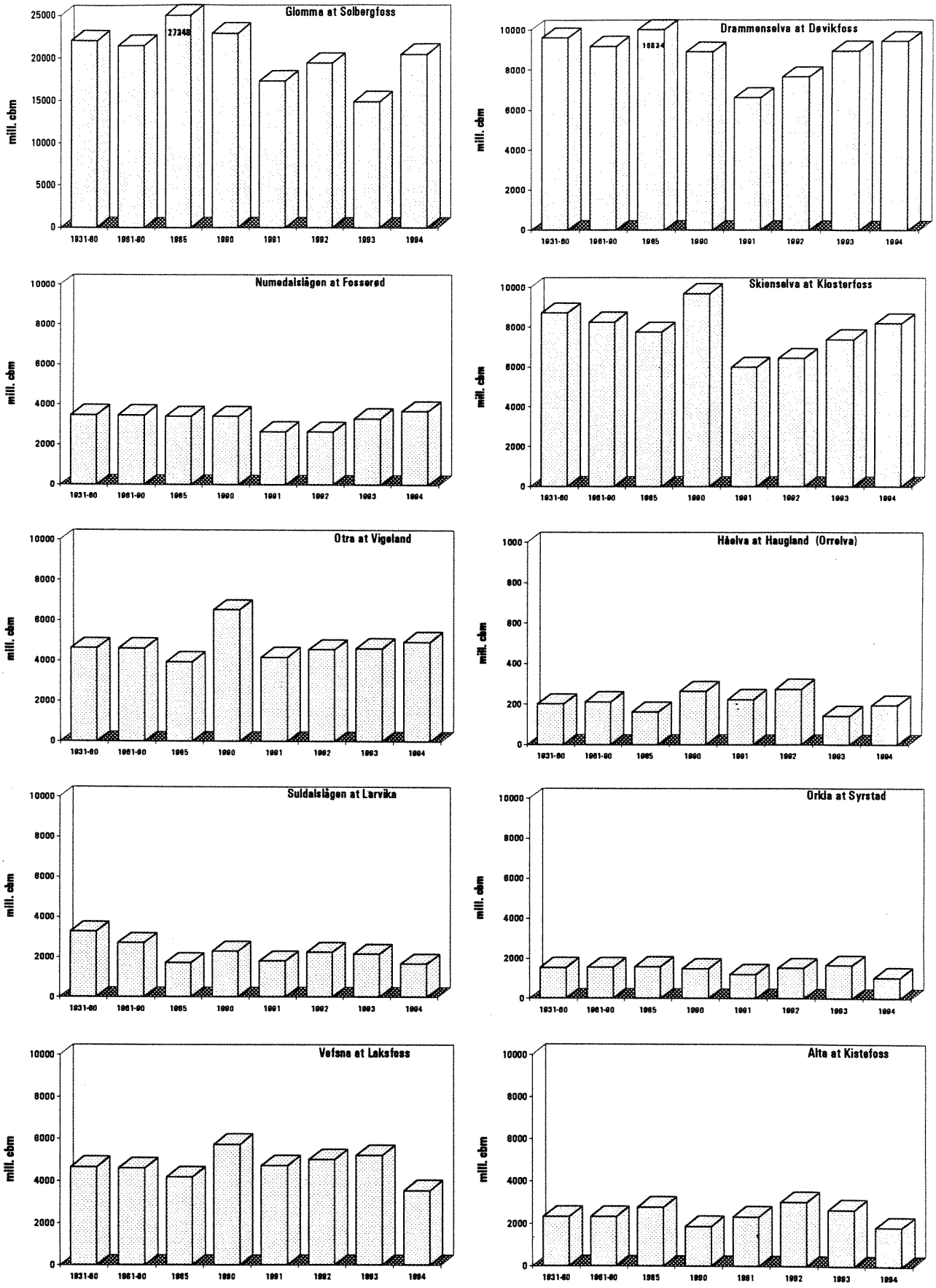
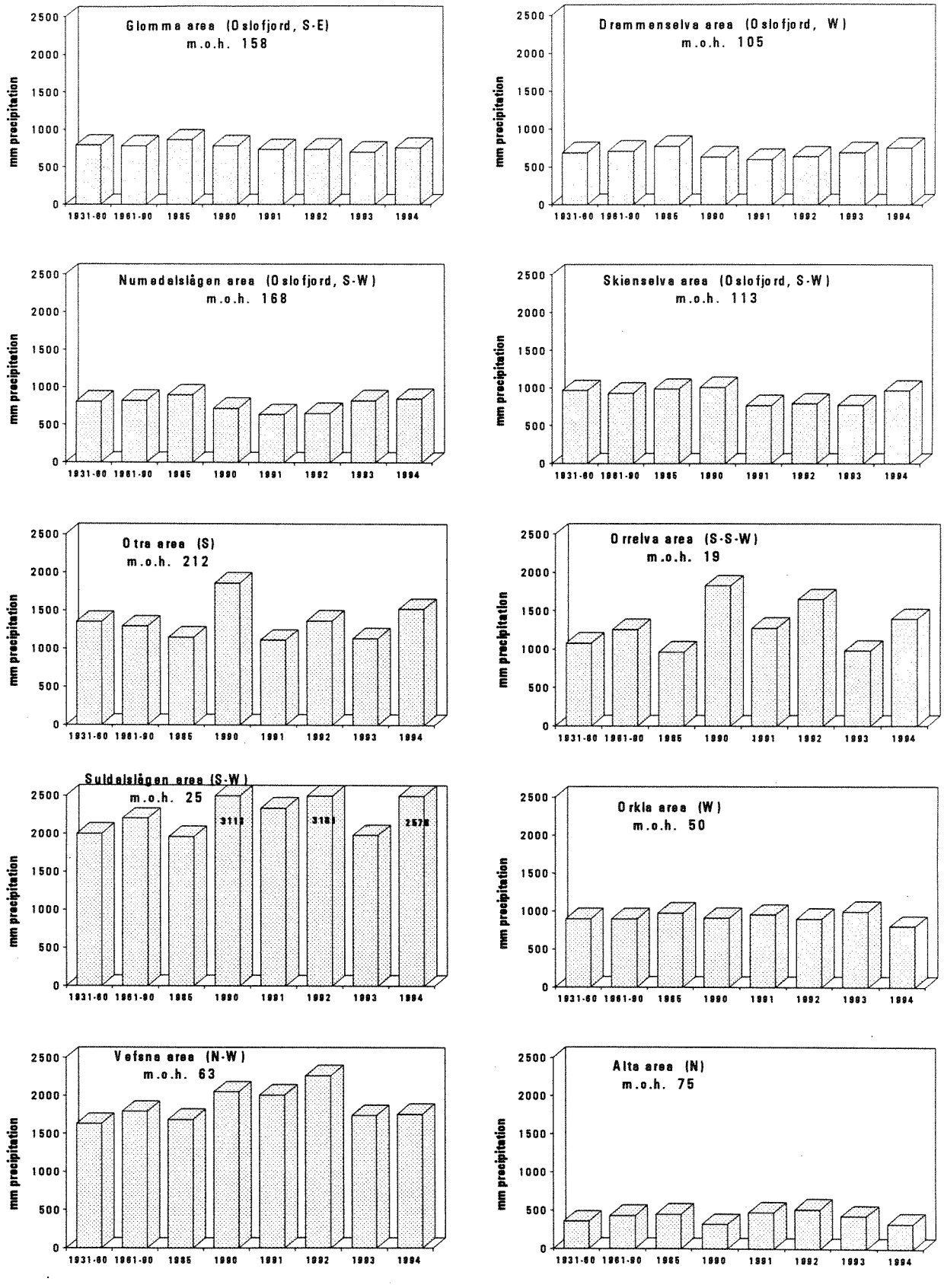


Fig. 2 Main Rivers. Mean Annual Runoff (1931-60 and 1961-90) and Annual Runoff for the Years 1985, 1990 - 1994 (mill.cbm.).
Source: Norwegian Water Resources and Energy Administration



S = South E = East W = West N = North

Fig. 3 Main Rivers. Mean Annual Precipitation (1931-60 and 1961-90) at Stations near Outlet and Annual Precipitation in the Years 1985, 1990 - 1994 (mm/year).
Source: The Norwegian Meteorological Institute

Table 4. Mean annual runoff (1931-60) from the subregions to the main surrounding seas. (Fig. 1 and Appendix I, Report B).

Subregions	Main Seas	Drainage area, km^2	Runoff, mill. m^3
The Swedish border - Lindesnes	Skagerrak	98699	57934.47
Lindesnes - Stad	North Sea	138902	164875.88
Stad - the border of Finnmark	Norwegian Sea	94704	231928.67
Finnmark - the border of Sovjet	Barents Sea	73141	41462.90
Total		306747*	438267.45

* The difference between the total area and the area given in Table 1 is due to rivers which drain into the neighbouring countries (Sweden).

At a given location the runoff will change from one year to another and throughout the year. In natural river basins the seasonal variations will depend mostly on the distance from the coast, the altitude and the latitude, and on variations in precipitation. The mean discharge is determined both by the precipitation and the catchment area. Along the coast of Southern and Western Norway the summer low flows are usually dominant together with high runoff in autumn and winter. Thus although Western Norway has much more precipitation than Eastern Norway, its smaller catchment areas lead to much less absolute discharge in western rivers. In the central part of Southern Norway and in the Northern part of the country low water flows are typical both in summer and winter, whereas periods of higher runoff will appear during the snow melting period (spring and early summer). In late summer and in autumn the flow depends on the precipitation and may therefore vary considerably.

In all main rivers continous observations of the rate of flow are collected. For most rivers these stations are located upstream the sampling stations (NVE, 1995). The additional water supplied is estimated using measured rainfall data from the local catchment areas (DNMI, 1995).

With regard to the river Orkla the runoff station was changed from Vormstad to Syrstad in 1993 as we were recommended by NVE to do so. According to NVE this station is more reliable than Vormstad.

For all main rivers, seasonal changes in runoff in the period 1961- 90, together with mean runoff in 1994, are shown in Fig. 4. In Fig. 5 monthly precipitation for the same period together with mean precipitation in 1994, are shown.

For the other rivers (tributaries) the runoff data partly are from continous observations as the case is for most rivers in the Skagerrak area, and also for many of the rivers draining to the remaining North Sea. For the rest of the rivers mean runoff data (1931-60) and measured rainfall data (1994) are used for flow estimates.

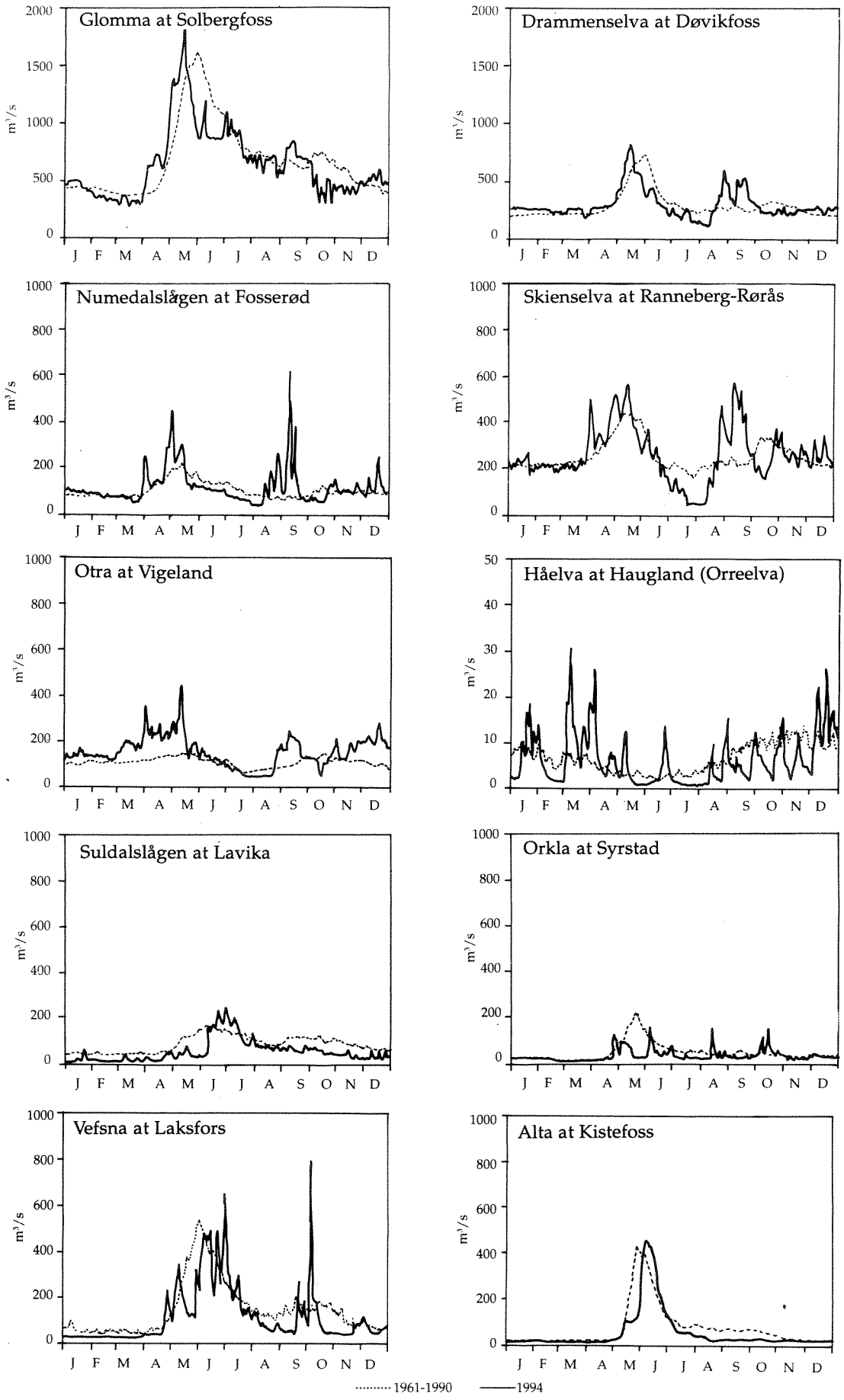
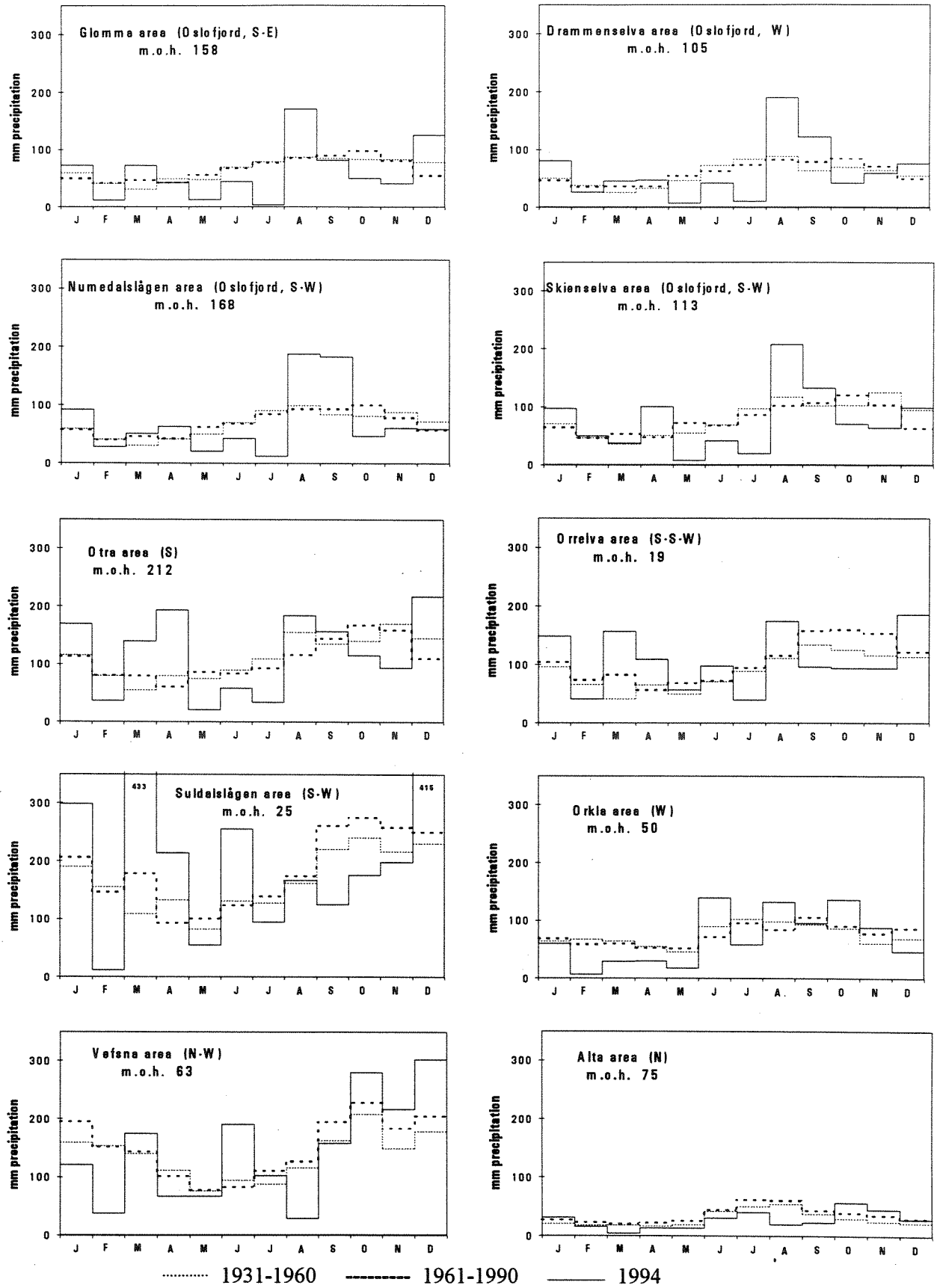


Fig. 4 Seasonal Changes in Daily Runoff (m^3/s).
Source: Norwegian Water Resources and Energy Administration



S = South E = East W = West N = North

Fig. 5 Monthly Changes in Precipitation (mm/month).
(m.o.h. = meters above sea level)
Source: The Norwegian Meteorological Institute

3.2.3 Calculation of annual load

The first of the 2 formulas given in the Paris Commission document and the 1990-Report (Holtan et al., 1991) was used for calculating loads for all main rivers and most of the larger rivers. The second formula was used where continous records were not available.

For the other rivers, which have been monitored only once, the best available estimates of flow (catchment area multiplied by specific runoff adjusted for deviations from normal precipitation) and flow- weighted concentrations have been used to estimate contaminant loads.

Drainage basins to the different areas and regions (km^2 and per cent) is shown in Table 5.

Table 5. **Drainage areas of monitored main and tributary rivers and Down Stream areas (km^2 and per cent monitored/estimated in each subarea and subregion).** (Fig. 1, Figs. I.I-I.V, Report B)

Sub-regions	Sub-areas	Drainage area of monitored rivers km^2		Down Stream areas	Total	Monitored
		km^2		km^2	km^2	%
		Main	Tributary			
Skagerrak	No 1: Glomma	41218	2389	2416	46023	94,8
	" 1: Inner Oslofiord		959	342	1301	73.7
	No 2: Drammenselva	17028	226	320	17614	98.2
	No 3: Numedalslågen	5513	1043	631	7187	91.2
	No 4: Skienselva	10348	1200	1283	12831	90.0
	No 5: Otra	3730	9109	904	13743	93.4
Total		77837	14966	5896	98699	94.0
The remaining North Sea	No 6: Orre	105	7233	2513	9851	74.5
	No 7: Suldalslågen	1466	16205	12681	30352	58.2
Total		1571	23438	15194	40203	62.2
The Norwegian Sea	No 8: Orkla	2680	28118	17036	47834	64.4
	No 9: Vefsna	4113	23907	18850	46870	59.8
Total		6793	52025	35886	94704	62.1
The Barents Sea	No 10:Alta	7367	45155	20619	73141	71.8
Total		93568	135584	77595	306747	74.7

3.3 Methodology for assessment of direct discharges to marine waters

As the methodology for assessing direct discharges to marine waters is outlined in the 1990-Report (Holtan et al., 1991), and the same procedure is adopted for 1994, we refer to the above mentioned document for further information on this matter.

3.3.1 Waste water treatment plants/sewage effluents

The Central Bureau of Statistics (SSB) and SFT have jointly initiated annual registration of data from all waste water treatment plants in the country with a capacity of more than 50 population units (p.u.*). The data are updated each year by the County Environmental Agencies. The data program SSB-AVLØP has been installed at all county governors' environmental agencies, which are responsible for collecting data from the municipalities. The county environmental agencies then send the data to SSB on disc. Since 1994 onwards, the reporting system SSB-AVLØP has been extended also to include data on scattered settlements. Discharge figures from SSB-AVLØP are reported to NIVA. NIVA uses these figures in the model "TEOTIL" to calculate the total discharges of phosphorus and nitrogen to Norwegian coastal waters. The figures take into account retention in fjords and watercourses.

In Eastern and Southern Norway a large share of the municipal waste water is purified in "high grade" plants. These areas, as well as Sør-Trøndelag, are also the areas with the highest hydraulic capacity per inhabitant. For example, the plants serving Oslo/Akershus have a capacity of more than 1.5 p.u. per inhabitant. In Hordaland and northwards along the coast the greater part of the waste water is purified mechanically. Of a total of 1822 plants that were registered at the end of 1993, 16 had a hydraulic capacity of more than 50000 p.u. These plants account for almost half the total registered hydraulic capacity and load. Only 2 of these large plants are based on mechanical purification. Fjords are the recipients of the discharges from about 65 per cent of the total capacity of the plants (SSB, 1995).

Preferably, the annual loads from sewage effluents have been estimated as the product of annual flow and flow-weighted concentrations, which previously in particular has been the case for the sewage plants situated in the Skagerrak area (i.e. the area involved in the North Sea Agreement), but from 1994 has come into force for most plans.

For the rest of the municipal wastewater, the loads were estimated by multiplying the number of people with the coefficients listed.

For crude (untreated) sewage discharges, PARCOM (10/3/2-E, 1988), has recommended the following derived per capita loads to be used for nutrients:

	PARCOM:			NORWAY:		
BOD	0.063	kg	O/person/day	0.046	kg	O/person/day
COD				0.094	kg	O/person/day
TOC				0.023	kg	/person/day
SPM	0.063	kg	/person/day	0.042	kg	/person/day
Total N	0.009	kg	N/person/day	0.012	kg	N/person/day
Total P	0.0027	kg	P/person/day	0.0017	kg	P/person/day

* p.u. (population units) is the number of permanent residents plus the number of population equivalents (next page) in an area.

The Norwegian coefficients are based on recent studies of Norwegian sewerage districts. These data are also used to calculate pollutional loads from the different treatment plants, reduced by the removal efficiency of the treatment plants. Municipal sewage also includes a portion of industrial effluents. The fraction of the total person equivalents (p.e.) is proportioned between sewage and industrial wastewater according to the number of persons and the size of industrial effluents connected to each treatment plant.

For metals in sewage discharges the calculated loads are based on measured concentrations and flows in larger treatment plants in the Oslo part of the Glomma area. Metal inputs from the rest of the country are estimated from local knowledge (*) as follows:

Substance	Cu	Zn	Cd	Pb	Cr-T	Ni	Hg
mg/person-equivalent/day (p.e.)	30	35	0.2	1.0	2.9	5.0	0.10

The coefficients used in 1994 are the same as those used for calculations in 1992 and 1993. The coefficients are based on the results of an investigation on this topic launched by SFT (1993), i.e. monitoring at different types of treatment plants especially in the Oslo part of the Glomma area. Measured/estimated loads from sewage are shown in Appendix II, Report B.

Sources: Knutzen and Øren (1983), Myhrstad (1985), OVA (1995), SFT (1993), VEAS (1995),

3.3.2 Industrial effluents

Sampling frequency for industrial wastewater varies from weekly mixed samples to samples taken at random, but at least twice a year. Measured and estimated loads from industrial activities in the different areas are shown in Appendix III, Report B. According to SFT about 90 per cent of the industrial discharges (i.e. of the substances in question) are included in the total, and probably more for Total-P and Total-N.

3.3.3 Other inputs

(nutrients in area runoff from "Down Stream areas" of main and tributary rivers and rivers not monitored)

The pollution load model calculates the load from each pollution source by using area and activity specific load coefficients multiplied by areas (in square kilometres) of different categories and activity numbers, eg. population (Holtan and Åstebøl, 1990). The coefficients used are prepared according to precipitation, climate, vegetation and soil in the different areas.

To estimate load from agricultural land area runoff, coefficients in the range of 50-200 kg Total-P and 2000-6500 kg Total-N km²/year are used depending on point sources, location of the agricultural land in relation to major tributaries, and agricultural production intensity. Load from upland (remote unpolluted) areas were estimated by using export coefficients in the range of 4-6 kg Total-P and 200-600 kg Total-N km²/year. The highest values were used in areas most affected by long range pollution (acid rain) along the Southern and Western coast. The coefficients are based on mean annual runoff for the period 1931-60.

Total direct nutrient discharges (Down stream areas) are shown in Table I (Appendix I, Report B), in the different subareas (1-10) in Appendix VI, Report B. Direct discharge areas (km²) are shown in Table 5.

4. RESULTS AND DISCUSSION

4.1 Pollutants

Norwegian watercourses, coastal fjords and sea areas are recipients of various substances discharged from many different sources. The discharges may have widely different impacts of varying severity. SFT (Rensvik, 1990) considers that the most serious problems are connected to eutrophication (nutrient effluents and runoff), discharges of metals and organic micropollutants and acidification of water and soil.

In this investigation riverine and direct inputs of nutrients (P- and N-compounds), heavy metals, lindane and PCBs are measured or estimated. In addition to these contaminants the water is polluted by dissolved organic matter, especially from the pulp and paper industry and from municipal sewage, which also has been taken into account in this investigation.

SFT (Rensvik, 1990) has given first priority to eliminating the effluents of 13 of the substances classified as micropollutants, which are in use in Norway, as quickly as possible. Most of this pollution comes from industry, but other sources are municipal sewage, landfill leachate, and pesticide residues from agriculture.

Pollution by heavy metals is either due to discharges from industry, discharges from existing and abandoned mines, leaching from landfills polluted ground or atmospheric fallout. The municipal sewage is the source of several heavy metals. Long- range transboundary air pollution is another source of pollution both with respect to heavy metals and organic micropollutants.

Polychlorinated biphenyls (PCBs) are present in different industrial effluents and also released from discarded electrical equipment containing PCBs (e.g. transformer oil), when such equipment is unsatisfactorily stored or destroyed by incineration. There is no enterprise in Norway discharging PCBs regularly.

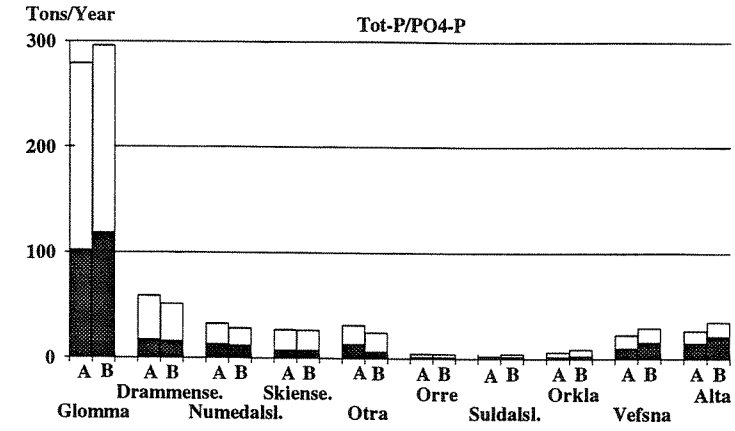
Major sources of phosphorus and nitrogen pollution are considered to be municipal sewage, agriculture and to a less degree, industry.

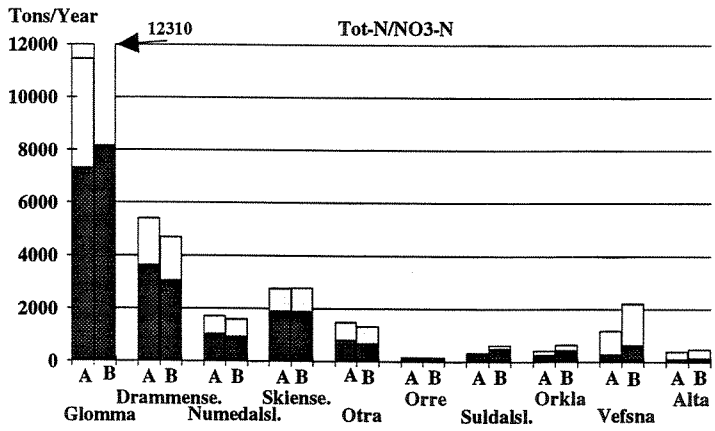
4.2 1994-results and discussion

The results given for riverine inputs (main rivers and tributaries) and discharges entering directly into marine recipients, are mainly based on monitoring data/direct measurements (paragraph 3.3).

Measured concentrations of the chemical parameters of the ten main rivers (1994), mean values, standard deviation and range are listed in Appendix VII, Report B. In the case of Cd, Pb, Hg and the different congeners of PCBs, where most of the rivers had concentrations below the respective detection limits, the concentrations are statistically treated as "limit-values". Total annual loads of the main rivers 1994 are shown in Appendix IV, Report B. Annual loads of nutrients and S.P.M. are also presented in Fig. 6. Total annual loads of the tributaries are shown in Appendix V, Report B. For the whole country, total annual loads (Direct discharges and Riverine inputs) are shown in Table I (Appendix I, Report B) and for the four subregions in Tables 1.1-1.4 (Appendix I, Report B), nutrients and S.P.M. also in Fig. 7.

As in 1990 -1993 the greatest emphasis with regard to accuracy has been given to the input estimate of the Skagerrak region, as this is considered the most susceptible part of the North Sea. The Skagerrak reception of total loads in 1994 were 22 per cent of the phosphorus and 41 per cent of the nitrogen yield.





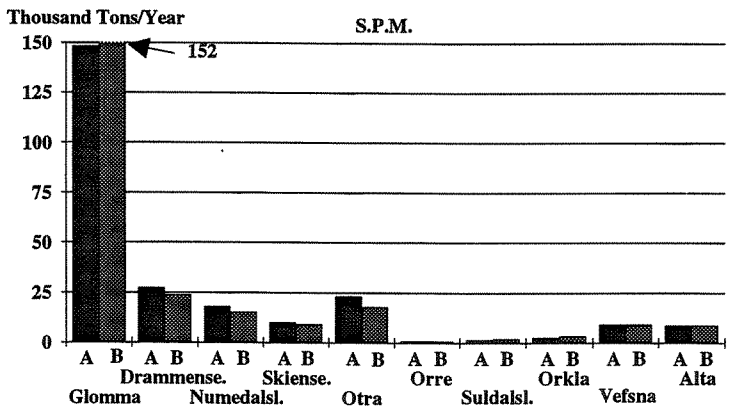


Fig. 6 Main rivers. Nutrients and S.P.M. Total loads 1994 (A) and Total normalized loads (B) in the different rivers.

Whole columns = Total P / N / S.P.M.
Dark hatching = Phosphates / Nitrates

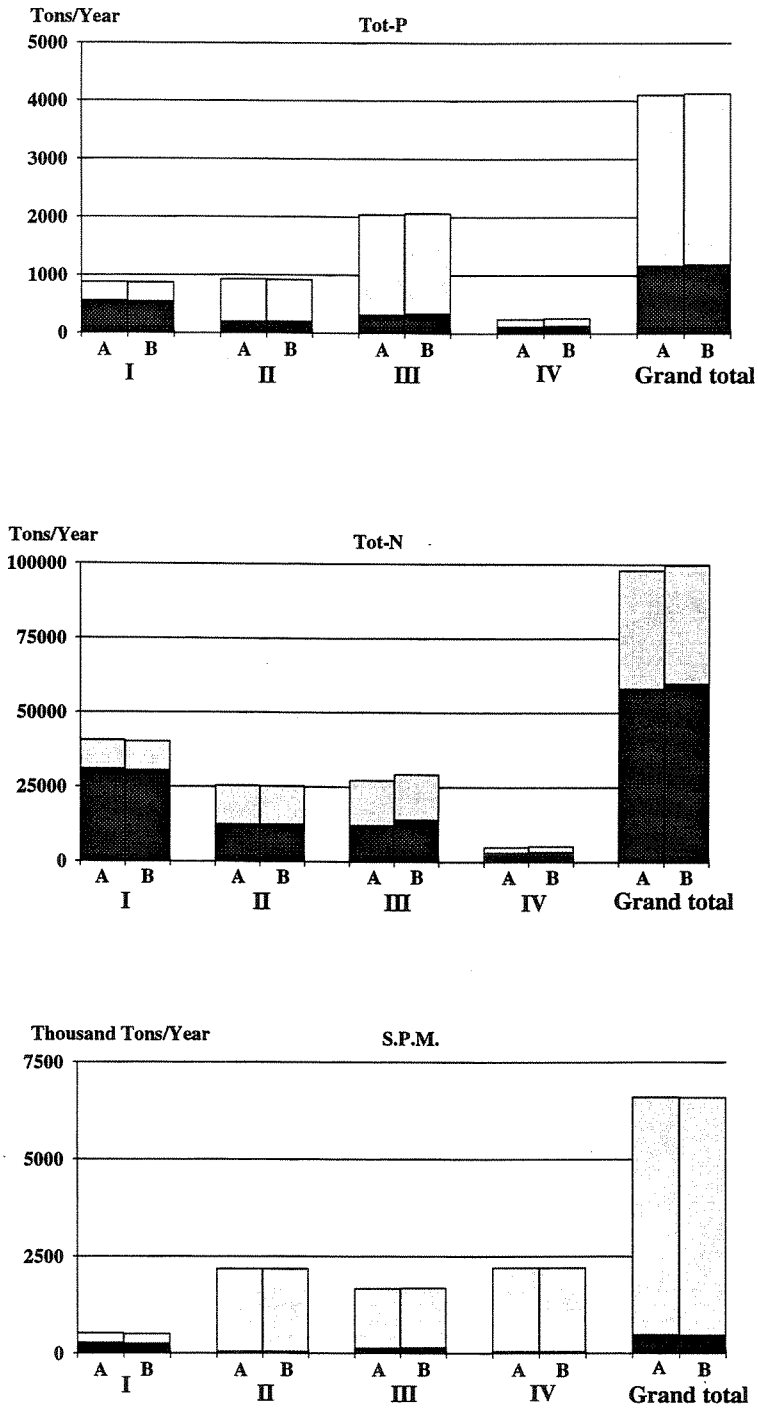


Fig. 7 Nutrients and S.P.M. Total and river discharges 1994 (A) and Total normalized loads (B) from mainland Norway to convention waters and the four subregions: I: Skagerrak, II: The remaining North Sea, III: The Norwegian Sea, IV: The Barents Sea.

Whole columns	= Grand total
Light hatching	= Direct discharges
Dark hatching	= Main and tributary rivers

In this region where 94 per cent of the area is river-monitored, more than 60 per cent of the P-load and 75 per cent of the N-load were found in the riverine inputs.

According to the results from the 1994 investigation, total annual nutrient load to coastal waters from landbased Norwegian sources, is approximately 4100 tonnes of phosphorus and 98100 tonnes of nitrogen (Fig. 7). About 30 per cent of the phosphorus and 60 per cent of the nitrogen yield were inputs from the monitored rivers and tributaries. The largest inputs of heavy metals were of copper and zinc, which in 1994 amounted to about 237 and 905 tonnes, of which 79 and 85 per cent respectively, were river monitored (Fig. 8).

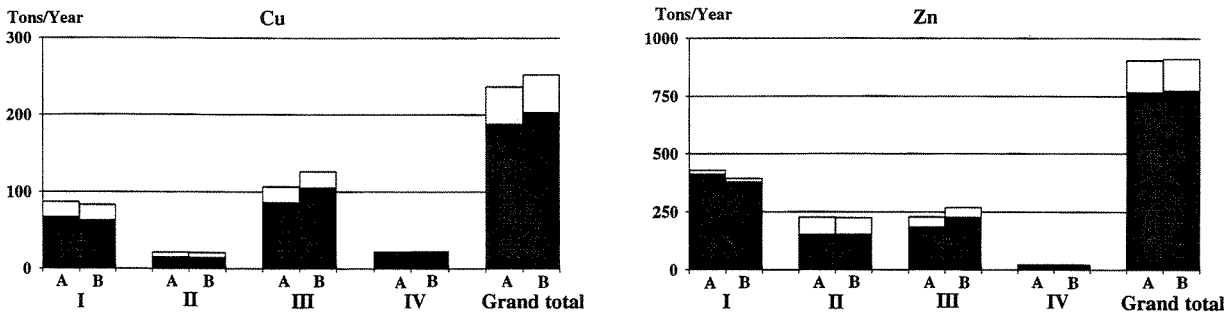


Fig. 8 Cu and Zn. Total and river discharges 1994 (A) and Total normalized loads (B) from mainland Norway to convention waters and the four subregions:
I: Skagerrak, II: The remaining, North Sea, III: The Norwegian Sea, IV: The Barents Sea

Whole columns	= Grand total
Light hatching	= Direct discharges
Dark hatching	= Main and tributary rivers

Inputs of other metals and micropollutants were low. As the detection limits of the parameters Cd and Pb at the NIVA laboratory were above those requested from PARCOM, all analyses from 1992 and onwards of these substances are analyzed on an ICP-MS-instrument at NILU (paragraph 3.2). Still, a few of the concentrations found for these parameters also in 1994 were below the detection limits. Therefore two quantities have been estimated, one assuming that the true concentration was zero and the other assuming that the true concentration was the limit of detection. This provides maximum and minimum concentrations within which the true estimate will fall. When evaluating inputs these data provide upper and lower boundaries of the estimate.

Inputs of cadmium were measured/calculated to be between 9.0 and 9.3 tonnes, lead between 83.0 and 83.1 tonnes, mercury between 355 and 443 kg. The same "below detection limit problem" applies for the inputs of mercury, and also for PCBs which were measured to be between 37.1 and 72.8 kg. In Fig. 9 the lower and upper loads of these substances in the ten main rivers are presented. The pesticide lindane was found in most analyses, but in small amounts. The findings of this substance in Norwegian rivers are likely due to long range air pollution, as we often find lindane in runoff from areas where the compound has never been used (Olav Lodhe, State Plant Protection Agency, pers. comm.). Total load is estimated to about 89 kg.

In most areas except Skagerrak the riverine inputs, both of Total-P and S.P.M , were a little lower in 1994 than the year before, mainly due to precipitation/runoff-conditions (paragraph 4.3).

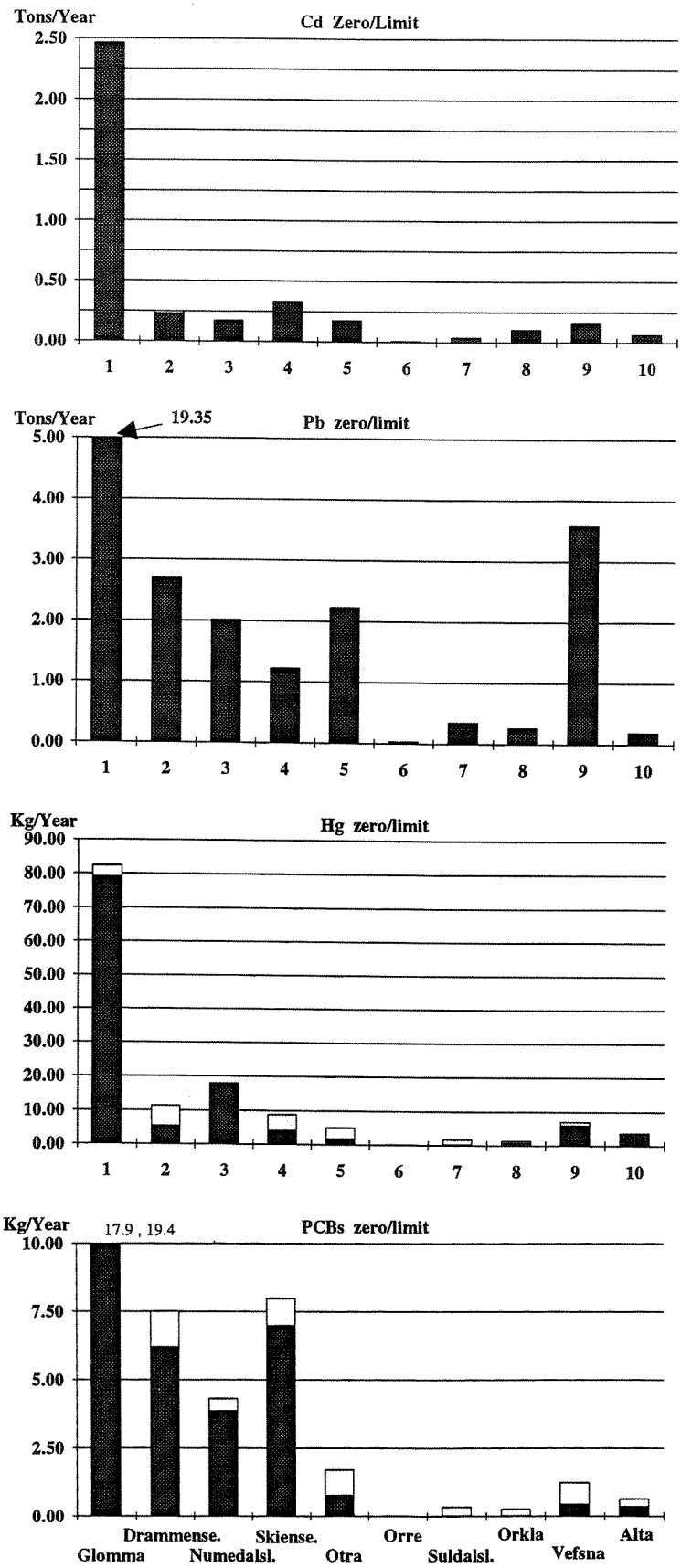


Fig. 9 Main rivers. Cd, Pb, Hg and PCBs. Total loads of the different rivers 1994 (lower and upper boundaries for the estimates).

Whole columns = upper boundary for the estimate
Dark hatching = lower boundary for the estimate

4.3 Mean annual runoff (1931-60, 1961-90) and "mean load"

As mentioned (3.2.2) mean annual runoff for the last LTA-period (1961-90) has been estimated (fig. 2). For most main rivers the mean runoff 1961-90 is lower or in the same level as the 1931-60-period. However, these values are preliminary and may be adjusted when edited and published by NVE. As for precipitation, new normals were published in 1993.

Compared to Riverine Inputs to Marine Waters in 1990 - 1993, most calculated mean concentrations were in about the same level in 1994. Total flow for all "Skagerrak rivers" and also for Orreelva, and accordingly the calculated loads for most of the substances were higher in 1994 than the year before, except for the loads of total P and S.P.M. of Glomma and Orreelva. One of the reasons is probably fewer samples in 1994 (once monthly) than earlier in the flow period (every second week/weekly). As for the other main rivers, total flow was lower, with lower calculated loads for most substances as a result.

Annual variations in precipitation/runoff, erosion and seasonal activities of man in the drainage basins, strongly influence the mass transport in the watercourses. The transport values may vary considerably from one year to another. These variations are complicating the estimation of "normal transport values" i.e. mass transport in a "normal" year. Fig. 10 illustrates variations in annual runoff for the ten main rivers in 1985, 1990-1994, and annual variations in total discharge, of the nutrients total N and P for the same years.

In order to adjust the 1994 transport values to a "normal year", approximation have been made by multiplying weighted mean concentrations by mean runoff (LTA, 1961-90) - to normalize the concentrations is not possible. "Mean-values" (normals) for the ten main rivers and tributaries are given in Appendix X, Report B, where also total discharges to the sub regions are shown. In Fig. 6 - 7 the "normalized" nutrient transport values are compared with 1994-values.

During a normal winter the upland area of Norway together with the eastern part of the country show very little runoff. The frozen soil and snowcover protect vegetation and surface soil from erosion. But with the mild winters (1990-1993), soil especially in plowed field is exposed to more frequent and larger flood erosion also during the winter (eg. Glomma). As 1994 was a normal winter we suppose this is the main reason for lower concentrations/loads especially in Glomma, but also in Orreelva.

From experience we have learned that the product of weighted concentrations and mean runoff gives a relatively good estimate of the mass-transport in rivers, especially for the large rivers, and those not considerably exposed to erosion-material. In 1994 annual precipitation varied about normal or were a little higher in the Southern and South Western Norway, and a little lower in the rest of the country (Fig 3). On an annual basis also runoff varied about normal or were higher in most of the Southern and South Western Norway, but were somewhat lower in the rest of the country. The river Suldalslågen is recently regulated and has now considerably less annual water discharge than in the normal period (1931-60).

4.4 Nutrient retention in fjords

Both phosphorus and nitrogen retention in watercourses is taken into account in the calculation of the Norwegian contribution to marine pollution, but in a conservative way. However, no corrections are so far made for retention in fjords and other marine areas.

Considering the nutrient input to the open marine waters, one should also take into account retention in fjords, at least in well defined treshold fjords. As a result of high salinity compared to freshwater, marine waters have better conditions for sedimentation than lakes. For example clay settles very poorly

in lakes, but very efficient in fjords. In addition to temperature stratification, fjords also show salinity stratification, with light brackish water on top of heavier, saline waters. Thus the over all stratification in fjords is in most cases stronger than in lakes. This implies that particulate pollutants lost to deep waters by sedimentation have less chance to be brought back to the plankton producing layer than in lakes.

In addition, stronger stratification implies greater chance for oxygen depletion in deep waters, which in fact is seen in many sheltered Norwegian fjords. Theoretically this will improve the conditions for denitrification. However, this greater stability is often reduced by rougher physical conditions in fjords compared to lakes.

Retention in Norwegian fjords is very poorly studied by direct budget measurements. In the Drammensfjord Magnusson and Næss (1986) found that about 60% of the incoming phosphorus was retained in the fjord, while for nitrogen the retention was only about 15%. In the silled Inner Oslofjord preliminary calculations indicate that nitrogen retention is in the order of 30-50% (Baalsrud, K., and B. Bjerkeng, 1991).

Thus, nutrient retention in treshold fjords seems to be of the similar magnitude as we find in lakes, and it is likely to believe that retention can be estimated from the same type of models that applies for lakes. The general lack of calibration data on retention models in fjords implies that we find it to early, at this stage of knowlege, to include these correction in the Norwegian discharge budget. It should be kept in mind, however, that a significant part of the particulate pollutants, and pollutants with particle affinity, end up in fjord sediments and thus are prevented from reaching the coastal waters.

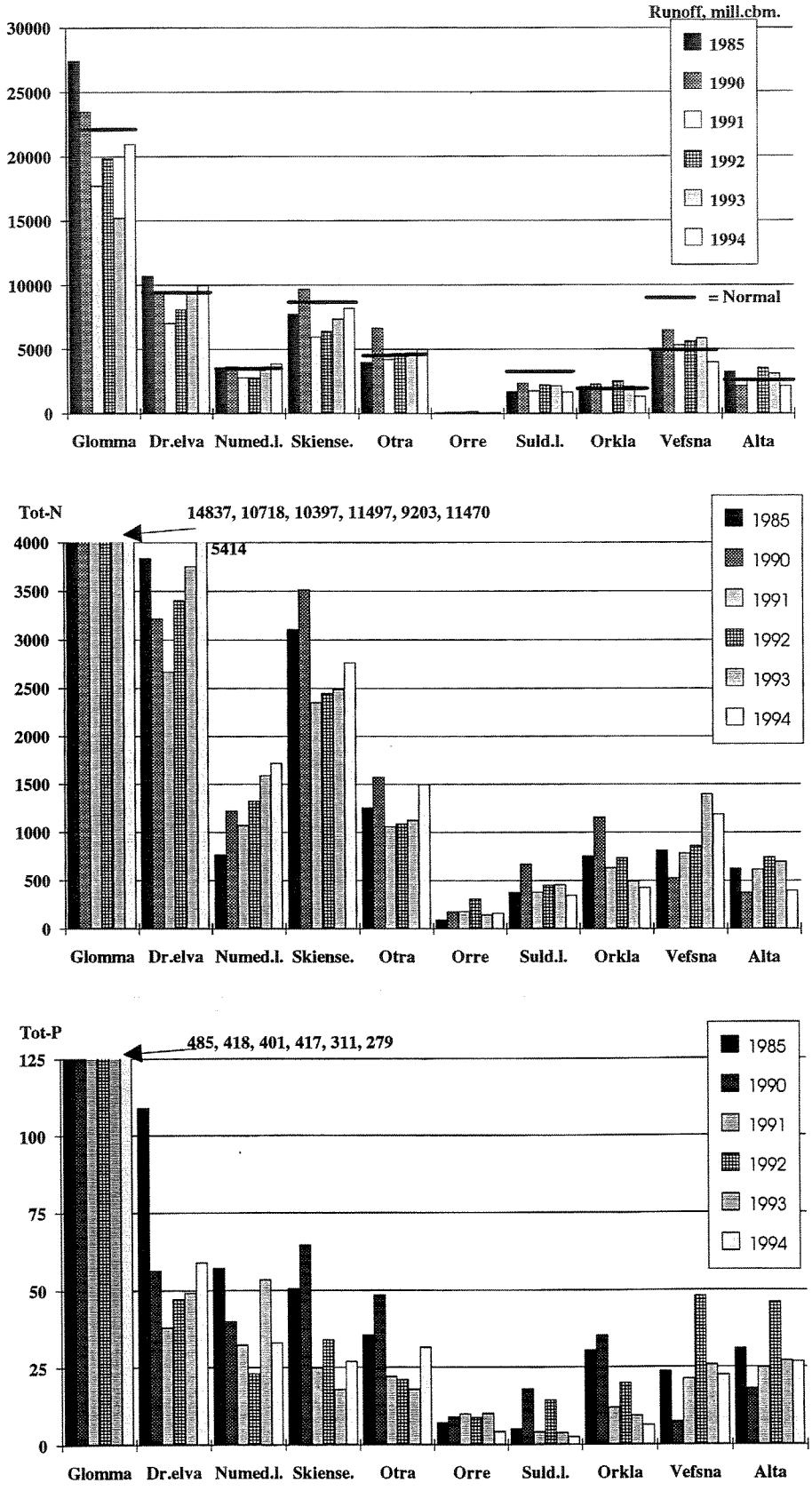


Fig. 10 Main rivers. Annual runoff and nutrient load in 1985, 1990-94.

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At NIVA:

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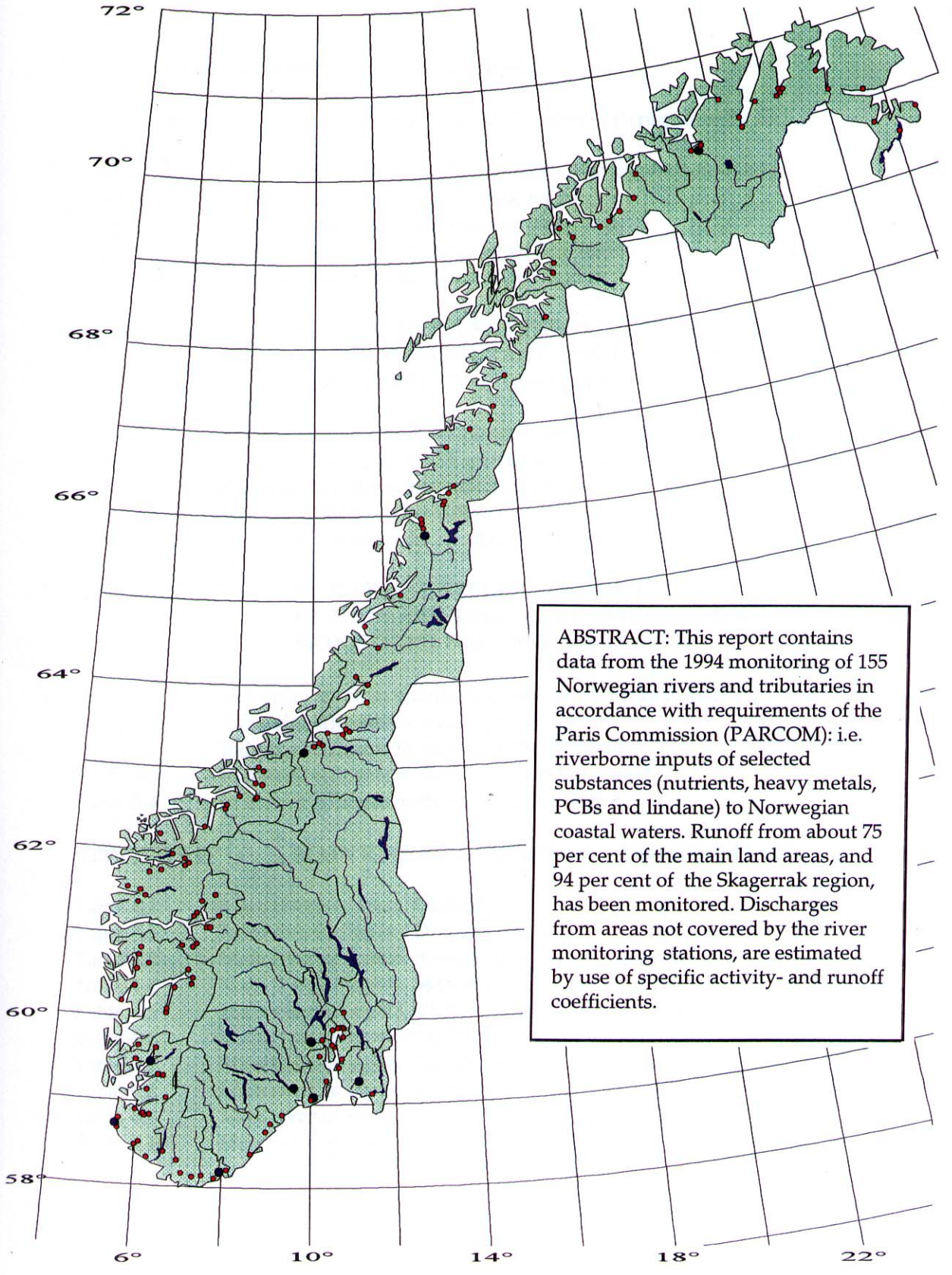
B Data report



ABSTRACT: This report contains data from the 1994 monitoring of 155 Norwegian rivers and tributaries in accordance with requirements of the Paris Commission (PARCOM): i.e. riverborne inputs of selected substances (nutrients, heavy metals, PCBs and lindane) to Norwegian coastal waters. Runoff from about 75 per cent of the main land areas, and 94 per cent of the Skagerrak region, has been monitored. Discharges from areas not covered by the river monitoring stations, are estimated by use of specific activity- and runoff coefficients.

● Main Rivers

● Tributaries

CONTENTS

(1) Glomma "tributaries"		: Tista	- Hølenelva
(1) Inner Oslo-fjord		: Årungelva	- Åroselva
(2) Drammenselva	"tributary"	: Lierelva	
(3) Numedalslågen	"tributaries"	: Sandeelva	- Farriselva
(4) Skienselva	"tributary"	: Tokkeelva	
(5) Otra	"tributaries"	: Gjerstade.	- Audna
(6) Orreelva	"tributaries"	: Lygna	- Ulla
(7) Suldalslågen	"tributarties"	: Saudaelva	- Hornindalselva
(8) Orkla	"tributaries"	: Ørstaelva	- Salsvatnelva
(9) Vefsna	"tributaries"	: Åbjøra	- Reisa
(10) Alta	"tributaries	: Mattiselva	- Grense Jacobse.

CONVENTION FOR THE PREVENTION OF MARINE POLLUTION FROM LANDBASED SOURCES
QUESTIONARY ACCORDING TO THE TENTH MEETING OF THE PARIS COMMISSION LISBON 15 - 17 JUNE 1988.

The purpose of this form is to provide the Commission, in accordance with Article 17(B) of the Paris convention, with an assessment of the waterborne inputs to Convention waters.

The form should be completed for each calendar year in retrospect and submitted to the Secretary by June following the year to which the data relate.

The information sought relates to inputs through direct discharges (questions 7 - 13) and riverine inputs (questions 14 - 19).
Some information on discharges other than those mentioned below are also attached (question 20).

Separate forms for the four single areas are filled in.

(1) THE COUNTRY IS NORWAY

(2) LENGTH OF COASTLINE INCLUDING FJORDS AND BAYS IS 21347 KM

(3) NATURE OF THE RECEIVING WATER IS COASTAL

APPENDIX I : TOTAL DISCHARGES (Paragraph 4 - 6) **Page:**

Table I TOTAL DISCHARGES from MAINLAND NORWAY to convention waters 1994 (Fig. I).

Substance:	Area runoff	Direct Discharges	Tributary Inputs		Main Riverine Inputs		Grand Total	
Cadmium		1.2	4.0	*	3.7	*	9.0	tonnes
Cadmium			4.3	**	3.8	**	9.3	tonnes
Mercury		105	132	*	118	*	355	kg
Mercury			199	**	140	**	443	kg
Copper		49	95		92		237	tonnes
Zinc		140	379		386		905	tonnes
Lead		6.3	44.7	*	31.9	*	83.0	tonnes
Lead			44.9	**	31.9	**	83.1	tonnes
Arsenic		0.5	22.1	*	15.2		37.8	tonnes
Arsenic			22.1	**	15.2		37.9	tonnes
Cr-T		6.5	188.6	*	62.1	*	257.1	tonnes
Cr-T			188.6	**	62.1	**	257.2	tonnes
Ni		14.2	88.9	*	45.2	*	148.4	tonnes
Ni			89.0	**	45.2	**	148.4	tonnes
PCBs ***			0.54	*	36.52	*	37.06	kg
PCBs			29.3	**	43.5	**	72.8	kg
gamma-HCH			53		35		89	kg
NH4-N	1637	11263	1721		1143		15764	tonnes
NO3-N	14020	194	17332		15659		47205	tonnes
PO4-P	201	1163	201		180		1745	tonnes
Total N	22364	17783	32584		25374		98106	tonnes
Total P	766	2180	669		492		4107	tonnes
S.P.M.		5675905	216064		248351		6140320	tonnes
TOC		18053	172009		182927		372989	tonnes
COD		215420					215420	tonnes
AOX		210					210	tonnes

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

***** the following congeners: IUPAC Nos. 28,52,101,118,153,138,180**

Table 1.1 TOTAL DISCHARGES to The Skagerrak Region 1994 (Fig. I.I).

The Skagerrak Region with main rivers (1) Glomma, (2) Drammenselva, (3) Numedalslågen, (4) Skienselva, (5) Otra

Substance:	Area runoff	Direct Discharges	Tributary Inputs		Main Riverine Inputs		Grand Total	
Cadmium		0.09	0.9	*	3.3	*	4.3	tonnes
Cadmium			0.9	**	3.4	**	4.3	tonnes
Mercury		42.07	12	*	108	*	162	kg
Mercury			18	**	126	**	186	kg
Copper		20.65	9		57		87	tonnes
Zinc		19.07	103		306		429	tonnes
Lead		0.91	7.1	*	27.5	*	35.5	tonnes
Lead			7.1	**	27.5	**	35.5	tonnes
Arsenic		0.28	3.44	*	12.7		16.4	tonnes
Arsenic			3.44	**	12.7		16.4	tonnes
Cr-T		4.38	12.1	*	49.5	*	66.0	tonnes
Cr-T			12.1	**	49.5	**	66.0	tonnes
Ni		10.82	4.8	*	36.4	*	52.1	tonnes
Ni			4.8	**	36.4	**	52.1	tonnes
PCBs ***			0.13	*	35.73	*	35.86	kg
PCBs			3.0	**	40.9	**	43.9	kg
gamma-HCH			11.5		32		44	kg
NH4-N	158	4616	545		1003		6323	tonnes
NO3-N	1560	150	4972		14653		21335	tonnes
PO4-P	18	106	37		152		312	tonnes
Total N	2393	7497	7871		22861		40622	tonnes
Total P	70	265	120		429		885	tonnes
S.P.M.		16466	31456		226229		274151	tonnes
TOC		6838	50798		155354		212990	tonnes
COD		117370					117370	tonnes
AOX		210					210	tonnes

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

***** the following congeners: IUPAC Nos. 28,52,101,118,153,138,180**

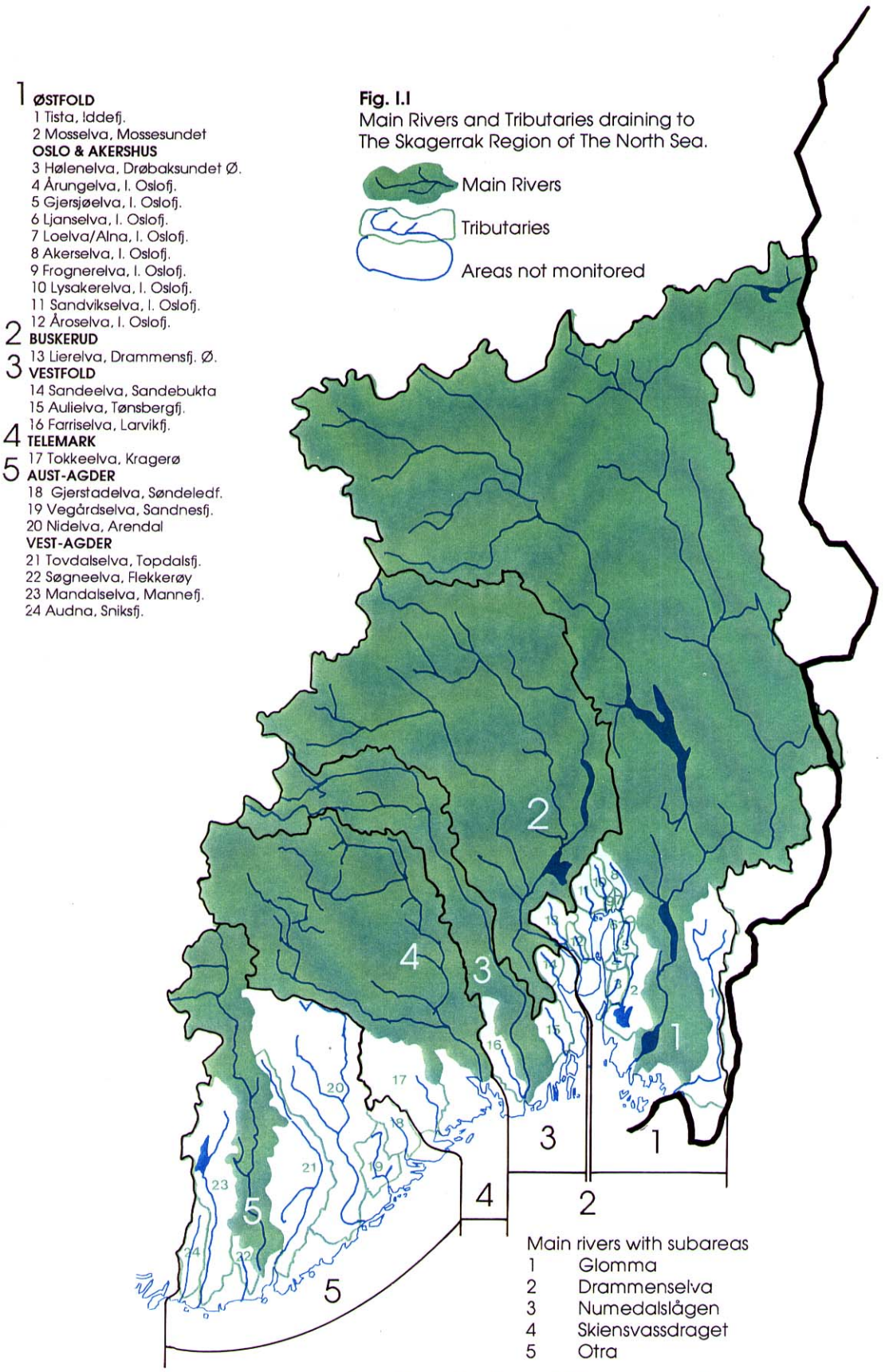


Fig. I.I
Main Rivers and Tributaries draining to The Skagerrak Region of The North Sea.

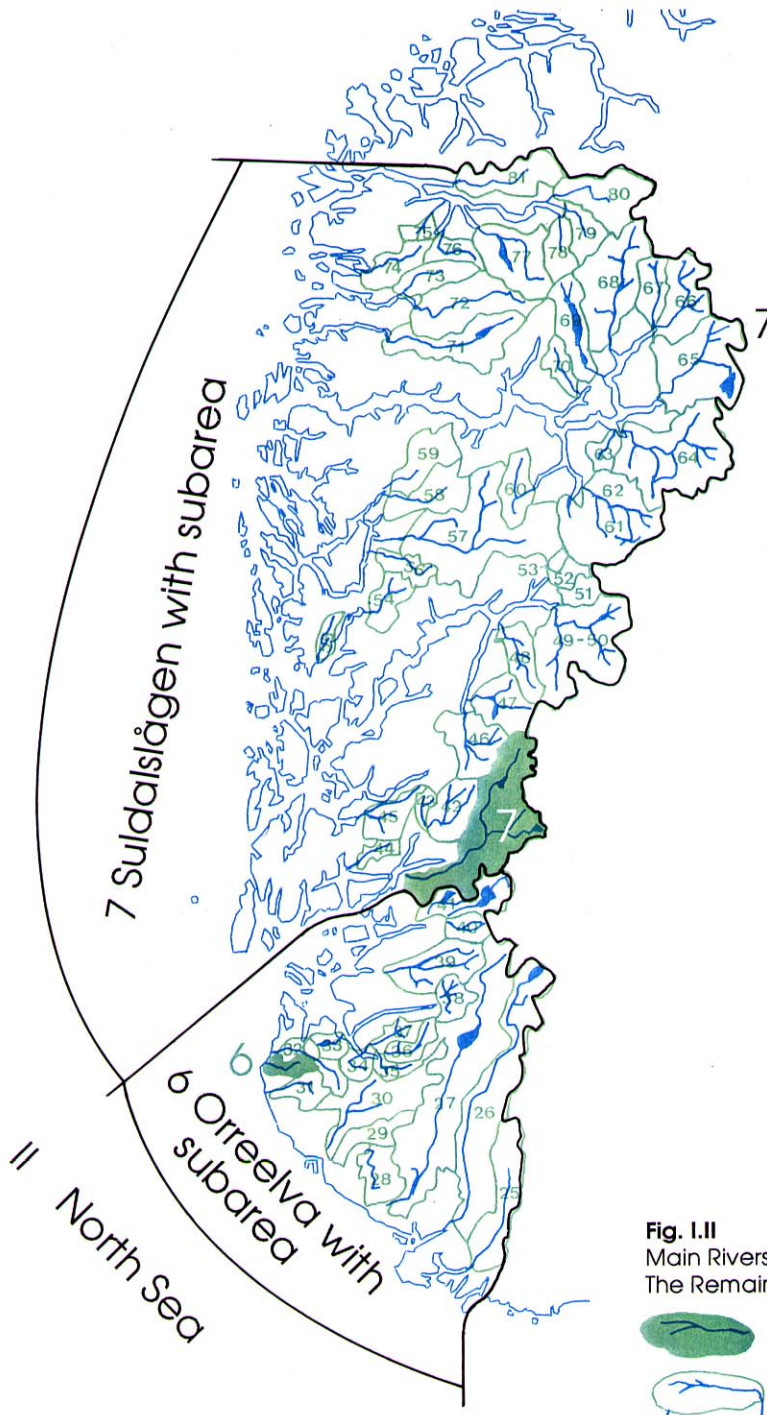
Table 1.2 TOTAL DISCHARGES to The Remaining North Sea 1994 (Fig. I.II).

The North Sea Region with main rivers : (6) Orreelva, (7) Suldalslågen

Substance:	Area runoff	Direct Discharges	Tributary Inputs		Main Riverine Inputs		Grand Total	
Cadmium		0.99	1.2	*	0.0	*	2.3	tonnes
Cadmium			1.3	**	0.0	**	2.3	tonnes
Mercury		42.39	32	*	0	*	75	kg
Mercury			59	**	2	**	103	kg
Copper		6.76	14		1		22	tonnes
Zinc		75.75	147		4		226	tonnes
Lead		4.59	9.6	*	0.4	*	14.6	tonnes
Lead			9.7	**	0.4	**	14.7	tonnes
Arsenic		0.00	5.4	*	0.1		5.6	tonnes
Arsenic			5.5	**	0.1		5.6	tonnes
Cr-T		1.34	39.3	*	2.7	*	43.3	tonnes
Cr-T			39.3	**	2.7	**	43.3	tonnes
Ni		2.19	6.3	*	2.0	*	10.5	tonnes
Ni			6.3	**	2.0	**	10.5	tonnes
PCBs ***			0.0	*	0.0	*	0.0	kg
PCBs			9.7	**	0.4	**	10.1	kg
gamma-HCH			16.4		1		18	kg
NH4-N	579	3103	524		17		4222	tonnes
NO3-N	5161	21	7674		377		13232	tonnes
PO4-P	56	275	56		2		388	tonnes
Total N	8286	4742	11838		506		25373	tonnes
Total P	198	537	188		7		930	tonnes
S.P.M.		2106041	39980		1971		2147992	tonnes
TOC		5287	69618		1399		76304	tonnes
COD		38768					38768	tonnes

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

***** the following congeners: IUPAC Nos. 28,52,101,118,153,138,180**



6 **VEST-AGDER**
25 Lygna, Lyngdalsfj.
26 Kvina, Fedafj.
27 Sira, Åna-Sira
ROGALAND
28 Sokndalselva, Sogndalsstr.
29 Hellelandselva, Egersund
30 Bjerkreimselva, Egersund
31 Håelva, Håtangen
32 Figgjo, Solavika
33 Ims-Lutsi, Høgsfj./Boknafj.
34 Oltedalselva, Høgsfj./Boknafj.
35 Dirdalselva, Høgsfj./Boknafj.
36 Frafjordelva, Frafj./Boknafj.
37 Espedalselva, Høgsfj./Boknafj.
38 Lyseelva, Lysefj./Boknafj.
39 Årdalselva, Årdalsfj./Boknafj.
40 Førreelva, Jøsenfj./Boknafj.
7 41 Ulla, Jøsenfj./Boknafj.
42 Saudaelva, Sandsfj./Boknafj.
43 Åbøelva, Saudafj./Boknafj.
44 Vikedalselva, Boknafj.
HORDALAND
45 Etneelva, Etnefj./Bømlafj.
46 Opo, Sørfj./Hardangerfj.
47 Tysso, Sørfj./Hardangerfj.
48 Kinso, Sørfj./Hardangerfj.
49 Veig, Eidfj.v./Hardangerfj.
50 Bjoreia. Eidfj. v. Hardangerfj.
51 Sima, Eidfj./Hardangerfj.
52 Austdøla, Osafj./Eidfj.
53 Norddøla, Osafj./Eidfj.
54 Tysselva, Fusafj.
55 Oselva, Fusafj.
56 Bergsdalselva, Veafj./Herdlafj.
57 Vosso, Veafj./Sørfj.
58 Ekso, Osterfj.
59 Modalselva, Osterfj.
SOGN OG FJORDANE
60 Nærøyelva, Aurl.fj./Sognefj
61 Flåmselva, Aurl.fj./Sognefj.
62 Aurlandselva, Aurl.fj./Sognefj.
63 Erdalselva, Lærdalsfj./Sognefj.
64 Lærdalselva, Lærdalsfj./Sognefj.
65 Årdalselva, Årdalsfj./Sognefj.
66 Fortunelva, Lusterfj./Sognefj.
67 Mørkriselva, Lusterfj./Sognefj.
68 Jostedøla, Lusterfj./Sognefj.
69 Årøyelva, Sognd.fj./Sognefj.
70 Sogndalselva, Sognd.fj./Sognefj.
71 Gaular, Dalsfj./Bufj.
72 Jølstra, Førdefj.
73 Nausta, Førdefj.
74 Oselva, Høydalsfj.
75 Hopselva, Hyefj./Nordfj.S.
76 Gjengedalselva, Hyefj./Nordfj.S
77 Breimselva, Gloppenfj./Nordfj.S.
78 Oldenelva, Indre Nordfj.
79 Loenelva, Indre Nordfj.
80 Stryneelva, Indre Nordfj.
81 Hornindalselva, Nordfj.N.

Fig. I.II
Main Rivers and Tributaries draining to The Remaining North Sea.

Main Rivers

Tributaries

Areas not monitored

Table 1.3 TOTAL DISCHARGES to The Norwegian Sea 1994 (Fig. I.III).

The Norwegian Sea Region with main rivers (8) Orkla, (9) Vefsna

Substance:	Area runoff	Direct Discharges	Tributary Inputs		Main Riverine Inputs		Grand Total	
Cadmium		0.14	1.8	*	0.3	*	2.2	tonnes
Cadmium			1.9	**	0.3	**	2.3	tonnes
Mercury		19.00	63	*	7	*	88	kg
Mercury			92	**	8	**	120	kg
Copper		21.58	53		32		107	tonnes
Zinc		44.71	110		74		228	tonnes
Lead		0.81	22.6	*	3.8	*	27.2	tonnes
Lead			22.6	**	3.9	**	27.3	tonnes
Arsenic		0.27	10.1	*	1.8		12.2	tonnes
Arsenic			10.1	**	1.8		12.2	tonnes
Cr-T		0.70	96.7	*	7.1		104.5	tonnes
Cr-T			96.7	**	7.1		104.5	tonnes
Ni		1.15	15.3	*	5.1	*	21.6	tonnes
Ni			15.4	**	5.1	**	21.6	tonnes
PCBs ***			0.4	*	0.4	*	0.8	kg
PCBs			13.2	**	1.5	**	14.8	kg
gamma-HCH			21.9		1		23	kg
NH4-N	808	3284	397		110		4599	tonnes
NO3-N	6289	22	4483		534		11328	tonnes
PO4-P	110	755	83		11		959	tonnes
Total N	10004	5195	10304		1612		27115	tonnes
Total P	410	1331	272		29		2041	tonnes
S.P.M.		1421222	113662		11509		1546393	tonnes
TOC		5588	27243		18614		51444	tonnes
COD		57745					57745	tonnes
AOX		1					1	tonnes

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

***** the following congeners: IUPAC Nos. 28,52,101,118,153,138,180**

8 **MØRE OG ROMSDAL**
82 Ørstaelva, Ørstafj.
83 Valldøla, Nordalfj./Storfj.
84 Rauma, Romsdalsfj./Moldefj.
85 Isa, Isfj./Moldefj.
86 Eira, Eresfj./Moldefj.
87 Littledalselva, Sunndalsfj.
88 Driva, Sunnd.fj./Tingvollfj.
89 Ulvåa, Ålvundfj.
90 Toåa, Todalsfj.
91 Surna, Surnadalsfj.
92 Bøvra, Hamnesfj./Halsafj.

SØR-TRØNDELAG
93 Børselva, Gaulosen/Tr.h.fj.
94 Vigda, Gaulosen/Tr.h.fj.
95 Gaula, Gaulosen/Tr.h.fj.
96 Nidelva, Trondheimsfj.
97 Homla, Stjørd.fj./Tr.h.fj.

NORD-TRØNDELAG
98 Stjørdalselva, Stjørdalsfj./Tr.h.fj.
99 Gråelva, Stjørdalsfj./Tr.h.fj.
100 Verdalsvassdr., Tr.h.fj
101 Figga/Leksdalselva, Tr.h.fj.
102 Snåsavassdr., Tr.h.fj.
103 Årgårdselva, Namsfj.
104 Namsen, Namsfj. Ø.
105 Salsvatnelva, Follafj.

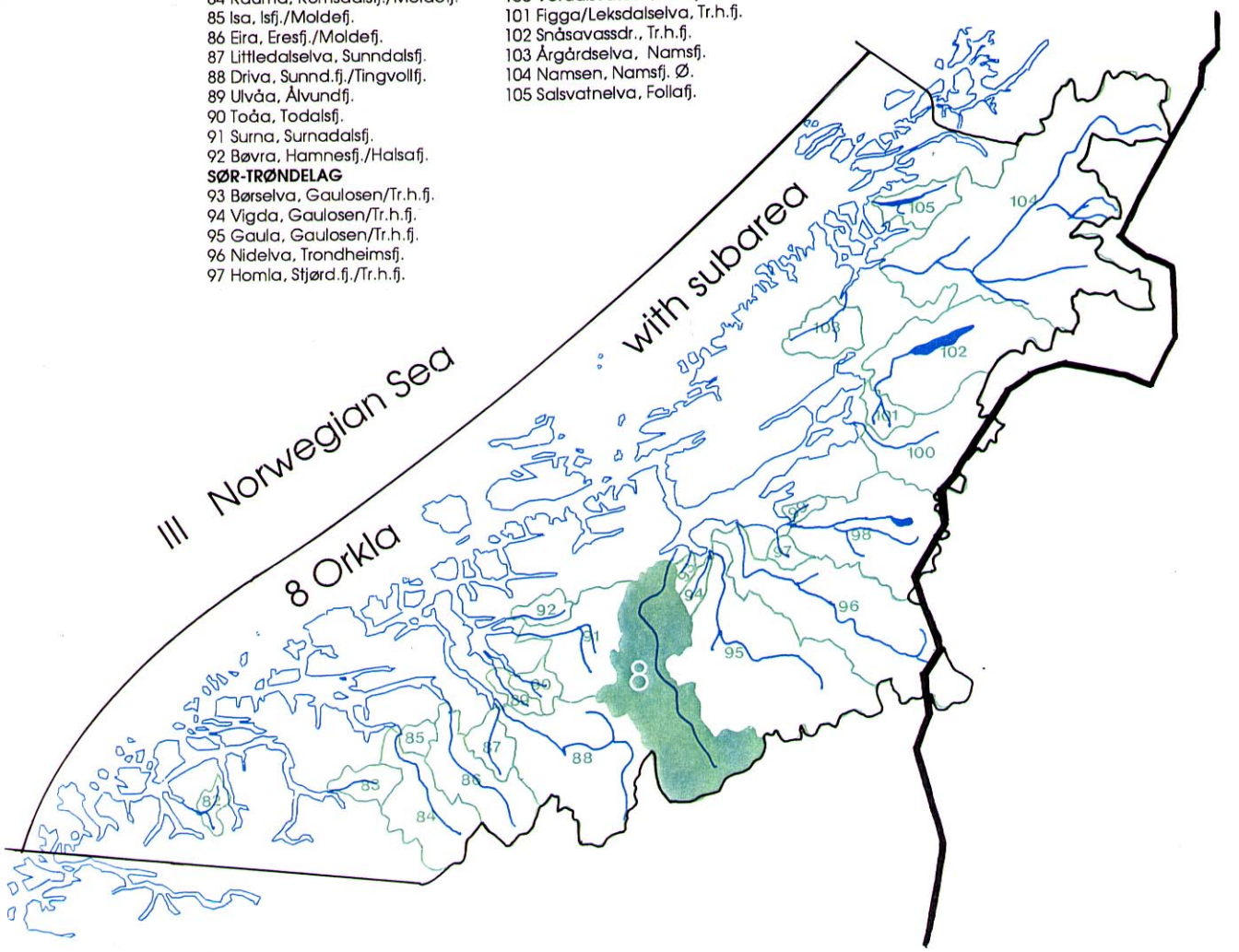


Fig. I.III A
Main Rivers and Tributaries draining to The Norwegian Sea (Southern Part).

Main Rivers

Tributaries

Areas not monitored

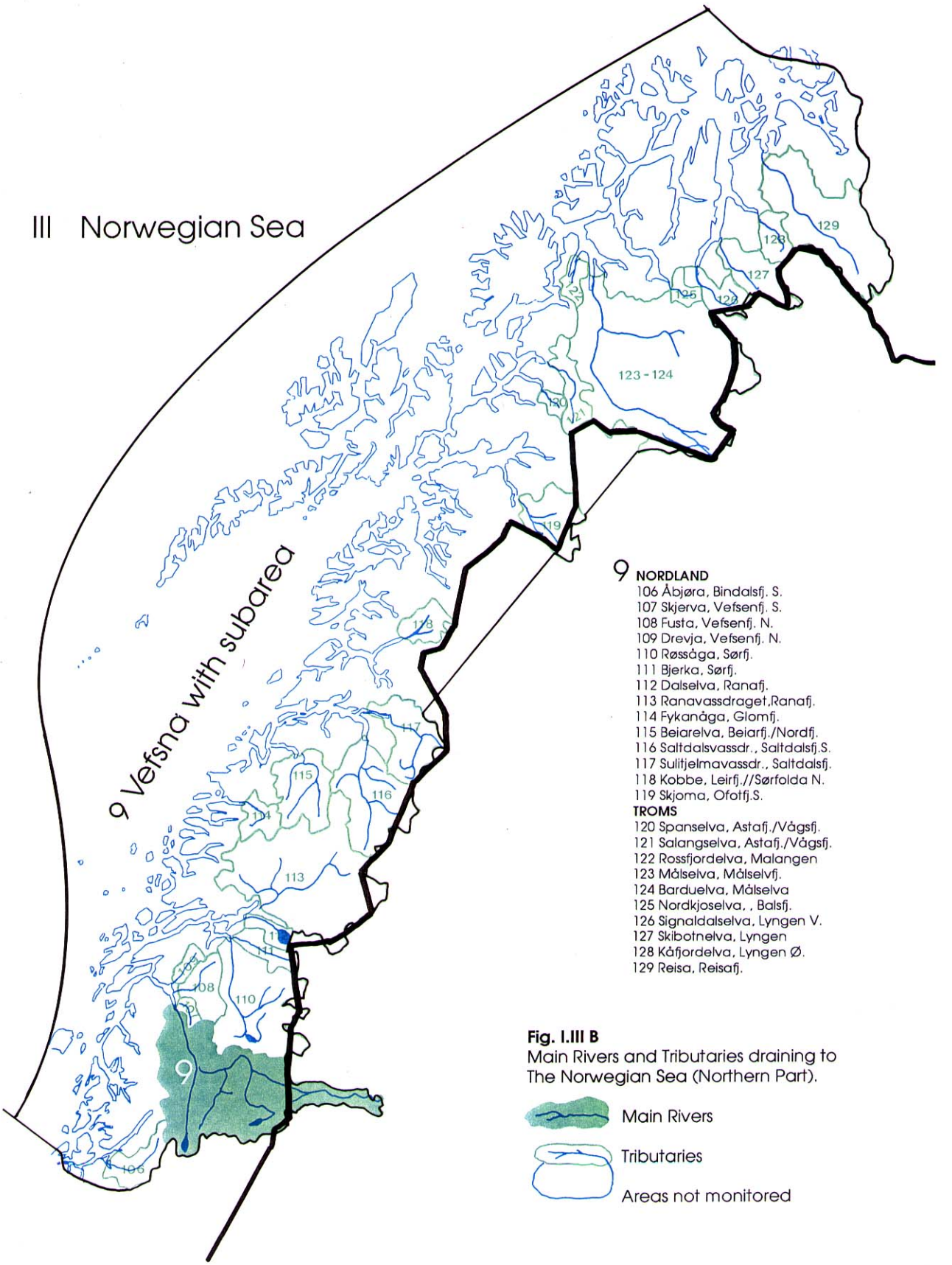


Fig. I.III B
Main Rivers and Tributaries draining to The Norwegian Sea (Northern Part).

Table 1.4 TOTAL DISCHARGES to The Barents Sea 1994 (Fig. I.IV).

The Barents Sea Region with main river (10) Alta

Substance:	Area runoff	Direct Discharges	Tributary Inputs		Main Riverine Inputs		Grand Total	
Cadmium		0.00	0.2	*	0.06	*	0.2	tonnes
Cadmium			0.2	**	0.07	**	0.3	tonnes
Mercury		1.35	25	*	3.36	*	30	kg
Mercury			30	**	3.80	**	35	kg
Copper		0.37	19		2.82		22	tonnes
Zinc		0.43	20		1.49		22	tonnes
Lead		0.01	5.4	*	0.19	*	5.6	tonnes
Lead			5.4	**	0.19	**	5.6	tonnes
Arsenic		0.00	3.1	*	0.62		3.7	tonnes
Arsenic			3.1	**	0.62		3.7	tonnes
Cr-T		0.04	40.5	*	2.73	*	43.3	tonnes
Cr-T			40.5	**	2.73	**	43.3	tonnes
Ni		0.06	62.4	*	1.74	*	64.2	tonnes
Ni			62.4	**	1.74	**	64.2	tonnes
PCBs ***			0.0	*	0.36	*	0.4	kg
PCBs			3.4	**	0.65	**	4.0	kg
gamma-HCH			3.4		0.11		4	kg
NH4-N	91	260.07	255		13.91		620	tonnes
NO3-N	1010	1.73	202		95.15		1309	tonnes
PO4-P	18	27.56	25		14.84		86	tonnes
Total N	1681	349.25	2571		395.39		4996	tonnes
Total P	88	46.44	89		26.78		251	tonnes
S.P.M.		2132176	30967		8642		2171785	tonnes
TOC		340.44	24351		7560		32251	tonnes
COD		1537.28					1537	tonnes

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

***** the following congeners: IUPAC Nos. 28,52,101,118,153,138,180**

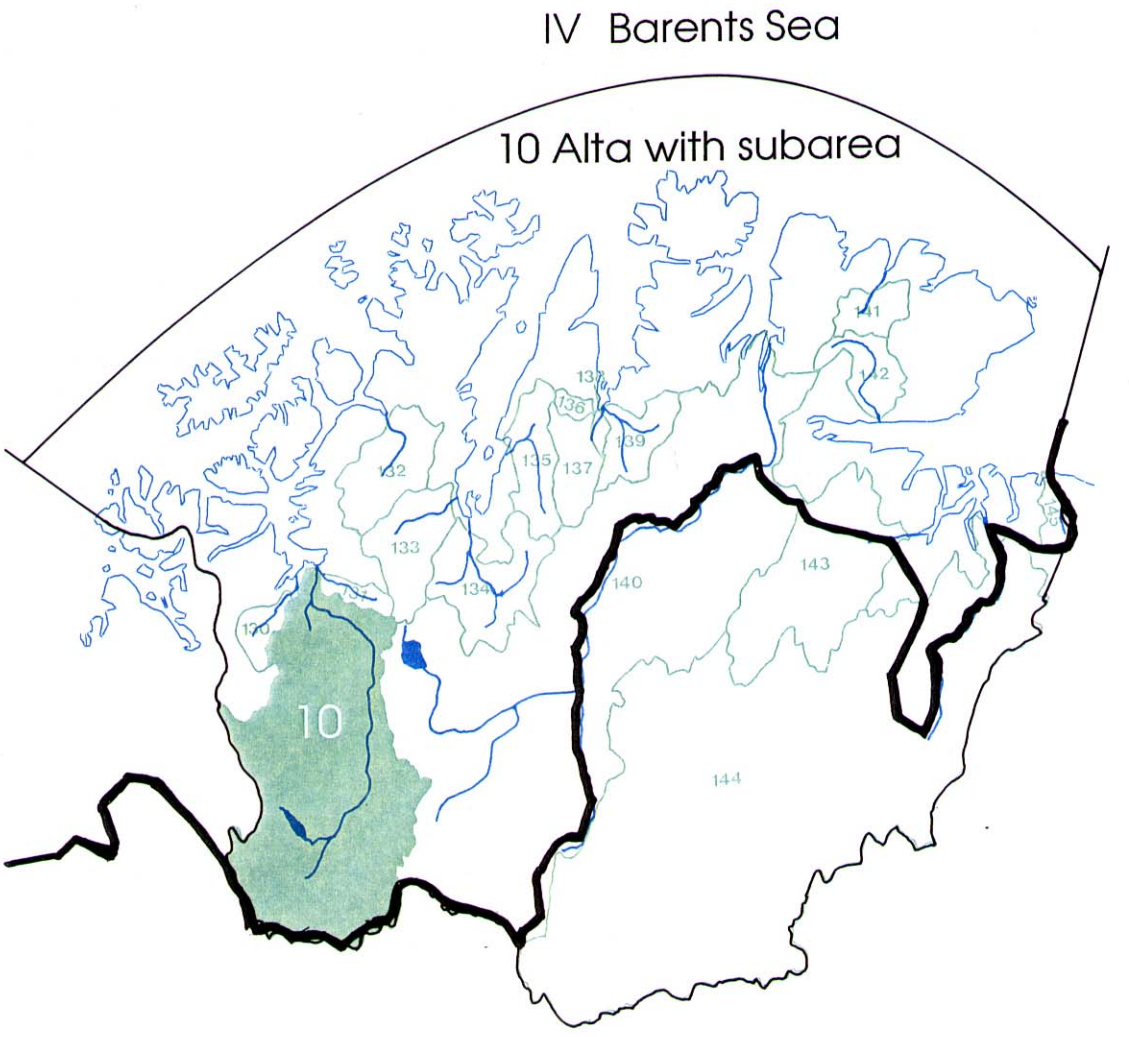


Fig. I.IV
Main Rivers and Tributaries draining to The Barents Sea.

Main Rivers

Tributaries

Areas not monitored

10 FINNMARK

130 Mattiselva, Kåfj./Altafj.
131 Tverrelva, Altafj.
132 Repparfjordelva, Repparfj.
133 Stabburselva, I. Porsangen V.
134 Lakselva, I. Porsangen S.
135 Børselva, I. Porsangen Ø.
136 Mattusjåkka, I. Laksefj. V.
137 Storelva, I. Laksefj. V.
138 Soussjåkka, I. Laksefj. V.
139 Adamselva, I. Laksefj. Ø.
140 Tanavassdr., Tanafj. S.
141 Vesterelva, Syltefj.
142 V. Jakobselv, Y. Varangerfj.
143 Neiden Munkfj./Varangerfj.
144 Passvikelva, Bøkfj./Varangerfj.
145 Grense Jakobselv, Varangerfj.

APPENDIX II : SEWAGE EFFLUENTS FROM DOWNSTREAM AREAS OF MAIN AND TRIBUTARY RIVERS AND RIVERS NOT MONITORED 1994 (Paragraph 7 - 8) **Page:**

Paragraph 7: Sewage effluents ./.

Paragraph 8: Measurements of calculation used - including information on the concentration upon which the measurement is based:

Paragraph 3.3 (Report A, 1991, 1992 - 1995)

Municipal sewage includes a portion of industrial effluents

Table II Sewage Effluents from down stream areas of mainland Norway to convention waters (1994).

Total quantity of substance discharged per year:

Regions: / Substance:	I The Skagerrak Region	II The North Sea	III The Norwegian Sea	IV The Barents Sea	Sum	
Cd	74	40	34	2	151	kg
Hg	38	22	19	1	81	kg
Cu	10.8	6.0	5.2	0.4	22.4	tonnes
Zn	16.2	7.0	6.0	0.4	29.7	tonnes
Pb	640	201	172	12	1026	kg
Cr-T	3.1	0.6	0.5	0.0	4.3	tonnes
Ni	6.9	1.0	0.9	0.1	8.8	tonnes
PCBs						kg
gamma-HCH						kg
NH4-N	4616	3103	3284	260	11263	tonnes
NO3-N	150	21	22	2	194	tonnes
PO4-P	106	275	755	28	1163	tonnes
Tot-N	5796	4137	4379	347	14659	tonnes
Tot-P	176	458	1258	46	1938	tonnes
S.P.M.	8317	8233	9908	597	27054	tonnes
TOC	6771	4937	5564	340	17613	tonnes
COD	28853	22171	26002	1537	78564	tonnes

Table 2.1 Sewage Effluents to The Skagerrak Region (1994).

The Skagerrak region with sub-areas: (1) Glomma, (2) Drammenselva, (3) Numedalslågen, (4) Skienselva, (5) Otra

	Total quantity of substance discharged per year:							Precision of the estimate of the load
Sub-areas :	**1**	**2**	**3**	**4**	**5**			
Substance:								
Cd	**42**	**3**	**14**	**3**	**11**	**kg**	_____	%
Hg	**21**	**2**	**8**	**2**	**6**	**kg**	_____	%
Cu	**6.12**	**0.47**	**2.09**	**0.45**	**1.69**	**tonnes**	_____	%
Zn	**10.74**	**0.55**	**2.44**	**0.53**	**1.97**	**tonnes**	_____	%
Pb	**484**	**16**	**70**	**15**	**56**	**kg**	_____	%
Cr-T	**2.62**	**0.05**	**0.21**	**0.05**	**0.17**	**tonnes**	_____	%
Ni	**6.13**	**0.08**	**0.35**	**0.08**	**0.28**	**tonnes**	_____	
PCBs						**kg**	_____	%
gamma-HCH						**kg**	_____	%
NH4-N	**2443**	**178**	**472**	**1048**	**475**	**tonnes**	_____	
NO3-N	**135**	**1**	**3**	**7**	**3**	**tonnes**	_____	%
PO4-P	**31**	**10**	**30**	**8**	**26**	**tonnes**	_____	%
Tot-N	**2899**	**238**	**629**	**1397**	**634**	**tonnes**	_____	%
Tot-P	**52**	**17**	**50**	**13**	**43**	**tonnes**	_____	%
S.P.M.	**3591**	**410**	**1999**	**361**	**1956**	**tonnes**	_____	%
TOC	**3714**	**285**	**1329**	**248**	**1195**	**tonnes**	_____	%
COD	**15761**	**1208**	**5635**	**1107**	**5142**	**tonnes**	_____	%

Table 2.2 Sewage Effluents to The Remaining North Sea Region (1994).

The remaining North Sea Region with sub-areas: (6) Orreelva, (7) Suldalslågen

	Total quantity of substance discharged per year:				Precision of the estimate of the load
Sub-areas :	**6**	**7**			
Substance:					
Cd	**12**	**28**	**kg**		%
Hg	**7**	**15**	**kg**		%
Cu	**1.86**	**4.18**	**tonnes**		%
Zn	**2.17**	**4.88**	**tonnes**		%
Pb	**62**	**139**	**kg**		%
Cr-T	**0.19**	**0.42**	**tonnes**		%
Ni	**0.31**	**0.70**	**tonnes**		
PCBs			**kg**		%
gamma-HCH			**kg**		%
NH4-N	**1015**	**2088**	**tonnes**		
NO3-N	**7**	**14**	**tonnes**		%
PO4-P	**52**	**223**	**tonnes**		%
Tot-N	**1353**	**2784**	**tonnes**		%
Tot-P	**86**	**372**	**tonnes**		%
S.P.M.	**2825**	**5407**	**tonnes**		%
TOC	**1592**	**3345**	**tonnes**		%
COD	**6924**	**15248**	**tonnes**		%

Table 2.3 Sewage Effluents to The Norwegian Sea Region (1994).

The Norwegian Sea Region with sub-areas: (8) Orkla, (9) Vefsna

	Total quantity of substance discharged per year:				Precision of the estimate of the load
Sub-areas :	**8**	**9**			
Substance:					
Cd	**18**	**16**	**kg**		%
Hg	**10**	**9**	**kg**		%
Cu	**2.73**	**2.43**	**tonnes**		%
Zn	**3.18**	**2.84**	**tonnes**		%
Pb	**91**	**81**	**kg**		%
Cr-T	**0.27**	**0.24**	**tonnes**		%
Ni	**0.45**	**0.41**	**tonnes**		
PCBs			**kg**		%
gamma-HCH			**kg**		%
NH4-N	**1636**	**1648**	**tonnes**		
NO3-N	**11**	**11**	**tonnes**		%
PO4-P	**173**	**582**	**tonnes**		%
Tot-N	**2181**	**2198**	**tonnes**		%
Tot-P	**288**	**970**	**tonnes**		%
S.P.M.	**5138**	**4770**	**tonnes**		%
TOC	**2933**	**2631**	**tonnes**		%
COD	**13837**	**12164**	**tonnes**		%

Table 2.4 Sewage Effluents to The Barents Sea Region (1994).

The Barents Sea Region with sub-area: (10) Alta

	Total quantity of substance discharged per year:			Precision of the estimate of the load
Sub-area :	**10**			
Substance:				
Cd	**2**	**kg**	_____	%
Hg	**1**	**kg**	_____	%
Cu	**0.37**	**tonnes**	_____	%
Zn	**0.43**	**tonnes**	_____	%
Pb	**12**	**kg**	_____	%
Cr-T	**0.04**	**tonnes**	_____	%
Ni	**0.06**	**tonnes**	_____	
PCBs		**kg**	_____	%
gamma-HCH		**kg**	_____	%
NH4-N	**260**	**tonnes**	_____	
NO3-N	**2**	**tonnes**	_____	%
PO4-P	**28**	**tonnes**	_____	%
Tot-N	**347**	**tonnes**	_____	%
Tot-P	**46**	**tonnes**	_____	%
S.P.M.	**597**	**tonnes**	_____	%
TOC	**340**	**tonnes**	_____	%
COD	**1537**	**tonnes**	_____	%

APPENDIX III : INDUSTRIAL EFFLUENTS FROM DOWN STREAM AREAS OF MAIN AND TRIBUTARY RIVERS AND RIVERS NOT MONITORED 1994 (Paragraph 11 - 13) **Page:**

Paragraph 11: Industrial effluents ./.

Paragraph 12: Measurements of calculation used - including information on the concentration upon which the measurement is based:

Paragraph 3.3 (Report A, 1991, 1992 - 1995)

Paragraph 13: Any other relevant information (e.g. proportion of substance discharged as insoluble material):

A portion of industrial effluents is included in municipal sewage

Table III Industrial Effluents from down stream areas of mainland Norway to convention waters (1994).

Total quantity of substance discharged per year:

Regions:	I	II	III	IV		
	The Skagerrak	The North Sea	The Norwegian Sea	The Barents Sea	Sum	
Substance:						
Cd	18	953	101	0	1072	kg
Hg	4	20	0	0	24	kg
Cu	9.83	0.71	16.41	0	27	tonnes
Zn	2.85	68.70	38.69	0	110.24	tonnes
Pb	274	4389	641	0	5303	kg
Arsenic	276	0	270	0	546	kg
Cr-T	1.28	0.74	0.19	0	2.21	tonnes
Ni	3.91	1.18	0.29	0	5.38	tonnes
PCBs						kg
gamma-HCH						kg
NO3-N						tonnes
PO4-P						tonnes
Tot-N	1700	606	816	2	3124	tonnes
Tot-P	89	79	73	1	242	tonnes
S.P.M.	8149	2097808	1411314	2131579	5648851	tonnes
TOC	67	350	23	0	440	tonnes
COD	88516	16597	31743	0	136856	tonnes
AOX	210	0	1	0	210	tonnes

Table 3.1 Industrial Effluents to The Skagerrak Region (1994).

The Skagerrak Region with sub-areas: (1) Glomma, (2) Drammenselva, (3) Numedalslågen, (4) Skienselva, (5) Otra

	Total quantity of substance discharged per year:							Precision of the estimate of the load
Sub-areas : Substance:	1	2	3	4	5			
Cd	10.15	0.00	5.80	0.26	1.30	kg	_____	%
Hg	3.60	0.00	0.00	0.01	0.00	kg	_____	%
Cu	8347	0	72	50	1365	kg	_____	%
Zn	1153	4	123	1256	318	kg	_____	%
Pb	86.5	0.0	20.2	53.0	114.0	kg	_____	%
Arsenic	0.0	0.0	0.0	0.0	276.0	kg	_____	%
Cr-T	1222.6	1.6	11.9	44.9	1.5	kg	_____	%
Ni	21.8	2.7	1966.2	11.8	1910.0	kg	_____	%
PCBs						kg	_____	%
gamma-HCH						kg	_____	%
NO3-N						tonnes	_____	%
PO4-P						tonnes	_____	%
Tot-N	166.3	16.4	303.8	1205.8	7.9	tonnes	_____	%
Tot-P	33.0	0.2	44.8	9.4	1.9	tonnes	_____	%
S.P.M.	3276	173	2195	2087	418	tonnes	_____	%
TOC	28.4	0.0	26.1	12.5	0.0	tonnes	_____	%
COD	55714	217	22013	10573	0	tonnes	_____	%
AOX	209.4	0.0	0.0	0.2	0.0	tonnes	_____	%

Table 3.2 Industrial Effluents to The Remaining North Sea Region (1994).

The remaining North Sea Region with sub-areas: (6) Orreelva, (7) Suldalslågen

	Total quantity of substance discharged per year:				Precision of the estimate of the load
Sub-areas :	**6**	**7**			
Substance:					
Cd	**0.00**	**952.99**	**kg**		%
Hg	**0.00**	**20.23**	**kg**		%
Cu	**6**	**709**	**kg**		%
Zn	**94**	**68602**	**kg**		%
Pb	**0.0**	**4389**	**kg**		%
Arsenic	**0.0**	**0.0**	**kg**		%
Cr-T	**231.2**	**505.6**	**kg**		%
Ni	**11.7**	**1166.7**	**kg**		%
PCBs			**kg**		%
gamma-HCH			**kg**		%
NO3-N			**tonnes**		%
PO4-P			**tonnes**		%
Tot-N	**46.0**	**559.6**	**tonnes**		%
Tot-P	**2.9**	**76.2**	**tonnes**		%
S.P.M.	**1759680**	**338128**	**tonnes**		%
TOC	**15.9**	**333.9**	**tonnes**		%
COD	**837**	**15759**	**tonnes**		%
AOX	**0.0**	**0.0**	**tonnes**		%

Table 3.3 Industrial Effluents to The Norwegian Sea Region (1994).

The Norwegian Sea Region with sub-areas: (8) Orkla, (9) Vefsna

	Total quantity of substance discharged per year:				Precision of the estimate of the load
Sub-areas :	**8**	**9**			
Substance:					
Cd	**55.12**	**46.20**	**kg**		%
Hg	**0.07**	**0.00**	**kg**		%
Cu	**1252**	**15162**	**kg**		%
Zn	**5020**	**33666**	**kg**		%
Pb	**220.9**	**420.2**	**kg**		%
Arsenic	**0.0**	**270.0**	**kg**		%
Cr-T	**153.6**	**32.0**	**kg**		%
Ni	**104.2**	**190.0**	**kg**		%
PCBs			**kg**		%
gamma-HCH			**kg**		%
NO3-N			**tonnes**		%
PO4-P			**tonnes**		%
Tot-N	**267.2**	**549.0**	**tonnes**		%
Tot-P	**46.5**	**26.6**	**tonnes**		%
S.P.M.	**152089**	**1259225**	**tonnes**		%
TOC	**0.0**	**23.5**	**tonnes**		%
COD	**31743.2**	**0.0**	**tonnes**		%
AOX	**0.7**	**0.0**	**tonnes**		%

Table 3.4 Industrial Effluents toThe Barents Sea Region (1994).

The Barents Sea Region with sub-area: (10) Alta

	Total quantity of substance discharged per year:			Precision of the estimate of the load
Sub-area :	**10**			
Substance:				
Cd	**0.00**	**kg**	_____	%
Hg	**0.00**	**kg**	_____	%
Cu	**0**	**kg**	_____	%
Zn	**0**	**kg**	_____	%
Pb	**0.0**	**kg**	_____	%
Arsenic	**0.0**	**kg**	_____	%
Cr-T	**0.0**	**kg**	_____	%
Ni	**0.0**	**kg**	_____	%
PCBs		**kg**	_____	%
gamma-HCH		**kg**	_____	%
NO3-N		**tonnes**	_____	%
PO4-P		**tonnes**	_____	%
Tot-N	**2.5**	**tonnes**	_____	%
Tot-P	**0.5**	**tonnes**	_____	%
S.P.M.	**2131579**	**tonnes**	_____	%
TOC	**0.0**	**tonnes**	_____	%
COD	**0.0**	**tonnes**	_____	%
AOX	**0.0**	**tonnes**	_____	%

APPENDIX IV : MAIN RIVERINE INPUTS 1994 (Paragraph 14 - 16) **Page:**

Paragraph 14: Main Rivers ./.

Paragraph15: Measurements of calculation used - including information on the concentration upon which the measurement is based:

Appendix VII (1-10) and Paragraph 3.2 (Report A, 1991, 1992 - 1995)

Paragraph 16: Any other relevant information (e.g. proportion of substance discharged as insoluble material):

Table 4.1 MAIN RIVERINE INPUTS 1994 (1) Glomma

Total volume: 57419 1000 m3/day
Minimum flow: 24365 1000 m3/day
Maximum flow: 163296 1000 m3/day

Long term average flow (LTA): 60324 1000 m3/day
LTA period : 1961 to 1990

	Mean	Number of meas.	Minimum concentr. during the year	Maximum concentr. during the year		Total quantity of substance discharged each year		Were 70 % of measurements above limit of detection ?	Precision of the estimate of the load
Cadmium *	0.10	12	0.00	0.44	µg/l	2.45	tonnes	YES	____ %
Cadmium **	0.10	12	0.01	0.44	µg/l	2.46	tonnes		____ %
Mercury *	3.17	12	0.00	11.50	ng/l	79.04	kg	YES	____ %
Mercury **	3.33	12	1.00	11.50	ng/l	82.50	kg		____ %
Copper	1.64	12	1.13	2.30	µg/l	37.26	tonnes	YES	____ %
Zinc	8.49	12	2.30	24.10	µg/l	202.14	tonnes	YES	____ %
Lead	0.89	12	0.15	2.08	µg/l	19.35	tonnes	YES	____ %
Arsenic	0.40	1	0.40	0.40	µg/l	8.38	tonnes	YES	____ %
Total Cr-T	1.31	1	1.31	1.31	µg/l	27.45	tonnes	YES	____ %
Ni	0.92	1	0.92	0.92	µg/l	19.28	tonnes	YES	____ %
PCBs *		3			ng/l	17.94	kg	NO	____ %
PCBs **		3			ng/l	19.39	kg		____ %
gamma-HCH (lindane)	0.58	3	0.51	0.70	ng/l	11.63	kg	YES	____ %
Ammonia (NH4-N)	31.75	12	11.00	60.00	µg/l	557	tonnes	YES	____ %
Nitrates (NO3-N)	380.00	12	225.00	635.00	µg/l	7301	tonnes	YES	____ %
Orthoph. (PO4-P)	5.50	12	2.00	23.00	µg/l	102	tonnes	YES	____ %
Total N	573.75	12	385.00	910.00	µg/l	11470	tonnes	YES	____ %
Total P	13.75	12	7.00	38.00	µg/l	279	tonnes	YES	____ %
Susp. Part. Matter	7.10	12	1.85	29.70	mg/l	148111	tonnes	YES	____ %
TOC	3.70	1	3.70	3.70	mg/l	77545	tonnes	YES	____ %

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.2 MAIN RIVERINE INPUTS 1994 (2) Drammenselva

Total volume: 27353 1000 m3/day
Minimum flow: 10109 1000 m3/day
Maximum flow: 75773 1000 m3/day

Long term average flow (LTA): 26743 1000 m3/day
LTA period : 1961 to 1990

	Mean	Number of meas.	Minimum concentr. during the year	Maximum concentr. during the year		Total quantity of substance discharged each year		Were 70 % of measurements above limit of detection ?	Precision of the estimate of the load
Cadmium *	0.02	12	0.00	0.07	µg/l	0.23	tonnes	YES	_____ %
Cadmium **	0.03	12	0.01	0.07	µg/l	0.25	tonnes		_____ %
Mercury *	0.54	12	0.00	1.50	ng/l	5.24	kg	NO	_____ %
Mercury **	1.13	12	1.00	1.50	ng/l	11.34	kg		_____ %
Copper	0.85	12	0.30	1.40	µg/l	8.67	tonnes	YES	_____ %
Zinc	3.24	12	2.00	5.70	µg/l	33.89	tonnes	YES	_____ %
Lead	0.29	12	0.02	1.61	µg/l	2.71	tonnes	YES	_____ %
Arsenic	0.17	4	0.08	0.37	µg/l	1.70	tonnes	YES	_____ %
Total Cr-T	0.88	4	0.45	1.20	µg/l	8.85	tonnes	YES	_____ %
Ni	0.59	4	0.45	0.91	µg/l	5.98	tonnes	YES	_____ %
PCBs *		3			ng/l	6.19	kg	NO	_____ %
PCBs **		3			ng/l	7.51	kg		_____ %
gamma-HCH (lindane)	0.68	3	0.57	0.81	ng/l	6.77	kg	YES	_____ %
Ammonia (NH4-N)	16.25	12	8.00	27.00	µg/l	151.64	tonnes	YES	_____ %
Nitrates (NO3-N)	331.25	12	160.00	870.00	µg/l	3620.05	tonnes	YES	_____ %
Orthoph. (PO4-P)	1.71	12	0.50	5.00	µg/l	16.95	tonnes	YES	_____ %
Total N	512.92	12	375.00	1080.00	µg/l	5414.38	tonnes	YES	_____ %
Total P	5.58	12	3.00	12.00	µg/l	58.95	tonnes	YES	_____ %
Susp. Part. Matter	2.58	12	0.82	5.44	mg/l	27339	tonnes	YES	_____ %
TOC	3.10	10	2.40	4.50	mg/l	31568	tonnes	YES	_____ %

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.3 MAIN RIVERINE INPUTS 1994 (3) Numedalslågen

Total volume: 10644 1000 m3/day
Minimum flow: 3093 1000 m3/day
Maximum flow: 57629 1000 m3/day

Long term average flow (LTA): 10082 1000 m3/day
LTA period : 1961 to 1990

	Mean	Number of meas.	Minimum concentr. during the year	Maximum concentr. during the year		Total quantity of substance discharged each year		Were 70 % of measurements above limit of detection ?	Precision of the estimate of the load
Cadmium *	0.04	12	0.00	0.13	µg/l	0.17	tonnes	YES	____ %
Cadmium **	0.05	12	0.01	0.13	µg/l	0.18	tonnes		____ %
Mercury *	4.71	12	0.00	25.50	ng/l	17.60	kg	YES	____ %
Mercury **	4.88	12	1.00	25.50	ng/l	18.04	kg		____ %
Copper	1.04	12	0.30	3.81	µg/l	3.90	tonnes	YES	____ %
Zinc	5.42	12	1.70	11.60	µg/l	22.83	tonnes	YES	____ %
Lead	0.52	12	0.11	2.13	µg/l	2.01	tonnes	YES	____ %
Arsenic	0.19	1	0.19	0.19	µg/l	0.74	tonnes	YES	____ %
Total Cr-T	0.85	1	0.85	0.85	µg/l	3.30	tonnes	YES	____ %
Ni	0.62	1	0.62	0.62	µg/l	2.41	tonnes	YES	____ %
PCBs *		3			ng/l	3.86	kg	NO	____ %
PCBs **		3			ng/l	4.33	kg		____ %
gamma-HCH (lindane)	0.44	3	0.30	0.64	ng/l	1.88	kg	YES	____ %
Ammonia (NH4-N)	28.08	12	5.00	54.00	µg/l	90.70	tonnes	YES	____ %
Nitrates (NO3-N)	250.17	12	59.00	730.00	µg/l	1030.55	tonnes	YES	____ %
Orthoph. (PO4-P)	3.13	12	0.50	7.00	µg/l	13.14	tonnes	YES	____ %
Total N	430.83	12	230.00	790.00	µg/l	1718.74	tonnes	YES	____ %
Total P	7.67	12	4.00	14.00	µg/l	32.95	tonnes	YES	____ %
Susp. Part. Matter	4.07	12	1.79	10.80	mg/l	17937	tonnes	YES	____ %
TOC	3.40	1	3.40	3.40	mg/l	13209	tonnes	YES	____ %

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.4 MAIN RIVERINE INPUTS 1994 (4) Skienselva

Total volume:	**22438**	**1000 m3/day**	**Long term average flow (LTA):**	**22611 1000 m3/day**
Minimum flow:	**4320**	**1000 m3/day**	**LTA period :**	**1961 to 1990**
Maximum flow:	**49853**	**1000 m3/day**		

	Mean	Number of meas.	Minimum concentr. during the year	Maximum concentr. during the year		Total quantity of substance discharged each year		Were 70 % of measurements above limit of detection ?		Precision of the estimate of the load
Cadmium *	**0.04**	**12**	**0.00**	**0.09**	**µg/l**	**0.33**	**tonnes**	**YES**	_____	%
Cadmium **	**0.04**	**12**	**0.01**	**0.09**	**µg/l**	**0.33**	**tonnes**		_____	%
Mercury *	**0.50**	**12**	**0.00**	**1.50**	**ng/l**	**3.98**	**kg**	**NO**	_____	%
Mercury **	**1.08**	**12**	**1.00**	**1.50**	**ng/l**	**8.86**	**kg**		_____	%
Copper	**0.55**	**12**	**0.30**	**1.20**	**µg/l**	**4.87**	**tonnes**	**YES**	_____	%
Zinc	**2.55**	**12**	**1.91**	**3.60**	**µg/l**	**20.44**	**tonnes**	**YES**	_____	%
Lead *	**0.17**	**12**	**0.00**	**1.01**	**µg/l**	**1.19**	**tonnes**	**YES**	_____	%
Lead **	**0.17**	**12**	**0.02**	**1.01**	**µg/l**	**1.23**	**tonnes**	**YES**	_____	%
Arsenic	**0.12**	**1**	**0.12**	**0.12**	**µg/l**	**0.98**	**tonnes**	**YES**	_____	%
Total Cr-T	**0.57**	**1**	**0.57**	**0.57**	**µg/l**	**4.67**	**tonnes**	**YES**	_____	%
Ni	**0.36**	**1**	**0.36**	**0.36**	**µg/l**	**2.95**	**tonnes**	**YES**	_____	%
PCBs *		**3**			**ng/l**	**6.98**	**kg**	**NO**	_____	%
PCBs **		**3**			**ng/l**	**7.98**	**kg**		_____	%
gamma-HCH (lindane)	**1.05**	**3**	**0.83**	**1.31**	**ng/l**	**8.91**	**kg**	**YES**	_____	%
Ammonia (NH4-N)	**15.67**	**12**	**6.00**	**39.00**	**µg/l**	**118.47**	**tonnes**	**YES**	_____	%
Nitrates (NO3-N)	**226.67**	**12**	**180.00**	**285.00**	**µg/l**	**1895.19**	**tonnes**	**YES**	_____	%
Orthoph. (PO4-P)	**0.88**	**12**	**0.50**	**2.00**	**µg/l**	**7.14**	**tonnes**	**YES**	_____	%
Total N	**335.83**	**12**	**240.00**	**430.00**	**µg/l**	**2763.10**	**tonnes**	**YES**	_____	%
Total P	**3.17**	**12**	**2.00**	**7.00**	**µg/l**	**26.95**	**tonnes**	**YES**	_____	%
Susp. Part. Matter	**1.08**	**12**	**0.12**	**3.09**	**mg/l**	**9927**	**tonnes**	**YES**	_____	%
TOC	**2.20**	**1**	**2.20**	**2.20**	**mg/l**	**18018**	**tonnes**	**YES**	_____	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.5 MAIN RIVERINE INPUTS 1994 (5) Otra

Total volume: 13734 1000 m3/day
Minimum flow: 4398 1000 m3/day
Maximum flow: 39139 1000 m3/day

Long term average flow (LTA): 12841 1000 m3/day
LTA period : 1961 to 1990

	Mean	Number of meas.	Minimum concentr. during the year	Maximum concentr. during the year		Total quantity of substance discharged each year		Were 70 % of measurements above limit of detection ?	Precision of the estimate of the load
Cadmium *	0.04	12	0.00	0.11	µg/l	0.17	tonnes	YES	____ %
Cadmium **	0.04	12	0.01	0.11	µg/l	0.18	tonnes		____ %
Mercury *	0.42	12	0.00	1.00	ng/l	1.65	kg	NO	____ %
Mercury **	1.00	12	1.00	1.00	ng/l	5.01	kg		____ %
Copper	0.50	12	0.10	0.90	µg/l	2.48	tonnes	YES	____ %
Zinc	5.04	12	3.61	7.50	µg/l	27.15	tonnes	YES	____ %
Lead	0.42	12	0.20	0.72	µg/l	2.23	tonnes	YES	____ %
Arsenic	0.17	4	0.09	0.27	µg/l	0.86	tonnes	YES	____ %
Total Cr-T	1.20	4	0.59	1.87	µg/l	5.26	tonnes	YES	____ %
Ni	0.95	4	0.51	1.48	µg/l	5.78	tonnes	YES	____ %
PCBs *		3			ng/l	0.76	kg	NO	____ %
PCBs **		3			ng/l	1.71	kg		____ %
gamma-HCH (lindane)	0.83	3	0.55	1.13	ng/l	3.20	kg	YES	____ %
Ammonia (NH4-N)	13.33	12	5.00	30.00	µg/l	85.53	tonnes	YES	____ %
Nitrates (NO3-N)	143.58	12	87.00	225.00	µg/l	806.70	tonnes	YES	____ %
Orthoph. (PO4-P)	1.27	12	0.50	6.00	µg/l	12.83	tonnes	YES	____ %
Total N	282.92	12	225.00	360.00	µg/l	1495.06	tonnes	YES	____ %
Total P	5.25	12	3.00	9.00	µg/l	31.46	tonnes	YES	____ %
Susp. Part. Matter	3.76	12	0.67	21.10	mg/l	22915	tonnes	YES	____ %
TOC	3.26	12	2.30	4.70	mg/l	15014	tonnes	YES	____ %

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

Table 4.6 MAIN RIVERINE INPUTS 1994 (6) Orreelva

Total volume:	**282**	**1000 m3/day**	**Long term average flow (LTA):**	**333 1000 m3/day**
Minimum flow:	**29**	**1000 m3/day**	**LTA period : 1961 to 1990**	
Maximum flow:	**782**	**1000 m3/day**		

	Mean	Number of meas.	Minimum concentr. during the year	Maximum concentr. during the year		Total quantity of substance discharged each year		Were 70 % of measurements above limit of detection ?		Precision of the estimate of the load
Cadmium *	**0.06**	**12**	**0.00**	**0.32**	**µg/l**	**0.01**	**tonnes**	**YES**	____	%
Cadmium **	**0.06**	**12**	**0.01**	**0.32**	**µg/l**	**0.01**	**tonnes**		____	%
Mercury *	**0.50**	**12**	**0.00**	**5.00**	**ng/l**	**0.04**	**kg**	**NO**	____	%
Mercury **	**1.33**	**12**	**1.00**	**5.00**	**ng/l**	**0.12**	**kg**		____	%
Copper	**1.37**	**12**	**0.60**	**2.90**	**µg/l**	**0.14**	**tonnes**	**YES**	____	%
Zinc	**2.55**	**12**	**0.50**	**10.20**	**µg/l**	**0.36**	**tonnes**	**YES**	____	%
Lead	**0.35**	**12**	**0.10**	**0.95**	**µg/l**	**0.03**	**tonnes**	**YES**	____	%
Arsenic	**0.27**	**4**	**0.10**	**0.40**	**µg/l**	**0.03**	**tonnes**	**YES**	____	%
Total Cr-T	**2.58**	**4**	**1.13**	**4.64**	**µg/l**	**0.27**	**tonnes**	**YES**	____	%
Ni	**2.95**	**4**	**1.60**	**6.68**	**µg/l**	**0.31**	**tonnes**	**YES**	____	%
PCBs *		**3**			**ng/l**	**0.00**	**kg**	**NO**	____	%
PCBs **		**3**			**ng/l**	**0.02**	**kg**		____	%
gamma-HCH (lindane)	**1.29**	**3**	**0.46**	**2.94**	**ng/l**	**0.08**	**kg**	**YES**	____	%
Ammonia (NH4-N)	**45.08**	**12**	**7.00**	**120.00**	**µg/l**	**5.11**	**tonnes**	**YES**	____	%
Nitrates (NO3-N)	**757.92**	**12**	**1.00**	**1825.00**	**µg/l**	**102.15**	**tonnes**	**YES**	____	%
Orthoph. (PO4-P)	**9.25**	**12**	**2.00**	**32.00**	**µg/l**	**1.13**	**tonnes**	**YES**	____	%
Total N	**1352.1**	**12**	**610.00**	**2425.00**	**µg/l**	**163.58**	**tonnes**	**YES**	____	%
Total P	**38.92**	**12**	**25.00**	**60.00**	**µg/l**	**4.36**	**tonnes**	**YES**	____	%
Susp. Part. Matter	**4.91**	**12**	**2.84**	**7.79**	**mg/l**	**548**	**tonnes**	**YES**	____	%
TOC	**5.50**	**1**	**5.50**	**5.50**	**mg/l**	**567**	**tonnes**	**YES**	____	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.7 MAIN RIVERINE INPUTS 1994 (7) Suldalslågen

Total volume: 4562 1000 m3/day
Minimum flow: 1123 1000 m3/day
Maximum flow: 21168 1000 m3/day

Long term average flow (LTA): 7422 1000 m3/day
LTA period : 1961 to 1990

	Mean	Number of meas.	Minimum concentr. during the year	Maximum concentr. during the year		Total quantity of substance discharged each year		Were 70 % of measurements above limit of detection ?	Precision of the estimate of the load
Cadmium	0.02	4	0.01	0.03	µg/l	0.04	tonnes	YES	____ %
Mercury *	0.50	4	0.00	2.00	ng/l	0.14	kg	NO	____ %
Mercury **	1.25	4	1.00	2.00	ng/l	1.74	kg		____ %
Copper	0.34	4	0.11	0.60	µg/l	0.64	tonnes	YES	____ %
Zinc	2.00	4	1.59	2.50	µg/l	3.56	tonnes	YES	____ %
Lead	0.14	4	0.05	0.27	µg/l	0.35	tonnes	YES	____ %
Arsenic	0.09	4	0.03	0.13	µg/l	0.12	tonnes	YES	____ %
Total Cr-T	1.36	4	0.54	2.26	µg/l	2.39	tonnes	YES	____ %
Ni	0.65	4	0.19	1.36	µg/l	1.67	tonnes	YES	____ %
PCBs *		2			ng/l	0.00	kg	NO	____ %
PCBs **		2			ng/l	0.35	kg		____ %
gamma-HCH (lindane)	0.83	2	0.81	0.84	ng/l	1.39	kg	YES	____ %
Ammonia (NH4-N)	7.25	4	5.00	13.00	µg/l	11.57	tonnes	YES	____ %
Nitrates (NO3-N)	181.25	4	160.00	235.00	µg/l	275	tonnes	YES	____ %
Orthoph. (PO4-P)	0.50	4	0.50	0.50	µg/l	0.83	tonnes	YES	____ %
Total N	227.50	4	190.00	275.00	µg/l	342	tonnes	YES	____ %
Total P	1.75	4	1.00	3.00	µg/l	2.57	tonnes	YES	____ %
Susp. Part. Matter	0.68	4	0.22	0.95	mg/l	1423	tonnes	YES	____ %
TOC	0.50	1	0.50	0.50	mg/l	833	tonnes	YES	____ %

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

Table 4.8 MAIN RIVERINE INPUTS 1994 (8) Orkla

Total volume: 3652 1000 m3/day
Minimum flow: 1581 1000 m3/day
Maximum flow: 17885 1000 m3/day

Long term average flow (LTA): 5374 1000 m3/day
LTA period : 1961 to 1990

	Mean	Number of meas.	Minimum concentr. during the year	Maximum concentr. during the year		Total quantity of substance discharged each year		Were 70 % of measurements above limit of detection ?		Precision of the estimate of the load
Cadmium	0.08	12	0.02	0.14	µg/l	0.10	tonnes	YES	____	%
Mercury *	0.46	12	0.00	1.50	ng/l	0.70	kg	NO	____	%
Mercury **	1.04	12	1.00	1.50	ng/l	1.38	kg		____	%
Copper	7.84	12	4.01	12.40	µg/l	10.83	tonnes	YES	____	%
Zinc	26.03	12	15.20	40.90	µg/l	36.44	tonnes	YES	____	%
Lead *	0.17	12	0.00	1.18	µg/l	0.26	tonnes	YES	____	%
Lead **	0.17	12	0.02	1.18	µg/l	0.27	tonnes		____	%
Arsenic	0.56	1	0.56	0.56	µg/l	0.75	tonnes	YES	____	%
Total Cr-T	1.15	1	1.15	1.15	µg/l	1.53	tonnes	YES	____	%
Ni	0.68	1	0.68	0.68	µg/l	0.91	tonnes	YES	____	%
PCBs *		3			ng/l	0.00	kg	NO	____	%
PCBs **		3			ng/l	0.28	kg		____	%
gamma-HCH (lindane)	0.19	3	0.15	0.23	ng/l	0.23	kg	YES	____	%
Ammonia (NH4-N)	9.67	12	5.00	19.00	µg/l	12.57	tonnes	YES	____	%
Nitrates (NO3-N)	215.50	12	100.00	395.00	µg/l	259	tonnes	YES	____	%
Orthoph. (PO4-P)	1.17	12	0.50	3.00	µg/l	1.46	tonnes	YES	____	%
Total N	331.75	12	211.00	435.00	µg/l	427	tonnes	YES	____	%
Total P	4.67	12	1.00	9.00	µg/l	6.37	tonnes	YES	____	%
Susp. Part. Matter	1.68	12	0.38	5.66	mg/l	2543	tonnes	YES	____	%
TOC	3.73	12	2.00	6.50	mg/l	4973	tonnes	YES	____	%

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

Table 4.9 MAIN RIVERINE INPUTS 1994 (9) Vefsna

Total volume:	**10992**	**1000 m3/day**	**Long term average flow (LTA):**	**15620 1000 m3/day**
Minimum flow:	**2843**	**1000 m3/day**	**LTA period : 1961 to 1990**	
Maximum flow:	**79661**	**1000 m3/day**		

	Mean	Number of meas.	Minimum concentr. during the year	Maximum concentr. during the year		Total quantity of substance discharged each year		Were 70 % of measurements above limit of detection ?		Precision of the estimate of the load
Cadmium *	**0.05**	**12**	**0.00**	**0.18**	**µg/l**	**0.15**	**tonnes**	**YES**	_____	**%**
Cadmium **	**0.05**	**12**	**0.01**	**0.18**	**µg/l**	**0.16**	**tonnes**		_____	**%**
Mercury *	**2.79**	**12**	**0.00**	**10.50**	**ng/l**	**5.89**	**kg**	**NO**	_____	**%**
Mercury **	**3.13**	**12**	**1.00**	**10.50**	**ng/l**	**6.99**	**kg**		_____	**%**
Copper	**5.03**	**12**	**1.20**	**10.35**	**µg/l**	**20.74**	**tonnes**	**YES**	_____	**%**
Zinc	**9.54**	**12**	**1.20**	**19.51**	**µg/l**	**37.53**	**tonnes**	**YES**	_____	**%**
Lead	**1.49**	**12**	**0.05**	**7.32**	**µg/l**	**3.59**	**tonnes**	**YES**	_____	**%**
Arsenic	**0.27**	**4**	**0.11**	**0.36**	**µg/l**	**1.07**	**tonnes**	**YES**	_____	**%**
Total Cr-T	**1.40**	**4**	**0.54**	**2.32**	**µg/l**	**5.60**	**tonnes**	**YES**	_____	**%**
Ni	**1.00**	**4**	**0.37**	**1.97**	**µg/l**	**4.21**	**tonnes**	**YES**	_____	**%**
PCBs *		**3**			**ng/l**	**0.43**	**kg**	**NO**	_____	**%**
PCBs **		**3**			**ng/l**	**1.24**	**kg**		_____	**%**
gamma-HCH (lindane)	**0.23**	**3**	**0.15**	**0.38**	**ng/l**	**1.16**	**kg**	**YES**	_____	**%**
Ammonia (NH4-N)	**27.25**	**12**	**5.00**	**75.00**	**µg/l**	**97.26**	**tonnes**	**YES**	_____	**%**
Nitrates (NO3-N)	**108.33**	**12**	**39.00**	**325.00**	**µg/l**	**275.0**	**tonnes**	**YES**	_____	**%**
Orthoph. (PO4-P)	**2.67**	**12**	**0.50**	**5.00**	**µg/l**	**9.58**	**tonnes**	**YES**	_____	**%**
Total N	**388.75**	**12**	**160.00**	**800.00**	**µg/l**	**1184**	**tonnes**	**YES**	_____	**%**
Total P	**5.17**	**12**	**2.00**	**10.00**	**µg/l**	**22.48**	**tonnes**	**YES**	_____	**%**
Susp. Part. Matter	**1.57**	**12**	**0.51**	**4.32**	**mg/l**	**8965**	**tonnes**	**YES**	_____	**%**
TOC	**3.40**	**1**	**3.40**	**3.40**	**mg/l**	**13641**	**tonnes**	**YES**	_____	**%**

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.10 MAIN RIVERINE INPUTS 1993 (10) Altaelva

Total volume: 5918 1000 m3/day
Minimum flow: 2272 1000 m3/day
Maximum flow: 46829 1000 m3/day

Long term average flow (LTA): 7487 1000 m3/day
LTA period : 1961 to 1990

	Mean	Number of meas.	Minimum concentr. during the year	Maximum concentr. during the year		Total quantity of substance discharged each year		Were 70 % of measurements above limit of detection ?	Precision of the estimate of the load
Cadmium *	0.03	4	0.00	0.06	µg/l	0.06	tonnes	YES	____ %
Cadmium **	0.04	4	0.01	0.06	µg/l	0.07	tonnes		____ %
Mercury *	1.38	4	0.00	2.50	ng/l	3.36	kg	NO	____ %
Mercury **	1.63	4	1.00	2.50	ng/l	3.80	kg		____ %
Copper	1.10	4	0.30	2.50	µg/l	2.82	tonnes	YES	____ %
Zinc	0.74	4	0.30	1.24	µg/l	1.49	tonnes	YES	____ %
Lead	0.09	4	0.05	0.19	µg/l	0.19	tonnes	YES	____ %
Arsenic	0.32	4	0.08	0.63	µg/l	0.62	tonnes	YES	____ %
Total Cr-T	1.20	4	0.15	2.12	µg/l	2.73	tonnes	YES	____ %
Ni	0.75	4	0.51	1.09	µg/l	1.74	tonnes	YES	____ %
PCBs *		2			ng/l	0.36	kg	NO	____ %
PCBs **		2			ng/l	0.65	kg		____ %
gamma-HCH (lindane)	0.05	2	0.05	0.05	ng/l	0.11	kg	YES	____ %
Ammonia (NH4-N)	6.00	4	5.00	9.00	µg/l	13.91	tonnes	YES	____ %
Nitrates (NO3-N)	48.50	4	23.00	84.00	µg/l	95.15	tonnes	YES	____ %
Orthoph. (PO4-P)	7.63	4	0.50	19.00	µg/l	14.84	tonnes	YES	____ %
Total N	178.75	4	155.00	210.00	µg/l	395.39	tonnes	YES	____ %
Total P	12.75	4	4.00	24.00	µg/l	26.78	tonnes	YES	____ %
Susp. Part. Matter	3.14	4	0.84	9.10	mg/l	8642	tonnes	YES	____ %
TOC	3.50	1	3.50	3.50	mg/l	7560	tonnes	YES	____ %

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

APPENDIX V : INPUTS FROM TRIBUTARY RIVERS 1994 (Paragraph 17 - 19) **Page:**

Paragraph 17: Tributary rivers ./.

Paragraph18: Measurements of calculation used - including information on the concentration upon which the measurement is based:

Appendix VIII and IX (1-10) and Paragraph 3.2 (Report A, 1991, 1992 - 1995)

Paragraph 19: Any other relevant information (e.g. proportion of substance discharged as insoluble material):

Table 5.1 The Skagerrak Region. Inputs from tributary rivers 1994 in The Subareas (1-5).

The Skagerrak Region with sub-areas: (1A) Glomma, (1B) Inner Oslofj., (2) Drammenselva, (3) Numedalslågen, (4) Skienselva, (5) Otra

Total quantity of substance discharged per year:								Were 70 % of measurements above the detection limit ?		Precision of the estimate of the load
Sub-areas :	**1A**	**1B**	**2**	**3**	**4**	**5**				
Substance:										
Cd *	0.12	0.03	0.01	0.02	0.05	0.62	tonnes	YES	_____	%
Cd **	0.12	0.03	0.01	0.02	0.05	0.62	tonnes		_____	%
Hg *	0.63	0.74	0.24	0.10	1.08	9.51	kg	YES	_____	%
Hg **	1.40	0.95	0.24	0.60	1.08	13.74	kg		_____	%
Cu	1.0	0.6	0.2	0.8	0.6	6.0	tonnes	YES	_____	%
Zn	8.6	2.3	2.0	8.8	8.2	73.1	tonnes	YES	_____	%
Pb *	0.35	0.14	0.07	0.28	0.40	5.87	tonnes	YES	_____	%
Pb **	0.35	0.14	0.07	0.28	0.40	5.87	tonnes		_____	%
Arsenic *	0.35	0.13	0.05	0.16	0.34	2.42	tonnes	YES	_____	
Arsenic **	0.35	0.13	0.05	0.16	0.34	2.42	tonnes		_____	
Cr-T *	2.10	0.51	0.29	0.65	1.21	7.36	tonnes	YES	_____	%
Cr-T **	2.10	0.54	0.29	0.65	1.21	7.36	tonnes		_____	%
Ni *	1.11	0.54	0.28	0.63	0.31	1.95	tonnes	YES	_____	%
Ni **	1.11	0.54	0.28	0.63	0.31	1.95	tonnes		_____	%
PCBs *	0.00	0.13	0.00	0.00	0.00	0.00	kg	NO	_____	%
PCBs **	0.24	0.20	0.05	0.12	0.23	2.16	kg		_____	%
gamma-HCH	0.79	0.26	0.06	0.21	1.08	9.08	kg	YES	_____	%
NH4-N	26	36	10	24	42	407	tonnes	YES	_____	%
NO3-N	1001	447	210	599	244	2472	tonnes	YES	_____	%
PO4-P	6	6	9	10	1	6	tonnes	YES	_____	%
Total N	1205	603	265	903	433	4462	tonnes	YES	_____	%
Total P	21	18	14	16	4	46	tonnes	YES	_____	%
S.P.M.	3465	4598	3431	4808	1126	14029	tonnes	YES	_____	%
TOC	8093	2586	821	2758	3680	32860	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

Table 5.2 The remaining North Sea Region. Inputs from tributary rivers 1994 in The Subareas (6-7).

The remaining North Sea Region with sub-areas: (6) Orreelva, (7) Suldalslågen

Total quantity of substance discharged per year:				Were 70 % of measurements above the detection limit ?		Precision of the estimate of the load
Sub-areas :	6	7				
Substance:						
Cd *	0.39	0.83	tonnes	YES	_____	%
Cd **	0.40	0.89	tonnes		_____	%
Hg *	5.40	26.56	kg	NO	_____	%
Hg **	15.05	43.71	kg		_____	%
Cu	4.1	9.9	tonnes	YES	_____	%
Zn	65.5	81.0	tonnes	YES	_____	%
Pb *	6.52	3.12	tonnes	YES	_____	%
Pb **	6.52	3.19	tonnes		_____	%
Arsenic *	3.30	2.15	tonnes	YES	_____	%
Arsenic **	3.30	2.16	tonnes		_____	%
Cr-T *	15.86	23.45	tonnes	YES	_____	%
Cr-T **	15.86	23.45	tonnes		_____	%
Ni *	4.13	2.17	tonnes	YES	_____	%
Ni **	4.13	2.21	tonnes		_____	%
PCBs *	0.00	0.00	kg	NO	_____	%
PCBs **	2.87	6.81	kg		_____	%
gamma-HCH	8.00	8.40	kg	YES	_____	%
NH4-N	296	227	tonnes	YES	_____	%
NO3-N	3475	4199	tonnes	YES	_____	%
PO4-P	22	33	tonnes	YES	_____	%
Total N	5052	6786	tonnes	YES	_____	%
Total P	75	113	tonnes	YES	_____	%
S.P.M.	15627	24353	tonnes	YES	_____	%
TOC	38149	31468	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

Table 5.3 The Norwegian Sea Region. Inputs from tributary rivers 1994 in The Subareas (8-9).

The Norwegian Sea Region with sub-areas: (8) Orkla, (9) Vefsna

Total quantity of substance discharged per year:				Were 70 % of measurements above the detection limit ?		Precision of the estimate of the load
Sub-areas :	8	9				
Substance:						
Cd *	1.45	0.35	tonnes	YES	_____	%
Cd **	1.50	0.43	tonnes		_____	%
Hg *	54.64	7.95	kg	NO	_____	%
Hg **	64.26	27.89	kg		_____	%
Cu	26.2	27.3	tonnes	YES	_____	%
Zn	59.4	50.2	tonnes	YES	_____	%
Pb *	8.84	13.75	tonnes	YES	_____	%
Pb **	8.88	13.75	tonnes		_____	%
Arsenic *	4.07		tonnes	YES	_____	%
Arsenic **	4.08		tonnes		_____	%
Cr-T *	42.58	54.08	tonnes	YES	_____	%
Cr-T **	42.58	54.08	tonnes		_____	%
Ni *	10.65	4.68	tonnes	YES	_____	%
Ni **	10.67	4.68	tonnes		_____	%
PCBs *	0.41	0.00	kg	NO	_____	%
PCBs **	7.51	5.74	kg		_____	%
gamma-HCH	13.64	8.25	kg	YES	_____	%
NH4-N	256	140	tonnes	YES	_____	%
NO3-N	3388	1096	tonnes	YES	_____	%
PO4-P	55	28	tonnes	YES	_____	%
Total N	7339	2964	tonnes	YES	_____	%
Total P	181	91	tonnes	YES	_____	%
S.P.M.	55226	58436	tonnes	YES	_____	%
TOC	22867	4376	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

Table 5.4 The Barents Region. Inputs from tributary rivers 1994 in The Subarea (10).

The Barents Sea Region with sub-area: (10) Alta

Total quantity of substance discharged per year:			Were 70 % of measurements above the detection limit ?		Precision of the estimate of the load
Sub-area :	10				
Substance:					
Cd *	0.16	tonnes	YES	_____	%
Cd **	0.23	tonnes		_____	%
Hg *	25.47	kg	NO	_____	%
Hg **	29.89	kg		_____	%
Cu	18.8	tonnes	YES	_____	%
Zn	20.1	tonnes	YES	_____	%
Pb *	5.41	tonnes	YES	_____	%
Pb **	5.41	tonnes		_____	%
Arsenic *	3.07	tonnes	YES	_____	%
Arsenic **	3.07	tonnes		_____	%
Cr-T *	40.53	tonnes	YES	_____	%
Cr-T **	40.53	tonnes		_____	%
Ni *	62.44	tonnes	YES	_____	%
Ni **	62.44	tonnes		_____	%
PCBs *	0.00	kg	NO	_____	%
PCBs **	3.38	kg		_____	%
gamma-HCH	3.41	kg	YES	_____	%
NH4-N	255	tonnes	YES	_____	%
NO3-N	202	tonnes	YES	_____	%
PO4-P	25	tonnes	YES	_____	%
Total N	2571	tonnes	YES	_____	%
Total P	89	tonnes	YES	_____	%
S.P.M.	30967	tonnes	YES	_____	%
TOC	24351	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

APPENDIX VI : OTHER INPUTS 1994 (Paragraph 20) **Page:**

Paragraph 20: Any available information on discharge through urban run-off - storm water overflow - polder effluents etc.:

"Background" is runoff from forested areas and highlands, including effect of acid precipitation

Agriculture runoff:
- "Area" is runoff from arable land
- "Point"-sources are drainage from silos, manures etc.

Paragraph 3.3 (Report A, 1991, 1992 - 1995)

Table 6.1 Nutrients from "Down Stream Areas" of main and tributary rivers and rivers not monitored 1994.

Direct runoff of P and N :

Sub-areas:		Back-ground tonnes	Agriculture Area tonnes	Point tonnes	Sum tonnes
1 Glomma	P	15.4	10.7	0.4	26.5
	N	266.4	518.9	6.4	791.6
	PO4-P	3.1	3.2	0.3	6.6
	NO3-N	159.8	363.2	0.8	523.8
	NH4-N	13.3	36.3	5.1	54.7
1 Inner Oslofjord	P	2.3	2.1	0.3	4.6
	N	27.2	90.0	2.7	119.8
	PO4-P	0.5	0.6	0.2	1.3
	NO3-N	16.3	63.0	0.3	79.6
	NH4-N	1.4	6.3	2.1	9.8
2 Drammenselva	P	1.4	2.1	0.0	3.5
	N	47.3	69.8	0.7	117.8
	PO4-P	0.3	0.6	0.0	0.9
	NO3-N	28.4	48.9	0.1	77.3
	NH4-N	2.4	4.9	0.5	7.8
3 Numedalslågen	P	4.9	10.5	0.2	15.5
	N	128.8	444.6	1.8	575.2
	PO4-P	1.0	3.1	0.1	4.2
	NO3-N	77.3	311.2	0.2	388.7
	NH4-N	6.4	31.1	1.4	39.0
4 Skienselva	P	6.8	2.0	0.1	8.9
	N	271.1	91.6	1.5	364.1
	PO4-P	1.4	0.6	0.1	2.0
	NO3-N	162.6	64.1	0.2	226.9
	NH4-N	13.6	6.4	1.2	21.1
5 Otra	P	7.0	3.6	0.3	10.9
	N	316.1	104.7	3.4	424.2
	PO4-P	1.4	1.1	0.2	2.7
	NO3-N	189.7	73.3	0.4	263.4
	NH4-N	15.8	7.3	2.7	25.9
6 Orreelva	P	23.0	43.6	4.2	70.9
	N	1238.6	1312.5	51.5	2602.6
	PO4-P	4.6	13.1	2.9	20.6
	NO3-N	743.2	918.8	6.2	1668.1
	NH4-N	61.9	91.9	41.2	195.0
7 Suldalslågen	P	58.0	62.2	7.2	127.5
	N	4284.0	1300.8	98.6	5683.4
	PO4-P	11.6	18.7	5.0	35.3
	NO3-N	2570.4	910.6	11.8	3492.8
	NH4-N	214.2	91.1	78.9	384.1
8 Orkla	P	131.1	141.2	14.1	286.5
	N	3501.0	3456.7	191.9	7149.6
	PO4-P	26.2	42.4	9.8	78.3
	NO3-N	2100.6	2419.7	23.0	4543.3
	NH4-N	175.0	242.0	153.6	570.6
9 Vefsna	P	83.6	32.5	7.2	123.3
	N	1920.5	829.7	104.6	2854.7
	PO4-P	16.7	9.8	5.0	31.5
	NO3-N	1152.3	580.8	12.5	1745.6
	NH4-N	96.0	58.1	83.7	237.8
10 Altaelva	P	86.1	1.6	0.6	88.2
	N	1617.9	54.9	7.9	1680.7
	PO4-P	17.2	0.5	0.4	18.1
	NO3-N	970.8	38.4	0.9	1010.1
	NH4-N	80.9	3.8	6.3	91.0

SUM	P	766	tonnes
SUM	N	22364	tonnes
SUM	PO4-P	201	tonnes
SUM	NO3-N	14020	tonnes
SUM	NH4-N	1637	tonnes

APPENDIX VII : MAIN RIVERS 1 - 10. MEASURED CONCENTRATIONS 1994 **Page:**

Table 7.1 Measured concentrations - 1994

Watercourse : Glomma

Annual flow . . . . . : 20958 mill. cbm Min : 282 cbm/s

Drainage area. . . . . : 41218 sq.km Max: 1890 cbm/s

Date	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	TOC	Hg	Gamm HCH	PCB (The folloving Congeners) IUPAC NOS 28	52	101	118	138	153	180	As	Cr-T	Ni
	m3/s	mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	µg/l	µg/l	µg/l
940121	451.9	4.96	7	3.0	555	375	40	1.13	6.37	0.10	0.54	2.57		<1.0											
940215	384.3	4.86	15	3	540	350	48	1.32	4.69	0.07	0.42	1.85		2.0	0.70	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
940314	286.9	5.21	26	15.0	700	460	60	1.49	5.93	0.08	0.47	12.4		8.0											
940412	664.1	5.31	38	23	910	635	52	2.07	4.30	0.05	0.58	29.7		3.0											
940510	1405	3.48	17	5.0	475	230	14	2.10	7.80	0.02	0.59	8.08		11.5											
940610	1230	3.82	9	2.0	435	225	24	2.30	24.1	0.44	2.05	3.43		3.0	0.53	<0.03	0.17	0.33	0.3	0.3	0.22	0.07			
940714	950.0	4.31	7	2.0	395	235	11	1.60	2.30	0.03	0.15	3.89		<1.0											
940818	717.4	22.1	8	2.0	385	235	16	1.60	17.9	0.17	0.81	4.55		2.0											
940915	871.1	4.47	13	2.0	740	530	20	2.00	7.30	0.08	0.62	7.63		3.5											
941012	569.8	4.32	8	3.0	480	320	27	1.20	4.50	0.02	2.08	2.81		2.5	0.51	<0.03	0.04	0.06	0.06	0.07	0.05	<0.03			
941110	461.2	4.68	8	3.0	565	425	26	1.20	5.90	<0.01	2.05	2.59		1.5											
941205	492.9	5.28	9	3	705	540	43	1.70	10.8	0.13	0.33	5.75	3.7	1.0									0.40	1.31	0.92
Min:	286.9	3.48	7	2	385	225	11	1.13	2.3	0.01	0.15	1.85	3.7	1	0.51	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.4	1.31	0.92
Max:	1405	22.1	38	23	910	635	60	2.3	24.1	0.44	2.08	29.7	3.7	11.5	0.70	0.03	0.17	0.33	0.3	0.3	0.22	0.07	0.4	1.31	0.92
Aver.:	707.1	6.07	13.75	5.50	574	380	31.75	1.64	8.49	0.10	0.89	7.10	3.70	3.33	0.58	0.03	0.08	0.14	0.13	0.13	0.10	0.04	0.40	1.31	0.92
St.dev.:	346.3	5.08	9.47	6.59	160	140	16.28	0.40	6.35	0.12	0.72	7.74		3.20	0.10	0.00	0.08	0.17	0.15	0.15	0.10	0.02			
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	1	12	3	3	3	3	3	3	3	3	1	1	1

Table 7.2 Measured concentrations - 1994

Watercourse : Drammenselva

Annual flow . . . . . : 9984 mill. cbm Min : 117 cbm/s

Drainage area. . . . . : 17028 sq.km Max: 877 cbm/s

Date	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	TOC	Hg	Gamm HCH	PCB (The folloving Congeners) IUPAC NOS 28	52	101	118	138	153	180	As	Cr-T	Ni
	m3/s	mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	µg/l	µg/l	µg/l
940117	281.7	3.38	3	1.0	385	265	12	1.05	2.50	0.01	0.06	0.92		<1.0									0.11	0.99	0.51
940217	255.1	3.58	3	2.0	415	270	16	0.77	2.76	0.04	0.09	0.82		<1.0	0.81	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.10	0.89	0.45
940314	287.0	3.76	4	2.0	460	350	18	0.60	2.35	0.04	0.02	1.39	2.4	<1.0									0.08	0.45	0.49
940411	302.9	4.56	12	5.0	910	545	14	1.03	5.11	0.05	0.18	5.44	3.7	<1.0									0.37	1.20	0.91
940510	664.3	3.39	5	2.0	405	265	8	0.70	3.30	0.01	0.17	3.35	2.6	<1.0											
940613	382.7	3.62	6	2.0	410	250	12	0.70	2.30	<0.01	0.04	1.34	3.1	<1.0	0.66	<0.03	0.18	0.34	0.31	0.31	0.23	0.07			
940718	271.0	3.33	7	2.0	395	160	11	1.30	3.90	0.04	0.67	3.07	3.1	<1.0											
940818	250.8	3.07	6	2.0	375	165	21	1.30	3.60	0.01	1.61	3.95	2.5	1.5											
940912	547.4	3.81	10	0.5	1080	870	17	1.40	5.70	0.02	0.36	4.15	4.5	1.5											
941017	250.8	3.25	4	1.0	395	225	27	0.50	2.00	<0.01	0.12	4.38	2.9	1.0	0.57	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
941107	221.1	3.66	4	0.5	520	335	23	0.50	3.30	<0.01	0.11	1.27	3.1	1.0											
941207	289.1	3.54	3	0.5	405	275	16	0.30	2.00	0.07	0.07	0.82	3.1	1.5											
Min:	221.1	3.07	3	0.5	375	160	8	0.3	2	0.01	0.02	0.82	2.4	1	0.57	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.08	0.45	0.45
Max:	664.3	4.56	12	5	1080	870	27	1.4	5.7	0.07	1.61	5.44	4.5	1.5	0.81	0.03	0.18	0.34	0.31	0.31	0.23	0.07	0.37	1.2	0.91
Aver.:	333.7	3.58	5.58	1.71	513	331	16.25	0.85	3.24	0.03	0.29	2.58	3.10	1.13	0.68	0.03	0.08	0.13	0.12	0.12	0.10	0.04	0.17	0.88	0.59
St.dev.:	135.4	0.38	2.87	1.23	231	197	5.43	0.36	1.19	0.02	0.45	1.66	0.62	0.23	0.12	0.00	0.09	0.18	0.16	0.16	0.12	0.02	0.14	0.32	0.21
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	10	12	3	3	3	3	3	3	3	3	4	4	4

Table 7.3 Measured concentrations - 1994

Watercourse : Numedalslågen

Annual flow . . . . . : 3885 mill. cbm **Min :** 35.8 cbm/s

Drainage area. . . . . : 5513 sq.km **Max:** 667 cbm/s

Date	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	TOC	Hg	Gamm HCH	PCB (The folloving Congeners) IUPAC NOS 28	52	101	118	138	153	180	As	Cr-T	Ni
	m3/s	mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	µg/l	µg/l	µg/l
940117	97.8	3.35	6	4.0	400	235	43	0.47	3.47	0.04	0.19	3.08		1.5											
940217	80.4	2.65	4	3.0	335	140	30	0.39	3.02	0.11	0.15	1.79		<1.0	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
940316	69.2	4.12	8	5.0	590	435	50	3.81	11.6	0.06	2.13	4.28		7.5											
940417	154.7	4.21	14	7.0	790	730	26	1.13	7.36	0.13	0.20	10.80		1.5											
940509	254.4	2.25	8	3.0	340	160	9	0.70	6.80	0.02	0.39	4.84		10.0											
940607	132.1	1.89	9	3.0	230	109	5	1.40	9.40	0.02	1.77	3.10		2.0	0.64	<0.03	0.22	0.49	0.43	0.45	0.31	0.11			
940718	73.3	2.51	4	0.5	230	59	9	0.80	1.70	<0.01	0.15	2.71		<1.0											
940818	85.7	2.77	9	2.0	355	99	21	1.00	3.90	0.01	0.29	3.28		1.5											
940915	169.9	3.31	13	4.0	600	340	13	1.40	7.10	0.04	0.52	6.45		3.5											
941017	54.9	3.04	5	2.0	405	185	54	0.80	4.60	<0.01	0.23	4.12		25.5	0.38	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
941108	103.7	3.14	6	2.0	460	245	34	0.30	2.90	<0.01	0.11	2.24		1.5											
941207	80.4	3.30	6	2.0	435	265	43	0.30	3.20	0.08	0.15	2.19	3.4	2.0									0.19	0.85	0.62
Min:	54.93	1.89	4	0.5	230	59	5	0.3	1.7	0.01	0.11	1.79	3.4	1	0.30	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.19	0.85	0.62
Max:	254.4	4.21	14	7	790	730	54	3.81	11.6	0.13	2.13	10.8	3.4	25.5	0.64	0.03	0.22	0.49	0.43	0.45	0.31	0.11	0.19	0.85	0.62
Aver.:	113.0	3.05	7.67	3.13	431	250	28.08	1.04	5.42	0.05	0.52	4.07	3.40	4.88	0.44	0.03	0.09	0.18	0.16	0.17	0.12	0.06	0.19	0.85	0.62
St.dev.:	56.71	0.69	3.23	1.71	162	185	17.00	0.95	3.02	0.04	0.68	2.49		7.09	0.18	0.00	0.11	0.27	0.23	0.24	0.16	0.05			
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	1	12	3	3	3	3	3	3	3	3	1	1	1

Table 7.4 Measured concentrations - 1994

Watercourse : Skienselva

Annual flow . . . . . : 8190 mill. cbm **Min :** 50 cbm/s

Drainage area. . . . . : 10348 sq.km **Max:** 577 cbm/s

Date	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	TOC	Hg	Gamm HCH	PCB (The folloving Congeners) IUPAC NOS 28	52	101	118	138	153	180	As	Cr-T	Ni
	m3/s	mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	µg/l	µg/l	µg/l
940120	231.0	2.25	2	1.0	335	240	11	0.32	2.27	0.08	0.06	0.36		1.5											
940216	200.0	2.13	2	1.0	240	230	9	0.30	1.91	0.04	0.05	0.32		<1.0	1.01	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
940316	190.0	2.28	2	1.0	330	240	9	0.69	2.10	0.05	<0.02	0.12		<1.0											
940412	332.0	2.33	3	2.0	380	285	9	0.31	2.10	0.02	0.04	1.64		<1.0											
940519	473.0	2.30	3	0.5	350	255	11	1.10	2.10	0.03	<0.02	0.82		<1.0											
940613	262.0	2.13	4	1.0	335	225	6	1.20	2.70	0.02	0.11	0.88		<1.0	1.31	0.06	0.26	0.42	0.43	0.47	0.29	0.11			
940713	99.0	2.17	2	0.5	320	195	16	0.50	2.90	0.04	0.15	1.76		1.0											
940818	137.0	2.08	2	0.5	300	180	16	0.50	2.20	0.02	0.12	0.83		<1.0											
940914	472.0	2.04	3	0.5	310	200	13	0.50	2.60	0.04	0.09	3.09		1.0											
941014	165.0	2.07	4	1.0	430	215	39	0.40	3.60	0.08	0.24	1.69		1.0	0.83	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
941109	272.0	2.03	7	0.5	350	215	19	0.30	2.90	<0.01	0.11	0.66		1.5											
941208	235.0	2.31	4	1.0	350	240	30	0.51	3.21	0.09	1.01	0.77	2.2	<1.0									0.12	0.57	0.36
Min:	99	2.03	2	0.5	240	180	6	0.3	1.91	0.01	0.02	0.12	2.2	1	0.83	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.12	0.57	0.36
Max:	473	2.33	7	2	430	285	39	1.2	3.6	0.09	1.01	3.09	2.2	1.5	1.31	0.06	0.26	0.42	0.43	0.47	0.29	0.11	0.12	0.57	0.36
Aver.:	255.7	2.18	3.17	0.88	336	227	15.67	0.55	2.55	0.04	0.17	1.08	2.20	1.08	1.05	0.04	0.11	0.16	0.16	0.18	0.12	0.06	0.12	0.57	0.36
St.dev.:	118.9	0.11	1.47	0.43	46	28	9.72	0.30	0.52	0.03	0.27	0.83		0.19	0.24	0.02	0.13	0.23	0.23	0.25	0.15	0.05			
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	1	12	3	3	3	3	3	3	3	3	1	1	1

Table 7.5 Measured concentrations - 1994

Watercourse : Otra

Annual flow . . . . . : 5013 mill. cbm **Min : 50.9 cbm/s**

Drainage area. . . . . : 3730 sq.km **Max: 453 cbm/s**

Date	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	TOC	Hg	Gamm HCH	PCB (The folloving Congeners) IUPAC NOS							As	Cr-T	Ni
																28	52	101	118	138	153	180			
	m3/s	mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	µg/l	µg/l	µg/l
940119	168.8	2.49	3	1.0	265	149	18	0.42	4.55	0.06	0.28	0.67	2.4	<1.0									0.27	1.33	0.52
940215	136.6	2.37	3	1.0	225	138	12	0.47	3.61	<0.01	0.20	1.41	2.3	<1.0									0.09	1.87	0.51
940316	997.5	2.79	9	6.0	320	180	21	0.47	6.11	0.02	0.41	5.53	2.5	<1.0	0.55	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.17	1.00	1.27
940413	239.5	3.08	6	1.0	360	225	30	0.52	5.24	<0.01	0.49	1.79	3.5	<1.0									0.16	0.59	1.48
940510	422.0	2.31	4	0.5	285	155	17	0.50	4.70	0.03	0.51	2.07	2.6	1.0											
940613	137.4	2.45	4	0.5	250	129	5	0.30	3.70	0.03	0.22	1.71	2.7	<1.0	1.13	<0.03	0.16	0.34	0.29	0.29	0.21	0.08			
940713	84.4	2.48	5	0.5	265	103	5	0.60	4.10	0.05	0.37	2.78	3.8	1.0											
940817	52.9	2.66	7	2.0	265	87	5	0.70	5.30	0.04	0.43	2.33	3.9	<1.0											
940914	216.2	2.34	6	0.5	320	124	8	0.90	7.50	0.08	0.72	2.86	4.7	1.0											
941012	109.5	2.19	4	0.5	255	113	13	0.10	4.20	0.02	0.29	1.21	3.0	1.0	0.82	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
941109	126.1	2.32	5	0.5	315	160	6	0.60	6.10	0.03	0.51	1.64	3.9	1.0											
941207	219.4	2.25	7	1.2	270	160	20	0.40	5.40	0.11	0.64	21.1	3.8	<1.0											
Min:	52.88	2.19	3	0.5	225	87	5	0.1	3.61	0.01	0.2	0.67	2.3	1	0.55	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.09	0.59	0.51
Max:	997.5	3.08	9	6	360	225	30	0.9	7.5	0.11	0.72	21.1	4.7	1	1.13	0.03	0.16	0.34	0.29	0.29	0.21	0.08	0.27	1.87	1.48
Aver.:	242.5	2.48	5.25	1.27	283	144	13.33	0.50	5.04	0.04	0.42	3.76	3.26	1.00	0.83	0.03	0.07	0.13	0.12	0.12	0.09	0.05	0.17	1.20	0.95
St.dev.:	256.4	0.25	1.82	1.56	38	37	8.03	0.20	1.14	0.03	0.16	5.60	0.77	0.00	0.29	0.00	0.08	0.18	0.15	0.15	0.10	0.03	0.07	0.54	0.50
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	12	12	3	3	3	3	3	3	3	3	4	4	4

Table 7.6 Measured concentrations - 1994

Watercourse : Orreelva

Annual flow . . . . . : 103 mill. cbm **Min :** 0.33 cbm/s

Drainage area. . . . . : 105 sq.km **Max:** 9.05 cbm/s

Date	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	TOC	Hg	Gamm HCH	PCB (The folloving Congeners) IUPAC NOS 28	52	101	118	138	153	180	As	Cr-T	Ni
	m3/s	mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	µg/l	µg/l	µg/l
940118	4.18	21.0	31	13.0	1900	1210	120	1.05	3.34	0.04	0.12	2.84		<1.0									0.40	4.64	1.69
940214	2.95	19.6	39	12.0	2425	1825	72	1.13	3.57	0.04	0.47	4.19		<1.0									0.27	1.13	1.60
940315	7.48	19.1	60	16.0	2140	1590	63	1.64	4.53	0.07	0.31	6.68		1.0	0.46	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.30	2.37	1.83
940411	5.25	16.2	41	7.0	2050	1400	14	1.24	10.2	0.06	0.33	7.79		<1.0									0.10	2.18	6.68
940509	3.06	20.1	56	32.0	1580	970	65	2.90	1.90	0.32	0.95	3.52		<1.0											
940614	1.23	20.8	30	3.0	750	175	30	1.80	0.50	0.01	0.32	3.76		5.0	2.94	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
940711	1.31	20.7	25	2.0	725	93	51	1.80	1.50	0.14	0.49	4.09		<1.0											
940815	1.83	22.1	36	4.0	610	1	7	1.10	0.70	<0.01	0.65	3.11		<1.0											
940913	3.06	28.7	32	4.0	675	96	15	0.90	0.60	<0.01	0.10	6.27		<1.0											
941010	2.32	18.4	33	6.0	1120	600	33	0.90	1.20	<0.01	0.12	4.86		<1.0	0.48	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
941108	3.29	18.7	36	6.0	1170	595	35	1.40	1.40	0.01	0.16	4.68		<1.0											
941205	2.15	20.3	48	6.0	1080	540	36	0.60	1.10	0.05	0.22	7.13	5.5	<1.0											
Min:	1.23	16.2	25	2	610	1	7	0.6	0.5	0.01	0.1	2.84	5.5	1	0.46	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.1	1.13	1.60
Max:	7.48	28.7	60	32	2425	1825	120	2.9	10.2	0.32	0.95	7.79	5.5	5	2.94	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.4	4.64	6.68
Aver.:	3.18	20.48	38.92	9.25	1352	758	45.08	1.37	2.55	0.06	0.35	4.91	5.50	1.33	1.29	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.27	2.58	2.95
St.dev.:	1.78	3.00	10.70	8.36	642	631	31.58	0.61	2.74	0.09	0.25	1.66		1.15	1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	1.48	2.49
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	1	12	3	3	3	3	3	3	3	3	4	4	4

Table 7.7 Measured concentrations - 1994

Watercourse : Suldalslågen

Annual flow . . . . . : 1665 mill. cbm **Min : 13 cbm/s**

Drainage area. . . . . : 1457 sq.km **Max: 245 cbm/s**

Date	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	TOC	Hg	Gamm HCH	PCB (The folloving Congeners) IUPAC NOS 28	52	101	118	138	153	180	As	Cr-T	Ni
	m3/s	mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	µg/l	µg/l	µg/l
940211	14.19	2.27	1	0.5	275	235	5	0.24	1.71	0.02	0.05	0.22		2.0	0.81	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.13	1.21	0.19
940629	196.1	1.85	1	0.5	190	160	6	0.40	2.20	0.03	0.27	0.95		<1.0									0.06	1.43	1.36
940816	67.75	1.67	2	0.5	220	160	5	0.60	2.50	0.01	0.18	0.81		<1.0									0.12	2.26	0.62
941010	57.23	5.65	3	0.5	225	170	13	0.11	1.59	0.01	0.07	0.74	0.5	<1.0	0.84	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03	0.54	0.43
Min:	14.19	1.67	1	0.5	190	160	5	0.11	1.59	0.01	0.05	0.22	0.5	1	0.81	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.54	0.19
Max:	196.1	5.65	3	0.5	275	235	13	0.6	2.5	0.03	0.27	0.95	0.5	2	0.84	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.13	2.26	1.36
Aver.:	83.81	2.86	1.75	0.50	228	181	7.25	0.34	2.00	0.02	0.14	0.68	0.50	1.25	0.83	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.09	1.36	0.65
St.dev.:	78.34	1.88	0.96	0.00	35	36	3.86	0.21	0.43	0.01	0.10	0.32		0.50									0.05	0.71	0.50
Numb.:	4	4	4	4	4	4	4	4	4	4	4	4	1	4	2	2	2	2	2	2	2	2	4	4	4

Table 7.8 Measured concentrations - 1994

Watercourse : Orkla

Annual flow . . . . . : 1333 mill. cbm **Min : 18.3 cbm/s**

Drainage area. . . . . : 2872 sq.km **Max: 207 cbm/s**

Date	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	TOC	Hg	Gamm	PCB (The folloving Congeners) IUPAC NOS							As	Cr-T	Ni
															HCH	28	52	101	118	138	153	180			
	m3/s	mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	µg/l	µg/l	µg/l
940124	33.69	6.10	3.0	3.0	300	170	12	4.46	20.9	0.04	0.40	1.07	2.0	<1.0											
940223	20.28	7.50	2.0	1.0	365	265	13	4.01	15.2	0.04	0.04	0.38	2.4	<1.0											
940319	20.28	7.40	4.3	1.7	285	260	9	4.45	18.2	0.14	<0.02	0.75	2.1	<1.0	0.23	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
940412	21.69	9.30	9.0	2.0	435	193	16	12.4	35.3	0.07	0.02	2.31	5.3	<1.0											
940516	50.42	6.30	7.0	1.0	300	150	6	12.0	39.9	0.12	1.18	5.66	4.7	1.0											
940613	63.01	5.10	6.3	1.2	211	100	5	7.30	26.3	0.08	<0.02	1.45	3.9	<1.0	0.18	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
940716	53.72	7.10	6.0	1.0	320	180	5	8.90	16.6	0.05	0.08	2.99	2.9	1.0											
940825	29.40	5.20	1.0	1.0	300	115	5	7.20	18.0	0.02	0.09	1.31	6.5	1.5											
940913	23.88	7.10	6.4	0.5	315	348	5	5.90	21.7	0.09	0.16	1.42	4.7	1.0											
941018	64.23	6.70	3.0	0.5	355	200	19	8.80	40.9	0.09	0.02	1.39	3.7	1.0	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
941116	23.13	9.10	4.0	0.5	430	395	13	11.2	36.0	0.06	0.02	0.69	3.5	<1.0											
941212	44.13	7.10	4.0	0.6	365	210	8	7.40	23.3	0.11	<0.02	0.69	3.1	<1.0									0.56	1.15	0.68
Min:	20.28	5.1	1	0.5	211	100	5	4.01	15.2	0.02	0.02	0.38	2	1	0.15	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.56	1.15	0.68
Max:	64.23	9.3	9	3	435	395	19	12.4	40.9	0.14	1.18	5.66	6.5	1.5	0.23	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.56	1.15	0.68
Aver.:	37.32	7.00	4.67	1.17	332	216	9.67	7.84	26.03	0.08	0.17	1.68	3.73	1.04	0.19	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.56	1.15	0.68
St.dev.:	16.93	1.29	2.31	0.75	63	88	4.85	2.92	9.46	0.04	0.34	1.45	1.37	0.14	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	12	12	3	3	3	3	3	3	3	3	1	1	1

Table 7.9 Measured concentrations - 1994

Watercourse : Vefsna

Annual flow . . . . . : 4012 mill. cbm **Min :** 32.9 cbm/s

Drainage area. . . . . : 4113 sq.km **Max:** 922 cbm/s

Date	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	TOC	Hg	Gamm HCH	PCB (The folloving Congeners) IUPAC NOS 28	52	101	118	138	153	180	As	Cr-T	Ni
	m3/s	mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	µg/l	µg/l	µg/l
940124	35.38	9.08	5	3.0	465	143	30	4.99	8.51	0.10	0.96	0.70		2.5									0.11	0.54	0.70
940215	34.50	10.60	4	4.0	505	170	24	3.90	16.17	0.02	0.05	0.72		10.5									0.26	1.00	0.97
940315	33.23	10.70	4	2.0	800	325	66	4.67	14.73	0.18	7.32	0.51		9.5	0.17	0.94	0.68	0.38	0.17	0.14	0.16	0.25	0.33	2.32	0.37
940411	41.07	8.94	9	5.0	700	180	30	10.35	19.51	0.07	5.52	2.38		5.5									0.36	1.72	1.97
940509	352.3	5.94	10	4.0	280	77	23	8.60	8.70	0.06	0.34	4.32		2.5											
940607	502.5	3.66	5	2.0	305	51	5	5.60	16.20	0.03	0.53	1.94		1.0	0.38	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
940711	244.3	3.15	3	0.5	240	39	75	4.40	5.10	0.03	0.19	0.89		<1.0											
940815	90.53	3.85	5	3.0	395	48	16	10.20	13.70	0.05	0.42	0.95		<1.0											
940912	63.29	4.11	2	0.5	240	45	5	2.30	3.00	<0.01	0.10	1.66		<1.0											
941010	298.0	4.33	5	2.0	160	49	19	1.20	2.20	<0.01	2.20	3.21		1.0	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			
941107	47.92	5.57	6	3.0	235	84	8	1.90	1.20	<0.01	0.16	0.89		1.0											
941205	111.1	6.91	4	3.0	340	89	26	2.30	5.40	0.07	0.11	0.67	3.4	<1.0											
Min:	33.23	3.15	2	0.5	160	39	5	1.2	1.2	0.01	0.05	0.51	3.4	1	0.15	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.11	0.54	0.37
Max:	502.5	10.7	10	5	800	325	75	10.35	19.51	0.18	7.32	4.32	3.4	10.5	0.38	0.94	0.68	0.38	0.17	0.14	0.16	0.25	0.36	2.32	1.97
Aver.:	154.5	6.40	5.17	2.67	389	108	27.25	5.03	9.54	0.05	1.49	1.57	3.40	3.13	0.23	0.33	0.25	0.15	0.08	0.07	0.07	0.10	0.27	1.40	1.00
St.dev.:	156.9	2.78	2.29	1.35	197	84	22.12	3.15	6.30	0.05	2.41	1.20		3.48	0.13	0.53	0.38	0.20	0.08	0.06	0.08	0.13	0.11	0.78	0.69
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	1	12	3	3	3	3	3	3	3	3	4	4	4

Table 7.10 Measured concentrations - 1994

Watercourse : Altaelva

Annual flow . . . . . : 2160 mill. cbm **Min : 26.3 cbm/s**

Drainage area. . . . . : 7367 sq.km **Max: 542 cbm/s**

Date	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	TOC	Hg	Gamm HCH	PCB (The folloving Congeners) IUPAC NOS 28	52	101	118	138	153	180	As	Cr-T	Ni
	m3/s	mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l	mg/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	µg/l	µg/l	µg/l
940320	31.18	17.40	11	7.0	190	84	5	0.78	1.24	0.06	0.05	1.31		1.5	0.05	<0.03	0.06	0.11	0.07	0.05	0.04	<0.03	0.46	2.12	0.51
940606	54.20	5.53	12	4.0	210	23	9	2.50	0.50	0.01	0.07	9.10		2.5									0.12	1.66	1.09
940817	34.59	6.11	4	0.5	155	26	5	0.80	0.30	<0.01	0.06	0.84		1.5									0.08	0.86	0.88
941028	30.66	21.40	24	19.0	160	61	5	0.30	0.90	0.06	0.19	1.29	3.5	<1.0	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.63	0.15	0.53
Min:	30.66	5.53	4	0.5	155	23	5	0.3	0.3	0.01	0.05	0.84	3.5	1	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.08	0.15	0.51
Max:	54.2	21.4	24	19	210	84	9	2.5	1.24	0.06	0.19	9.1	3.5	2.5	0.05	0.03	0.06	0.11	0.07	0.05	0.04	0.03	0.63	2.12	1.09
Aver.:	37.7	12.61	12.75	7.63	179	49	6.00	1.10	0.74	0.04	0.09	3.14	3.50	1.63	0.05	0.03	0.05	0.07	0.05	0.04	0.04	0.03	0.32	1.20	0.75
St.dev.:	11.2	8.01	8.30	8.04	26	29	2.00	0.96	0.42	0.03	0.07	3.98		0.63									0.27	0.87	0.28
Numb.:	4	4	4	4	4	4	4	4	4	4	4	4	1	4	2	2	2	2	2	2	2	2	4	4	4

APPENDIX VIII : TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994 **Page:**

(1)	Glomma	"tributaries"	: Tista	- Hølenelva
(1)	Inner Oslo-fjord		: Årungelva	- Åroselva
(2)	Drammenselva	"tributary"	: Lierelva	
(3)	Numedalslågen	"tributaries"	: Sandeelva	- Farriselva
(4)	Skienselva	"tributary"	: Tokkeelva	
(5)	Otra	"tributaries"	: Gjerstade.	- Audna
(6)	Orreelva	"tributaries"	: Lygna	- Ulla
(7)	Suldalslågen	"tributaries"	: Saudaelva	- Hornindalselva
(8)	Orkla	"tributaries"	: Ørstaelva	- Salsvatnelva
(9)	Vefsna	"tributaries"	: Åbjøra	- Reisa
(10)	Alta	"tributaries	: Mattiselva	- Grense Jacobse.

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)										
		Drainage area			Discharge														
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.
					Normal	1994	Normal	1994											
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l
Østfold	Tista, Iddefj.	1588	1582	1582	14.4	15.5	14.4	15.5	6.24	11.6	3.0	901	665	10	0.7	9.2	0.10	0.26	1.60
(1.)	Mosselva, Mossesundet	690	689	689	14.5	15.4	14.5	15.4	10.00	29.4	5.0	1003	1005	10	1.1	3.4	0.10	0.37	4.70
Oslo &	Hølenelva, Drøbaksundet Ø	137	121		14.0	13.3			19.40	48.0	33.0	3410	2970	289	0.9	6.2	0.15	0.46	12.90
Akershus	Årungelva, I. Oslofj.	52	50		13.0	12.4			26.70	42.0	4.0	3518	2683	175	1.1	1.8	0.12	0.16	9.38
(1.)	Gjersjøelva, I. Oslofj.	86	85	85	14.0	13.3			18.25	13.1	2.0	1646	1314	39	1.4	2.0	0.02	0.12	5.50
	Ljanselva, I. Oslofj.	42	41	41	13.0	13.9		13.9	24.00	61.0	24.0	1390	900	152	3.0	8.9	0.05	0.53	14.20
	Loelva/Alna, I. Oslofj.	75	69	69	13.0	22.2		22.2	31.00	139.0	47.0	1980	1805	163	2.8	7.8	0.03	0.45	43.10
	Akerselva, I. Oslofj.	227	225	225	17.5	12.6		12.6	5.80	18.0	2.0	653	280	57	0.7	8.7	0.09	0.36	3.80
	Frognerelva, I. Oslofj.	23	20	20	15.0	20.9		20.9	21.00	74.0	40.0	1360	500	67	2.0	5.0	0.02	0.19	8.90
	Lysakerelva, I. Oslofj.	178	173	173	16.8	27.1	16.8	27.1	7.40	16.0	4.0	589	350	25	0.6	2.4	<0.01	0.09	3.60
	Sandvikselva, I. Oslofj.	223	187	187	18.4	18.0	18.4		13.20	17.0	8.0	1160	900	79	0.8	3.3	0.12	0.36	5.55
	Aroselva, I. Oslofj.	113	109	109	17.0	16.3	17.0		13.70	38.3	14.0	1213	1160	51	1.0	2.8	0.03	0.24	5.40
Buskerud	Lierelva, Drammensfj. Ø	309	266	222	18.6	28.8	18.6	28.8	13.50	59.7	38.0	1097	870	43	0.8	8.3	0.05	0.31	14.20
(2.)																			
Vestfold	Sandeelva, Sandebukta	193	190		17.0	16.2	17.0		12.30	16.0	8.0	1285	1050	56	1.2	64.6	0.14	0.74	5.07
(3.)	Aulleiva, Tønsbergfj.	363	362	362	14.9	14.6	14.9		17.22	72.3	48.4	3250	2150	80	1.1	5.2	0.03	0.27	24.90
	Farriselva, Larvikfj.	491	491	491	21.6	21.4	21.6		4.01	7.2	3.2	713	418	15	1.5	5.0	0.01	0.50	0.50
Telemark	Tokkeelva, Kragerø	1238	1200	1200	26.7	28.6	26.7	28.6	2.39	4.0	0.5	400	225	39	0.6	7.6	0.05	0.37	1.04
(4.)																			
Aust-	Gjerstadelva, Søndeledfj.	419	414	291	27.0	27.8	27.0		3.00	6.0	0.5	484	269	46	0.7	9.7	0.10	0.74	1.67
Agder	Vegårdselva, Sandnesfj.	457	429	291	29.3	30.8	29.3		3.02	6.0	1.0	411	203	48	0.6	11.2	0.07	0.44	1.37
(5.)	Nidelva, Arendal	4025	4020	3956	29.8	31.3	29.8	31.3	2.17	4.0	0.5	376	222	35	0.8	7.2	0.07	0.51	1.66

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)										
		Dralnage area			Discharge														
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station												
					Normal	1994	Normal	1994											
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		Cond mS/m	Tot-P µg/l	PO4-P µg/l	Tot-N µg/l	NO3-N µg/l	NH4-N µg/l	Cu µg/l	Zn µg/l	Cd µg/l	Pb µg/l	S.P.M. mg/l
Vest-	Tovdalselva, Topdalsfj.	1856	1854	1794	33.9	31.3	33.9	31.3	2.38	4.0	0.5	467	178	44	0.4	7.5	0.07	0.67	1.19
Agder	Søgneelva, Flekkerøy	204	192	192	38.0	41.8	38.0		8.03	6.0	2.0	1025	800	56	0.7	10.5	0.11	0.41	1.56
(5.)	Mandalselva, Mannefj.	1809	1800	1740	46.0	50.0	47.6	50.0	2.41	5.0	0.5	394	214	39	0.4	5.3	0.03	0.62	1.03
	Audna, Sniksfj.	450	400	59	45.0	50.4	51.8		5.27	4.0	0.5	615	430	41	0.4	7.7	0.06	0.48	1.21
(6.)	Lygna, Lyngdalsfj.	664	660	266	48.0	61.6	57.9	71.5	3.24	4.0	0.5	453	244	30	0.2	10.5	0.06	0.63	1.19
	Kvina, Fedafj.	1445	1140	1140	57.6	18.1	57.6	18.1	3.95	5.0	1.0	350	170	24	0.2	6.6	0.01	0.86	1.71
	Sira, Åna-Sira	1916	1872	1872	59.4	57.6	59.4	57.6	2.49	3.0	0.5	265	155	30	0.1	4.4	0.01	0.49	0.38
Rogaland	Sokndalselva, Sogndalsstr.	294	293	107	51.1	56.7	51.1		5.37	5.0	2.0	370	275	30	0.1	8.3	0.01	0.25	0.80
(6.)	Hellelandselva, Egersund	241	240	194	57.5	60.4	71.1	71.6	4.61	7.0	2.0	450	330	12	0.1	6.6	0.01	0.38	0.73
	Bjerkreimselva, Egersund	705	704	633	77.7	69.3	86.4	78.0	3.70	5.0	0.5	462	372	12	0.1	4.8	0.01	0.21	0.45
	Håelva, Håtangen	165	160	135	46.9	45.4	46.9	45.4	11.30	24.0	11.0	1470	1065	63	0.1	3.9	0.01	0.28	1.64
	Figgjo, Solavika	229	218	135	50.0	52.0	50.0		10.40	18.0	9.0	1090	775	66	0.7	5.9	0.01	0.65	2.44
	Ims-Lutsl. Høgsfj.Boknafj.	127	127	127	34.9	40.9	34.9	40.9	6.63	8.0	0.5	716	545	18	0.5	2.7	0.02	0.14	0.94
	Oltedalse.,Høgsfj.Boknafj.	102	101	129	70.0	76.3	70.0		3.62	15.0	2.0	396	290	29	0.3	4.3	0.03	0.21	0.70
	Dirdalse., Høgsfj.Boknafj.	158	158	95	83.0	89.6	83.0		2.74	3.0	0.5	322	232	11	0.2	2.6	0.02	0.40	0.26
	Frafjorde.,Frafj. Boknafj.	178	178	124	94.4	101.0	94.4		2.49	4.0	0.5	261	176	13	0.2	2.7	0.03	0.42	0.42
	Espedalse.,Høgsfj.Boknafj.	138	138	124	90.0	94.5	90.0		2.31	3.0	0.5	255	195	9	0.3	2.8	0.06	0.27	0.51
	Lysee., Lysefj.Boknafj.	182	182	46	74.0	77.7	74.0		2.50	3.0	1.0	310	200	9	1.0	3.0	0.06	0.30	0.51
	Årdalse., Årdalsfj.Boknafj.	519	516	501	81.4	85.4	81.4		2.76	11.0	6.0	211	160	11	1.0	3.6	0.05	1.01	5.28
	Førree., Jøsenfj.Boknafj.	163	163	163	85.8	90.1	85.8		2.30	3.0	0.5	252	249	7	0.3	0.9	<0.01	0.20	0.18
	Ulla, Jøsenfj.Boknafj.	393	393	385	83.4	87.6	83.4		2.32	3.0	0.5	320	245	13	0.4	2.7	0.08	0.30	0.43
(7.)	Saudae., Saudafj.Boknafj.	353	353		85.0	93.5	85.0		3.49	3.0	0.5	880	795	3	0.7	21.0	0.10	0.11	0.35
	Åbøelva, Saudafj.Boknafj.	82	82		85.0	93.5	85.0		1.58	3.0	1.0	240	165	8	0.1	1.3	0.01	0.11	0.33
	Vikedalse., Boknafj.	118	117		80.0	103.1	80.0	103.1	2.75	5.0	3.0	283	166	11	0.4	3.3	0.04	0.19	1.17

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)										
		Drainage area			Discharge														
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station												
					Normal	1994	Normal	1994											
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		Cond mS/m	Tot-P µg/l	PO4-P µg/l	Tot-N µg/l	NO3-N µg/l	NH4-N µg/l	Cu µg/l	Zn µg/l	Cd µg/l	Pb µg/l	S.P.M. mg/l
Hordaland	Etneelva, Etnefj. Bømlafj.	252	250	127	48.8	58.4	96.0	115.0	3.10	4.5	0.5	402	330	14	0.3	2.7	0.04	0.09	0.71
(7.)	Opo, Sørfj. Hardangerfj.	482	480	464	79.3	93.1	79.3	93.1	1.54	2.5	0.5	175	108	6	0.1	3.1	0.04	0.20	0.84
	Tysso, Sørfj. Hardangerfj.	388	385	407	79.3	91.2	79.3		1.78	2.0	0.5	200	101	5	0.1	2.7	0.04	<0.02	0.11
	Kinso, Sørfj. Hardangerfj.	281	281	232	46.0	59.3	46.0	59.3	2.01	2.0	0.5	96	63	5	0.1	1.4	0.01	0.05	0.91
	Velg, Eldfjv. Hardangerfj.	496	496	386	41.8	46.2	41.8		2.04	3.5	0.5	145	46	5	0.1	0.5	<0.01	0.07	0.32
	Bjorela, " , Hardangerfj.	592	592	592	26.0	28.6	26.0		2.04	4.0	0.5	190	46	5	0.1	0.5	<0.01	0.07	0.32
	Sima, Eldfj. Hardangerfj.	145	145	128	69.2	76.8	69.2		2.21	3.5	0.5	180	95	5	0.1	0.5	0.04	<0.02	0.61
	Austdøla, Osafj. Eldfj.	131	130	89	74.6	82.0	74.6		1.28	3.0	2.0	203	148	5	0.2	0.8	<0.01	0.04	0.16
	Norddøla, Osafj. Eldfj.	40	39	89	74.6	82.0	74.6		8.52	3.0	0.5	209	182	5	0.1	0.5	<0.01	0.02	0.34
	Tysseelva, Fusafj.	240	240		85.0	93.5	85.0		2.02	3.0	0.5	203	116	6	0.5	2.7	<0.01	0.26	1.38
	Oselva, Fusafj.	109	108	50	91.7	92.6	91.7	92.6	3.04	10.0	7.0	300	178	5	1.0	10.0	0.01	0.30	1.01
	Bergsdalse, Veafj.Herdlafj.	198	198		80.0	86.4	80.0		1.91	3.0	0.5	137	85	6	0.1	2.1	0.03	0.12	0.47
	Vosso, Veafj. Sørfj.	1492	1465	1102	58.2	76.5	58.2	76.5	1.38	2.0	0.5	128	77	8	0.2	1.3	0.02	0.08	0.56
	Ekso, Osterfj.	414	400	342	86.2	96.5	86.2		1.92	4.0	2.0	184	112	5	1.0	5.0	0.01	0.10	0.70
	Modalselva, Osterfj.	385	384	248	95.5	105.0	95.5		1.82	4.0	0.5	225	166	5	1.0	5.0	0.01	0.10	0.50

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)										
		Drainage area			Discharge														
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station												
					Normal	1994	Normal	1994											
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		Cond mS/m	Tot-P µg/l	PO4-P µg/l	Tot-N µg/l	NO3-N µg/l	NH4-N µg/l	Cu µg/l	Zn µg/l	Cd µg/l	Pb µg/l	S.P.M. mg/l
Sogn og Fjordane (7.)	Nærøye., Aurl.fj. Sognefj.	290	290	267	59.5	66.6	59.5		3.34	2.5	0.5	170	126	5	0.1	0.6	0.02	0.03	0.19
	Flåmse., Aurl.fj. Sognefj.	280	275	275	52.4	70.4	52.4	70.4	2.26	1.5	0.5	137	103	5	0.1	0.9	0.02	<0.02	1.22
	Aurlandv. Aurl.fj. Sognefj.	800	799	762	48.6	53.9	48.6		1.44	2.0	0.5	122	86	5	0.1	1.1	0.02	0.10	0.56
	Erdalse., Lærd.fj. Sognefj.	138	138		30.0	33.3	30.0		1.43	2.0	0.5	122	85	5	0.1	0.9	<0.01	0.04	0.45
	Lærdalsv. Lærd.fj. Sognefj.	1184	1172	1172	30.0	22.1	30.0	22.1	1.88	4.0	0.5	212	126	5	0.2	1.1	0.02	<0.02	1.18
	Årdalsv., Årdalsfj.Sognefj.	989	989	989	44.9	48.1	44.9	48.1	1.21	4.2	1.7	174	85	8	0.9	0.8	<0.01	0.07	2.97
	Fortunv., Lusterfj.Sognefj.	508	508	367	51.0	56.1	51.0		1.11	2.5	1.0	137	103	5	0.2	0.9	0.02	0.08	1.61
	Mørkrisv., Lusterfj.Sognefj.	282	282	203	54.7	57.5	54.7	57.5	1.28	1.5	0.5	137	103	5	0.1	0.6	0.02	<0.02	0.51
	Jostedøla, " Sognefj.	865	864	573	68.0	76.2	68.0		1.46	3.5	2.0	160	122	5	0.3	1.7	0.02	0.17	1.14
	Årøye., Sognd.fj. Sognefj.	449	446	384	77.2	86.5	77.2		1.58	2.5	0.5	120	59	6	0.2	1.5	0.02	0.03	0.46
	Sogndalse, " Sognefj.	175	172	111	66.1	77.8	66.1	77.8	1.48	5.5	3.0	225	160	5	0.2	1.1	0.10	0.06	0.77
	Gaular, Dalsfj. Bufj.	627	625	505	79.3	93.8	79.3	93.8	1.54	4.0	1.0	213	118	5	0.4	1.4	<0.01	0.14	0.38
	Jølstra, Førdefj.	714	709	384	74.3	82.5	74.3		1.93	4.3	2.0	203	111	17	0.1	2.0	0.01	0.04	0.54
	Nausta, Førdefj.	277	273	232	81.7	101.2	81.7	101.2	1.82	7.0	2.0	181	85	8	0.1	1.0	0.02	0.11	0.84
	Oselva, Høydalsfj.	287	285	225	78.7	86.6	78.7		2.36	4.5	0.5	369	79	11	0.1	2.1	0.09	0.13	0.31
	Hopse., Hyefj. Nordfj.S	73	73	161	75.0	82.5	75.0		1.71	3.0	1.0	126	90	5	0.1	0.9	0.02	0.11	0.41
	Gjengedalse.," Nordfj.S	170	168	161	75.0	82.5	75.0		1.56	4.0	1.0	123	64	11	0.3	2.2	0.08	0.19	0.11
	Breimse., Gloppenfj. "	636	634	585	68.0	75.5	68.8		1.93	6.0	0.5	335	143	11	0.1	1.6	0.07	0.13	0.51
	Oldene., Indre Nordfj.	226	225	214	70.1	78.5	70.1		2.03	6.3	0.5	265	136	6	0.1	0.5	0.01	0.03	0.59
	Loenelva, Indre Nordfj.	261	260	234	65.0	69.4	65.0	69.4	1.95	9.0	1.5	180	103	6	0.2	0.6	0.08	0.02	0.81
	Strynee., Indre Nordfj.	532	530	493	60.2	66.2	60.2		1.80	9.3	4.0	195	75	5	0.1	0.5	<0.01	0.02	8.66
	Hornindalse., Nordfj. N	428	424	378	58.1	63.9	58.1		1.98	3.5	2.0	170	75	11	0.3	1.4	0.01	0.17	1.55

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)										
		Dralnage area			Discharge														
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station												
					Normal	1994	Normal	1994											
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		Cond mS/m	Tot-P µg/l	PO4-P µg/l	Tot-N µg/l	NO3-N µg/l	NH4-N µg/l	Cu µg/l	Zn µg/l	Cd µg/l	Pb µg/l	S.P.M. mg/l
Møre og Romsdal (8.)	Ørstae., Ørstafj.	160	155		70.0	73.5	70.0		3.05	16.0	8.0	359	195	14	0.5	2.7	0.04	0.17	2.93
	Valldøla, Nordalfj.Storfj.	359	357		60.0	62.4	60.0		2.01	3.0	0.5	170	108	5	0.2	0.5	<0.01	0.05	0.77
	Rauma, Romsdalsfj.Moldefj.	1202	1190	1142	32.8	34.4	32.8		1.96	2.5	0.5	104	59	5	0.3	0.9	0.15	0.16	0.37
	Isa, Isfj. Moldefj.	175	175	89	57.0	58.0	57.0		2.56	3.0	0.5	160	90	11	0.2	0.7	0.05	0.51	0.51
	Eira, Eresfj. Moldefj.	1119	1119	1085	34.8	36.2	34.8		2.61	2.5	0.5	175	112	5	0.4	3.5	0.03	0.13	0.26
	Littledalse., Sunndalsfj.	359	330	330	41.0	43.0	41.0		1.08	2.0	0.5	51	15	5	0.3	0.6	0.01	0.32	0.29
	Driva, Sunnd.fj.Tingvollfj.	2487	2435	2435	27.9	28.7	27.9		3.82	3.0	0.5	265	185	11	0.5	0.7	0.03	0.06	0.65
	Ulvåa, Alvundfj.	199	199	207	57.0	58.7	60.7		1.95	3.5	1.0	137	76	5	0.3	0.9	0.08	0.10	0.09
	Toåa, Todalsfj.	251	251	207	58.5	60.3	58.5		1.51	4.0	1.0	117	21	5	0.2	0.6	<0.01	0.04	0.39
	Surna, Surnadalsfj.	1200	1200	1125	48.0	50.0	49.3		2.57	8.4	3.0	349	175	5	0.3	0.7	0.03	<0.02	0.57
	Bøvra, Hamnesfj. Halsafj.	243	243	196	55.0	57.2	55.0		2.78	3.0	0.5	250	140	8	0.6	1.7	<0.01	0.07	1.01
Sør-Trøndelag (8.)	Børse.,Gaulosen Tr.h.fj.	110	100		30.0	28.5	30.0		10.30	10.0	2.0	730	475	3	1.4	1.1	0.01	0.14	4.74
	Vigda, Gaulosen Tr.h.fj.	150	150		30.0	28.5	30.0		12.00	23.0	12.0	415	210	11	2.2	3.8	<0.01	0.59	25.90
	Gaula, Gaulosen Tr.h.fj.	3659	3650	3062	26.4	20.6	26.4	20.6	6.14	5.0	1.0	235	102	3	1.6	2.6	0.01	0.14	1.57
	Nidelva, Trondheimsfj.	3110	3100	3049	35.5	27.8	35.5	27.8	4.03	7.0	0.5	210	59	3	1.0	2.7	0.01	0.29	0.54
	Homla, Stjørd.fj.Tr.h.fj.	157	157		30.0	29.0	30.0		7.31	11.0	4.0	365	51	47	4.3	6.0	<0.01	0.71	0.98
Nord-Trøndelag (8.)	Stjørdalsv, " Tr.h.fj.	2117	2117	1863	38.5	35.9	38.5	35.9	3.56	5.0	3.0	245	132	3	1.7	2.9	<0.01	0.13	3.82
	Gråe., " Tr.h.fj.	93	93		25.0	25.0	25.0		20.90	8.0	3.0	865	660	6	1.6	1.3	0.01	0.33	2.13
	Verdalsvassdr., Tr.h.fj.	1472	1472	898	40.0	28.6	44.5	35.8	6.02	4.0	0.5	280	126	7	1.3	3.9	0.60	2.81	0.82
	Figga/Leksdalse.,Tr.h.fj.	282	282	178	30.0	29.0	33.6	32.6	5.62	12.0	5.0	450	250	10	1.1	1.3	0.01	0.24	6.27
	Snåsavassdr., Trondh.fj.	2153	2125	2125	35.1	25.4	35.1	25.4	4.93	4.0	0.5	310	175	7	0.7	1.0	0.01	0.14	1.05
	Årgårdselva, Namsfj.	543	510	238	43.0	41.0	50.9	48.3	10.80	37.0	21.0	540	147	84	1.4	2.7	0.01	0.36	6.92
	Namsen, Namsfj. Ø	6277	6276	5718	43.4	44.5	43.4	44.5	2.62	3.0	0.5	132	39	6	0.6	1.5	0.01	0.18	1.10
	Salsvatnelva, Follafj.	432	432	422	59.7	59.4	59.7	59.4	5.06	1.0	0.5	125	64	3	1.2	1.4	0.01	0.18	0.44

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)										
		Drainage area			Discharge														
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station												
					Normal	1994	Normal	1994											
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		Cond mS/m	Tot-P µg/l	PO4-P µg/l	Tot-N µg/l	NO3-N µg/l	NH4-N µg/l	Cu µg/l	Zn µg/l	Cd µg/l	Pb µg/l	S.P.M. mg/l
Nordland (9.)	Åbjøra, Bindalsfj. S	526	520	384	80.2	59.0	80.2	59.0	3.99	5.0	1.0	114	24	3	0.9	0.5	0.01	0.29	2.77
	Skjerva, Vefsenfj. S	104	104	98	41.3	36.3	41.3		7.41	9.0	6.0	225	59	40	0.5	1.0	0.01	0.14	0.88
	Fusta, Vefsenfj. N	544	543	520	63.4	57.0	63.4		3.81	3.0	0.5	120	19	10	0.4	1.4	<0.01	0.17	1.20
	Drevja, Vefsenfj. N	177	176	98	65.0	58.5	65.0		3.96	5.0	2.0	111	34	3	0.5	1.6	0.01	0.23	3.07
	Røssåga, Sørfj.	2092	2087	1880	45.4	51.0	45.4	51.0	5.27	4.0	1.0	140	34	11	0.7	4.9	0.02	0.32	2.31
	Bjerka, Sørfj.	385	385	273	55.4	48.7	55.4		2.61	3.0	1.0	86	19	3	0.4	0.5	0.01	0.07	1.43
	Dalselva, Ranafj. N	211	211	129	39.5	35.5	39.5		2.53	1.0	3.0	87	19	3	0.6	1.2	0.02	0.23	1.95
	Ranavassdraget, Ranafj. N	3847	3846	1892	44.9	50.0	44.9	50.0	3.90	3.0	0.5	104	51	3	0.4	1.1	<0.01	0.98	1.62
	Fykanåga, Glomfjord	297	297	243	103.7	100.0	103.7		2.91	3.0	2.0	85	40	7	0.5	1.0	0.01	0.30	2.01
	Beiare., Beiarfj. Nordfj.	1064	875	797	45.1	30.3	45.1	30.3	3.67	2.0	1.0	89	39	3	0.6	1.0	0.01	0.30	2.55
	Saltdalsvassdr., Saltd.fj.S	1544	1543	1168	32.1	26.6	32.1		2.79	4.0	3.0	96	54	3	0.5	1.5	0.02	1.08	5.35
	Sulitjelmavassdr., Saltd.fj	1028	800	791	44.0	36.0	44.0		42.00	1.0	0.5	96	44	7	13.9	11.4	0.07	2.17	0.65
	Kobbe., Leirfj. Sørfolda N	405	405	386	66.9	62.7	66.9		1.50	1.0	0.5	60	26	3	0.3	1.5	0.01	0.39	0.29
	Skjoma, Ofotfj. S	845	840	797	36.3	29.0	36.3		1.81	2.0	0.5	68	10	3	0.5	1.4	0.03	0.21	0.53

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)										
		Drainage area			Discharge														
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.
					Normal	1994	Normal	1994											
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		mS/m	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	mg/l
Troms	Spanselva, Astafj. Vågsfj.	142	142	533	50.0	51.0	50.0		7.25	2.0	0.5	89	39	3	0.5	1.2	0.09	0.67	1.02
(9.)	Salangse., Astafj. Vågsfj.	539	539	533	40.9	51.0	40.9		7.27	3.0	0.5	89	44	3	0.3	0.5	<0.01	0.21	0.84
	Rossfjorde., Malangen	196	190		39.5	41.5	39.5		8.88	4.0	0.5	155	5	16	0.4	0.5	<0.01	0.12	0.68
	Målse., Målselvfj. "	3239	3200	3118	28.7	28.1	28.7		6.13	4.0	1.0	119	39	3	0.5	0.7	0.01	0.19	2.53
	Bardue., Målselva	2906	2906	2049	28.3	27.8	28.3		6.13	4.0	1.0	119	39	3	0.5	0.7	0.01	0.19	2.53
	Nordkjoselva, Balsfj.	191	191	415	27.7	28.0	27.7		4.31	3.0	0.5	78	34	3	0.5	0.5	<0.01	0.03	0.90
	Signaldalselva, Lyngen V	473	467	415	27.7	28.0	27.7		4.29	10.0	7.0	90	54	3	0.9	1.0	<0.01	0.25	13.40
	Skibotnelva, Lyngen	770	770	724	18.0	16.8	18.0		2.99	2.0	0.5	96	44	7	0.6	0.5	0.01	0.03	0.95
	Kåfjordelva, Lyngen Ø	358	358	348	20.0	23.0	20.0	23.0	4.34	1.0	0.5	147	105	3	1.1	0.6	0.01	0.02	0.28
	Reisa, Reisafj.	2702	2702		16.0	13.6	16.0		3.76	2.0	0.5	114	49	10	1.4	1.9	0.03	0.18	1.33
Finnmark	Mattiselva, Kåfj. Altafj.	325	325	319	26.5	21.2	26.5		2.75	3.0	0.5	90	13	6	0.6	0.5	<0.01	0.16	0.87
(10.)	Tverrelva, Altafj.	234	233	233	15.1	12.0	15.1		4.27	4.0	2.0	140	45	7	0.6	0.5	0.01	0.10	0.55
	Repparfjordv., Repparfj.	1090	1089		25.0	22.5	25.0		4.50	2.0	0.5	119	24	8	0.4	0.5	<0.01	0.14	0.38
	Stabburse., I. Porsangen V	1108	1102	870	18.3	15.2	18.3		3.02	2.0	0.5	104	24	9	0.4	1.3	0.09	2.33	0.74
	Lakse., Indre Porsangen S	1533	1532	941	15.9	12.8	15.9		4.41	5.0	1.0	134	14	3	1.0	1.0	0.01	0.74	2.41
	Børselva.Indre Porsangen Ø	883	883	863	29.8	29.0	29.8		3.74	1.0	0.5	60	14	10	0.2	1.2	0.01	0.16	0.62
	Mattusjåkka, I. Laksefj. V	101	101	101	22.8	20.5	22.8		4.01	3.0	1.0	60	14	5	0.6	0.4	<0.01	0.16	0.95
	Storelva.Indre Laksefj. V	690	690	760	21.9	19.0	19.9		2.10	1.0	0.5	89	75	3	0.5	3.9	0.04	0.52	0.10
	Soussjåkka, I. Laksefj. V	92	92	102	25.3	22.8	22.8		4.68	1.0	0.5	75	34	3	0.3	1.6	0.02	0.13	0.29
	Adamselva, I. Laksefj. Ø	705	705	760	19.9	15.0	19.9		6.14	2.0	0.5	105	5	11	0.6	1.5	0.03	0.16	0.59
	Tanavassdraget, Tanafj. S	16389	15713	14169	11.5	9.2	11.5		3.96	6.0	2.0	185	10	20	0.7	0.5	0.01	0.32	1.58
	Vestereiva, Syltefj.	469	469	79	34.6	31.6	34.6		8.55	4.0	1.0	60	5	3	0.4	0.5	0.03	0.09	0.22
	V. Jakobse., Y.Varangerfj.	627	627	239	18.1	14.5	18.1		5.72	4.0	2.0	135	5	14	0.4	0.7	0.01	0.10	0.19
	Pasvike., Bøkfj.Varang.fj.	18404	18400	18175	9.3	10.2	9.3		4.37	8.0	2.0	185	5	21	2.1	1.9	<0.01	0.21	3.29
	Neiden, Munkfj. Varang.fj.	2960	2960	2911	9.8	8.8	9.8		2.95	3.0	1.0	185	34	3	0.7	1.0	<0.01	0.24	0.96
	Grense Jakobse.,Varang.fj.	234	234		18.0	18.0	18.0		4.20	3.0	0.5	175	10	27	2.6	1.7	0.02	1.35	0.85

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)													
		Drainage area			Discharge																	
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station				PCB (The folloving Congeners) IUPAC NOS											
					Normal	1994	Normal	1994	Hg	Gamma HCH	28	52	101	118	138	153	180	TOC	DOC	Cr-T	Ni	As
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	mg/l	mg/l	ug/l	ug/l	ug/l
Østfold	Tista, Iddefj.	1588	1582	1582	14.4	15.5	14.4	15.5	<1.0	0.62	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	6.70		1.69	0.79	0.27
(1.)	Mosselva, Mossesundet	690	689	689	14.5	15.4	14.5	15.4	1.50	0.89	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	7.20		1.93	1.09	0.34
Oslo &	Hølenelva, Drøbaksundet Ø	137	121		14.0	13.3			2.50	0.29	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	9.90		2.81	2.66	0.59
Akershus	Årungelva, I. Oslofj.	52	50		13.0	12.4			1.50	0.58	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.80		2.26	2.79	0.91
(1.)	Gjersjøelva, I. Oslofj.	86	85	85	14.0	13.3			1.00	0.60	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4.90		2.01	1.68	0.21
	Ljanselva, I. Oslofj.	42	41	41	13.0	13.9		13.9	3.00	0.52	0.05	0.13	0.06	<0.03	0.05	0.05	<0.03	6.20		1.45	1.01	0.03
	Loelva/Alna, I. Oslofj.	75	69	69	13.0	22.2		22.2	5.00	0.42	0.28	0.19	0.27	0.19	0.29	0.22	0.12	4.80		<0.5	0.50	0.35
	Akerselva, I. Oslofj.	227	225	225	17.5	12.6		12.6	2.00	0.84	0.03	0.03	0.03	<0.03	0.04	0.05	0.03	3.80		1.06	0.71	0.19
	Frognerelva, I. Oslofj.	23	20	20	15.0	20.9		20.9	3.50	0.62	<0.03	<0.03	0.11	0.07	0.10	0.11	0.05	4.10		1.48	1.87	0.49
	Lysakerelva, I. Oslofj.	178	173	173	16.8	27.1	16.8	27.1	<1.0	0.55	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	5.20		0.76	0.79	0.08
	Sandvikselva, I. Oslofj.	223	187	187	18.4	18.0	18.4		1.50	0.21	<0.03	<0.03	0.04	0.04	0.05	0.07	0.03	5.20		0.77	1.06	0.34
	Åroselva, I. Oslofj.	113	109	109	17.0	16.3	17.0		<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	5.33		1.13	1.09	0.34
Buskerud	Lierelva, Drammensfj. Ø	309	266	222	18.6	28.8	18.6	28.8	1.00	0.26	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.40		1.19	1.17	0.19
(2.)																						
Vestfold	Sandeelva, Sandebukta	193	190		17.0	16.2	17.0		1.00	0.16	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.60		1.26	0.83	0.44
(3.)	Aulielva, Tønsbergfj.	363	362	362	14.9	14.6	14.9		<1.0	0.19	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	6.30		2.56	2.43	0.39
	Farriselva, Larvikfj.	491	491	491	21.6	21.4	21.6		<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4.10		0.30	0.45	0.15
Telemark	Tokkeelva, Kragerø	1238	1200	1200	26.7	28.6	26.7	28.6	1.00	1.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.40		1.12	0.29	0.31
(4.)																						
Aust-	Gjerstadelva, Søndeledfj.	419	414	291	27.0	27.8	27.0		1.50	1.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4.60		0.51	1.14	0.31
Agder	Vegårdselva, Sandnesfj.	457	429	291	29.3	30.8	29.3		1.00	1.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4.83		0.95	0.49	0.19
(5.)	Nidelva, Arendal	4025	4020	3956	29.8	31.3	29.8	31.3	<1.0	1.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.85		0.51	0.11	0.18

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)													
		Drainage area			Discharge																	
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station				PCB (The following Congeners) IUPAC NOS											
					Normal	1994	Normal	1994	Hg	Gamma HCH	28	52	101	118	138	153	180	TOC	DOC	Cr-T	Ni	As
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	mg/l	mg/l	ug/l	ug/l	ug/l
Vest-	Tovdalselva, Topdalsfj.	1856	1854	1794	33.9	31.3	33.9	31.3	2.00	1.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.78		0.84	0.22	0.35
Agder	Søgneelva, Flekkerøy	204	192	192	38.0	41.8	38.0		<1.0	0.80	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.80		1.76	0.85	0.33
(5.)	Mandalselva, Mannefj.	1809	1800	1740	46.0	50.0	47.6	50.0	1.50	0.70	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.87		0.66	0.07	0.19
	Audna, Sniksfj.	450	400	59	45.0	50.4	51.8		1.00	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.90		1.41	0.13	0.39
(6.)	Lygna, Lyngdalsfj.	664	660	266	48.0	61.6	57.9	71.5	<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.31		1.82	0.27	0.15
	Kvina, Fedafj.	1445	1140	1140	57.6	18.1	57.6	18.1	<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.90		1.43	0.05	0.33
	Sira, Åna-Sira	1916	1872	1872	59.4	57.6	59.4	57.6	<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.60		0.82	0.07	0.14
Rogaland	Sokndalselva, Sogndalsstr.	294	293	107	51.1	56.7	51.1		<1.0	0.90	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.60		0.81	2.87	0.07
(6.)	Hellelandselva, Egersund	241	240	194	57.5	60.4	71.1	71.6	1.00	0.90	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.70		0.85	0.47	0.21
	Bjerkreimselva, Egersund	705	704	633	77.7	69.3	86.4	78.0	1.00	0.90	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	7.75		0.49	0.51	0.87
	Håelva, Håtangen	165	160	135	46.9	45.4	46.9	45.4	<1.0	0.81	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	5.10		0.87	0.87	0.15
	Figgjo, Solavika	229	218	135	50.0	52.0	50.0		<1.0	0.80	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.90		1.75	0.41	0.15
	Ims-Lutsl. Høgsfj.Boknafj.	127	127	127	34.9	40.9	34.9	40.9	1.00	0.80	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.40		4.05	0.25	0.24
	Oltedalse.,Høgsfj.Boknafj.	102	101	129	70.0	76.3	70.0		<1.0	0.80	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.40		2.56	0.14	0.16
	Dirdalse., Høgsfj.Boknafj.	158	158	95	83.0	89.6	83.0		<1.0	0.70	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.95		1.68	0.03	0.13
	Frafjorde.,Frafj. Boknafj.	178	178	124	94.4	101.0	94.4		<1.0	0.60	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.30		1.47	0.03	0.11
	Espedalse.,Høgsfj.Boknafj.	138	138	124	90.0	94.5	90.0		<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.10		1.86	0.02	0.09
	Lysee., Lysefj.Boknafj.	182	182	46	74.0	77.7	74.0		<1.0	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.60		0.32	0.06	0.03
	Årdalse., Årdalsfj.Boknafj.	519	516	501	81.4	85.4	81.4		2.00	0.36	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.07		2.01	0.31	0.38
	Førree., Jøsenfj.Boknafj.	163	163	163	85.8	90.1	85.8		1.00	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.90		1.08	0.05	0.11
	Ulla, Jøsenfj.Boknafj.	393	393	385	83.4	87.6	83.4		<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.90		0.32	0.06	0.03
(7.)	Saudae., Saudafj.Boknafj.	353	353		85.0	93.5	85.0		1.00	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.40		1.05	0.12	0.07
	Åbøelva, Saudafj.Boknafj.	82	82		85.0	93.5	85.0		1.00	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.90		0.95	0.05	0.05
	Vikedalse., Boknafj.	118	117		80.0	103.1	80.0	103.1	<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.96		2.15	0.35	0.20

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)													
		Drainage area			Discharge																	
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station				PCB (The folloving Congeners) IUPAC NOS											
					Normal	1994	Normal	1994	Hg	Gamma HCH	28	52	101	118	138	153	180	TOC	DOC	Cr-T	Ni	As
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	mg/l	mg/l	ug/l	ug/l	ug/l
Hordaland	Etneelva, Etnefj. Bømlafj.	252	250	127	48.8	58.4	96.0	115.0	<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.53		1.15	0.15	0.10
(7.)	Opo, Sørfj. Hardangerfj.	482	480	464	79.3	93.1	79.3	93.1	2.00	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.70		1.00	0.05	0.10
	Tysso, Sørfj. Hardangerfj.	388	385	407	79.3	91.2	79.3		1.00	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.30		0.85	0.05	0.03
	Kinso, Sørfj. Hardangerfj.	281	281	232	46.0	59.3	46.0	59.3	<1.0	0.33	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.50		0.35	<0.01	0.10
	Veig, Eidfjv. Hardangerfj.	496	496	386	41.8	46.2	41.8		1.00	0.23	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.10		0.60	0.15	0.01
	Bjorela, " , Hardangerfj.	592	592	592	26.0	28.6	26.0		1.00	0.23	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.10		0.60	0.15	0.01
	Sima, Eidfj. Hardangerfj.	145	145	128	69.2	76.8	69.2		<1.0	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.30		0.90	0.02	0.03
	Austdøla, Osafj. Eidfj.	131	130	89	74.6	82.0	74.6		<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.20		0.03	0.03	0.15
	Norddøla, Osafj. Eidfj.	40	39	89	74.6	82.0	74.6		<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.20		0.65	0.80	0.60
	Tysseelva, Fusafj.	240	240		85.0	93.5	85.0		1.00	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.79		1.40	0.05	0.10
	Oselva, Fusafj.	109	108	50	91.7	92.6	91.7	92.6	<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.42		1.40	0.05	0.10
	Bergsdalse, Veafj.Herdlafj.	198	198		80.0	86.4	80.0		<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.90		1.15	0.20	0.02
	Vosso, Veafj. Sørfj.	1492	1465	1102	58.2	76.5	58.2	76.5	2.50	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.90		0.85	<0.01	0.10
	Ekso, Osterfj.	414	400	342	86.2	96.5	86.2		<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.24		0.05	0.01	0.15
	Modalselva, Osterfj.	385	384	248	95.5	105.0	95.5		<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.75		0.05	0.01	0.15

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)													
		Drainage area			Discharge																	
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station				PCB (The following Congeners) IUPAC NOS											
					Normal	1994	Normal	1994	Hg	Gamma HCH	28	52	101	118	138	153	180	TOC	DOC	Cr-T	Ni	As
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	mg/l	mg/l	ug/l	ug/l	ug/l
Sogn og Fjordane (7.)	Nærøye., Aurl.fj. Sognefj.	290	290	267	59.5	66.6	59.5		1.00	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.40		1.35	0.10	0.10
	Flåmse., Aurl.fj. Sognefj.	280	275	275	52.4	70.4	52.4	70.4	<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.30		0.70	0.15	0.05
	Aurlandv. Aurl.fj. Sognefj.	800	799	762	48.6	53.9	48.6		<1.0	0.12	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.40		0.50	0.03	<0.01
	Erdalse., Lærd.fj. Sognefj.	138	138		30.0	33.3	30.0		<1.0	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.90		0.55	0.05	0.20
	Lærdalsv. Lærd.fj. Sognefj.	1184	1172	1172	30.0	22.1	30.0	22.1	<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.51		0.15	0.05	0.05
	Årdalsv., Årdalsfj.Sognefj.	989	989	989	44.9	48.1	44.9	48.1	3.00	0.25	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.76		0.40	0.10	0.03
	Fortunv., Lusterfj.Sognefj.	508	508	367	51.0	56.1	51.0		2.00	0.28	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.30		0.15	0.10	0.02
	Mørkrisv., Lusterfj.Sognefj.	282	282	203	54.7	57.5	54.7	57.5	1.00	0.28	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.40		0.30	0.02	<0.01
	Jostedøla, " Sognefj.	865	864	573	68.0	76.2	68.0		<1.0	0.28	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.40		0.50	0.10	0.05
	Årøye., Sognd.fj. Sognefj.	449	446	384	77.2	86.5	77.2		<1.0	0.28	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.60		0.65	0.03	0.03
	Sogndalse, " Sognefj.	175	172	111	66.1	77.8	66.1	77.8	<1.0	0.28	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.90		0.55	0.05	0.02
	Gaular, Dalsfj. Bufj.	627	625	505	79.3	93.8	79.3	93.8	1.00	0.36	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.57		0.40	0.10	0.10
	Jølstra, Førdefj.	714	709	384	74.3	82.5	74.3		<1.0	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.10		0.95	0.03	0.05
	Nausta, Førdefj.	277	273	232	81.7	101.2	81.7	101.2	<1.0	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.58		1.20	0.10	0.03
	Oselva, Høydalsfj.	287	285	225	78.7	86.6	78.7		<1.0	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.50		1.90	0.03	0.01
	Hopse., Hyefj. Nordfj.S	73	73	161	75.0	82.5	75.0		1.00	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.70		1.40	0.05	0.01
	Gjengedalse.," Nordfj.S	170	168	161	75.0	82.5	75.0		2.50	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.49		0.80	0.10	0.05
	Breimse., Gloppenfj. "	636	634	585	68.0	75.5	68.8		<1.0	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.70		0.80	0.05	0.02
	Oldene., Indre Nordfj.	226	225	214	70.1	78.5	70.1		<1.0	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.80		0.75	0.05	<0.01
	Loenelva, Indre Nordfj.	261	260	234	65.0	69.4	65.0	69.4	<1.0	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.50		0.55	0.05	0.05
	Strynee., Indre Nordfj.	532	530	493	60.2	66.2	60.2		1.00	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.50		0.75	0.10	0.05
	Hornindalse., Nordfj. N	428	424	378	58.1	63.9	58.1		1.00	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.20		1.30	0.10	0.15

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)													
		Drainage area			Discharge																	
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station				PCB (The following Congeners) IUPAC NOS											
					Normal	1994	Normal	1994	Hg	Gamma HCH	28	52	101	118	138	153	180	TOC	DOC	Cr-T	Ni	As
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	mg/l	mg/l	ug/l	ug/l	ug/l
Møre og Romsdal (8.)	Ørstae., Ørstafj.	160	155		70.0	73.5	70.0		1.00	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.33		1.20	0.30	<0.01
	Valldøla, Nordalfj.Storfj.	359	357		60.0	62.4	60.0		<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.50		0.40	<0.01	0.02
	Rauma, Romsdalsfj.Moldefj.	1202	1190	1142	32.8	34.4	32.8		<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.70		1.20	0.10	0.05
	Isa, Isfj. Moldefj.	175	175	89	57.0	58.0	57.0		1.00	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.80		0.95	0.10	0.05
	Elra, Eresfj. Moldefj.	1119	1119	1085	34.8	36.2	34.8		1.50	0.31	0.20	0.08	0.04	<0.03	<0.03	<0.03	<0.03	0.50		1.00	<0.01	0.15
	Littledalse., Sunndalsfj.	359	330	330	41.0	43.0	41.0		<1.0	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.60		0.60	0.05	<0.01
	Drlva, Sunnd.fj.Tingvollfj.	2487	2435	2435	27.9	28.7	27.9		<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.10		0.70	0.15	0.01
	Ulvåa, Alvundfj.	199	199	207	57.0	58.7	60.7		1.00	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.40		0.65	0.02	0.01
	Toåa, Todalsfj.	251	251	207	58.5	60.3	58.5		<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.10		0.45	0.05	0.03
	Surna, Surnadalsfj.	1200	1200	1125	48.0	50.0	49.3		4.80	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.62		0.70	0.20	0.05
	Bøvra, Hamnesfj. Halsafj.	243	243	196	55.0	57.2	55.0		<1.0	0.70	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.60		0.60	0.20	0.10
Sør-Trøndelag (8.)	Børse.,Gaulosen Tr.h.fj.	110	100		30.0	28.5	30.0		<1.0	0.90	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.31	1.37	0.06
	Vigda, Gaulosen Tr.h.fj.	150	150		30.0	28.5	30.0		1.50	0.80	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.80		2.83	2.72	0.38
	Gaula, Gaulosen Tr.h.fj.	3659	3650	3062	26.4	20.6	26.4	20.6	2.00	0.70	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.20		0.28	0.85	0.23
	Nidelva, Trondheimsfj.	3110	3100	3049	35.5	27.8	35.5	27.8	3.00	0.57	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.20	0.58	0.16
	Homla, Stjørd.fj.Tr.h.fj.	157	157		30.0	29.0	30.0		2.00	0.55	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.33	0.80	0.72
Nord-Trøndelag (8.)	Stjørdalsv, " Tr.h.fj.	2117	2117	1863	38.5	35.9	38.5	35.9	2.50	0.55	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.36	0.51	0.06
	Gråe., " Tr.h.fj.	93	93		25.0	25.0	25.0		<1.0	0.55	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.36	1.18	0.23
	Verdalsvassdr., Tr.h.fj.	1472	1472	898	40.0	28.6	44.5	35.8	2.00	0.55	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			2.57	0.12	0.21
	Figga/Leksdalse.,Tr.h.fj.	282	282	178	30.0	29.0	33.6	32.6	<1.0	0.54	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.55	0.80	0.03
	Snåsavassdr., Trondh.fj.	2153	2125	2125	35.1	25.4	35.1	25.4	<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			2.53	0.05	0.24
	Årgårdselva, Namsfj.	543	510	238	43.0	41.0	50.9	48.3	1.50	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			4.15	0.39	0.39
	Namsen, Namsfj. Ø	6277	6276	5718	43.4	44.5	43.4	44.5	2.00	0.24	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.76	0.32	0.11
	Salsvatnelva, Follafj.	432	432	422	59.7	59.4	59.7	59.4	<1.0	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			4.40	0.31	0.21

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)												
		Drainage area			Discharge																
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station				PCB (The following Congeners) IUPAC NOS										
					Normal	1994	Normal	1994	Hg	Gamma HCH	28	52	101	118	138	153	180	TOC	DOC	Cr-T	Ni	As
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	mg/l	mg/l	ug/l	ug/l	ug/l
Nordland (9.)	Åbjøra, Bindalsfj. S	526	520	384	80.2	59.0	80.2	59.0	<1.0	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			2.52	0.31	0.14
	Skjerva, Vefsenfj. S	104	104	98	41.3	36.3	41.3		2.00	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			2.61	0.03	0.26
	Fusta, Vefsenfj. N	544	543	520	63.4	57.0	63.4		1.00	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.85	0.21	0.25
	Drevja, Vefsenfj. N	177	176	98	65.0	58.5	65.0		<1.0	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.71	0.16	0.19
	Røssåga, Sørfj.	2092	2087	1880	45.4	51.0	45.4	51.0	1.00	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.50	0.11	0.15
	Bjerka, Sørfj.	385	385	273	55.4	48.7	55.4		1.00	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.91	0.09	0.07
	Dalselva, Ranafj. N	211	211	129	39.5	35.5	39.5		<1.0	0.25	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.39	0.24	0.08
	Ranavassdraget, Ranafj. N	3847	3846	1892	44.9	50.0	44.9	50.0	<1.0	0.25	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.32	0.22	0.09
	Fykanåga, Glomfjord	297	297	243	103.7	100.0	103.7		<1.0	0.25	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.32	0.22	
	Belare., Belarfj. Nordfj.	1064	875	797	45.1	30.3	45.1	30.3	<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.60		1.99	0.17	0.19
	Saltdalsvassdr., Saltd.fj.S	1544	1543	1168	32.1	26.6	32.1		<1.0	0.70	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			2.39	0.11	0.26
	Sulitjelmavassdr., Saltd.fj	1028	800	791	44.0	36.0	44.0		1.00	0.74	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			19.50	0.22	1.74
	Kobbe., Leirfj. Sørfolda N	405	405	386	66.9	62.7	66.9		<1.0	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.29	0.35	0.09
	Skjoma, Ofotfj. S	845	840	797	36.3	29.0	36.3		1.00	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.78	0.37	0.11

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1994.

County	Watercourse	Runoff data							Parameters (mean values)													
		Drainage area			Discharge																	
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station				PCB (The following Congeners) IUPAC NOS											
					Normal	1994	Normal	1994	Hg	Gamma HCH	28	52	101	118	138	153	180	TOC	DOC	Cr-T	Ni	As
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	ng/l	mg/l	mg/l	ug/l	ug/l	ug/l
Troms	Spanselva, Astafj. Vågsfj.	142	142	533	50.0	51.0	50.0		<1.0	0.35	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.11	0.21	0.04
(9.)	Salangse., Astafj. Vågsfj.	539	539	533	40.9	51.0	40.9		<1.0	0.35	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.14	0.11	1.75
	Rossfjorde., Malangen	196	190		39.5	41.5	39.5		2.00	0.33	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			3.01	0.21	0.14
	Målse., Målselvfj. "	3239	3200	3118	28.7	28.1	28.7		<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.95	0.02	0.07
	Bardue., Målselva	2906	2906	2049	28.3	27.8	28.3		<1.0	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.95	0.02	0.07
	Nordkjoselva, Balsfj.	191	191	415	27.7	28.0	27.7		<1.0	0.10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.98	0.14	0.12
	Signaldalselva, Lyngen V	473	467	415	27.7	28.0	27.7		<1.0	0.10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.18	0.47	0.09
	Skibotnelva, Lyngen	770	770	724	18.0	16.8	18.0		1.50	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.95	0.66	0.09
	Kåfjordelva, Lyngen Ø	358	358	348	20.0	23.0	20.0	23.0	<1.0	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.92	0.34	0.12
	Reisa, Reisafj.	2702	2702		16.0	13.6	16.0		<1.0	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.90		1.16	0.15	0.13
Finnmark	Mattiselva, Kåfj. Altafj.	325	325	319	26.5	21.2	26.5		<1.0	0.10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			2.15	1.37	0.12
(10.)	Tverrelva, Altafj.	234	233	233	15.1	12.0	15.1		<1.0	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			2.65	1.34	0.15
	Repparfjordv., Repparfj.	1090	1089		25.0	22.5	25.0		2.00	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			3.95	1.50	0.10
	Stabburse., I. Porsangen V	1108	1102	870	18.3	15.2	18.3		<1.0	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.40		2.44	1.46	0.12
	Lakse., Indre Porsangen S	1533	1532	941	15.9	12.8	15.9		<1.0	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			2.51	0.88	0.06
	Børselva.Indre Porsangen Ø	883	883	863	29.8	29.0	29.8		<1.0	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.81	0.31	0.11
	Mattusjåkka, I. Laksefj. V	101	101	101	22.8	20.5	22.8		<1.0	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.27	0.52	0.11
	Storelva.Indre Laksefj. V	690	690	760	21.9	19.0	19.9		<1.0	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.27	0.52	0.11
	Soussjåkka, I. Laksefj. V	92	92	102	25.3	22.8	22.8		<1.0	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			3.11	1.18	0.11
	Adamselva, I. Laksefj. Ø	705	705	760	19.9	15.0	19.9		<1.0	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			4.45	1.13	0.20
	Tanavassdraget, Tanafj. S	16389	15713	14169	11.5	9.2	11.5		2.50	0.11	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			2.36	0.82	0.15
	Vesterelva, Syltefj.	469	469	79	34.6	31.6	34.6		<1.0	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			4.95	1.01	0.42
	V. Jakobse., Y.Varangerfj.	627	627	239	18.1	14.5	18.1		1.00	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			3.06	1.44	0.13
	Pasvikе., Bøkfj.Varang.fj.	18404	18400	18175	9.3	10.2	9.3		2.00	0.32	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.90		2.38	8.77	0.27
	Nelden, Munkfj. Varang.fj.	2960	2960	2911	9.8	8.8	9.8		<1.0	0.35	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			2.04	1.32	0.10
	Grense Jakobse.,Varang.fj.	234	234		18.0	18.0	18.0		3.00	0.35	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			3.49	7.40	0.27

APPENDIX IX : TRIBUTARY RIVERS. ANNUAL LOAD 1994 **Page:**

(1)	Glomma	"tributaries"	: Tista	- Hølenelva
(1)	Inner Oslo-fjord		: Årungelva	- Åroselva
(2)	Drammenselva	"tributary"	: Lierelva	
(3)	Numedalslågen	"tributaries"	: Sandeelva	- Farriselva
(4)	Skienselva	"tributary"	: Tokkeelva	
(5)	Otra	"tributaries"	: Gjerstade.	- Audna
(6)	Orreelva	"tributaries"	: Lygna	- Ulla
(7)	Suldalslågen	"tributaries"	: Saudaelva	- Hornindalselva
(8)	Orkla	"tributaries"	: Ørstaelva	- Salsvatnelva
(9)	Vefsna	"tributaries"	: Åbjøra	- Reisa
(10)	Alta	"tributaries	: Mattiselva	- Grense Jacobse.

* Measurements below detection limits are treated in two ways:
"Detection limit = Zero", and "Detection limit = limit". This concerns the substances Cd, Pb, Hg and PCBs. In Tables 9.1-9.2 as well as in Tables 5.1-5.4 both "zero- and limit-values" are shown.

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Runoff data								Parameters (mean values)														
		Drainage area			Discharge																			
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station																	
					Normal	1994	Normal	1994	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	C d		P b		S.P.M.	H g	
					l/s sq.km		l/s sq.km										zero	limit	zero	limit		zero	limit
		sq.km	sq.km	sq.km					mS/m	tons	tons	tons	tons	Tons	tons	tons	tons	tons	tons	tons	t.tons	kg	kg
Østfold	Tista, Iddefj.	1588	1582	1582	14.4	15.5	14.4	15.5	6.24	9.0	2.3	697	514	7.73	0.54	7.11	0.077	0.077	0.201	0.201	1.24	0.000	0.773
(1.)	Mosselva, Mossesundet	690	689	689	14.5	15.4	14.5	15.4	10.00	9.8	1.7	336	336	3.35	0.37	1.14	0.033	0.033	0.124	0.124	1.57	0.502	0.502
Oslo &	Hølenelva, Drøbaksundet Ø	137	121		14.0	13.3			19.40	2.4	1.7	173	151	14.67	0.05	0.31	0.008	0.008	0.023	0.023	0.65	0.127	0.127
Akershus	Arungelva, I. Oslofj.	52	50		13.0	12.4			26.70	0.8	0.1	69	52	3.42	0.02	0.04	0.002	0.002	0.003	0.003	0.18	0.029	0.029
(1.)	Gjersjøelva, I. Oslofj.	86	85	85	14.0	13.3			18.25	0.5	0.1	59	47	1.39	0.05	0.07	0.001	0.001	0.004	0.004	0.20	0.036	0.036
	Ljanselva, I. Oslofj.	42	41	41	13.0	13.9		13.9	24.00	1.1	0.4	25	16	2.73	0.05	0.16	0.001	0.001	0.010	0.010	0.26	0.054	0.054
	Loelva/Alna, I. Oslofj.	75	69	69	13.0	22.2		22.2	31.00	6.7	2.3	96	87	7.87	0.14	0.38	0.001	0.001	0.022	0.022	2.08	0.242	0.242
	Akerselva, I. Oslofj.	227	225	225	17.5	12.6		12.6	5.80	1.6	0.2	58	25	5.10	0.06	0.78	0.008	0.008	0.032	0.032	0.34	0.179	0.179
	Frognerelva, I. Oslofj.	23	20	20	15.0	20.9		20.9	21.00	1.0	0.5	18	7	0.88	0.03	0.07	0.000	0.000	0.003	0.003	0.12	0.046	0.046
	Lysakerelva, I. Oslofj.	178	173	173	16.8	27.1	16.8	27.1	7.40	2.4	0.6	87	52	3.70	0.09	0.35	0.000	0.001	0.013	0.013	0.53	0.000	0.148
	Sandvikselva, I. Oslofj.	223	187	187	18.4	18.0	18.4		13.20	1.8	0.8	123	96	8.39	0.08	0.35	0.013	0.013	0.038	0.038	0.59	0.159	0.159
	Aroselva, I. Oslofj.	113	109	109	17.0	16.3	17.0		13.70	2.1	0.8	68	65	2.86	0.06	0.16	0.002	0.002	0.013	0.013	0.30	0.000	0.056
Buskerud	Lierelva, Drammensfj. Ø	309	266	222	18.6	28.8	18.6	28.8	13.50	14.4	9.2	265	210	10.39	0.19	2.01	0.012	0.012	0.075	0.075	3.43	0.242	0.242
(2.)																							
Vestfold	Sandeelva, Sandebukta	193	190		17.0	16.2	17.0		12.30	1.6	0.8	125	102	5.44	0.12	6.27	0.014	0.014	0.072	0.072	0.49	0.097	0.097
(3.)	Aulielva, Tønsbergfj.	363	362	362	14.9	14.6	14.9		17.22	12.1	8.1	542	358	13.33	0.18	0.87	0.005	0.005	0.045	0.045	4.15	0.000	0.167
	Farriselva, Larvikfj.	491	491	491	21.6	21.4	21.6		4.01	2.4	1.1	236	139	4.97	0.50	1.66	0.003	0.003	0.166	0.166	0.17	0.000	0.331
Telemark	Tokkeelva, Kragerø	1238	1200	1200	26.7	28.6	26.7	28.6	2.39	4.3	0.5	433	244	42.21	0.65	8.23	0.054	0.054	0.400	0.400	1.13	1.082	1.082
(4.)																							
Aust-	Gjerstadelva, Søndeledfj.	419	414	291	27.0	27.8	27.0		3.00	2.2	0.2	176	98	16.70	0.25	3.52	0.036	0.036	0.269	0.269	0.61	0.544	0.544
Agder	Vegårdselva, Sandnesfj.	457	429	291	29.3	30.8	29.3		3.02	2.5	0.4	171	85	20.00	0.25	4.67	0.029	0.029	0.183	0.183	0.57	0.417	0.417
(5.)	Nidelva, Arendal	4025	4020	3956	29.8	31.3	29.8	31.3	2.17	15.9	2.0	1492	881	138.88	3.17	28.57	0.278	0.278	2.024	2.024	6.59	0.000	3.968

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Runoff data								Parameters (mean values)															
		Drainage area			Discharge																				
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station			Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	C d		P b		S.P.M.	H g	
					Normal	1994	Normal	1994	Cond								zero	limit	zero	limit		zero	limit
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		mS/m	tons	tons	tons	tons	Tons	tons	tons	tons	tons	tons	tons	t.tons	kg	kg
Vest-	Tovdalselva, Topdalsfj.	1856	1854	1794	33.9	31.3	33.9	31.3	2.38	7.3	0.9	855	326	80.52	0.73	13.73	0.128	0.128	1.226	1.226	2.18	3.660	3.660
Agder	Søgneelva, Flekkerøy	204	192	192	38.0	41.8	38.0		8.03	1.5	0.5	259	202	14.17	0.18	2.66	0.028	0.028	0.104	0.104	0.39	0.000	0.253
(5.)	Mandalselva, Mannefj.	1809	1800	1740	46.0	50.0	47.6	50.0	2.41	14.2	1.4	1118	607	110.69	1.14	15.04	0.085	0.085	1.760	1.760	2.92	4.257	4.257
	Audna, Sniksfj.	450	400	59	45.0	50.4	51.8		5.27	2.5	0.3	391	273	26.07	0.25	4.90	0.038	0.038	0.305	0.305	0.77	0.636	0.636
(6.)	Lygna, Lyngdalsfj.	664	660	266	48.0	61.6	57.9	71.5	3.24	5.1	0.6	581	313	38.46	0.26	13.46	0.077	0.077	0.808	0.808	1.53	0.000	1.282
	Kvina, Fedafj.	1445	1140	1140	57.6	18.1	57.6	18.1	3.95	3.3	0.7	228	111	15.62	0.13	4.29	0.007	0.007	0.560	0.560	1.11	0.000	0.651
	Sira, Ana-Sira	1916	1872	1872	59.4	57.6	59.4	57.6	2.49	10.2	1.7	901	527	102.01	0.34	14.96	0.034	0.034	1.666	1.666	1.29	0.000	3.400
Rogaland	Sokndalselva, Sogndalsstr.	294	293	107	51.1	56.7	51.1		5.37	2.6	1.0	194	144	15.72	0.05	4.35	0.005	0.005	0.131	0.131	0.42	0.000	0.524
(6.)	Hellelandselva, Egersund	241	240	194	57.5	60.4	71.1	71.6	4.61	3.2	0.9	206	151	5.49	0.05	3.02	0.005	0.005	0.174	0.174	0.33	0.457	0.457
	Bjerkreimselva, Egersund	705	704	633	77.7	69.3	86.4	78.0	3.70	7.7	0.8	711	572	18.46	0.15	7.39	0.015	0.015	0.323	0.323	0.69	1.539	1.539
	Håelva, Håtangen	165	160	135	46.9	45.4	46.9	45.4	11.30	5.5	2.5	337	244	14.43	0.02	0.89	0.002	0.002	0.064	0.064	0.38	0.000	0.229
	Figgjo, Solavika	229	218	135	50.0	52.0	50.0		10.40	6.4	3.2	390	277	23.59	0.25	2.11	0.004	0.004	0.232	0.232	0.87	0.000	0.357
	Ims-Lutsi. Høgsfj.Boknafj.	127	127	127	34.9	40.9	34.9	40.9	6.63	1.3	0.1	117	89	2.95	0.08	0.44	0.003	0.003	0.023	0.023	0.15	0.164	0.164
	Oltedalse.,Høgsfj.Boknafj.	102	101	129	70.0	76.3	70.0		3.62	3.6	0.5	96	70	7.05	0.07	1.05	0.007	0.007	0.051	0.051	0.17	0.000	0.243
	Dirdalse., Høgsfj.Boknafj.	158	158	95	83.0	89.6	83.0		2.74	1.3	0.2	144	104	4.91	0.09	1.16	0.009	0.009	0.179	0.179	0.12	0.000	0.446
	Frafjorde.,Fraf. Boknafj.	178	178	124	94.4	101.0	94.4		2.49	2.3	0.3	148	100	7.37	0.11	1.53	0.017	0.017	0.238	0.238	0.24	0.000	0.567
	Espedalse.,Høgsfj.Boknafj.	138	138	124	90.0	94.5	90.0		2.31	1.2	0.2	105	80	3.70	0.12	1.15	0.025	0.025	0.111	0.111	0.21	0.000	0.411
	Lysee., Lysefj.Boknafj.	182	182	46	74.0	77.7	74.0		2.50	1.3	0.4	138	89	4.01	0.45	1.34	0.027	0.027	0.134	0.134	0.23	0.000	0.446
	Ardalse., Ardalsfj.Boknafj.	519	516	501	81.4	85.4	81.4		2.76	15.3	8.3	293	222	15.29	1.39	5.00	0.069	0.069	1.404	1.404	7.34	2.779	2.779
	Førree., Jøsenfj.Boknafj.	163	163	163	85.8	90.1	85.8		2.30	1.4	0.2	117	115	3.24	0.14	0.42	0.000	0.005	0.093	0.093	0.08	0.463	0.463
	Ulla, Jøsenfj.Boknafj.	393	393	385	83.4	87.6	83.4		2.32	3.3	0.5	347	266	14.11	0.43	2.93	0.087	0.087	0.326	0.326	0.47	0.000	1.086
(7.)	Saudae., Saudafj.Boknafj.	353	353		85.0	93.5	85.0		3.49	3.1	0.5	916	827	3.12	0.73	21.86	0.104	0.104	0.114	0.114	0.36	1.041	1.041
	Abøelva, Saudafj.Boknafj.	82	82		85.0	93.5	85.0		1.58	0.7	0.2	58	40	1.93	0.02	0.31	0.002	0.002	0.027	0.027	0.08	0.242	0.242
	Vikedalse., Boknafj.	118	117		80.0	103.1	80.0	103.1	2.75	1.9	1.1	108	63	4.18	0.15	1.26	0.015	0.015	0.072	0.072	0.45	0.000	0.380

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Runoff data								Parameters (mean values)														
		Drainage area			Discharge																			
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station																	
					Normal	1994	Normal	1994	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	C d		P b		S.P.M.	H g	
																	zero	limit	zero	limit		zero	limit
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		mS/m	tons	tons	tons	tons	Tons	tons	tons	tons	tons	tons	tons	t.tons	kg	kg
Hordaland	Etneelva, Etnefj. Bømlafj.	252	250	127	48.8	58.4	96.0	115.0	3.10	2.1	0.2	185	152	6.45	0.14	1.24	0.018	0.018	0.041	0.041	0.33	0.000	0.460
(7.)	Opo, Sørfj. Hardangerfj.	482	480	464	79.3	93.1	79.3	93.1	1.54	3.5	0.7	247	152	8.46	0.14	4.37	0.056	0.056	0.282	0.282	1.18	2.819	2.819
	Tysso, Sørfj. Hardangerfj.	388	385	407	79.3	91.2	79.3		1.78	2.2	0.6	221	112	5.54	0.11	2.99	0.044	0.044	0.000	0.022	0.12	1.107	1.107
	Kinso, Sørfj. Hardangerfj.	281	281	232	46.0	59.3	46.0	59.3	2.01	1.1	0.3	50	33	2.63	0.05	0.74	0.005	0.005	0.026	0.026	0.48	0.000	0.525
	Veig, Eldfjv. Hardangerfj.	496	496	386	41.8	46.2	41.8		2.04	2.5	0.4	105	33	3.61	0.07	0.36	0.000	0.007	0.051	0.051	0.23	0.723	0.723
	Bjorela, " , Hardangerfj.	592	592	592	26.0	28.6	26.0		2.04	2.1	0.3	101	25	2.67	0.05	0.27	0.000	0.005	0.037	0.037	0.17	0.534	0.534
	Sima, Eldfj. Hardangerfj.	145	145	128	69.2	76.8	69.2		2.21	1.2	0.2	63	33	1.76	0.04	0.18	0.014	0.014	0.000	0.007	0.21	0.000	0.351
	Austdøla, Osafj. Eldfj.	131	130	89	74.6	82.0	74.6		1.28	1.0	0.7	68	50	1.68	0.07	0.27	0.000	0.003	0.013	0.013	0.05	0.000	0.336
	Norddøla, Osafj. Eldfj.	40	39	89	74.6	82.0	74.6		8.52	0.3	0.1	21	18	0.50	0.01	0.05	0.000	0.001	0.002	0.002	0.03	0.000	0.101
	Tysseelva, Fusafj.	240	240		85.0	93.5	85.0		2.02	2.1	0.4	144	82	4.25	0.35	1.91	0.000	0.007	0.184	0.184	0.98	0.708	0.708
	Oselva, Fusafj.	109	108	50	91.7	92.6	91.7	92.6	3.04	3.2	2.2	95	56	1.58	0.32	3.15	0.003	0.003	0.095	0.095	0.32	0.000	0.315
	Bergsdalse, Veafj.Herdlafj.	198	198		80.0	86.4	80.0		1.91	1.6	0.3	74	46	3.24	0.05	1.13	0.016	0.016	0.065	0.065	0.25	0.000	0.539
	Vosso, Veafj. Sørfj.	1492	1465	1102	58.2	76.5	58.2	76.5	1.38	7.1	1.8	452	272	28.27	0.71	4.59	0.071	0.071	0.283	0.283	1.98	8.836	8.836
	Ekso, Osterfj.	414	400	342	86.2	96.5	86.2		1.92	4.9	2.4	224	136	6.09	1.22	6.09	0.012	0.012	0.122	0.122	0.85	0.000	1.217
	Modalselva, Osterfj.	385	384	248	95.5	105.0	95.5		1.82	5.1	0.6	286	211	6.36	1.27	6.36	0.013	0.013	0.127	0.127	0.64	0.000	1.272

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Runoff data								Parameters (mean values)														
		Drainage area			Discharge																			
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station																	
					Normal	1994	Normal	1994	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	C d		P b		S.P.M.	H g	
																	zero	limit	zero	limit		zero	limit
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		mS/m	tons	tons	tons	tons	Tons	tons	tons	tons	tons	tons	tons	t.tons	kg	kg
Sogn og Fjordane (7.)	Nærøye., Aurl.fj. Sognefj.	290	290	267	59.5	66.6	59.5		3.34	1.5	0.3	104	77	3.05	0.06	0.37	0.012	0.012	0.018	0.018	0.12	0.609	0.609
	Flåmse., Aurl.fj. Sognefj.	280	275	275	52.4	70.4	52.4	70.4	2.26	0.9	0.3	84	63	3.05	0.06	0.55	0.012	0.012	0.000	0.012	0.74	0.000	0.611
	Aurlandv. Aurl.fj. Sognefj.	800	799	762	48.6	53.9	48.6		1.44	2.7	0.7	166	117	6.79	0.14	1.49	0.027	0.027	0.136	0.136	0.76	0.000	1.358
	Erdalse., Lærd.fj. Sognefj.	138	138		30.0	33.3	30.0		1.43	0.3	0.1	18	12	0.72	0.01	0.13	0.000	0.001	0.006	0.006	0.07	0.000	0.145
	Lærdalsv. Lærd.fj. Sognefj.	1184	1172	1172	30.0	22.1	30.0	22.1	1.88	3.3	0.4	173	103	4.08	0.16	0.90	0.016	0.016	0.000	0.016	0.96	0.000	0.817
	Ardalsv., Ardalsfj.Sognefj.	989	989	989	44.9	48.1	44.9	48.1	1.21	6.3	2.6	261	128	12.00	1.35	1.20	0.000	0.015	0.105	0.105	4.46	4.501	4.501
	Fortunv., Lusterfj.Sognefj.	508	508	367	51.0	56.1	51.0		1.11	2.2	0.9	123	93	4.49	0.18	0.81	0.018	0.018	0.072	0.072	1.45	1.797	1.797
	Mørkrisv., Lusterfj.Sognefj.	282	282	203	54.7	57.5	54.7	57.5	1.28	0.8	0.3	70	53	2.56	0.05	0.31	0.010	0.010	0.000	0.010	0.26	0.511	0.511
	Jostedøla, " Sognefj.	865	864	573	68.0	76.2	68.0		1.46	7.3	4.2	332	253	10.38	0.62	3.53	0.042	0.042	0.353	0.353	2.37	0.000	2.076
	Arøye., Sognd.fj. Sognefj.	449	446	384	77.2	86.5	77.2		1.58	3.0	0.6	146	72	7.30	0.24	1.82	0.024	0.024	0.036	0.036	0.56	0.000	1.217
	Sogndalse, " Sognefj.	175	172	111	66.1	77.8	66.1	77.8	1.48	2.3	1.3	95	68	2.11	0.08	0.46	0.042	0.042	0.025	0.025	0.32	0.000	0.422
	Gaular, Dalsfj. Bufj.	627	625	505	79.3	93.8	79.3	93.8	1.54	7.4	1.8	394	218	9.24	0.74	2.59	0.000	0.018	0.259	0.259	0.70	1.849	1.849
	Jølstra, Førdefj.	714	709	384	74.3	82.5	74.3		1.93	7.9	3.7	374	205	31.36	0.18	3.69	0.018	0.018	0.074	0.074	1.00	0.000	1.845
	Nausta, Førdefj.	277	273	232	81.7	101.2	81.7	101.2	1.82	6.1	1.7	158	74	6.97	0.09	0.87	0.017	0.017	0.096	0.096	0.73	0.000	0.871
	Oselva, Høydalsfj.	287	285	225	78.7	86.6	78.7		2.36	3.5	0.4	287	61	8.56	0.08	1.63	0.070	0.070	0.101	0.101	0.24	0.000	0.778
	Hopse., Hyefj. Nordfj.S	73	73	161	75.0	82.5	75.0		1.71	0.6	0.2	24	17	0.95	0.02	0.17	0.004	0.004	0.021	0.021	0.08	0.190	0.190
	Gjengedalse.," Nordfj.S	170	168	161	75.0	82.5	75.0		1.56	1.7	0.4	54	28	4.81	0.13	0.96	0.035	0.035	0.083	0.083	0.05	1.093	1.093
	Breimse., Gloppenfj. "	636	634	585	68.0	75.5	68.8		1.93	9.1	0.8	506	216	16.60	0.15	2.42	0.106	0.106	0.196	0.196	0.77	0.000	1.510
	Oldene., Indre Nordfj.	226	225	214	70.1	78.5	70.1		2.03	3.5	0.3	148	76	3.34	0.06	0.28	0.006	0.006	0.017	0.017	0.33	0.000	0.557
	Loenelva, Indre Nordfj.	261	260	234	65.0	69.4	65.0	69.4	1.95	5.1	0.9	102	59	3.41	0.11	0.34	0.046	0.046	0.011	0.011	0.46	0.000	0.569
	Strynee., Indre Nordfj.	532	530	493	60.2	66.2	60.2		1.80	10.3	4.4	216	83	5.53	0.11	0.55	0.000	0.011	0.022	0.022	9.58	1.106	1.106
	Hornindalse., Nordfj. N	428	424	378	58.1	63.9	58.1		1.98	3.0	1.7	145	64	9.40	0.26	1.20	0.009	0.009	0.145	0.145	1.32	0.854	0.854

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Runoff data: Drainage area: Outlet sq.km	Drainage area: Sampl. station sq.km	Drainage area: Disch. gaug. station sq.km	Discharge: Sampling station: Normal l/s sq.km	Discharge: Sampling station: 1994 l/s sq.km	Discharge: gauging station: Normal l/s sq.km	Discharge: gauging station: 1994 l/s sq.km	Cond mS/m	Parameters (mean values): Tot-P tons	PO4-P tons	Tot-N tons	NO3-N tons	NH4-N Tons	Cu tons	Zn tons	Cd: zero tons	Cd: limit tons	Pb: zero tons	Pb: limit tons	S.P.M. t.tons	Hg: zero kg	Hg: limit kg
Møre og Romsdal (8.)	Ørstae., Ørstafj.	160	155		70.0	73.5	70.0		3.05	5.7	2.9	129	70	5.03	0.18	0.97	0.014	0.014	0.061	0.061	1.05	0.359	0.359
	Valldøla, Nordalfj.Storfj.	359	357		60.0	62.4	60.0		2.01	2.1	0.4	119	76	3.51	0.14	0.35	0.000	0.007	0.035	0.035	0.54	0.000	0.703
	Rauma, Romsdalsfj.Moldefj.	1202	1190	1142	32.8	34.4	32.8		1.96	3.2	0.6	134	76	6.45	0.39	1.16	0.194	0.194	0.207	0.207	0.48	0.000	1.291
	Isa, Isfj. Moldefj.	175	175	89	57.0	58.0	57.0		2.56	1.0	0.2	51	29	3.52	0.06	0.22	0.016	0.016	0.163	0.163	0.16	0.320	0.320
	Elra, Eresfj. Moldefj.	1119	1119	1085	34.8	36.2	34.8		2.61	3.2	0.6	224	143	6.39	0.51	4.47	0.038	0.038	0.166	0.166	0.33	1.916	1.916
	Littledalse., Sunndalsfj.	359	330	330	41.0	43.0	41.0		1.08	0.9	0.2	23	7	2.24	0.13	0.27	0.004	0.004	0.143	0.143	0.13	0.000	0.447
	Driva, Sunnd.fj.Tingvollfj.	2487	2435	2435	27.9	28.7	27.9		3.82	6.6	1.1	584	408	24.24	1.10	1.54	0.066	0.066	0.132	0.132	1.43	0.000	2.204
	Ulvåa, Alvundfj.	199	199	207	57.0	58.7	60.7		1.95	1.3	0.4	50	28	1.84	0.11	0.33	0.029	0.029	0.037	0.037	0.03	0.368	0.368
	Toåa, Todalsfj.	251	251	207	58.5	60.3	58.5		1.51	1.9	0.5	56	10	2.39	0.10	0.29	0.000	0.005	0.019	0.019	0.19	0.000	0.477
	Surna, Surnadalsfj.	1200	1200	1125	48.0	50.0	49.3		2.57	15.9	5.7	660	331	9.46	0.57	1.32	0.057	0.057	0.000	0.038	1.08	9.082	9.082
	Bøvra, Hamnesfj. Halsafj.	243	243	196	55.0	57.2	55.0		2.78	1.3	0.2	110	61	3.51	0.26	0.75	0.000	0.004	0.031	0.031	0.44	0.000	0.438
Sør-Trøndelag (8.)	Børse.,Gaulosen Tr.h.fj.	110	100		30.0	28.5	30.0		10.30	0.9	0.2	66	43	0.27	0.13	0.10	0.001	0.001	0.013	0.013	0.43	0.000	0.090
	Vigda, Gaulosen Tr.h.fj.	150	150		30.0	28.5	30.0		12.00	3.1	1.6	56	28	1.48	0.30	0.51	0.000	0.001	0.080	0.080	3.49	0.202	0.202
	Gaula, Gaulosen Tr.h.fj.	3659	3650	3062	26.4	20.6	26.4	20.6	6.14	11.9	2.4	557	242	7.11	3.79	6.17	0.024	0.024	0.332	0.332	3.72	4.742	4.742
	Nidelva, Trondheimsfj.	3110	3100	3049	35.5	27.8	35.5	27.8	4.03	19.0	1.4	571	160	8.15	2.72	7.34	0.027	0.027	0.788	0.788	1.47	8.153	8.153
	Homla, Stjørd.fj.Tr.h.fj.	157	157		30.0	29.0	30.0		7.31	1.6	0.6	52	7	6.75	0.62	0.86	0.000	0.001	0.102	0.102	0.14	0.287	0.287
Nord-Trøndelag (8.)	Stjørdalsv, " Tr.h.fj.	2117	2117	1863	38.5	35.9	38.5	35.9	3.56	12.0	7.2	587	316	7.19	4.07	6.95	0.000	0.024	0.312	0.312	9.16	5.992	5.992
	Gråe., " Tr.h.fj.	93	93		25.0	25.0	25.0		20.90	0.6	0.2	63	48	0.44	0.12	0.10	0.001	0.001	0.024	0.024	0.16	0.000	0.073
	Verdalsvassdr., Tr.h.fj.	1472	1472	898	40.0	28.6	44.5	35.8	6.02	5.3	0.7	372	167	9.29	1.73	5.18	0.797	0.797	3.731	3.731	1.09	2.655	2.655
	Figga/Leksdalse.,Tr.h.fj.	282	282	178	30.0	29.0	33.6	32.6	5.62	3.1	1.3	116	64	2.58	0.28	0.34	0.003	0.003	0.062	0.062	1.62	0.000	0.258
	Snåsavassdr., Trondh.fj.	2153	2125	2125	35.1	25.4	35.1	25.4	4.93	6.8	0.9	528	298	11.92	1.19	1.70	0.017	0.017	0.238	0.238	1.79	0.000	1.702
	Argårdselva, Námsfj.	543	510	238	43.0	41.0	50.9	48.3	10.80	24.4	13.8	356	97	55.39	0.92	1.78	0.007	0.007	0.237	0.237	4.56	0.989	0.989
	Namsen, Namsfj. Ø	6277	6276	5718	43.4	44.5	43.4	44.5	2.62	26.4	4.4	1163	343	52.84	5.28	13.21	0.088	0.088	1.585	1.585	9.69	17.615	17.615
	Salsvatnelva, Follafj.	432	432	422	59.7	59.4	59.7	59.4	5.06	0.8	0.4	101	52	2.43	0.97	1.13	0.008	0.008	0.146	0.146	0.36	0.000	0.809

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Runoff data								Parameters (mean values)														
		Drainage area			Discharge																			
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station																	
					Normal	1994	Normal	1994	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	C d		P b		S.P.M.	H g	
																	zero	limit	zero	limit		zero	limit
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		mS/m	tons	tons	tons	tons	Tons	tons	tons	tons	tons	tons	tons	t.tons	kg	kg
Nordland	Abjøra, Bindalsfj. S	526	520	384	80.2	59.0	80.2	59.0	3.99	4.8	1.0	110	23	2.90	0.87	0.48	0.010	0.010	0.281	0.281	2.68	0.000	0.968
(9.)	Skjerva, Vefsenfj. S	104	104	98	41.3	36.3	41.3		7.41	1.1	0.7	27	7	4.76	0.06	0.12	0.001	0.001	0.017	0.017	0.10	0.238	0.238
	Fusta, Vefsenfj. N	544	543	520	63.4	57.0	63.4		3.81	2.9	0.5	117	19	9.76	0.39	1.37	0.000	0.010	0.166	0.166	1.17	0.976	0.976
	Drevja, Vefsenfj. N	177	176	98	65.0	58.5	65.0		3.96	1.6	0.6	36	11	0.97	0.16	0.52	0.003	0.003	0.075	0.075	1.00	0.000	0.325
	Røssåga, Sørfj.	2092	2087	1880	45.4	51.0	45.4	51.0	5.27	13.4	3.4	470	114	36.92	2.35	16.45	0.067	0.067	1.074	1.074	7.75	3.357	3.357
	Bjerka, Sørfj.	385	385	273	55.4	48.7	55.4		2.61	1.8	0.6	51	11	1.77	0.24	0.30	0.006	0.006	0.041	0.041	0.85	0.591	0.591
	Dalselva, Ranafj. N	211	211	129	39.5	35.5	39.5		2.53	0.2	0.7	21	4	0.71	0.14	0.28	0.005	0.005	0.054	0.054	0.46	0.000	0.236
	Ranavassdraget, Ranafj. N	3847	3846	1892	44.9	50.0	44.9	50.0	3.90	18.2	3.0	631	309	18.19	2.43	6.67	0.000	0.061	5.943	5.943	9.82	0.000	6.064
	Fykanåga, Glomfjord	297	297	243	103.7	100.0	103.7		2.91	2.8	1.9	80	37	6.56	0.47	0.94	0.009	0.009	0.281	0.281	1.88	0.000	0.937
	Belare., Belarfj. Nordfj.	1064	875	797	45.1	30.3	45.1	30.3	3.67	1.7	0.8	74	33	2.51	0.50	0.84	0.008	0.008	0.251	0.251	2.13	0.000	0.836
	Saltdalsvassdr., Saltd.fj.S	1544	1543	1168	32.1	26.6	32.1		2.79	5.2	3.9	124	70	3.88	0.65	1.94	0.026	0.026	1.398	1.398	6.92	0.000	1.294
	Sulitjelmavassdr., Saltd.fj	1028	800	791	44.0	36.0	44.0		42.00	0.9	0.5	87	40	6.36	12.62	10.35	0.064	0.064	1.971	1.971	0.59	0.908	0.908
	Kobbe., Leirfj. Sørfolda N	405	405	386	66.9	62.7	66.9		1.50	0.8	0.4	48	21	2.40	0.24	1.20	0.008	0.008	0.312	0.312	0.23	0.000	0.801
	Skjoma, Ofotfj. S	845	840	797	36.3	29.0	36.3		1.81	1.5	0.4	52	8	2.30	0.38	1.08	0.023	0.023	0.161	0.161	0.41	0.768	0.768

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Runoff data								Parameters (mean values)														
		Drainage area			Discharge																			
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station																	
					Normal	1994	Normal	1994	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	C d		P b		S.P.M.	H g	
																	zero	limit	zero	limit		zero	limit
		sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		mS/m	tons	tons	tons	tons	Tons	tons	tons	tons	tons	tons	tons	t.tons	kg	kg
Troms	Spanselva, Astafj. Vågsfj.	142	142	533	50.0	51.0	50.0		7.25	0.5	0.1	20	9	0.69	0.11	0.27	0.021	0.021	0.153	0.153	0.23	0.000	0.228
(9.)	Salangse., Astafj. Vågsfj.	539	539	533	40.9	51.0	40.9		7.27	2.6	0.4	77	38	2.60	0.26	0.43	0.000	0.009	0.182	0.182	0.73	0.000	0.867
	Rossfjorde., Malangen	196	190		39.5	41.5	39.5		8.88	1.0	0.1	39	1	3.98	0.10	0.12	0.000	0.002	0.030	0.030	0.17	0.497	0.497
	Målse., Målselvfj. "	3239	3200	3118	28.7	28.1	28.7		6.13	11.3	2.8	337	111	8.51	1.42	1.99	0.028	0.028	0.539	0.539	7.17	0.000	2.836
	Bardue., Målselva	2906	2906	2049	28.3	27.8	28.3		6.13	10.2	2.5	303	99	7.64	1.27	1.78	0.025	0.025	0.484	0.484	6.45	0.000	2.548
	Nordkjoselva, Balsfj.	191	191	415	27.7	28.0	27.7		4.31	0.5	0.1	13	6	0.51	0.08	0.08	0.000	0.002	0.005	0.005	0.15	0.000	0.169
	Signaldalselva, Lyngen V	473	467	415	27.7	28.0	27.7		4.29	4.1	2.9	37	22	1.24	0.37	0.41	0.000	0.004	0.103	0.103	5.53	0.000	0.412
	Skibotnelva, Lyngen	770	770	724	18.0	16.8	18.0		2.99	0.8	0.2	39	18	2.86	0.24	0.20	0.004	0.004	0.012	0.012	0.39	0.612	0.612
	Kåfjordelva, Lyngen Ø	358	358	348	20.0	23.0	20.0	23.0	4.34	0.3	0.1	38	27	0.78	0.29	0.16	0.003	0.003	0.005	0.005	0.07	0.000	0.260
	Reisa, Reisafj.	2702	2702		16.0	13.6	16.0		3.76	2.3	0.6	132	57	11.59	1.62	2.20	0.035	0.035	0.209	0.209	1.54	0.000	1.159
Finnmark	Mattiselva, Kåfj. Altafj.	325	325	319	26.5	21.2	26.5		2.75	0.7	0.1	20	3	1.30	0.13	0.11	0.000	0.002	0.035	0.035	0.19	0.000	0.217
(10.)	Tverrelva, Altafj.	234	233	233	15.1	12.0	15.1		4.27	0.4	0.2	12	4	0.62	0.05	0.04	0.001	0.001	0.009	0.009	0.05	0.000	0.088
	Repparfjordv., Repparfj.	1090	1089		25.0	22.5	25.0		4.50	1.5	0.4	92	19	6.18	0.31	0.39	0.000	0.008	0.108	0.108	0.29	1.545	1.545
	Stabburse., I. Porsangen V	1108	1102	870	18.3	15.2	18.3		3.02	1.1	0.3	55	13	4.75	0.21	0.69	0.048	0.048	1.231	1.231	0.39	0.000	0.528
	Lakse., Indre Porsangen S	1533	1532	941	15.9	12.8	15.9		4.41	3.1	0.6	83	9	1.86	0.62	0.62	0.006	0.006	0.458	0.458	1.49	0.000	0.618
	Børselva.Indre Porsangen Ø	883	883	863	29.8	29.0	29.8		3.74	0.8	0.4	48	11	8.08	0.16	0.97	0.008	0.008	0.129	0.129	0.50	0.000	0.808
	Mattusjåkka, I. Laksefj. V	101	101	101	22.8	20.5	22.8		4.01	0.2	0.1	4	1	0.33	0.04	0.03	0.000	0.001	0.010	0.010	0.06	0.000	0.065
	Storelva.Indre Laksefj. V	690	690	760	21.9	19.0	19.9		2.10	0.4	0.2	37	31	1.24	0.21	1.61	0.017	0.017	0.215	0.215	0.04	0.000	0.413
	Soussjåkka, I. Laksefj. V	92	92	102	25.3	22.8	22.8		4.68	0.1	0.0	5	2	0.20	0.02	0.11	0.001	0.001	0.009	0.009	0.02	0.000	0.066
	Adamselva, I. Laksefj. Ø	705	705	760	19.9	15.0	19.9		6.14	0.7	0.2	35	2	3.67	0.20	0.50	0.010	0.010	0.053	0.053	0.20	0.000	0.333
	Tanavassdraget, Tanafj. S	16389	15713	14169	11.5	9.2	11.5		3.96	27.4	9.1	843	46	91.18	3.19	2.28	0.046	0.046	1.459	1.459	7.20	11.397	11.397
	Vesterelva, Syltefj.	469	469	79	34.6	31.6	34.6		8.55	1.9	0.5	28	2	1.40	0.19	0.23	0.014	0.014	0.042	0.042	0.10	0.000	0.467
	V. Jakobse., Y.Varangerfj.	627	627	239	18.1	14.5	18.1		5.72	1.1	0.6	39	1	4.01	0.11	0.20	0.003	0.003	0.029	0.029	0.05	0.287	0.287
	Passvike., Bøkfj.Varang.fj.	18404	18400	18175	9.3	10.2	9.3		4.37	47.3	11.8	1095	30	124.29	12.43	11.25	0.000	0.059	1.243	1.243	19.47	11.837	11.837
	Nelden, Munkfj. Varang.fj.	2960	2960	2911	9.8	8.8	9.8		2.95	2.5	0.8	152	28	2.46	0.58	0.82	0.000	0.008	0.197	0.197	0.79	0.000	0.821
	Grense Jakobse.,Varang.fj.	234	234		18.0	18.0	18.0		4.20	0.4	0.1	23	1	3.59	0.35	0.23	0.003	0.003	0.179	0.179	0.11	0.398	0.398

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Parameters (mean values)																							
			PCB (The following Congeners) IUPAC NOS																						
		Gamma	28		52		101		118		138		153		180		Sum : PCB		TOC	Cr- T		Ni		As	
		HCH	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit		zero	limit	zero	limit	zero	limit
		kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	t.tons	tons	tons	tons	tons	tons	tons
Østfold	Tista, Iddefj.	0.479	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.162	5.18	1.31	1.31	0.61	0.61	0.21	0.21
(1.)	Mosselva, Mossesundet	0.298	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.070	2.41	0.65	0.65	0.36	0.36	0.11	0.11
Oslo &	Hølenelva, Drøbaksundet Ø	0.015	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.011	0.50	0.14	0.14	0.13	0.13	0.03	0.03
Akershus	Arungelva, I. Oslofj.	0.011	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.004	0.05	0.04	0.04	0.05	0.05	0.02	0.02
(1.)	Gjersjøelva, I. Oslofj.	0.021	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.007	0.17	0.07	0.07	0.06	0.06	0.01	0.01
	Ljanselva, I. Oslofj.	0.009	0.001	0.001	0.002	0.002	0.001	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.006	0.007	0.11	0.03	0.03	0.02	0.02	0.00	0.00
	Loelva/Alna, I. Oslofj.	0.020	0.014	0.014	0.009	0.009	0.013	0.013	0.009	0.009	0.014	0.014	0.011	0.011	0.006	0.006	0.075	0.075	0.23	0.00	0.02	0.02	0.02	0.02	0.02
	Akerselva, I. Oslofj.	0.075	0.003	0.003	0.003	0.003	0.003	0.003	0.000	0.003	0.004	0.004	0.004	0.004	0.003	0.003	0.019	0.021	0.34	0.09	0.09	0.06	0.06	0.02	0.02
	Frognerelva, I. Oslofj.	0.008	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.006	0.007	0.05	0.02	0.02	0.02	0.02	0.01	0.01
	Lysakerelva, I. Oslofj.	0.081	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.031	0.77	0.11	0.11	0.12	0.12	0.01	0.01
	Sandvikselva, I. Oslofj.	0.022	0.000	0.003	0.000	0.003	0.004	0.004	0.004	0.004	0.005	0.005	0.007	0.007	0.003	0.003	0.024	0.031	0.55	0.08	0.08	0.11	0.11	0.04	0.04
	Aroselva, I. Oslofj.	0.011	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.012	0.30	0.06	0.06	0.06	0.06	0.02	0.02
Buskerud	Lierelva, Drammensfj. Ø	0.063	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.051	0.82	0.29	0.29	0.28	0.28	0.05	0.05
(2.)																									
Vestfold	Sandeelva, Sandebukta	0.016	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.020	0.35	0.12	0.12	0.08	0.08	0.04	0.04
(3.)	Aulielva, Tønsbergfj.	0.032	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.035	1.05	0.43	0.43	0.41	0.41	0.07	0.07
	Farriselva, Larvikfj.	0.166	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.070	1.36	0.10	0.10	0.15	0.15	0.05	0.05
Telemark	Tokkeelva, Kragerø	1.082	0.000	0.032	0.000	0.032	0.000	0.032	0.000	0.032	0.000	0.032	0.000	0.032	0.000	0.032	0.000	0.227	3.68	1.21	1.21	0.31	0.31	0.34	0.34
(4.)																									
Aust-	Gjerstadelva, Søndeledfj.	0.363	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.076	1.67	0.19	0.19	0.41	0.41	0.11	0.11
Agder	Vegårdselva, Sandnesfj.	0.417	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.088	2.01	0.40	0.40	0.20	0.20	0.08	0.08
(5.)	Nidelva, Arendal	3.968	0.000	0.119	0.000	0.119	0.000	0.119	0.000	0.119	0.000	0.119	0.000	0.119	0.000	0.119	0.000	0.833	11.31	2.02	2.02	0.44	0.44	0.71	0.71

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Parameters (mean values)																							
			PCB (The following Congeners) IUPAC NOS																	TOC	Cr- T		Ni		As	
		Gamma	28		52		101		118		138		153		180		Sum : PCB									
		HCH kg	zero kg	limit kg	zero kg	limit kg	zero kg	limit kg	zero kg	limit kg	zero kg	limit kg	zero kg	limit kg	zero kg	limit kg	zero kg	limit kg	t.tons	zero tons	limit tons	zero tons	limit tons	zero tons	limit tons
Vest-	Tovdalselva, Topdalsfj.	1.830	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.384	6.92	1.54	1.54	0.40	0.40	0.64	0.64
Agder	Søgneelva, Flekkerøy	0.202	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.053	0.96	0.45	0.45	0.22	0.22	0.08	0.08
(5.)	Mandalselva, Mannefj.	1.987	0.000	0.085	0.000	0.085	0.000	0.085	0.000	0.085	0.000	0.085	0.000	0.085	0.000	0.085	0.000	0.596	8.15	1.87	1.87	0.20	0.20	0.54	0.54
	Audna, Sniksfj.	0.318	0.000	0.019	0.000	0.019	0.000	0.019	0.000	0.019	0.000	0.019	0.000	0.019	0.000	0.019	0.000	0.134	1.84	0.90	0.90	0.08	0.08	0.25	0.25
(6.)	Lygna, Lyngdalsfj.	0.641	0.000	0.038	0.000	0.038	0.000	0.038	0.000	0.038	0.000	0.038	0.000	0.038	0.000	0.038	0.000	0.269	4.24	2.33	2.33	0.35	0.35	0.19	0.19
	Kvina, Fedafj.	0.325	0.000	0.020	0.000	0.020	0.000	0.020	0.000	0.020	0.000	0.020	0.000	0.020	0.000	0.020	0.000	0.137	2.54	0.93	0.93	0.03	0.03	0.21	0.21
	Sira, Ana-Sira	1.700	0.000	0.102	0.000	0.102	0.000	0.102	0.000	0.102	0.000	0.102	0.000	0.102	0.000	0.102	0.000	0.714	5.44	2.79	2.79	0.24	0.24	0.48	0.48
Rogaland	Sokndalselva, Sogndalsstr.	0.472	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.110	0.84	0.42	0.42	1.50	1.50	0.04	0.04
(6.)	Hellelandselva, Egersund	0.411	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.096	0.78	0.39	0.39	0.21	0.21	0.10	0.10
	Bjerkreimselva, Egersund	1.385	0.000	0.046	0.000	0.046	0.000	0.046	0.000	0.046	0.000	0.046	0.000	0.046	0.000	0.046	0.000	0.323	11.92	0.75	0.75	0.78	0.78	1.34	1.34
	Håelva, Håtangen	0.186	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.048	1.17	0.20	0.20	0.20	0.20	0.03	0.03
	Figgjo, Solavika	0.286	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.075	1.39	0.63	0.63	0.15	0.15	0.05	0.05
	Ims-Lutsl. Høgsfj.Boknafj.	0.131	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.034	0.56	0.66	0.66	0.04	0.04	0.04	0.04
	Oltedalse.,Høgsfj.Boknafj.	0.194	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.051	0.34	0.62	0.62	0.03	0.03	0.04	0.04
	Dirdalse., Høgsfj.Boknafj.	0.313	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.094	0.42	0.75	0.75	0.01	0.01	0.06	0.06
	Frafjorde.,Frafj. Boknafj.	0.340	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.119	0.74	0.83	0.83	0.02	0.02	0.06	0.06
	Espedalse.,Høgsfj.Boknafj.	0.206	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.086	0.45	0.76	0.76	0.01	0.01	0.04	0.04
	Lysee., Lysefj.Boknafj.	0.178	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.094	0.71	0.14	0.14	0.03	0.03	0.01	0.01
	Ardalse., Ardalsfj.Boknafj.	0.500	0.000	0.042	0.000	0.042	0.000	0.042	0.000	0.042	0.000	0.042	0.000	0.042	0.000	0.042	0.000	0.292	1.49	2.79	2.79	0.43	0.43	0.53	0.53
	Førree., Jøsenfj.Boknafj.	0.185	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.097	0.88	0.50	0.50	0.02	0.02	0.05	0.05
	Ulla, Jøsenfj.Boknafj.	0.543	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.228	4.23	0.35	0.35	0.07	0.07	0.03	0.03
(7.)	Saudae., Saudáfj.Boknafj.	0.208	0.000	0.031	0.000	0.031	0.000	0.031	0.000	0.031	0.000	0.031	0.000	0.031	0.000	0.031	0.000	0.219	2.50	1.09	1.09	0.12	0.12	0.07	0.07
	Abøelva, Saudafj.Boknafj.	0.048	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.051	0.22	0.23	0.23	0.01	0.01	0.01	0.01
	Vikedalse., Boknafj.	0.076	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.080	0.37	0.82	0.82	0.13	0.13	0.08	0.08

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Parameters (mean values)																						
			PCB (The folloving Congeners) IUPAC NOS																					
		Gamma	28		52		101		118		138		153		180		Sum : PCB		TOC	Cr- T		Ni		As	
		HCH	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit		zero	limit	zero	limit	zero	limit
		kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	t.tons	tons	tons	tons	tons	tons	tons
Hordaland	Etneelva, Etnefj. Bømlafj.	0.230	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.097	0.24	0.53	0.53	0.07	0.07	0.05	0.05
(7.)	Opo, Sørfj. Hardangerfj.	0.564	0.000	0.042	0.000	0.042	0.000	0.042	0.000	0.042	0.000	0.042	0.000	0.042	0.000	0.042	0.000	0.296	0.99	1.41	1.41	0.07	0.07	0.14	0.14
	Tysso, Sørfj. Hardangerfj.	0.443	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.233	0.33	0.94	0.94	0.06	0.06	0.03	0.03
	Kinso, Sørfj. Hardangerfj.	0.173	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.110	0.26	0.18	0.18	0.00	0.01	0.05	0.05
	Veig, Eidfjv. Hardangerfj.	0.166	0.000	0.022	0.000	0.022	0.000	0.022	0.000	0.022	0.000	0.022	0.000	0.022	0.000	0.022	0.000	0.152	0.79	0.43	0.43	0.11	0.11	0.01	0.01
	Bjorela, " , Hardangerfj.	0.123	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.112	0.59	0.32	0.32	0.08	0.08	0.01	0.01
	Sima, Eidfj. Hardangerfj.	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.074	0.11	0.32	0.32	0.01	0.01	0.01	0.01
	Austdøla, Osafj. Eidfj.	0.067	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.071	0.07	0.01	0.01	0.01	0.01	0.05	0.05
	Norddøla, Osafj. Eidfj.	0.020	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.021	0.02	0.07	0.07	0.08	0.08	0.06	0.06
	Tysseelva, Fusafj.	0.142	0.000	0.021	0.000	0.021	0.000	0.021	0.000	0.021	0.000	0.021	0.000	0.021	0.000	0.021	0.000	0.149	1.27	0.99	0.99	0.04	0.04	0.07	0.07
	Oselva, Fusafj.	0.063	0.000	0.009	0.000	0.009	0.000	0.009	0.000	0.009	0.000	0.009	0.000	0.009	0.000	0.009	0.000	0.066	0.76	0.44	0.44	0.02	0.02	0.03	0.03
	Bergsdalse, Veafj.Herdlafj.	0.108	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.113	0.49	0.62	0.62	0.11	0.11	0.01	0.01
	Vosso, Veafj. Sørfj.	0.707	0.000	0.106	0.000	0.106	0.000	0.106	0.000	0.106	0.000	0.106	0.000	0.106	0.000	0.106	0.000	0.742	3.18	3.00	3.00	0.00	0.04	0.35	0.35
	Ekso, Osterfj.	0.243	0.000	0.037	0.000	0.037	0.000	0.037	0.000	0.037	0.000	0.037	0.000	0.037	0.000	0.037	0.000	0.256	1.51	0.06	0.06	0.01	0.01	0.18	0.18
	Modalselva, Osterfj.	0.254	0.000	0.038	0.000	0.038	0.000	0.038	0.000	0.038	0.000	0.038	0.000	0.038	0.000	0.038	0.000	0.267	0.95	0.06	0.06	0.01	0.01	0.19	0.19

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Parameters (mean values)																							
			PCB (The folloving Congeners) IUPAC NOS																	TOC	Cr- T		Ni		As	
		Gamma	28		52		101		118		138		153		180		Sum : PCB									
		HCH	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit		zero	limit	zero	limit	zero	limit
		kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	t.tons	tons	tons	tons	tons	tons	tons
Sogn og Fjordane (7.)	Nærøye., Aurl.fj. Sognefj.	0.122	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.128	0.24	0.82	0.82	0.06	0.06	0.06	0.06
	Flåmse., Aurl.fj. Sognefj.	0.122	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.128	0.18	0.43	0.43	0.09	0.09	0.03	0.03
	Aurlandv. Aurl.fj. Sognefj.	0.163	0.000	0.041	0.000	0.041	0.000	0.041	0.000	0.041	0.000	0.041	0.000	0.041	0.000	0.041	0.000	0.285	0.54	0.68	0.68	0.04	0.04	0.00	0.01
	Erdalse., Lærd.fj. Sognefj.	0.022	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.030	0.13	0.08	0.08	0.01	0.01	0.03	0.03
	Lærdalsv. Lærd.fj. Sognefj.	0.163	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.172	1.23	0.12	0.12	0.04	0.04	0.04	0.04
	Ardalsv., Ardalsfj.Sognefj.	0.375	0.000	0.045	0.000	0.045	0.000	0.045	0.000	0.045	0.000	0.045	0.000	0.045	0.000	0.045	0.000	0.315	1.14	0.60	0.60	0.15	0.15	0.05	0.05
	Fortunv., Lusterfj.Sognefj.	0.252	0.000	0.027	0.000	0.027	0.000	0.027	0.000	0.027	0.000	0.027	0.000	0.027	0.000	0.027	0.000	0.189	0.27	0.13	0.13	0.09	0.09	0.02	0.02
	Mørkrisv., Lusterfj.Sognefj.	0.143	0.000	0.015	0.000	0.015	0.000	0.015	0.000	0.015	0.000	0.015	0.000	0.015	0.000	0.015	0.000	0.107	0.20	0.15	0.15	0.01	0.01	0.00	0.01
	Jostedøla, " Sognefj.	0.581	0.000	0.062	0.000	0.062	0.000	0.062	0.000	0.062	0.000	0.062	0.000	0.062	0.000	0.062	0.000	0.436	0.83	1.04	1.04	0.21	0.21	0.10	0.10
	Arøye., Sognd.fj. Sognefj.	0.341	0.000	0.036	0.000	0.036	0.000	0.036	0.000	0.036	0.000	0.036	0.000	0.036	0.000	0.036	0.000	0.255	0.73	0.79	0.79	0.04	0.04	0.04	0.04
	Sogndalse, " Sognefj.	0.118	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.089	1.22	0.23	0.23	0.02	0.02	0.01	0.01
	Gaular, Dalsfj. Bufj.	0.666	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.388	2.90	0.74	0.74	0.18	0.18	0.18	0.18
	Jølstra, Førdefj.	0.553	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.055	0.000	0.387	2.03	1.75	1.75	0.06	0.06	0.09	0.09
	Nausta, Førdefj.	0.261	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.183	1.38	1.05	1.05	0.09	0.09	0.03	0.03
	Oselva, Høydalsfj.	0.234	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.163	1.95	1.48	1.48	0.02	0.02	0.01	0.01
	Hopse., Hyefj. Nordfj.S	0.057	0.000	0.006	0.000	0.006	0.000	0.006	0.000	0.006	0.000	0.006	0.000	0.006	0.000	0.006	0.000	0.040	0.13	0.27	0.27	0.01	0.01	0.00	0.00
	Gjengedalse.," Nordfj.S	0.131	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.092	0.65	0.35	0.35	0.04	0.04	0.02	0.02
	Breimse., Gloppenfj. "	0.453	0.000	0.045	0.000	0.045	0.000	0.045	0.000	0.045	0.000	0.045	0.000	0.045	0.000	0.045	0.000	0.317	1.06	1.21	1.21	0.08	0.08	0.03	0.03
	Oldene., Indre Nordfj.	0.167	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.117	0.45	0.42	0.42	0.03	0.03	0.00	0.01
	Loenelva, Indre Nordfj.	0.171	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.017	0.000	0.119	0.28	0.31	0.31	0.03	0.03	0.03	0.03
	Strynee., Indre Nordfj.	0.332	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.033	0.000	0.232	0.55	0.83	0.83	0.11	0.11	0.06	0.06
	Hornindalse., Nordfj. N	0.342	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.179	1.03	1.11	1.11	0.09	0.09	0.13	0.13

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Parameters (mean values)																							
			PCB (The following Congeners) IUPAC NOS																						
		Gamma	28		52		101		118		138		153		180		Sum : PCB		TOC	Cr- T		Ni		As	
		HCH	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit		zero	limit	zero	limit	zero	limit
		kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	t.tons	tons	tons	tons	tons	tons	tons
Møre og Romsdal (8.)	Ørstae., Ørstafj.	0.018	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.075	0.48	0.43	0.43	0.11	0.11	0.00	0.00
	Valldøla, Nordalfj.Storfj.	0.351	0.000	0.021	0.000	0.021	0.000	0.021	0.000	0.021	0.000	0.021	0.000	0.021	0.000	0.021	0.000	0.148	0.35	0.28	0.28	0.00	0.01	0.01	0.01
	Rauma, Romsdalsfj.Moldefj.	0.645	0.000	0.039	0.000	0.039	0.000	0.039	0.000	0.039	0.000	0.039	0.000	0.039	0.000	0.039	0.000	0.271	0.90	1.55	1.55	0.13	0.13	0.06	0.06
	Isa, Isfj. Moldefj.	0.128	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.067	0.26	0.30	0.30	0.03	0.03	0.02	0.02
	Eira, Eresfj. Moldefj.	0.396	0.255	0.255	0.102	0.102	0.051	0.051	0.000	0.038	0.000	0.038	0.000	0.038	0.000	0.038	0.409	0.562	0.64	1.28	1.28	0.00	0.01	0.19	0.19
	Litttedalse., Sunndalsfj.	0.179	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.094	0.27	0.27	0.27	0.02	0.02	0.00	0.00
	Driva, Sunnd.fj.Tingvollfj.	0.441	0.000	0.066	0.000	0.066	0.000	0.066	0.000	0.066	0.000	0.066	0.000	0.066	0.000	0.066	0.000	0.463	2.42	1.54	1.54	0.33	0.33	0.02	0.02
	Ulvåa, Alvundfj.	0.074	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.011	0.000	0.077	0.52	0.24	0.24	0.01	0.01	0.00	0.00
	Toåa, Todalsfj.	0.095	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.100	0.53	0.21	0.21	0.02	0.02	0.01	0.01
	Surna, Surnadalsfj.	0.946	0.000	0.057	0.000	0.057	0.000	0.057	0.000	0.057	0.000	0.057	0.000	0.057	0.000	0.057	0.000	0.397	4.96	1.32	1.32	0.38	0.38	0.09	0.09
	Bøvra, Hamnesfj. Halsafj.	0.307	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.013	0.000	0.092	1.14	0.26	0.26	0.09	0.09	0.04	0.04
Sør-Trøndelag (8.)	Børse.,Gaulosen Tr.h.fj.	0.081	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.019		0.03	0.03	0.12	0.12	0.01	0.01
	Vigda, Gaulosen Tr.h.fj.	0.108	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.028	0.51	0.38	0.38	0.37	0.37	0.05	0.05
	Gaula, Gaulosen Tr.h.fj.	1.660	0.000	0.071	0.000	0.071	0.000	0.071	0.000	0.071	0.000	0.071	0.000	0.071	0.000	0.071	0.000	0.498	7.59	0.66	0.66	2.02	2.02	0.55	0.55
	Nidelva, Trondheimsfj.	1.549	0.000	0.082	0.000	0.082	0.000	0.082	0.000	0.082	0.000	0.082	0.000	0.082	0.000	0.082	0.000	0.571		0.54	0.54	1.58	1.58	0.43	0.43
	Homla, Stjørd.fj.Tr.h.fj.	0.079	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.030		0.05	0.05	0.11	0.11	0.10	0.10
Nord-Trøndelag (8.)	Stjørdalsv, " Tr.h.fj.	1.318	0.000	0.072	0.000	0.072	0.000	0.072	0.000	0.072	0.000	0.072	0.000	0.072	0.000	0.072	0.000	0.503		0.86	0.86	1.22	1.22	0.14	0.14
	Gråe., " Tr.h.fj.	0.040	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.015		0.03	0.03	0.09	0.09	0.02	0.02
	Verdalsvassdr., Tr.h.fj.	0.730	0.000	0.040	0.000	0.040	0.000	0.040	0.000	0.040	0.000	0.040	0.000	0.040	0.000	0.040	0.000	0.279		3.41	3.41	0.16	0.16	0.28	0.28
	Figga/Leksdalse.,Tr.h.fj.	0.139	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.054		0.14	0.14	0.21	0.21	0.01	0.01
	Snåsavassdr., Trondh.fj.	0.851	0.000	0.051	0.000	0.051	0.000	0.051	0.000	0.051	0.000	0.051	0.000	0.051	0.000	0.051	0.000	0.357		4.31	4.31	0.09	0.09	0.41	0.41
	Argårdselva, Namsfj.	0.132	0.000	0.020	0.000	0.020	0.000	0.020	0.000	0.020	0.000	0.020	0.000	0.020	0.000	0.020	0.000	0.138		2.74	2.74	0.26	0.26	0.26	0.26
	Namsen, Namsfj. Ø	2.114	0.000	0.264	0.000	0.264	0.000	0.264	0.000	0.264	0.000	0.264	0.000	0.264	0.000	0.264	0.000	1.850		15.50	15.50	2.82	2.82	0.97	0.97
	Salsvatnelva, Follafj.	0.243	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.170		3.56	3.56	0.25	0.25	0.17	0.17

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Parameters (mean values)																							
			PCB (The folloving Congeners) IUPAC NOS																	TOC	Cr- T		Ni		As	
		Gamma	28		52		101		118		138		153		180		Sum : PCB									
		HCH	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit		zero	limit	zero	limit	zero	limit
		kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	t.tons	tons	tons	tons	tons	tons	tons
Nordland	Abjøra, Bindalsfj. S	0.290	0.000	0.029	0.000	0.029	0.000	0.029	0.000	0.029	0.000	0.029	0.000	0.029	0.000	0.029	0.000	0.203		2.44	2.44	0.30	0.30	0.14	0.14
(9.)	Skjerva, Vefsenfj. S	0.048	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.025		0.31	0.31	0.00	0.00	0.03	0.03
	Fusta, Vefsenfj. N	0.390	0.000	0.029	0.000	0.029	0.000	0.029	0.000	0.029	0.000	0.029	0.000	0.029	0.000	0.029	0.000	0.205		1.81	1.81	0.20	0.20	0.24	0.24
	Drevja, Vefsenfj. N	0.130	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.068		0.56	0.56	0.05	0.05	0.06	0.06
	Røssåga, Sørfj.	1.007	0.000	0.101	0.000	0.101	0.000	0.101	0.000	0.101	0.000	0.101	0.000	0.101	0.000	0.101	0.000	0.705		5.03	5.03	0.37	0.37	0.50	0.50
	Bjerka, Sørfj.	0.177	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.018	0.000	0.124		0.54	0.54	0.05	0.05	0.04	0.04
	Dalselva, Ranafj. N	0.059	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.050		0.33	0.33	0.06	0.06	0.02	0.02
	Ranavassdraget, Ranafj. N	1.516	0.000	0.182	0.000	0.182	0.000	0.182	0.000	0.182	0.000	0.182	0.000	0.182	0.000	0.182	0.000	1.274		8.00	8.00	1.33	1.33	0.55	0.55
	Fykanåga, Glomfjord	0.234	0.000	0.028	0.000	0.028	0.000	0.028	0.000	0.028	0.000	0.028	0.000	0.028	0.000	0.028	0.000	0.197		1.24	1.24	0.21	0.21		
	Belare., Belarfj. Nordfj.	0.418	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.176	2.17	1.66	1.66	0.14	0.14	0.16	0.16
	Saltdalsvassdr., Saltd.fj.S	0.906	0.000	0.039	0.000	0.039	0.000	0.039	0.000	0.039	0.000	0.039	0.000	0.039	0.000	0.039	0.000	0.272		3.09	3.09	0.14	0.14	0.34	0.34
	Sulitjelmavassdr., Saltd.fj	0.672	0.000	0.027	0.000	0.027	0.000	0.027	0.000	0.027	0.000	0.027	0.000	0.027	0.000	0.027	0.000	0.191		17.71	17.71	0.20	0.20	1.58	1.58
	Kobbe., Leirfj. Sørfolda N	0.400	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.168		1.03	1.03	0.28	0.28	0.07	0.07
	Skjoma, Ofotfj. S	0.307	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.161		0.60	0.60	0.28	0.28	0.08	0.08

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1994.

County	Watercourse	Parameters (mean values)																							
			PCB (The folloving Congeners) IUPAC NOS																						
		Gamma	28		52		101		118		138		153		180		Sum : PCB		TOC	Cr- T		Ni		As	
		HCH	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit	zero	limit		zero	limit	zero	limit	zero	limit
		kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	t.tons	tons	tons	tons	tons	tons	tons
Troms	Spanselva, Astafj. Vågsfj.	0.080	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.048		0.25	0.25	0.05	0.05	0.01	0.01
(9.)	Salangse., Astafj. Vågsfj.	0.303	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.026	0.000	0.182		0.99	0.99	0.10	0.10	1.52	1.52
	Rossfjorde., Malangen	0.082	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.052		0.75	0.75	0.05	0.05	0.03	0.03
	Målse., Målselvfj. "	0.567	0.000	0.085	0.000	0.085	0.000	0.085	0.000	0.085	0.000	0.085	0.000	0.085	0.000	0.085	0.000	0.596		2.69	2.69	0.06	0.06	0.20	0.20
	Bardue., Målselva	0.510	0.000	0.076	0.000	0.076	0.000	0.076	0.000	0.076	0.000	0.076	0.000	0.076	0.000	0.076	0.000	0.535		2.42	2.42	0.05	0.05	0.18	0.18
	Nordkjoselva, Balsfj.	0.017	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.005	0.000	0.035		0.17	0.17	0.02	0.02	0.02	0.02
	Signaldalselva, Lyngen V	0.041	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.087		0.49	0.49	0.19	0.19	0.04	0.04
	Skibotnelva, Lyngen	0.020	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.086		0.39	0.39	0.27	0.27	0.04	0.04
	Kåfjordelva, Lyngen Ø	0.013	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.008	0.000	0.055		0.24	0.24	0.09	0.09	0.03	0.03
	Reisa, Reisafj.	0.058	0.000	0.035	0.000	0.035	0.000	0.035	0.000	0.035	0.000	0.035	0.000	0.035	0.000	0.035	0.000	0.243	2.20	1.34	1.34	0.17	0.17	0.15	0.15
Finnmark	Mattiselva, Kåfj. Altafj.	0.022	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.046		0.47	0.47	0.30	0.30	0.03	0.03
(10.)	Tverrelva, Altafj.	0.013	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.019		0.23	0.23	0.12	0.12	0.01	0.01
	Repparfjordv., Repparfj.	0.116	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.023	0.000	0.162		3.05	3.05	1.16	1.16	0.08	0.08
	Stabburse., I. Porsangen V	0.079	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.016	0.000	0.111	1.27	1.29	1.29	0.77	0.77	0.06	0.06
	Lakse., Indre Porsangen S	0.093	0.000	0.019	0.000	0.019	0.000	0.019	0.000	0.019	0.000	0.019	0.000	0.019	0.000	0.019	0.000	0.130		1.55	1.55	0.54	0.54	0.04	0.04
	Børselva.Indre Porsangen Ø	0.121	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.024	0.000	0.170		1.46	1.46	0.25	0.25	0.09	0.09
	Mattusjåkka, I. Laksefj. V	0.010	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.014		0.08	0.08	0.03	0.03	0.01	0.01
	Storelva.Indre Laksefj. V	0.062	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.087		0.53	0.53	0.21	0.21	0.05	0.05
	Soussjåkka, I. Laksefj. V	0.010	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.002	0.000	0.014		0.21	0.21	0.08	0.08	0.01	0.01
	Adamselva, I. Laksefj. Ø	0.050	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.010	0.000	0.070		1.48	1.48	0.38	0.38	0.07	0.07
	Tanavassdraget, Tanafj. S	0.501	0.000	0.137	0.000	0.137	0.000	0.137	0.000	0.137	0.000	0.137	0.000	0.137	0.000	0.137	0.000	0.957		10.76	10.76	3.74	3.74	0.68	0.68
	Vesterelva, Syltefj.	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.014	0.000	0.098		2.31	2.31	0.47	0.47	0.20	0.20
	V. Jakobse., Y.Varangerfj.	0.086	0.000	0.009	0.000	0.009	0.000	0.009	0.000	0.009	0.000	0.009	0.000	0.009	0.000	0.009	0.000	0.060		0.88	0.88	0.41	0.41	0.04	0.04
	Passvike., Bøkfj.Varang.fj.	1.894	0.000	0.178	0.000	0.178	0.000	0.178	0.000	0.178	0.000	0.178	0.000	0.178	0.000	0.178	0.000	1.243	23.08	14.09	14.09	51.91	51.91	1.60	1.60
	Neiden, Munkfj. Varang.fj.	0.288	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.025	0.000	0.173		1.68	1.68	1.08	1.08	0.08	0.08
	Grense Jakobse.,Varang.fj.	0.046	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.004	0.000	0.028		0.46	0.46	0.98	0.98	0.04	0.04

APPENDIX X : "MEAN" TOTAL DISCHARGES (Mean concentrations of main and tributary rivers multiplied with mean runoff 1961-90 (main rivers), 1931-60 (tributary rivers). **Page:**

* Measurements below detection limits are treated in two ways:
"Detection limit = Zero", and "Detection limit = limit". This concerns the substances Cd, Pb, Hg and PCBs. In Table 10.5A the "limit-values" are shown, in Table 10.5B the "zero-values" are presented.

Table X "MEAN" TOTAL DISCHARGES from MAINLAND NORWAY to convention waters (Mean runoff 1961 - 90, main rivers, 1931 - 60, tributary rivers (Fig. I)).

Substance:	Area runoff	Direct Discharges	Tributary Inputs		Main Riverine Inputs		Grand Total	
Cadmium		1.2	4.3	*	3.7	*	9.2	tonnes
Cadmium			4.6	**	3.7	**	9.5	tonnes
Mercury		105	135	*	108	*	347	kg
Mercury			203	**	135	**	442	kg
Copper		49	101		102		252	tonnes
Zinc		140	382		390		912	tonnes
Lead		6.3	48.8	*	36.5	*	91.6	tonnes
Lead			48.9	**	36.5	**	91.7	tonnes
Arsenic		0.5	23.2		16.4	*	40.1	tonnes
Arsenic			23.2		16.4	**	40.2	tonnes
Cr-T		6.5	199.6	*	67.2	*	273.2	tonnes
Cr-T			199.6	**	67.2	**	273.2	tonnes
Ni		14.2	87.2	*	46.1	*	147.5	tonnes
Ni			87.2	**	46.1	**	147.5	tonnes
PCBs ***			0.5	*	32.1	*	32.6	kg
PCBs			29.7	**	34.4	**	64.1	kg
gamma-HCH			55		37		92	kg
NH4-N	1637	11263	1730		1344		15974	tonnes
NO3-N	14020	194	17100		16416		47730	tonnes
PO4-P	201	1163	199		199		1763	tonnes
Total N	22364	17783	32791		26850		99788	tonnes
Total P	766	2180	672		510		4128	tonnes
S.P.M.		5675905	219552		240780		6136236	tonnes
TOC		18053	173		192090		210316	tonnes
COD		215420					215420	tonnes
AOX		210					210	tonnes

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

***** the following congeners: IUPAC Nos. 28,52,101,118,153,138,180**

Table 10.1 "MEAN" TOTAL DISCHARGES to The Skagerrak Region (Mean runoff 1961 - 90, main rivers, 1931 - 60, tributary rivers (Fig. I.I)).

The Skagerrak Region with main rivers (1) Glomma, (2) Drammenselva, (3) Numedalslågen, (4) Skienselva, (5) Otra

Substance:	Area runoff	Direct Discharges	Tributary Inputs		Main Riverine Inputs		Grand Total	
Cadmium		0.09	0.8	*	3.1	*	4.0	tonnes
Cadmium			0.8	**	3.1	**	4.0	tonnes
Mercury		42.07	12	*	87	*	141	kg
Mercury			17	**	109	**	168	kg
Copper		20.65	9		54		83	tonnes
Zinc		19.07	99		276		395	tonnes
Lead		0.91	6.9	*	27.0	*	34.8	tonnes
Lead			6.9	**	27.0	**	34.8	tonnes
Arsenic		0.28	3.3	*	12.6	*	16.2	tonnes
Arsenic			3.3	**	12.6	**	16.2	tonnes
Cr-T		4.38	11.5	*	49.6	*	65.6	tonnes
Cr-T			11.6	**	49.6	**	65.6	tonnes
Ni		10.82	4.6	*	34.9	*	50.3	tonnes
Ni			4.6	**	34.9	**	50.3	tonnes
PCBs ***			0.1	*	26.4	*	26.5	kg
PCBs			2.8	**	27.6	**	30.4	kg
gamma-HCH			11		33		44	kg
NH4-N	158	4616	523		1129		6426	tonnes
NO3-N	1560	150	4690		14659		21059	tonnes
PO4-P	18	106	32		158		314	tonnes
Total N	2393	7497	7494		22709		40093	tonnes
Total P	70	265	109		427		871	tonnes
S.P.M.		16466	28662		217490		262618	tonnes
TOC		6838	49		153780		160666	tonnes
COD		117370					117370	tonnes
AOX		210					210	tonnes

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

***** the following congeners: IUPAC Nos. 28,52,101,118,153,138,180**

Table 10.2 "MEAN" TOTAL DISCHARGES to The Remaining North Sea (Mean runoff 1961 - 90, main rivers, 1931 - 60, tributary rivers (Fig. I.II)).

The North Sea Region with main rivers : (6) Orreelva, (7) Suldalslågen

Substance:	Area runoff	Direct Discharges	Tributary Inputs		Main Riverine Inputs		Grand Total	
Cadmium		0.99	1.1	*	0.1	*	2.2	tonnes
Cadmium			1.2	**	0.1	**	2.2	tonnes
Mercury		42.39	28	*	0	*	70	kg
Mercury			54	**	3	**	99	kg
Copper		6.76	13		1		21	tonnes
Zinc		75.75	144		6		226	tonnes
Lead		4.59	10.2	*	0.4	*	15.2	tonnes
Lead			10.3	**	0.4	**	15.3	tonnes
Arsenic		0.00	5.7	*	0.3	*	6.0	tonnes
Arsenic			5.7	**	0.3	**	6.0	tonnes
Cr-T		1.34	37.4	*	4.0	*	42.7	tonnes
Cr-T			37.4	**	4.0	**	42.7	tonnes
Ni		2.19	6.0	*	2.1	*	10.3	tonnes
Ni			6.0	**	2.1	**	10.3	tonnes
PCBs ***			0.0	*	0.0	*	0.0	kg
PCBs			9.1	**	0.6	**	9.7	kg
gamma-HCH			16		2		18	kg
NH4-N	579	3103	521		24		4228	tonnes
NO3-N	5161	21	7386		583		13151	tonnes
PO4-P	56	275	53		2		386	tonnes
Total N	8286	4742	11467		782		25277	tonnes
Total P	198	537	181		9		925	tonnes
S.P.M.		2106041	39171		2440		2147652	tonnes
TOC		5287	72		2024		7383	tonnes
COD		38768					38768	tonnes

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

***** the following congeners: IUPAC Nos. 28,52,101,118,153,138,180**

Table 10.3 "MEAN" TOTAL DISCHARGES to The Norwegian Sea (Mean runoff 1961 - 90, main rivers, 1931 - 60, tributary rivers (Fig. I.III)).

The Norwegian Sea Region with main rivers (8) Orkla, (9) Vefsna

Substance:	Area runoff	Direct Discharges	Tributary Inputs		Main Riverine Inputs		Grand Total	
Cadmium		0.14	2.1	*	0.4	*	2.7	tonnes
Cadmium			2.3	**	0.4	**	2.9	tonnes
Mercury		19.00	67	*	17	*	103	kg
Mercury			99	**	19	**	136	kg
Copper		21.58	60		44		126	tonnes
Zinc		44.71	119		105		269	tonnes
Lead		0.81	25.6	*	8.8	*	35.2	tonnes
Lead			25.6	**	8.8	**	35.2	tonnes
Arsenic		0.27	10.9	*	2.6	*	13.8	tonnes
Arsenic			10.9	**	2.6	**	13.8	tonnes
Cr-T		0.70	106.2	*	10.2	*	117.2	tonnes
Cr-T			106.2	**	10.2	**	117.2	tonnes
Ni		1.15	16.9	*	7.0	*	25.1	tonnes
Ni			16.9	**	7.0	**	25.1	tonnes
PCBs ***			0.4	*	5.2	*	5.6	kg
PCBs			14.0	**	5.6	**	19.6	kg
gamma-HCH			24		2		26	kg
NH4-N	808	3284	414		173		4679	tonnes
NO3-N	6289	22	4795		1039		12145	tonnes
PO4-P	110	755	87		18		969	tonnes
Total N	10004	5195	11046		2868		29113	tonnes
Total P	410	1331	288		39		2068	tonnes
S.P.M.		1421222	119930		12242		1553393	tonnes
TOC		5588	30		26691		32309	tonnes
COD		57745					57745	tonnes
AOX		1					1	tonnes

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

***** the following congeners: IUPAC Nos. 28,52,101,118,153,138,180**

Table 10.4 "MEAN" TOTAL DISCHARGES to The Barents Sea (Mean runoff 1961 - 90, main rivers, 1931 - 60, tributary rivers (Fig. I.IV)).

The Barents Sea Region with main river (10) Alta

Substance:	Area runoff	Direct Discharges	Tributary Inputs		Main Riverine Inputs		Grand Total	
Cadmium		0.00	0.2	*	0.11	*	0.3	tonnes
Cadmium			0.3	**	0.11	**	0.4	tonnes
Mercury		1.35	28	*	4.11	*	33	kg
Mercury			33	**	4.11	**	38	kg
Copper		0.37	19		3.02		22	tonnes
Zinc		0.43	21		2.03		23	tonnes
Lead		0.01	6.1	*	0.25	*	6.4	tonnes
Lead			6.1	**	0.25	**	6.4	tonnes
Arsenic		0.00	3.2	*	0.88	*	4.1	tonnes
Arsenic			3.2	**	0.88	**	4.1	tonnes
Cr-T		0.04	44.4	*	3.29	*	47.7	tonnes
Cr-T			44.4	**	3.29	**	47.7	tonnes
Ni		0.06	59.8	*	2.06	*	61.9	tonnes
Ni			59.8	**	2.06	**	61.9	tonnes
PCBs ***			0.0	*	0.49	*	0.5	kg
PCBs			3.7	**	0.66	**	4.3	kg
gamma-HCH			4		0.14		4	kg
NH4-N	91	260	273		16		640	tonnes
NO3-N	1010	2	229		134		1375	tonnes
PO4-P	18	28	27		21		94	tonnes
Total N	1681	349	2784		491		5305	tonnes
Total P	88	46	95		35		264	tonnes
S.P.M.		2132176	31789		8608		2172572	tonnes
TOC		340	23		9595		9958	tonnes
COD		1537					1537	tonnes

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

***** the following congeners: IUPAC Nos. 28,52,101,118,153,138,180**

Table 10.5 A Main rivers. "Mean" load (Mean concentrations multiplied with mean runoff 1961-90) (Limit-values=limits).

Watercourse	Runoff data							Parameters (mean values)										
	Drainage area			Discharge														
	Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd limit	Pb limit	S.P.M.
				Normal	1994	Normal	1994											
	sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		mS/m	tons	tons	tons	tons	Tons	tons	tons	tons	tons	t.tons
Glomma, Hvaler-Singlefj.	41918	41218	40221	16.5	15.7	16.9	16.1	6.07	295.98	117.96	12311	8150	686.32	35.17	182.09	2.145	19.088	152.28
Drammensvassdr, Dr.fj. V	17034	17028	16020	17.1	17.5	18.2	18.6	3.58	51.42	15.61	4711	3039	146.92	7.81	29.75	0.275	2.663	23.69
Numedalslågen, Larvikfj.	5577	5513	5197	21.2	22.3	21.2	22.3	3.05	28.38	11.43	1589	921	103.20	3.83	19.98	0.184	1.917	15.00
Skiensvassdr, Grenlandsfj.	10772	10348	10348	25.3	25.1	25.3	25.1	2.18	26.42	7.27	2774	1874	132.10	4.54	21.05	0.330	1.404	8.92
Otra, Kr.Sandsfj.	3738	3730	3668	39.8	42.6	39.8	42.6	2.48	24.58	6.09	1325	674	60.86	2.34	23.60	0.187	1.966	17.60
Orreelva, Orresanden	105	105	54	36.7	31.1	40.7	34.6	20.48	4.73	1.12	164	92	5.47	0.17	0.31	0.007	0.043	0.60
Suldalsl.,Sandsfj.Boknafj.	1457	1457	1457	59	36	59	36	2.86	4.74	1.36	618	491	18.98	0.92	5.42	0.054	0.380	1.84
Orkla, Orkdalsfj.Tr.h.fj.	3053	2872	2247	21.7	14.7	21.7	14.7	7.00	9.18	2.30	653	425	19.65	15.41	51.16	0.157	0.334	3.30
Vefsna, Vefsenfj. S	4122	4113	3323	43.9	30.9	43.9	30.9	6.40	29.44	15.20	2215	615	153.74	28.64	54.32	0.285	8.484	8.94
Altaelva, Altafj.	7373	7367	6257	11.8	9.3	11.8	9.3	12.61	34.95	20.92	491	134	16.45	3.02	2.03	0.110	0.247	8.61

Watercourse	Parameters (mean values)												
			PCB (The folloving Congeners) IUPAC NOS										
	Hg limit	Gamma HCH	28 . limit	52 limit	101 limit	118 limit	138 . limit	153 . limit	180 limit	SUM : limit	TOC	Cr-T limit	Ni limit	As limit
	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	t.tons	tons	tons	tons
Glomma, Hvaler-Singlefj.	69.276	12.440	0.643	1.501	2.788	2.574	2.574	1.930	0.429	12.440	79.356	28.096	19.732	8.579
Drammensvassdr, Dr.fj. V	9.183	6.244	0.275	0.551	1.010	0.918	0.918	0.735	0.184	4.591	28.466	8.081	5.418	1.561
Numedalslågen, Larvikfj.	17.655	1.622	0.111	0.258	0.590	0.516	0.553	0.369	0.147	2.543	12.532	3.133	2.285	0.700
Skiensvassdr, Grenlandsfj.	8.256	8.669	0.165	0.743	1.156	1.156	1.321	0.826	0.330	5.697	18.164	4.706	2.972	0.991
Otra, Kr.Sandsfj.	4.682	3.886	0.140	0.234	0.515	0.468	0.468	0.328	0.140	2.294	15.262	5.618	4.448	0.796
Orreelva, Orresanden	0.122	0.157	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.026	0.668	0.314	0.358	0.033
Suldalsl.,Sandsfj.Boknafj.	2.711	2.250	0.081	0.081	0.081	0.081	0.081	0.081	0.081	0.569	1.355	3.687	1.762	0.244
Orkla, Orkdalsfj.Tr.h.fj.	1.965	0.373	0.059	0.059	0.059	0.059	0.059	0.059	0.059	0.413	7.331	2.260	1.336	1.101
Vefsna, Vefsenfj. S	16.855	1.310	1.765	1.310	0.740	0.342	0.285	0.285	0.456	5.182	19.360	7.972	5.694	1.537
Altaelva, Altafj.	4.112	0.137	0.082	0.082	0.164	0.110	0.082	0.055	0.082	0.658	9.595	3.290	2.056	0.877

Table 10.5 B Main rivers. "Mean" load (Mean concentrations multiplied with mean runoff 1961-90) (Limit-values=zero).

Watercourse	Runoff data							Parameters (mean values)										
	Drainage area			Discharge														
	Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd zero	Pb zero	S.P.M.
				Normal	1994	Normal	1994											
	sq.km	sq.km	sq.km	l/s sq.km		l/s sq.km		mS/m	tons	tons	tons	tons	tons	tons	tons	tons	tons	t.tons
Glomma, Hvaler-Singlefj.	41918	41218	40221	16.5	15.7	16.9	16.1	6.07	295.98	117.96	12311	8150	686.32	35.17	182.09	2.145	19.088	152.28
Drammensvassdr, Dr.fj. V	17034	17028	16020	17.1	17.5	18.2	18.6	3.58	51.42	15.61	4711	3039	146.92	7.81	29.75	0.275	2.663	23.69
Numedalslågen, Larvikfj.	5577	5513	5197	21.2	22.3	21.2	22.3	3.05	28.38	11.43	1589	921	103.20	3.83	19.98	0.184	1.917	15.00
Skiensvassdr, Grenlandsfj.	10772	10348	10348	25.3	25.1	25.3	25.1	2.18	26.42	7.27	2774	1874	132.10	4.54	21.05	0.330	1.404	8.92
Otra, Kr.Sandsfj.	3738	3730	3668	39.8	42.6	39.8	42.6	2.48	24.58	6.09	1325	674	60.86	2.34	23.60	0.187	1.966	17.60
Orreelva, Orresanden	105	105	54	36.7	31.1	40.7	34.6	20.48	4.73	1.12	164	92	5.47	0.17	0.31	0.007	0.043	0.60
Suldalsl.,Sandsfj.Boknafj.	1457	1457	1457	59	36	59	36	2.86	4.74	1.36	618	491	18.98	0.92	5.42	0.054	0.380	1.84
Orkla, Orkdalsfj.Tr.h.fj.	3053	2872	2247	21.7	14.7	21.7	14.7	7.00	9.18	2.30	653	425	19.65	15.41	51.16	0.157	0.334	3.30
Vefsna, Vefsenfj. S	4122	4113	3323	43.9	30.9	43.9	30.9	6.40	29.44	15.20	2215	615	153.74	28.64	54.32	0.285	8.484	8.94
Altaelva, Altafj.	7373	7367	6257	11.8	9.3	11.8	9.3	12.61	34.95	20.92	491	134	16.45	3.02	2.03	0.110	0.247	8.61

Watercourse	Parameters (mean values)													
			PCB (The following Congeners) IUPAC NOS											
	Hg zero	Gamma HCH	28	52	101	118	138	153	180	SUM :	TOC	Cr-T zero	Ni zero	As zero
	kg	kg	zero kg	zero kg	zero kg	zero kg	zero kg	zero kg	zero kg	zero kg	t.tons	tons	tons	tons
Glomma, Hvaler-Singlefj.	69.276	12.440	0.000	1.501	2.788	2.574	2.574	1.930	0.429	11.796	79.356	28.096	19.732	8.579
Drammensvassdr, Dr.fj. V	0.000	6.244	0.000	0.551	1.010	0.918	0.918	0.735	0.184	4.316	28.466	8.081	5.418	1.561
Numedalslågen, Larvikfj.	17.655	1.622	0.000	0.258	0.590	0.516	0.553	0.369	0.147	2.433	12.532	3.133	2.285	0.700
Skiensvassdr, Grenlandsfj.	0.000	8.669	0.165	0.743	1.156	1.156	1.321	0.826	0.330	5.697	18.164	4.706	2.972	0.991
Otra, Kr.Sandsfj.	0.000	3.886	0.000	0.234	0.515	0.468	0.468	0.328	0.140	2.154	15.262	5.618	4.448	0.796
Orreelva, Orresanden	0.000	0.157	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.668	0.314	0.358	0.033
Suldalsl.,Sandsfj.Boknafj.	0.000	2.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.355	3.687	1.762	0.244
Orkla, Orkdalsfj.Tr.h.fj.	0.000	0.373	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.331	2.260	1.336	1.101
Vefsna, Vefsenfj. S	16.855	1.310	1.765	1.310	0.740	0.342	0.285	0.285	0.456	5.182	19.360	7.972	5.694	1.537
Altaelva, Altafj.	4.112	0.137	0.000	0.082	0.164	0.110	0.082	0.055	0.000	0.493	9.595	3.290	2.056	0.877

Table 10.6 The Skagerrak Region. "Mean" inputs from tributary rivers in The Sub-areas (1 - 5)
(Mean concentrations 1994 multiplied with mean runoff, 1931-60)

The Skagerrak Region with sub-areas: (1A) Glomma, (1B) Inner Oslofj., (2) Drammenselva, (3) Numedalslågen, (4) Skienselva, (5) Otra

Total quantity of substance discharged per year:								Were 70 % of measurements above the detection limit ?		Precision of the estimate of the load
Sub-areas :	1A	1B	2	3	4	5				
Substance:										
Cd *	0.11	0.03	0.01	0.02	0.05	0.60	tonnes	YES	_____	%
Cd **	0.11	0.03	0.01	0.02	0.05	0.60	tonnes		_____	%
Hg *	0.61	0.70	0.16	0.10	1.01	9.37	kg	YES	_____	%
Hg **	1.32	0.85	0.16	0.61	1.01	13.38	kg		_____	%
Cu	0.9	0.5	0.1	0.8	0.6	5.7	tonnes	YES	_____	%
Zn	8.0	2.4	1.3	9.1	7.7	70.6	tonnes	YES	_____	%
Pb *	0.33	0.14	0.05	0.29	0.37	5.68	tonnes	YES	_____	%
Pb **	0.33	0.14	0.05	0.29	0.37	5.68	tonnes		_____	%
Arsenic *	0.33	0.13	0.03	0.16	0.31	2.35	tonnes	YES	_____	%
Arsenic **	0.33	0.13	0.03	0.16	0.31	2.35	tonnes		_____	%
Cr-T *	1.97	0.51	0.19	0.66	1.13	7.08	tonnes	YES	_____	%
Cr-T **	1.97	0.53	0.19	0.66	1.13	7.08	tonnes		_____	%
Ni *	1.05	0.51	0.18	0.65	0.29	1.90	tonnes	YES	_____	%
Ni **	1.05	0.51	0.18	0.65	0.29	1.90	tonnes		_____	%
PCBs *	0.00	0.11	0.00	0.00	0.00	0.00	kg	NO	_____	%
PCBs **	0.23	0.16	0.03	0.13	0.21	2.08	kg		_____	%
gamma-HCH	0.74	0.25	0.04	0.22	1.01	8.80	kg	YES	_____	%
NH4-N	25.77	33.77	6.71	24.33	39.41	392.7	tonnes	YES	_____	%
NO3-N	953	408	136	612	227	2354	tonnes	YES	_____	%
PO4-P	5.5	4.6	5.9	10.1	0.5	5.5	tonnes	YES	_____	%
Total N	1145	558	171	922	404	4293	tonnes	YES	_____	%
Total P	20	15	9	16	4	44	tonnes	YES	_____	%
S.P.M.	3319	3660	2216	4919	1051	13497	tonnes	YES	_____	%
TOC	8	2	1	3	3	32	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :
***) Detection limit = Zero**
****) Detection limit = Limit**

Table 10.7 The remaining North Sea. "Mean" inputs from tributary rivers in The Subareas (6-7). (Mean concentrations 1994 multiplied with mean runoff, 1931-60)

The remaining North Sea Region with sub-areas: (6) Orreelva, (7) Suldalslågen

Total quantity of substance discharged per year:				Were 70 % of measurements above the detection limit ?		Precision of the estimate of the load
Sub-areas :	6	7				
Substance:						
Cd *	0.38	0.73	tonnes	YES	_____	%
Cd **	0.38	0.79	tonnes		_____	%
Hg *	5.39	22.63	kg	YES	_____	%
Hg **	16.04	38.13	kg		_____	%
Cu	4.2	8.8	tonnes	YES	_____	%
Zn	71.8	72.3	tonnes	YES	_____	%
Pb *	7.49	2.74	tonnes	YES	_____	%
Pb **	7.49	2.80	tonnes		_____	%
Arsenic *	3.85	1.86	tonnes	YES	_____	%
Arsenic **	3.85	1.88	tonnes		_____	%
Cr-T *	17.00	20.39	tonnes	YES	_____	%
Cr-T **	17.00	20.39	tonnes		_____	%
Ni *	4.03	1.93	tonnes	YES	_____	%
Ni **	4.03	1.96	tonnes		_____	%
PCBs *	0.00	0.00	kg	NO	_____	%
PCBs **	3.09	6.02	kg		_____	%
gamma-HCH	8.56	7.40	kg	YES	_____	%
NH4-N	321.42	199.96	tonnes	YES	_____	%
NO3-N	3639	3747	tonnes	YES	_____	%
PO4-P	23.0	29.7	tonnes	YES	_____	%
Total N	5409	6057	tonnes	YES	_____	%
Total P	80	101	tonnes	YES	_____	%
S.P.M.	17313	21858	tonnes	YES	_____	%
TOC	44	28	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 10.8 The Norwegian Sea. "Mean" inputs from tributary rivers in The Subareas (8-9). (Mean concentrations 1994 multiplied with mean runoff, 1931-60)

The Norwegian Sea Region with sub-areas: (8) Orkla, (9) Vefsna

Total quantity of substance discharged per year:				Were 70 % of measurements above the detection limit ?		Precision of the estimate of the load
Sub-areas :	8	9				
Substance:						
Cd *	1.77	0.38	tonnes	YES	_____	%
Cd **	1.82	0.47	tonnes		_____	%
Hg *	58.95	8.22	kg	YES	_____	%
Hg **	68.94	29.58	kg		_____	%
Cu	29.3	31.1	tonnes	YES	_____	%
Zn	65.8	52.9	tonnes	YES	_____	%
Pb *	10.70	14.86	tonnes	YES	_____	%
Pb **	10.74	14.86	tonnes		_____	%
Arsenic *	4.59	6.34	tonnes	YES	_____	%
Arsenic **	4.61	6.34	tonnes		_____	%
Cr-T *	45.46	60.77	tonnes	YES	_____	%
Cr-T **	45.46	60.77	tonnes		_____	%
Ni *	11.80	5.08	tonnes	YES	_____	%
Ni **	11.82	5.08	tonnes		_____	%
PCBs *	0.39	0.00	kg	NO	_____	%
PCBs **	7.94	6.09	kg		_____	%
gamma-HCH	15.02	9.00	kg	YES	_____	%
NH4-N	267.36	146.19	tonnes	YES	_____	%
NO3-N	3641	1154	tonnes	YES	_____	%
PO4-P	56.8	30.3	tonnes	YES	_____	%
Total N	7931	3115	tonnes	YES	_____	%
Total P	193	95	tonnes	YES	_____	%
S.P.M.	57568	62361	tonnes	YES	_____	%
TOC	24	6	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 10.9 The Barents Sea. "Mean" inputs from tributary rivers in The Sub-area (10). (Mean concentrations 1994 multiplied with mean runoff, 1931-60)

The Barents Sea Region with sub-area: (10) Alta

Total quantity of substance discharged per year:			Were 70 % of measurements above the detection limit ?	Precision of the estimate of the load
Sub-area :	10			
Substance:				
Cd *	0.19	tonnes	YES	%
Cd **	0.26	tonnes		%
Hg *	27.51	kg	YES	%
Hg **	32.62	kg		%
Cu	19.0	tonnes	YES	%
Zn	20.6	tonnes	YES	%
Pb *	6.14	tonnes	YES	%
Pb **	6.14	tonnes		%
Arsenic *	3.21	tonnes	YES	%
Arsenic **	3.21	tonnes		%
Cr-T *	44.40	tonnes	YES	%
Cr-T **	44.40	tonnes		%
Ni *	59.76	tonnes	YES	%
Ni **	59.76	tonnes		%
PCBs *	0.00	kg	NO	%
PCBs **	3.69	kg		%
gamma-HCH	3.51	kg	YES	%
NH4-N	272.65	tonnes		%
NO3-N	229	tonnes	YES	%
PO4-P	27.3	tonnes	YES	%
Total N	2784	tonnes	YES	%
Total P	95	tonnes	YES	%
S.P.M.	31789	tonnes	YES	%
TOC	23	tonnes	YES	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**