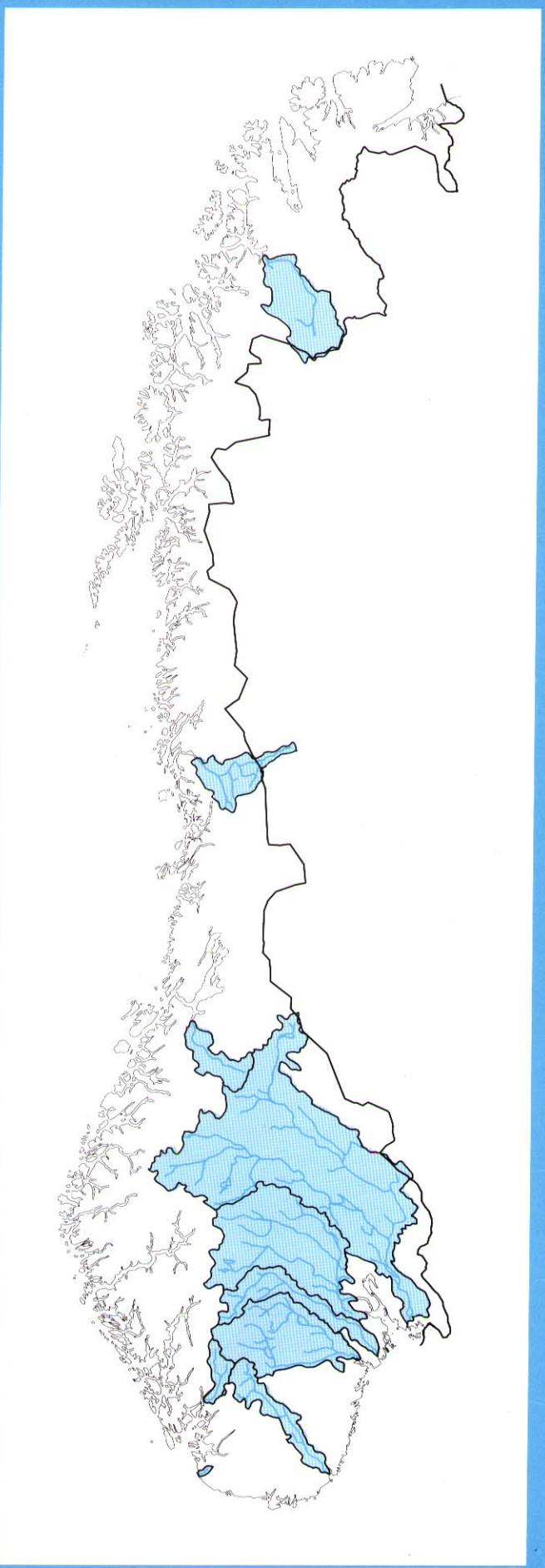

Norwegian Pollution Control Authority

Contractor	SFT Norway
Performing institute	NIVA

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Paris Convention

Annual report on direct and riverine inputs to Norwegian coastal waters during the year 1995

A Principles, results and discussions

B Data report

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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 1995. 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 4000 tonnes of phosphorus and 105.200 tonnes of nitrogen. About 43 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 107 kg. The largest yields from heavy metals comprise copper and zinc, with input estimates of 347 and 967 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

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The National Environmental Monitoring Programme

Paris Convention

Annual report on direct and riverine inputs to Norwegian coastal waters during the year 1995

A Principles, results and discussion
B Data report

Oslo, November 1996
Project manager: Gjertrud Holtan
Co-workers: Dag Berge
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NIVA Norwegian Institute for Water Research

PREFACE

The report presents the data from the 1995 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 1995-investigation lasted from January throughout December. This report is the Norwegian part of the 1995 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 phosphorus 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 (1995) 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.

This report also presents the results from an intensive investigation of Glomma (at Sarpsfoss) and Drammenselva (at Gamle Mjøndalen bro) in connection with the extraordinary high flood in Norwegian rivers in the South-Eastern part of the country in May-June 1995.

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 31 per cent of the phosphorus and 39 per cent of the nitrogen yield. In this region where 90 per cent of the area is river- monitored, about 75 per cent of the P- and N- loads, are found in the riverine inputs.

According to the results of the 1995 investigation total annual nutrient loads to coastal waters from landbased sources in Norway are approximately 4000 tonnes of phosphorus and 105.200 tonnes of nitrogen. Respectively 43 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 8.7 and 9.3 tonnes, mercury between 530 and 602 kg. The "below detection limit problem" also applies for the inputs of PCBs which are measured to be between 0.58 and 54.5 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 107 kg. The largest share of heavy metals comprise copper and zinc, with input estimates of 347 and 967 tonnes, of which 80 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 1995 are in addition "normalized", i.e. 1995 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 eight 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 phosphorus 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 - 1995).

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 1995-monitoring programmes, and existing knowledge of the river systems concerned, supplemented with random samples taken in 1995.

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°30"N, 70°30"E), to about 70°30"N, 21°E

Norwegian Sea: Southwards of 70°30"N, to about 62° N

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

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

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 1990-1994 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.

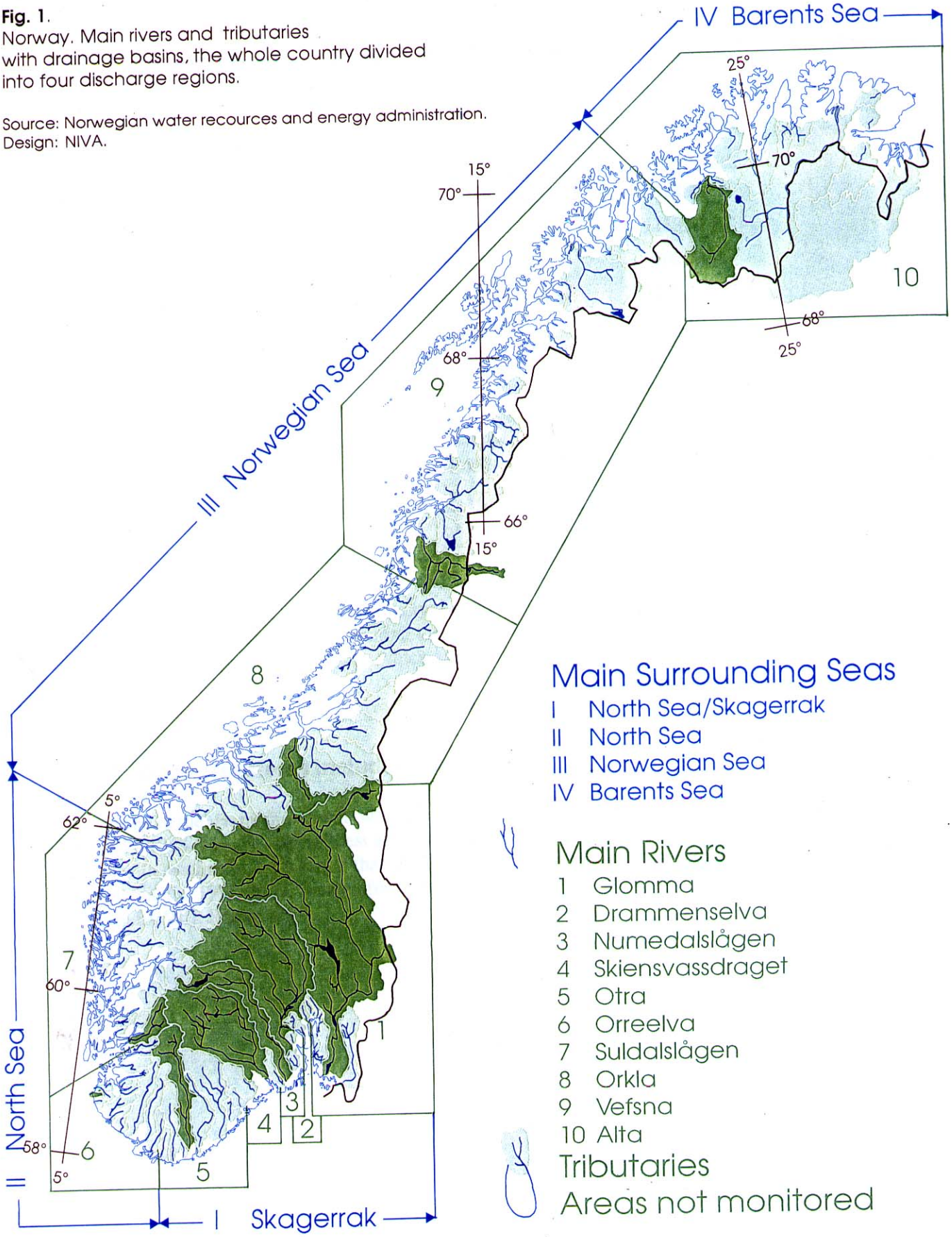


Table 2. The main rivers with catchment areas and long term average flow (LTA) 1961-90.

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 - 1994 (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 1995 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 1993-1994, and also in 1995.

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 1995 as prescribed in PARCOM 10/3/2/E.

In connection with the high flood in Norwegian rivers in the South-Eastern part of the country in May-June 1995, an intensive investigation of Glomma (at Sarpsfoss) and Drammenselva (at Gamle Mjøndalen bro) was carried out.

In June Glomma was sampled daily and Drammenselva every second day for determination of nutrients and particular matter, and both rivers every second day for determination of heavy metals. In addition samples from both rivers were gathered every fourth day for determination of PCBs and HCH. To follow the situation it was in July and August taken weekly samples from both rivers for determination of nutrients and particular matter. Data from this investigation are also reported.

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.

As mentioned above the parameters lindane and PCBs were monitored 4 times in Glomma and Drammenselva during the high flood in 1995, that is 8 times altogether. For the other main rivers except Suldalslågen and Alta the parameters lindane and PCBs have been monitored three times in 1995, in Suldalslågen and Alta, twice.

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 in 1996 (at least once) and compared with measurements from the last decade. With regard to the rest of the rivers, from nearly all draining to the Orre- and Suldalslågen areas, most data are from samples gathered in 1993.

PCBs and lindane were not sampled/analyzed in 1995. As for Hg, this parameter was analyzed once in samples from the Oslofjord rivers. Up north from river Børselva in the Orkla area to river Grense Jacobselv in the Alta area (Appendix VIII, Report B), the Hg-values are from 1996-samples. For the rest of the rivers the concentrations of Hg, lindane and PCBs 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[1)]	x	x	x	x	x	x	x	x	x	x	x	x
Drammenselva upstr. outl.[2)]	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		

[1)] Daily in June, weekly in July and August

[2)] Every second day in June, weekly in July and August

In 1995 the water samples were taken by local persons as in 1990 - 1994. 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 1995 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 7 of 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 draining to the Skagerrak and the North Sea areas more than 70 % were above the detection limits both in the Cd- and Pb-samples. In the Norwegian Sea area 44% of the Cd-findings were positive and in the Barents Sea area only 19%. The Pb-findings, however, were in all areas above the detection limit.

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 1995-samples from 8 of the main rivers were above the detection limit, Glomma and Numedalslågen 100%, the others 70-91%. As for the findings from the "Oslofjord" rivers in the Skagerrak area 10 of 17 river samples were higher than the detection limit (60%). 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 1995-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).

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).

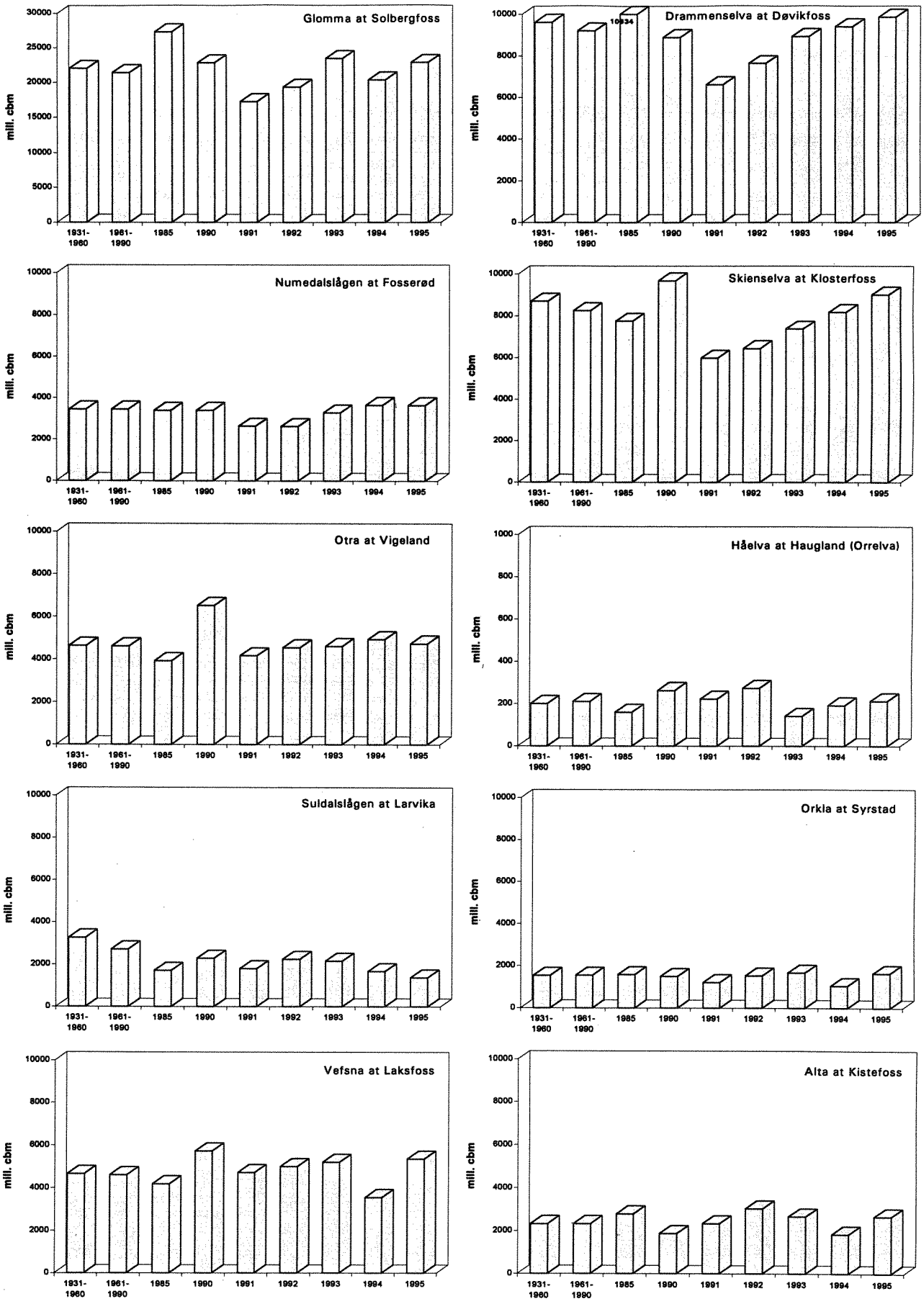
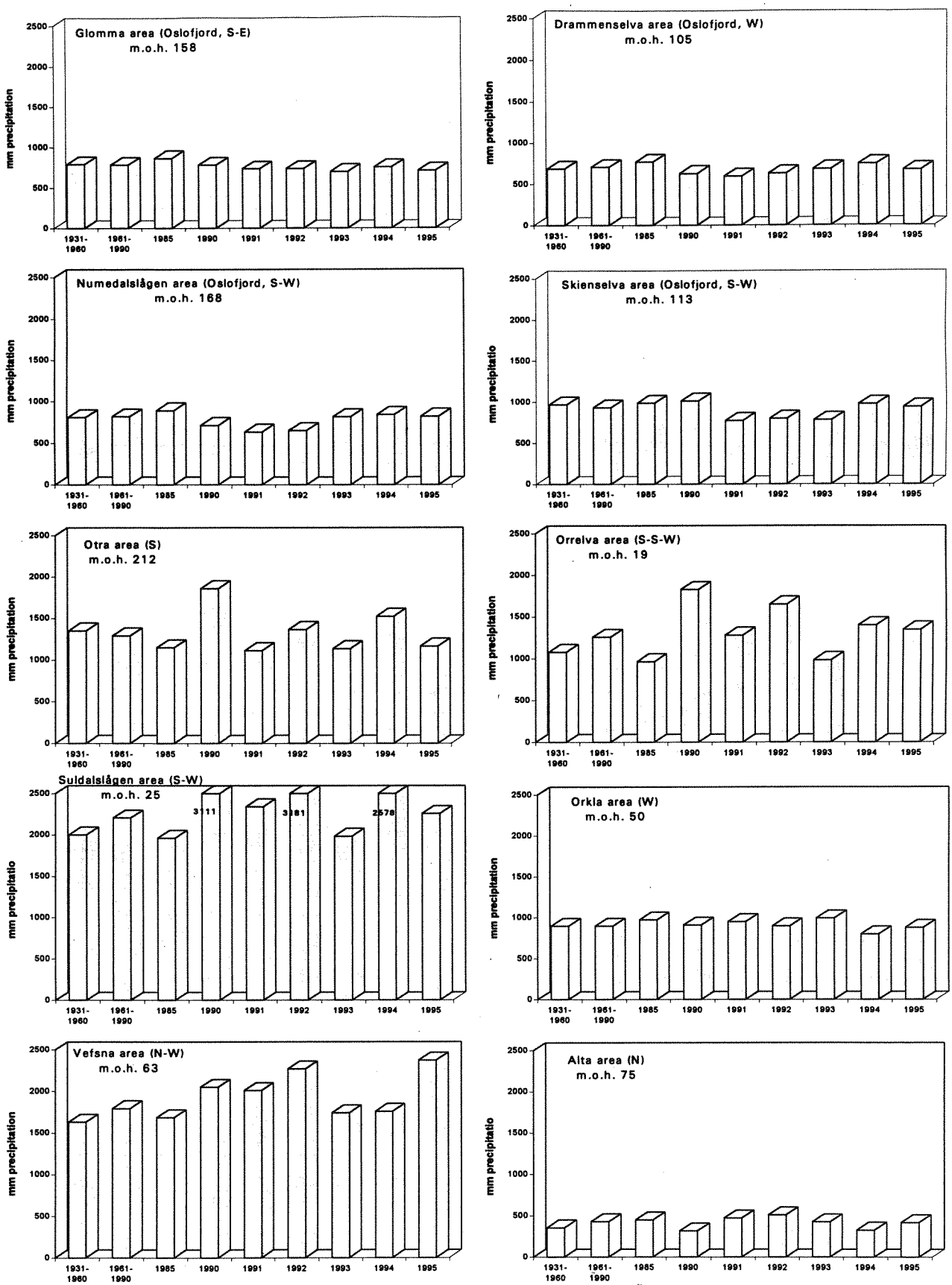


Fig. 2 Main Rivers. Mean Annual Runoff (1931-60 and 1961-90) and Annual Runoff for the Years 1985, 1990 - 1995 (mill.cbm.).
Source: Norwegian Water Resources and Energy Administration



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 - 1995 (mm/year).
Source: The Norwegian Meteorological Institute

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, 1996). The additional water supplied is estimated using measured rainfall data from the local catchment areas (DNMI, 1996).

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 1995, are shown in Fig. 4. In Fig. 5 monthly precipitation for the same period together with mean precipitation in 1995, 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 (1995) are used for flow estimates.

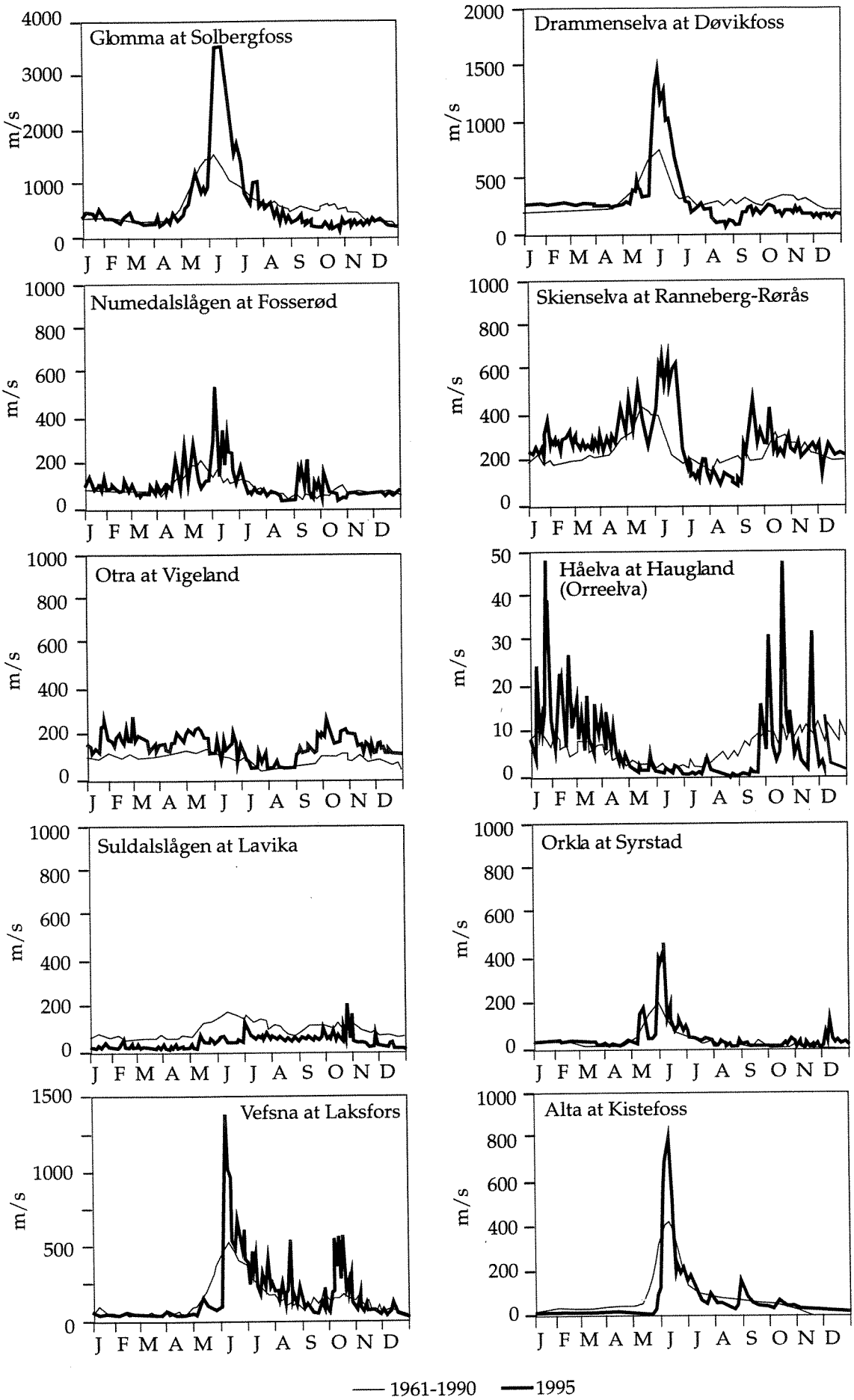
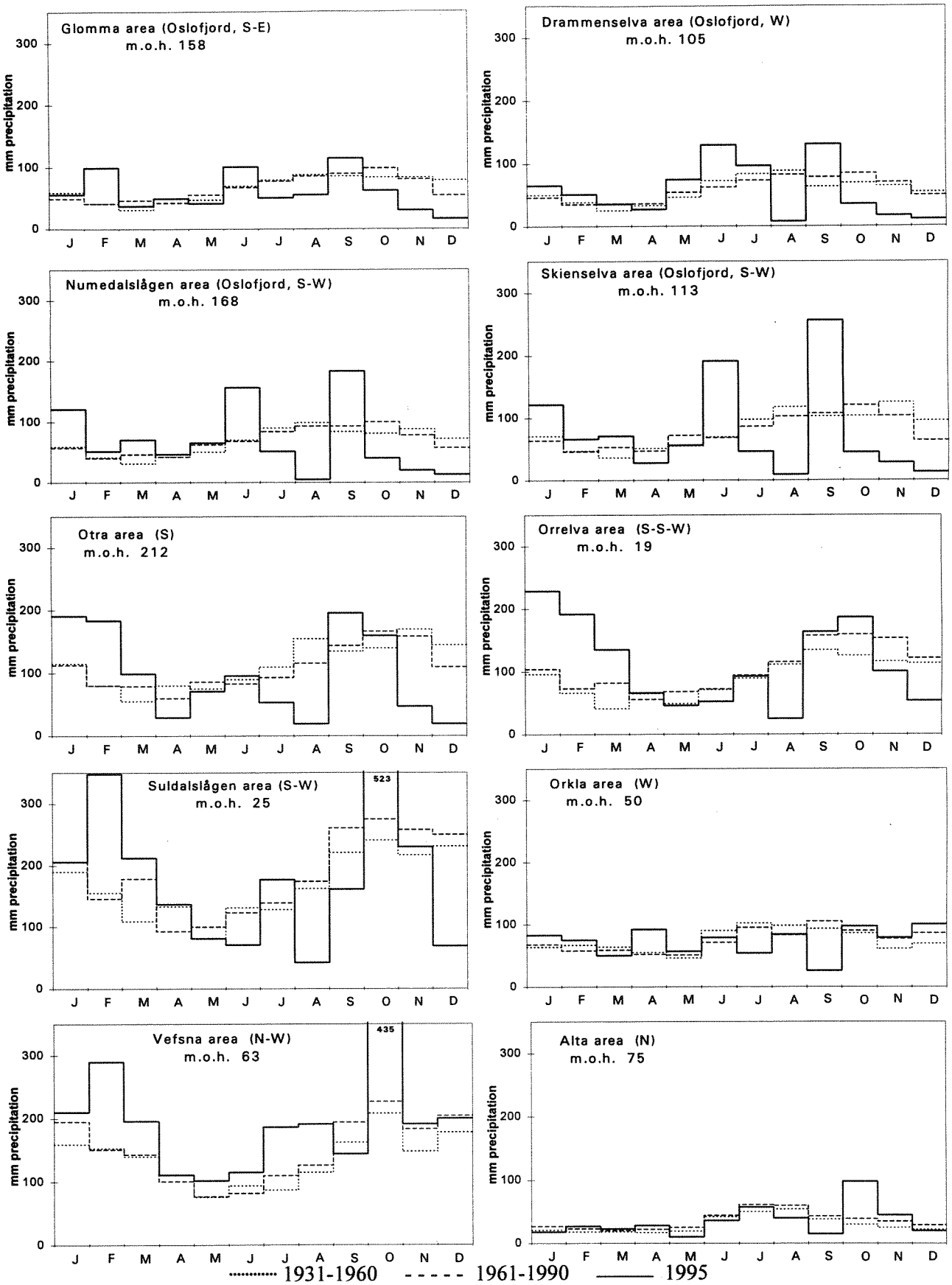


Fig. 4 Seasonal Changes in Daily Runoff (m^3/s).
Source: Norwegian Water Resources and Energy Administration



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.

This equation is a formula suited for estimating annual load when sampling dates are evenly spaced in time. Essentially it expresses the annual load (L) as the product of a flow weighted estimate of annual mean concentration and annual flow (Qa). Then the annual load estimate can be strongly biased if the sampling frequency increases during periods of high flow. Incidents with high flow will have a great influence on the estimate, and high concentrations during such periods will eventually lead to an overestimated annual load. A better method for estimating annual load when the sampling frequency increases with flow would be to use the above mentioned formula to make estimates of monthly loads and sum these to an estimate of annual load. 1995-data from Glomma and Drammenselva area are treated in this way.

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 (km² and per cent) is shown in Table 5.

Table 5. **Drainage areas of monitored main and tributary rivers and Down Stream areas (km² 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 km² km² Main	Tributary	Down Stream areas km²	Total km²	Monitored %
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 1995, 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 1934 plants that were registered at the end of 1994, 18 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, 1996).

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 1995 are the same as those used for calculations in 1992 - 1994. 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 (1996), SFT (1993), VEAS (1996),

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.

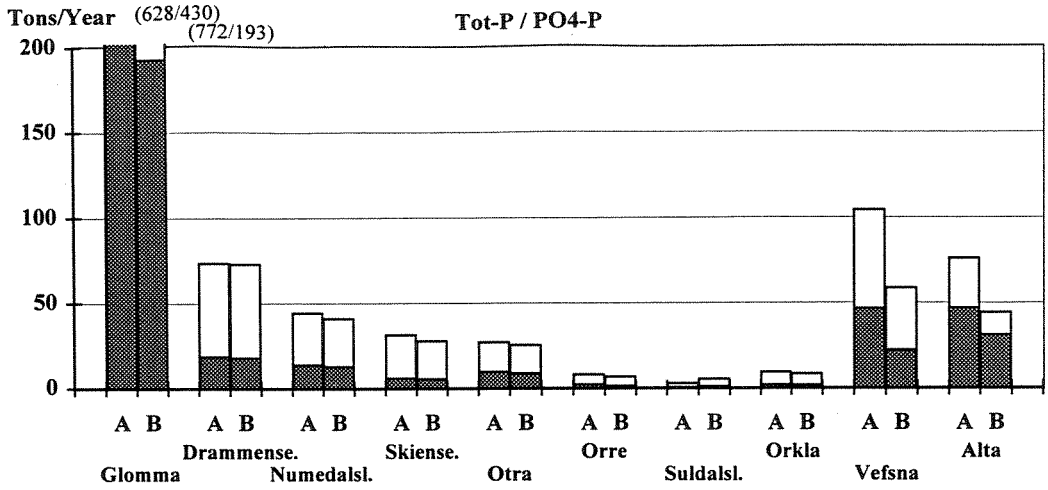
Major sources of phosphorus and nitrogen pollution are considered to be municipal sewage, agriculture and to a less degree, industry.

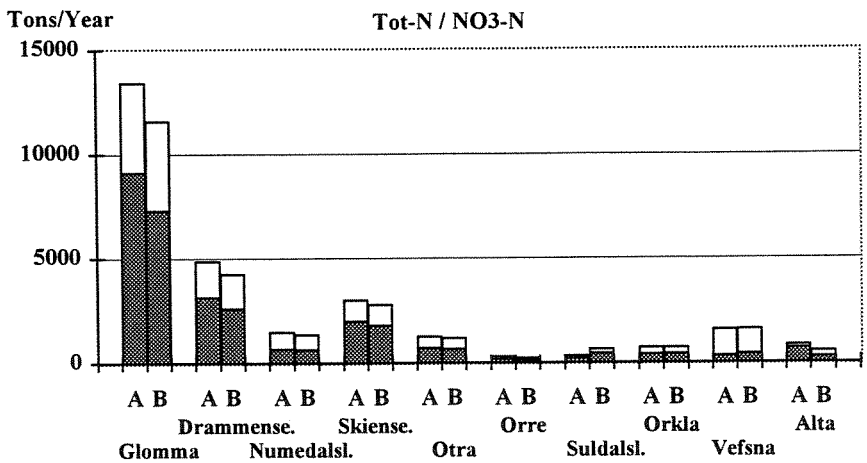
4.2 1995-results and discussion

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 (1995), 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 1995 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 -1994 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 1995 were 31 per cent of the phosphorus and 39 per cent of the nitrogen yield.





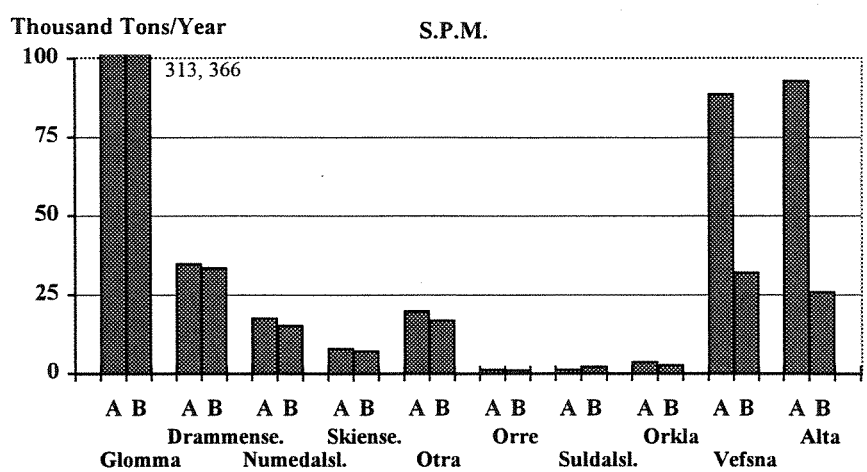
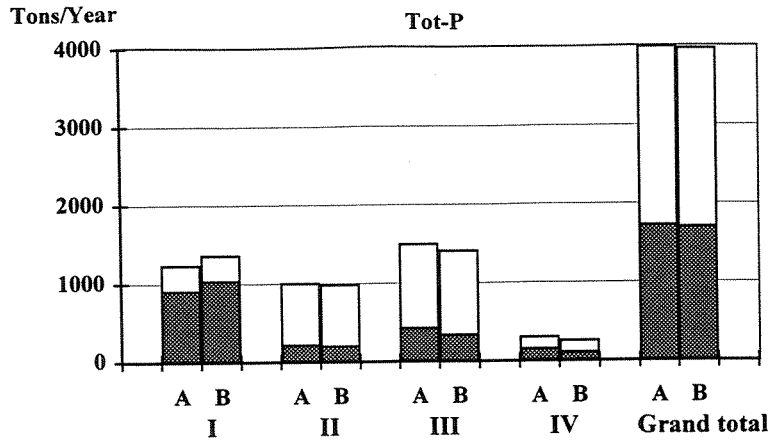
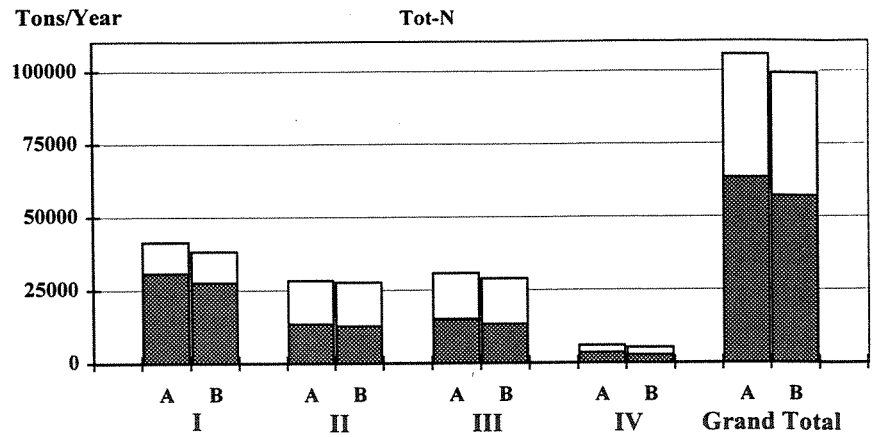


Fig. 6 Main rivers. Nutrients and S.P.M. Total loads 1995 (A) and Total normalized loads (B) in the different rivers.

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





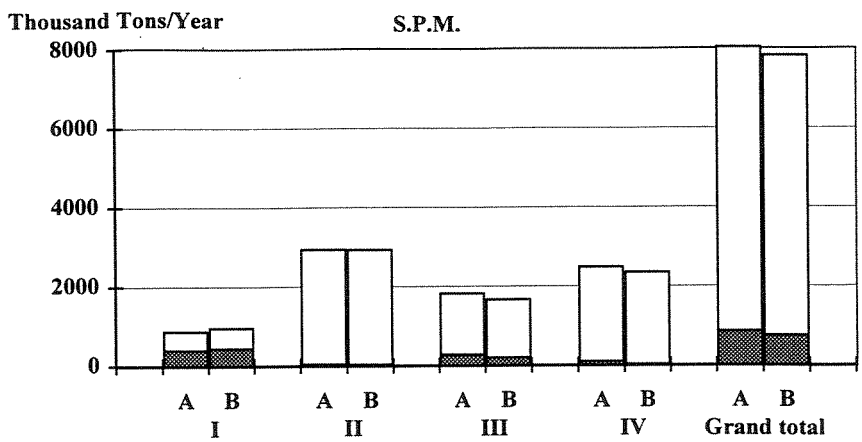


Fig. 7 Nutrients and S.P.M. Total and river discharges 1995 (A) and Total normalized loads (B) from mainland Norway to convention waters and the four subregions: I: Skagerrak, II: The remaining North Sea, III: The Norwegian Sea, IV: The Barents Sea.

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, about 75 per cent of the P-load and N-load were found in the riverine inputs.

According to the results from the 1995 investigation, total annual nutrient load to coastal waters from landbased Norwegian sources, is approximately 4000 tonnes of phosphorus and 105.200 tonnes of nitrogen (Fig. 7). About 43 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 1995 amounted to about 347 and 967 tonnes, of which 80 and 85 per cent respectively, were river monitored (Fig. 8).

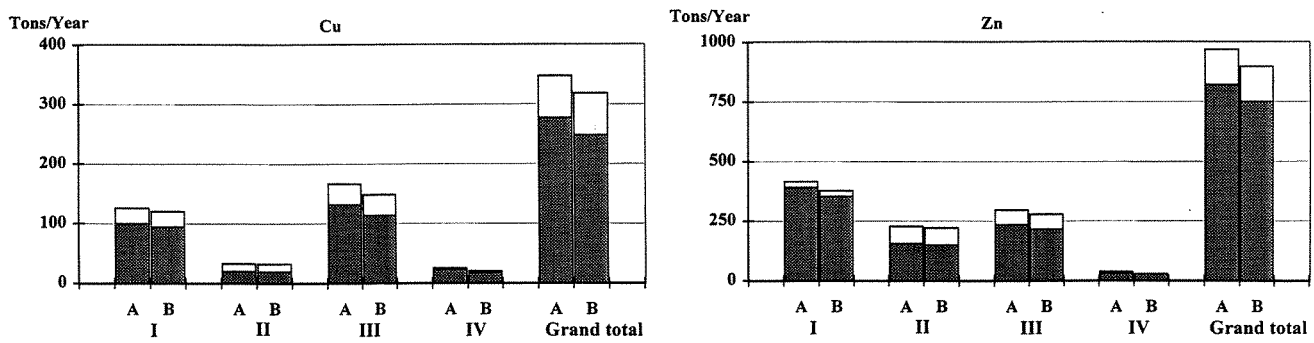


Fig. 8 Cu and Zn. Total- and river-discharges 1995 (A) and Total normalized loads (B) from mainland Norway to convention waters and the four subregions:
I: Skagerrak, II: The remaining, North Sea, III: The Norwegian Sea, IV: The Barents Sea

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 1995 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 8.7 and 9.3 tonnes, lead between 82.4 and 82.6 tonnes, mercury between 530 and 602 kg. The same "below detection limit problem" applies for the inputs of mercury, and also for PCBs which were measured to be between 0.58 and 54.5 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 107 kg.

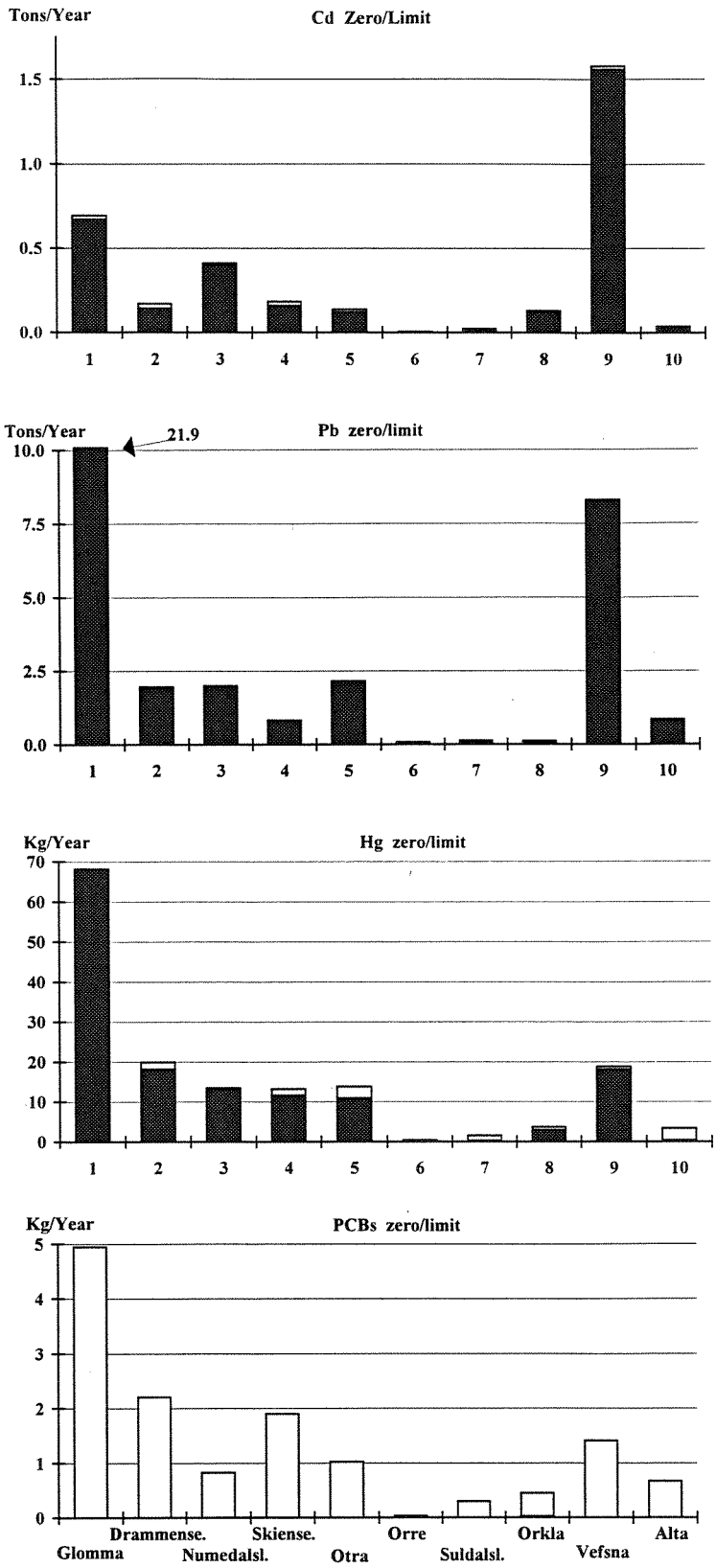


Fig. 9 Main rivers. Cd, Pb, Hg and PCBs. Total loads of the different rivers 1996 (lower and upper boundaries for the estimates).

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

In most areas except "the Remaining North Sea" the riverine inputs, both of Total-P, Total-N and S.P.M , were higher in 1995 than the years before, mainly due to precipitation/runoff-conditions (paragraph 4.3). The conditions were particularly noticeable in the Skagerrak area with high spring flood in June, especially in Glomma, but also in Drammenselva. According to the results from the Glomma flood investigation the transport of suspended particulate matter (STS) and total phosphorus (P) in June 1995 were of the same order as a normal annual transport (200.000 tonnes STS and 400 tonnes P). The transport of total nitrogen (3840 tonnes) comprised about a third of normal annual transport. About 91% of the suspended matter consisted of inorganic material, and 93% of the phosphorus was particulate. About 61% of the total nitrogen was nitrates.

The Drammenselva flood followed the same pattern as the Glomma flood. Because of large lake basins in the catchment area, the Drammenselva flood plains are not in the same way exposed to inundation. The transport of suspended particulate matter in June (18.900 tonnes) was larger than the normal annual transport. The transport of total phosphorus and total nitrogen, 30 tonnes P and 1430 tonnes of N comprise about 70% (P) and 40% (N) of mean annual transport for the years from 1990-1994.

The transport of heavy metals was larger than usual in both rivers. The concentration of lead was considerably higher than normal. The highest values occurred at the same time as the peak values of suspended particulate matter. Polychlorinated biphenyls (PCBs) were not found in the samples, nor DDT. Lindane was detected in all samples but in small amounts.

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 - 1994, most calculated mean concentrations were in about the same level in 1995. Total flow for all "Skagerrak rivers", except Otra, and accordingly the calculated loads for most of the substances were higher in 1995 than the year before, especially the loads of Total P and S.P.M. of Glomma, due to the extraordinary high spring flood. As for the other main rivers, total flow was also higher, with higher calculated loads for most substances as a result, especially the total loads of total P and S.P.M of Vefsna and Alta.

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, 1990-1995, and annual variations in total discharge, of the nutrients total N and P for the same years.

In order to adjust the 1995 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 1995-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). This was also the case in 1995.

The mild weather, late and unusually high snowmelting rate in combination with extraordinary high precipitation towards the end of May lead to unusual large spring-floods in the rivers last year, with re-occurrence intervals up to 200 years. The flood plains of Glomma was especially exposed with overbank flooding and water spreading over the cultivated floodplains. This again lead to large flood erosion of soil especially from plowed fields. Houses, farms, roads, bridges and some of the sewage treatment plants were set under water and in several cases permanently damaged. The flood peak in lower Glomma was measured the 10th and 11th of June, while the flood in Drammenselva reached the peak a week earlier, the 3rd of June 1995. The total duration of the flood was about a month in both rivers. The purpose of the intensive investigation was to find out how the flood affected the water quality of the two rivers, as well as the transport of different chemical substances to the sea.

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 1995 annual precipitation varied about normal or were a little lower in the Southern and South Eastern Norway, and normal or a little higher in the rest of the country , except in North-Western Norway where it was about 50% above normal (ex. the Vefsna area) (Fig 3). On an annual basis runoff varied about normal or were a little higher in most of the Southern, Western and Northern Norway, but somewhat higher in the North-Western part of the country (ex. the Vefsna area). 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 threshold 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.

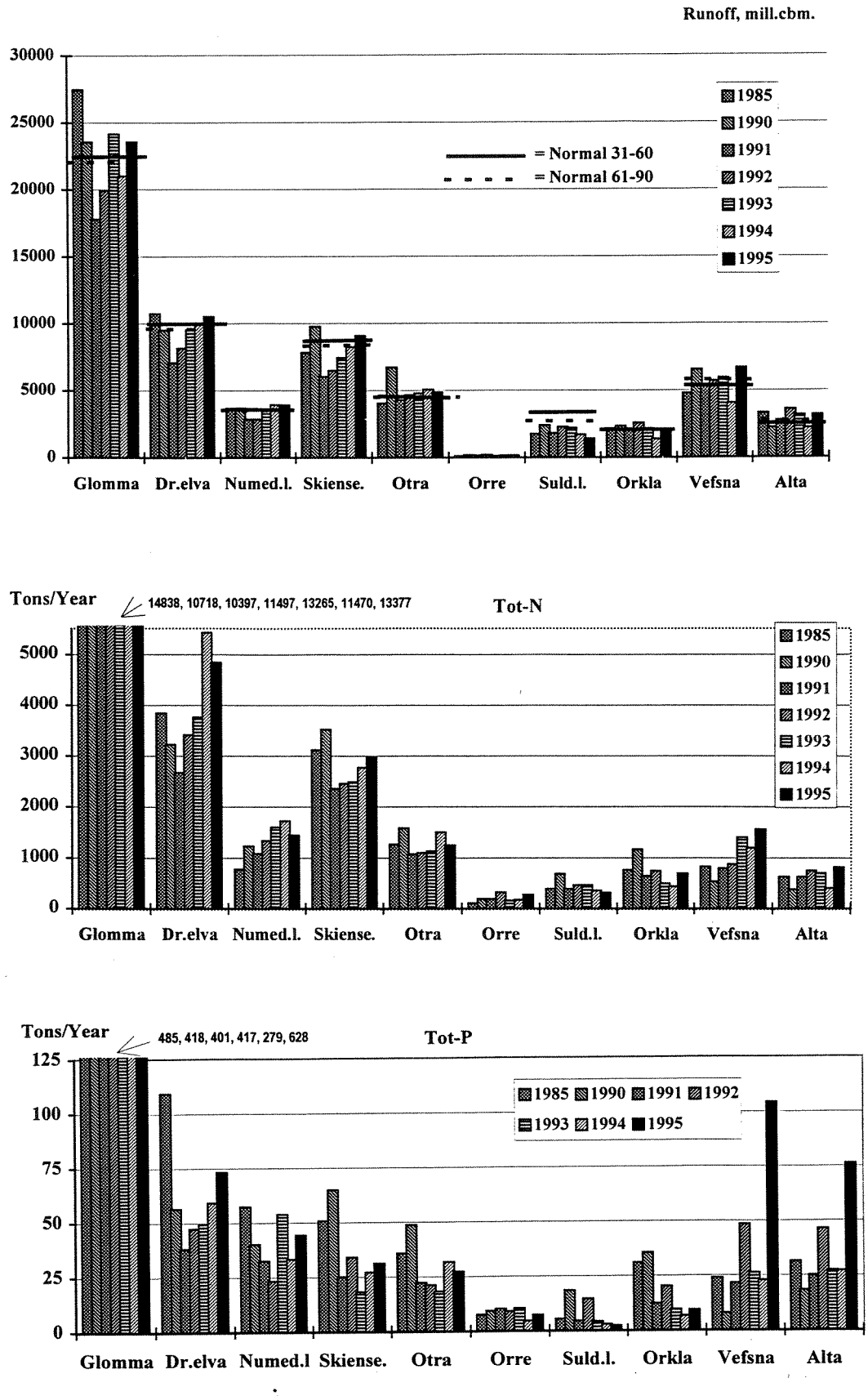


Fig. 10 Main rivers. Annual runoff and nutrient load in 1985, 1990-95.

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5.1 Project Personnel

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B: Data report. SFT-report 452B/91. NIVA-report 0-90001/Serial No.: 2577. 103 pages.

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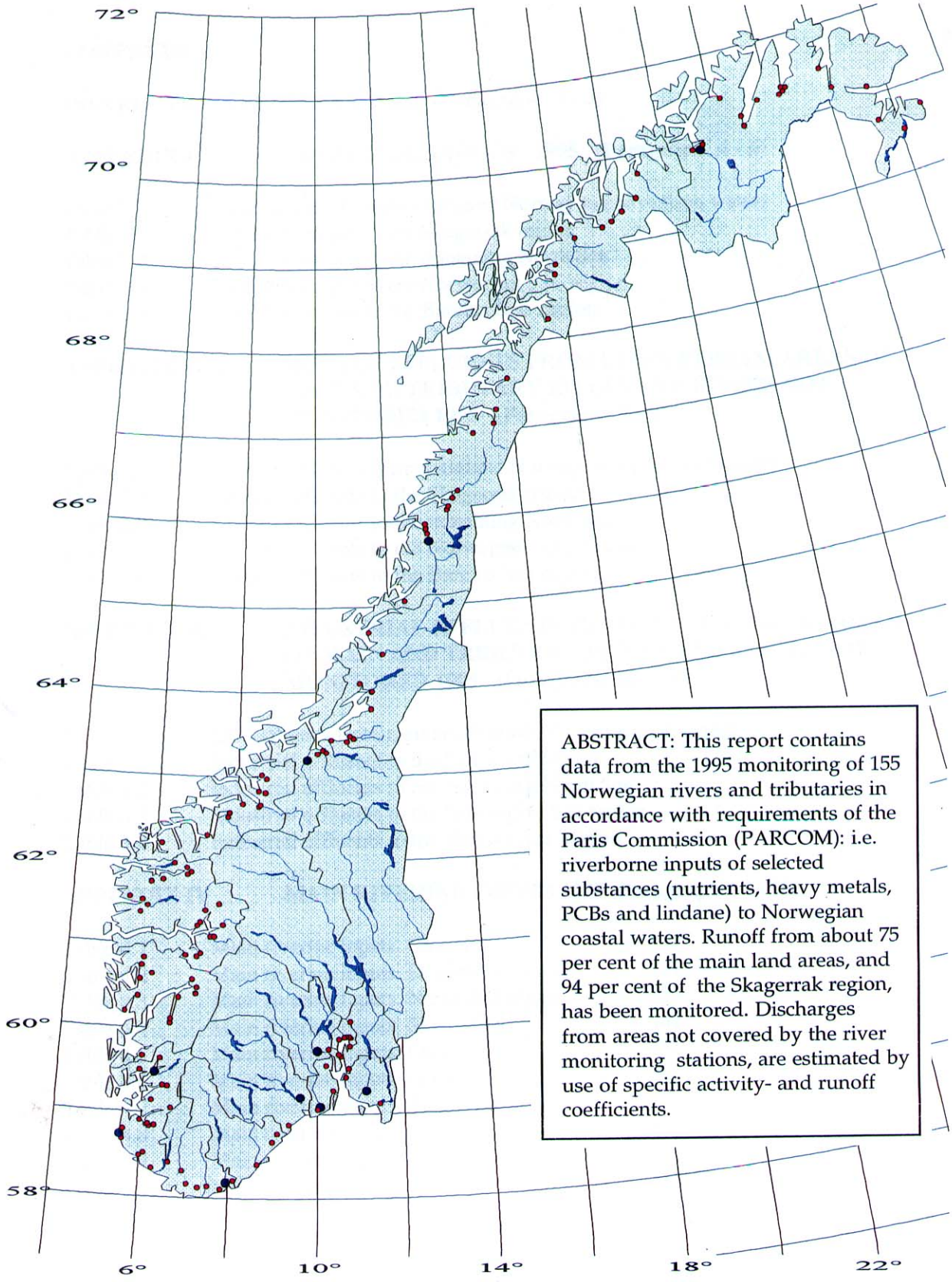
B Data report



ABSTRACT: This report contains data from the 1995 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.

CONTENTS 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	"tributarties"	: Saudaelva	- Hornindalselva
(8)	Orkla	"tributaries"	: Ørstaelva	- Salsvatnelva
(9)	Vefsna	"tributaries"	: Åbjøra	- Reisa
(10)	Alta	"tributaries	: Mattiselva	- Grense Jacobse.

FIGURES:

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 1995 (Fig. I).

Substance:	Area runoff	Direct Discharges	Tributary Inputs		Main Riverine Inputs		Grand Total	
Cadmium		1.2	4.2	*	3.2	*	8.7	tonnes
Cadmium			4.8	**	3.3	**	9.3	tonnes
Mercury		124	261	*	145	*	530	kg
Mercury			323	**	155	**	602	kg
Copper		68	150		129		347	tonnes
Zinc		144	437		386		967	tonnes
Lead		8.0	36.3	*	38.1	*	82.4	tonnes
Lead			36.5	**	38.1	**	82.6	tonnes
Arsenic		0.4	30.5	*	7.8		38.7	tonnes
Arsenic			32.6	**	10.0		43.0	tonnes
Cr-T		5.3	127.5	*	0.3	*	133.1	tonnes
Cr-T			148.5	**	32.6	**	186.4	tonnes
Ni		21.3	115.5	*	53.1	*	190.0	tonnes
Ni			126.1	**	61.1	**	208.4	tonnes
PCBs ***			0.55	*	0.03	*	0.58	kg
PCBs			40.8	**	13.7	**	54.5	kg
gamma-HCH			60		48		107	kg
NH4-N	1701	11324	2188		1254		16467	tonnes
NO3-N	15036	201	19076		17647		51959	tonnes
PO4-P	203	747	262		580		1792	tonnes
Total N	24066	17572	36118		27452		105208	tonnes
Total P	777	1477	726		1001		3981	tonnes
SiO2			191955		158206		350161	tonnes
S.P.M.		6272579	298623		578630		7149831	tonnes
TOC		20246	214540		224781		459568	tonnes
COD		257041					257041	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 1995 (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	*	1.5	*	2.3	tonnes
Cadmium			0.8	**	1.6	**	2.4	tonnes
Mercury		47.88	12	*	123	*	183	kg
Mercury			18	**	128	**	194	kg
Copper		24.15	11		90		125	tonnes
Zinc		18.58	102		292		413	tonnes
Lead		0.82	7.4	*	28.7	*	37.0	tonnes
Lead			7.4	**	28.7	**	37.0	tonnes
Arsenic		0.13	3.42	*	6.2		9.7	tonnes
Arsenic			3.44	**	7.6		11.1	tonnes
Cr-T		3.18	9.3	*	0.0	*	12.5	tonnes
Cr-T			10.4	**	25.8	**	39.4	tonnes
Ni		9.52	5.6	*	38.5	*	53.7	tonnes
Ni			5.8	**	45.5	**	60.8	tonnes
PCBs ***			0.07	*	0.00	*	0.07	kg
PCBs			2.9	**	10.9	**	13.8	kg
gamma-HCH			11.4		40		51	kg
NH4-N	175	4673	568		1090		6506	tonnes
NO3-N	1781	156	4325		15753		22016	tonnes
PO4-P	18	92	33		480		624	tonnes
Total N	2773	7375	7095		23841		41084	tonnes
Total P	73	237	109		803		1222	tonnes
SiO2			2320		127576		129896	tonnes
S.P.M.		13174	25800		392368		431342	tonnes
TOC		7101	48823		183403		239327	tonnes
COD		132120					132120	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

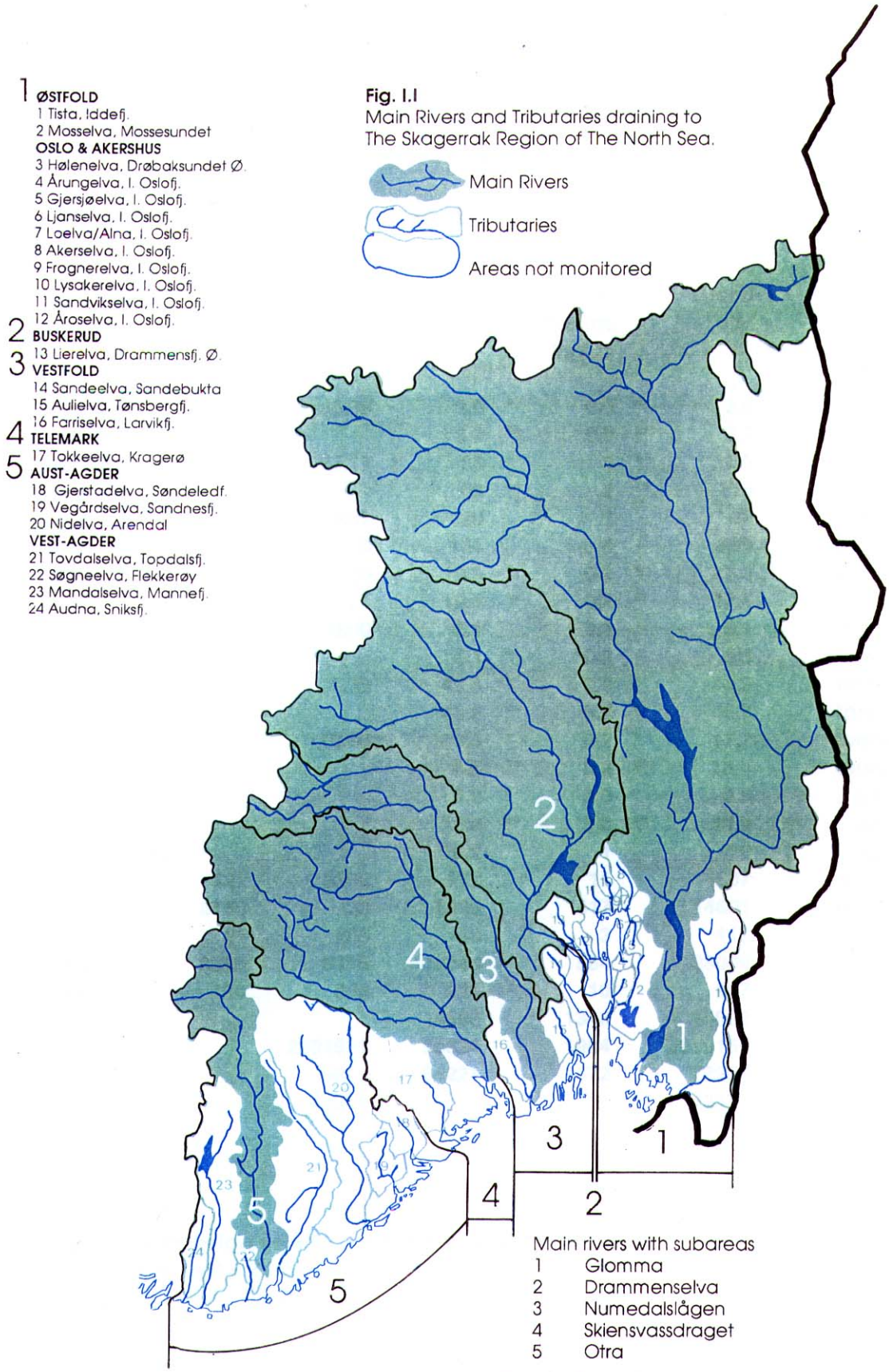


Fig. I.I
Main Rivers and Tributaries draining to The Skagerrak Region of The North Sea.

I North Sea/Skagerrak

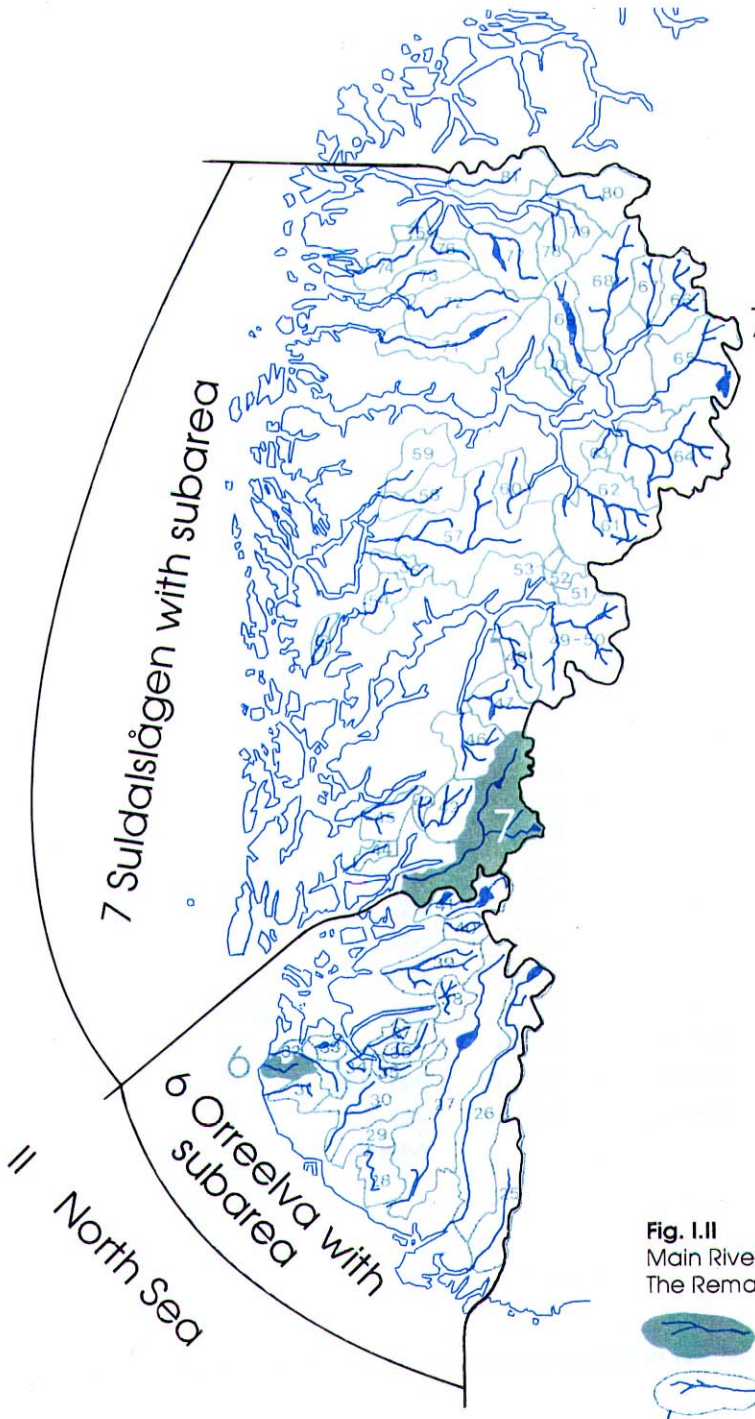
Table 1.2 TOTAL DISCHARGES to The Remaining North Sea 1995 (Fig. I.II).

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	2.6	*	0.0	*	3.6	tonnes
Cadmium			2.7	**	0.0	**	3.7	tonnes
Mercury		51.17	33	*	1	*	85	kg
Mercury			63	**	2	**	115	kg
Copper		10.97	20		1		32	tonnes
Zinc		67.40	154		4		225	tonnes
Lead		6.30	10.8	*	0.2	*	17.3	tonnes
Lead			10.9	**	0.2	**	17.4	tonnes
Arsenic		0.00	6.1	*	0.1		6.1	tonnes
Arsenic			6.1	**	0.2		6.3	tonnes
Cr-T		1.30	43.6	*	0.0	*	44.9	tonnes
Cr-T			43.6	**	0.7	**	45.7	tonnes
Ni		10.53	6.5	*	0.2	*	17.2	tonnes
Ni			6.5	**	0.9	**	18.0	tonnes
PCBs ***			0.0	*	0.0	*	0.0	kg
PCBs			10.6	**	0.3	**	10.9	kg
gamma-HCH			18.2		1		19	kg
NH4-N	622	3396	577		11		4607	tonnes
NO3-N	5756	23	8405		417		14601	tonnes
PO4-P	55	295	63		3		417	tonnes
Total N	9285	5115	13044		564		28009	tonnes
Total P	198	566	214		10		987	tonnes
SiO2			14553		1348		15902	tonnes
S.P.M.		2801931	55334		1904		2859169	tonnes
TOC		6612	64221		1372		72205	tonnes
COD		42381					42381	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.
41 Ulla, Jøsenfj./Boknafj.
7 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 1995 (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		0.15	0.7	*	1.7	*	2.6	tonnes
Cadmium			1.1	**	1.7	**	2.9	tonnes
Mercury		23.56	202	*	21	*	247	kg
Mercury			213	**	22	**	259	kg
Copper		32.95	99		33		165	tonnes
Zinc		57.47	153		84		295	tonnes
Lead		0.86	15.5	*	8.4	*	24.7	tonnes
Lead			15.5	**	8.4	**	24.7	tonnes
Arsenic		0.27	16.9	*	0.7		17.8	tonnes
Arsenic			18.8	**	1.3		20.4	tonnes
Cr-T		0.78	69.8	*	0.3		70.9	tonnes
Cr-T			83.0	**	4.5		88.2	tonnes
Ni		1.23	60.7	*	10.2	*	72.1	tonnes
Ni			67.7	**	10.4	**	79.3	tonnes
PCBs ***			0.5	*	0.0	*	0.5	kg
PCBs			22.9	**	1.8	**	24.7	kg
gamma-HCH			25.8		7		33	kg
NH4-N	813	3016	895		87		4811	tonnes
NO3-N	6488	20	5864		768		13141	tonnes
PO4-P	111	336	143		49		639	tonnes
Total N	10327	4760	13119		2235		30442	tonnes
Total P	419	634	318		113		1483	tonnes
SiO2			82354		14865		97218	tonnes
S.P.M.		1211126	202687		91742		1505555	tonnes
TOC		6182	54005		29037		89224	tonnes
COD		80956					80956	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.

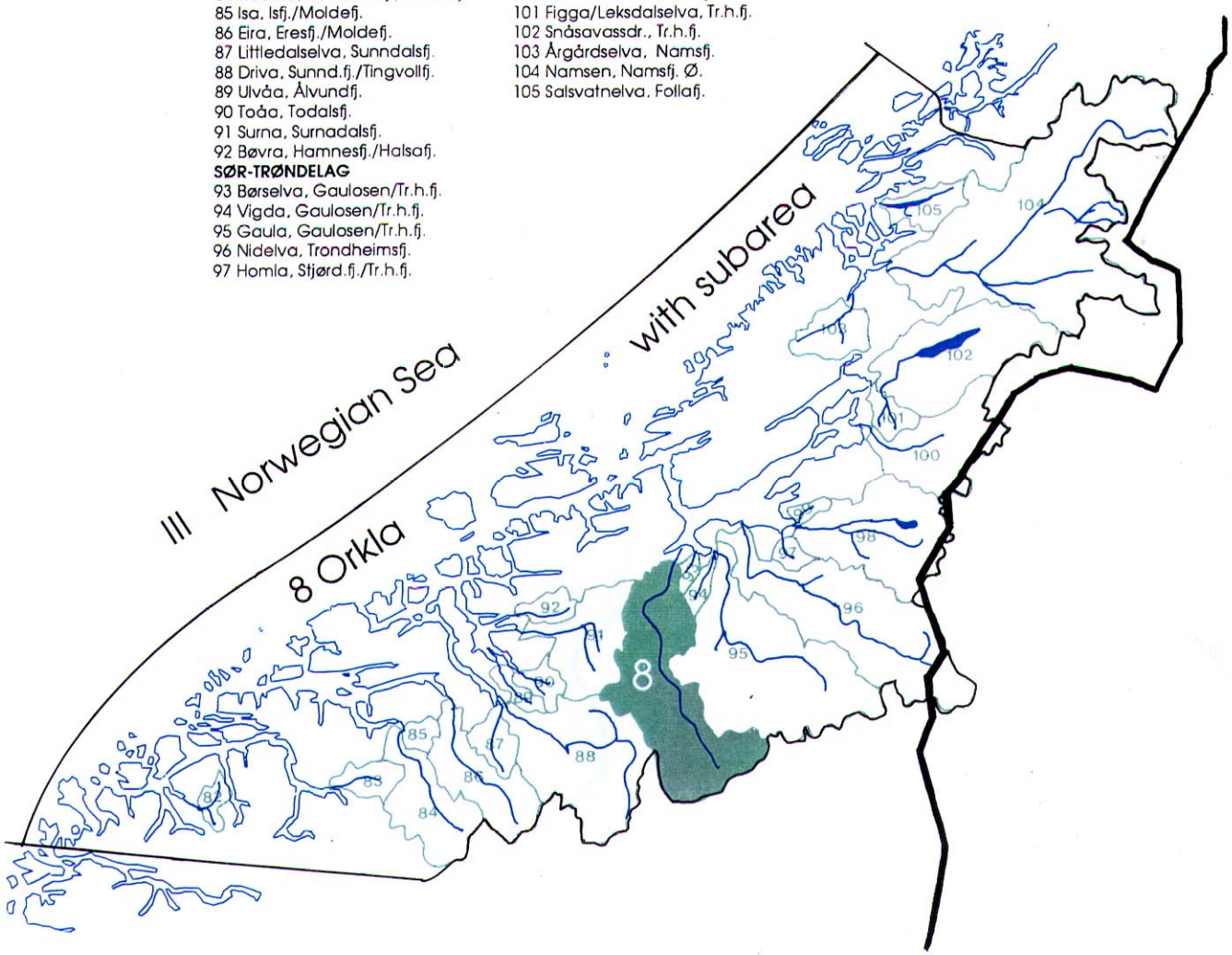


Fig. I.III A
Main Rivers and Tributaries draining to The Norwegian Sea (Southern Part).

Main Rivers

Tributaries

Areas not monitored

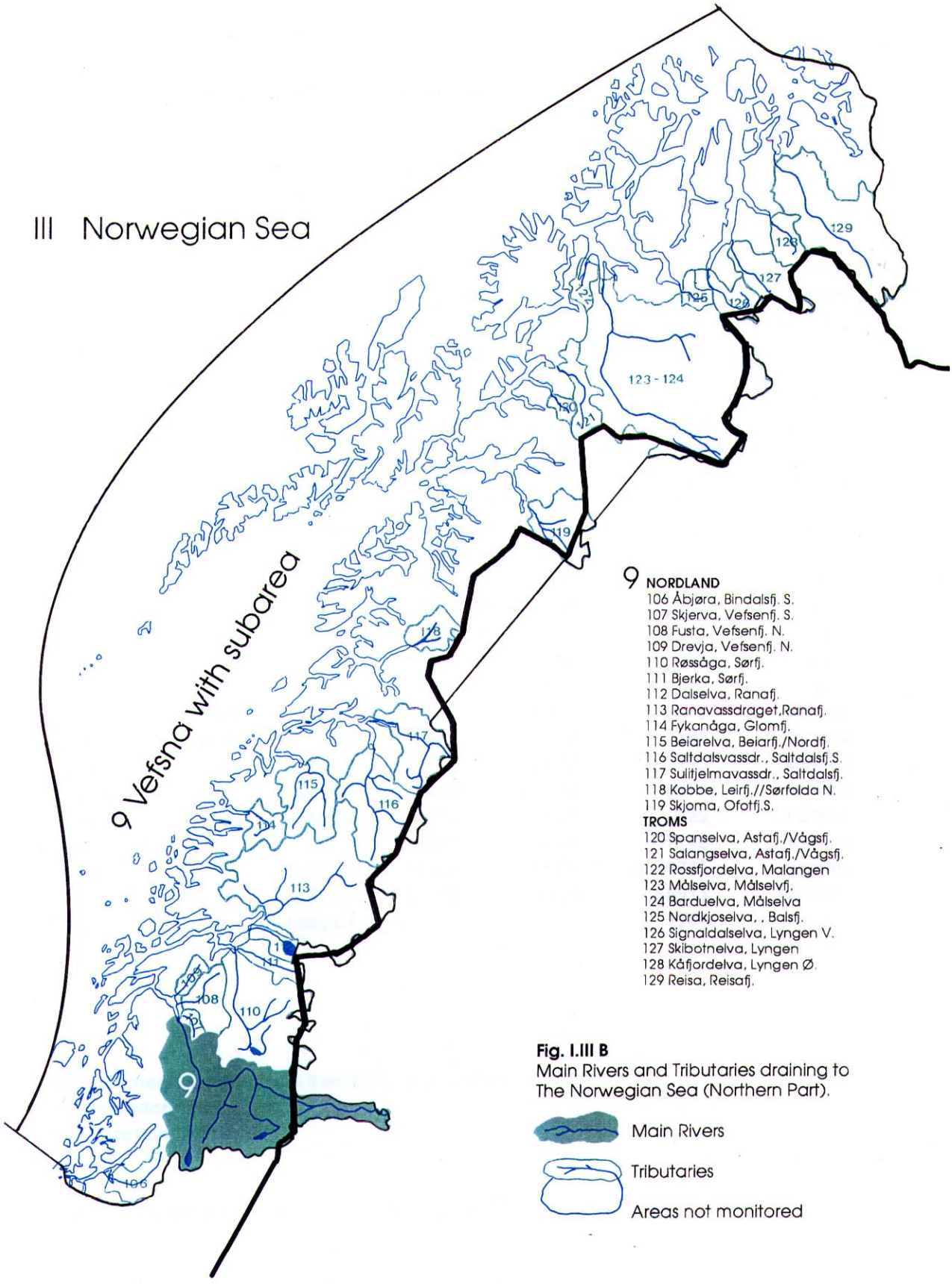


Fig. I.III B
Main Rivers and Tributaries draining to The Norwegian Sea (Northern Part).

Table 1.4 TOTAL DISCHARGES to The Barents Sea 1995 (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	*	0.03	*	0.2	tonnes
Cadmium			0.3	**	0.04	**	0.3	tonnes
Mercury		1.28	13	*	0.52	*	15	kg
Mercury			29	**	3.21	**	34	kg
Copper		0.35	19		4.96		24	tonnes
Zinc		0.41	27		6.69		34	tonnes
Lead		0.01	2.6	*	0.83	*	3.5	tonnes
Lead			2.7	**	0.83	**	3.5	tonnes
Arsenic		0.00	4.1	*	0.91		5.0	tonnes
Arsenic			4.3	**	0.91		5.2	tonnes
Cr-T		0.04	4.7	*	0.00	*	4.7	tonnes
Cr-T			11.4	**	1.57	**	13.0	tonnes
Ni		0.06	42.7	*	4.20	*	46.9	tonnes
Ni			46.1	**	4.27	**	50.4	tonnes
PCBs ***			0.0	*	0.00	*	0.0	kg
PCBs			4.4	**	0.66	**	5.0	kg
gamma-HCH			4.2		0.17		4	kg
NH4-N	91	238.74	147		66.55		543	tonnes
NO3-N	1010	1.59	481		708.58		2201	tonnes
PO4-P	18	24.17	23		47.20		113	tonnes
Total N	1681	321.31	2859		811.15		5673	tonnes
Total P	88	40.80	84		75.51		289	tonnes
SiO2			92728		14417		107145	tonnes
S.P.M.		2246347	14802		92616		2353765	tonnes
TOC		351.77	47490		10969		58811	tonnes
COD		1583.63					1584	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

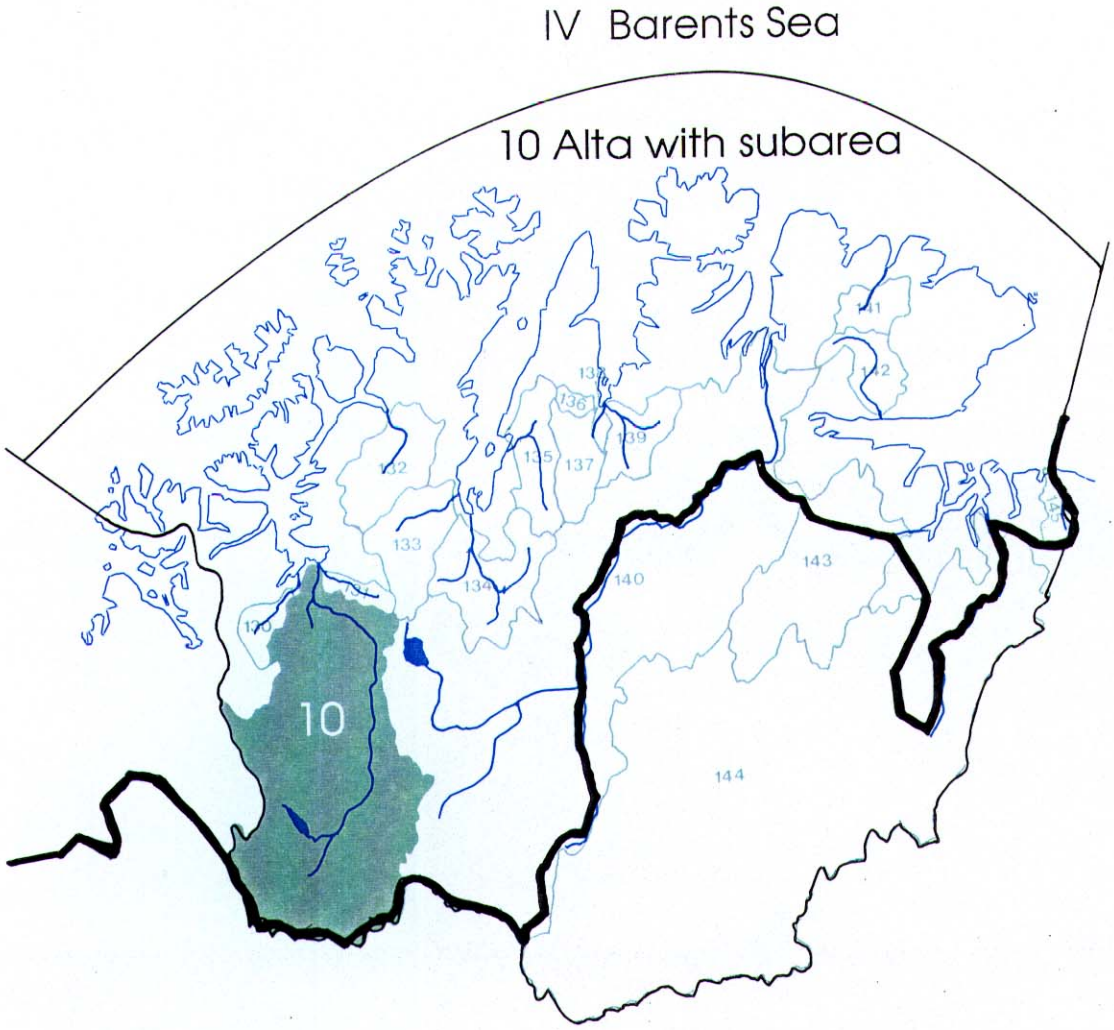


Fig. I.IV
Main Rivers and Tributaries draining to The Barents Sea.

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 1995 (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 - 1996)

Municipal sewage includes a portion of industrial effluents

Table II Sewage Effluents from down stream areas of mainland Norway to convention waters (1995).

Total quantity of substance discharged per year:

Regions:	I	II	III	IV		
	The Skagerrak	The North	The Norwegian	The Barents	Sum	
Substance:	Region	Sea	Sea	Sea		
Cd	76	68	43	2	189	kg
Hg	45	38	23	1	107	kg
Cu	13.9	10.3	6.4	0.4	30.9	tonnes
Zn	15.8	12.0	7.5	0.4	35.6	tonnes
Pb	620	342	213	12	1187	kg
Cr-T	2.1	1.0	0.6	0.0	3.8	tonnes
Ni	2.8	1.7	1.1	0.1	5.7	tonnes
PCBs						kg
gamma-HCH						kg
NH4-N	4673	3396	3016	239	11324	tonnes
NO3-N	156	23	20	2	201	tonnes
PO4-P	92	295	336	24	747	tonnes
Tot-N	5853	4528	4021	318	14721	tonnes
Tot-P	154	492	560	40	1246	tonnes
S.P.M.	7405	9540	10624	642	28211	tonnes
TOC	7044	6439	6175	352	20010	tonnes
COD	28120	28308	28503	1584	86515	tonnes
BOD	13664	12878	12351	704	39596	tonnes

Table 2.1 Sewage Effluents to The Skagerrak Region (1995).

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	**25**	**6**	**22**	**4**	**19**	**kg**	_____	%
Hg	**17**	**4**	**12**	**2**	**11**	**kg**	_____	%
Cu	**6.23**	**0.97**	**3.24**	**0.57**	**2.88**	**tonnes**	_____	%
Zn	**6.87**	**1.13**	**3.78**	**0.67**	**3.36**	**tonnes**	_____	%
Pb	**365**	**32**	**108**	**19**	**96**	**kg**	_____	%
Cr-T	**1.36**	**0.10**	**0.32**	**0.06**	**0.29**	**tonnes**	_____	%
Ni	**1.55**	**0.16**	**0.54**	**0.10**	**0.48**	**tonnes**	_____	
PCBs						**kg**	_____	%
gamma-HCH						**kg**	_____	%
NH4-N	**2563**	**169**	**545**	**913**	**483**	**tonnes**	_____	
NO3-N	**142**	**1**	**4**	**6**	**3**	**tonnes**	_____	%
PO4-P	**27**	**8**	**23**	**9**	**25**	**tonnes**	_____	%
Tot-N	**3041**	**225**	**726**	**1217**	**644**	**tonnes**	_____	%
Tot-P	**45**	**13**	**38**	**15**	**42**	**tonnes**	_____	%
S.P.M.	**3069**	**354**	**1717**	**304**	**1961**	**tonnes**	_____	%
TOC	**3519**	**355**	**1418**	**255**	**1498**	**tonnes**	_____	%
COD	**13769**	**1494**	**5995**	**1138**	**5725**	**tonnes**	_____	%
BOD	**6613**	**709**	**2835**	**510**	**2996**	**tonnes**	_____	%

Table 2.2 Sewage Effluents to The Remaining North Sea Region (1995).

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	**34**	**35**	**kg**		%
Hg	**19**	**19**	**kg**		%
Cu	**5.06**	**5.20**	**tonnes**		%
Zn	**5.91**	**6.07**	**tonnes**		%
Pb	**169**	**173**	**kg**		%
Cr-T	**0.51**	**0.52**	**tonnes**		%
Ni	**0.84**	**0.87**	**tonnes**		
PCBs			**kg**		%
gamma-HCH			**kg**		%
NH4-N	**1081**	**2316**	**tonnes**		
NO3-N	**7**	**15**	**tonnes**		%
PO4-P	**53**	**242**	**tonnes**		%
Tot-N	**1441**	**3088**	**tonnes**		%
Tot-P	**88**	**404**	**tonnes**		%
S.P.M.	**3688**	**5852**	**tonnes**		%
TOC	**2639**	**3800**	**tonnes**		%
COD	**11203**	**17105**	**tonnes**		%
BOD	**5279**	**7599**	**tonnes**		%

Table 2.3 Sewage Effluents to The Norwegian Sea Region (1995).

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	**27**	**16**	**kg**		%
Hg	**15**	**9**	**kg**		%
Cu	**4.03**	**2.36**	**tonnes**		%
Zn	**4.70**	**2.75**	**tonnes**		%
Pb	**134**	**79**	**kg**		%
Cr-T	**0.40**	**0.24**	**tonnes**		%
Ni	**0.67**	**0.39**	**tonnes**		
PCBs			**kg**		%
gamma-HCH			**kg**		%
NH4-N	**1678**	**1338**	**tonnes**		
NO3-N	**11**	**9**	**tonnes**		%
PO4-P	**187**	**149**	**tonnes**		%
Tot-N	**2237**	**1784**	**tonnes**		%
Tot-P	**312**	**248**	**tonnes**		%
S.P.M.	**5850**	**4774**	**tonnes**		%
TOC	**3561**	**2614**	**tonnes**		%
COD	**16408**	**12095**	**tonnes**		%
BOD	**7122**	**5229**	**tonnes**		%

Table 2.4 Sewage Effluents to The Barents Sea Region (1995).

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	**0.35**	**tonnes**	_____	%
Zn	**0.41**	**tonnes**	_____	%
Pb	**12**	**kg**	_____	%
Cr-T	**0.04**	**tonnes**	_____	%
Ni	**0.06**	**tonnes**	_____	
PCBs		**kg**	_____	%
gamma-HCH		**kg**	_____	%
NH4-N	**239**	**tonnes**	_____	
NO3-N	**2**	**tonnes**	_____	%
PO4-P	**24**	**tonnes**	_____	%
Tot-N	**318**	**tonnes**	_____	%
Tot-P	**40**	**tonnes**	_____	%
S.P.M.	**642**	**tonnes**	_____	%
TOC	**352**	**tonnes**	_____	%
COD	**1584**	**tonnes**	_____	%
BOD	**704**	**tonnes**	_____	%

APPENDIX III : INDUSTRIAL EFFLUENTS FROM DOWN STREAM AREAS OF MAIN AND TRIBUTARY RIVERS AND RIVERS NOT MONITORED 1995 (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 - 1996)

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 (1995).

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	10	922	104		1035	kg
Hg	3	14	0		17	kg
Cu	10.26	0.71	26.55		38	tonnes
Zn	2.78	55.42	50.02		108	tonnes
Pb	201	5955	643		6799	kg
Arsenic	130	0	270	0	400	kg
Cr-T	1.05	0.28	0.15	0	1.47	tonnes
Ni	6.69	8.82	0.16		15.68	tonnes
PCBs						kg
gamma-HCH						kg
NO3-N						tonnes
PO4-P						tonnes
Tot-N	1522	587	739	3	2851	tonnes
Tot-P	83	74	74	1	231	tonnes
S.P.M.	5769	2792392	1200502	2245705	6244368	tonnes
TOC	57	173	6		236	tonnes
COD	104000	14073	52453		170526	tonnes

Table 3.1 Industrial Effluents to The Skagerrak Region (1995).

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

Sub-areas : Substance:	Total quantity of substance discharged per year: 1	2	3	4	5			Precision of the estimate of the load
Cd	9.30		0.07	0.26	0.30	kg	_____	%
Hg	3.04			0.01		kg	_____	%
Cu	8737	0	5	123	1400	kg	_____	%
Zn	1462	2	14	1080	220	kg	_____	%
Pb	87.0	0.1	10.6	28.0	75.0	kg	_____	%
Arsenic	0.0				130.0	kg	_____	%
Cr-T	1006.6	0.1	2.9	42.9	1.6	kg	_____	%
Ni	294.5	1.5	1919.7	164.9	4310	kg	_____	%
PCBs						kg	_____	%
gamma-HCH						kg	_____	%
NO3-N						tonnes	_____	%
PO4-P						tonnes	_____	%
Tot-N	178.8	20.8	273.7	1040.6	7.9	tonnes	_____	%
Tot-P	29.2	0.2	44.1	7.7	1.9	tonnes	_____	%
S.P.M.	1140	199	3568	589	273	tonnes	_____	%
TOC	26.2		16.0	14.8		tonnes	_____	%
COD	55004	13	32438	16545		tonnes	_____	%

Table 3.2 Industrial Effluents to The Remaining North Sea Region (1995).

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**	**922**	**kg**	_____	%
Hg		**13.53**	**kg**	_____	%
Cu	**4**	**706**	**kg**	_____	%
Zn	**20**	**55401**	**kg**	_____	%
Pb		**5955**	**kg**	_____	%
Arsenic			**kg**	_____	%
Cr-T	**147.6**	**127.7**	**kg**	_____	%
Ni	**7264.8**	**1557**	**kg**	_____	%
PCBs			**kg**	_____	%
gamma-HCH			**kg**	_____	%
NO3-N			**tonnes**	_____	%
PO4-P			**tonnes**	_____	%
Tot-N	**49.3**	**537**	**tonnes**	_____	%
Tot-P	**4.7**	**69.1**	**tonnes**	_____	%
S.P.M.	**2162671**	**629720**	**tonnes**	_____	%
TOC	**40.4**	**132.3**	**tonnes**	_____	%
COD	**356**	**13717**	**tonnes**	_____	%

Table 3.3 Industrial Effluents to The Norwegian Sea Region (1995)

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	**57.36**	**46.17**	**kg**	_____	%
Hg	**0.12**	**0.00**	**kg**	_____	%
Cu	**1340**	**25214**	**kg**	_____	%
Zn	**5145**	**44870**	**kg**	_____	%
Pb	**222.8**	**420.3**	**kg**	_____	%
Arsenic		**270.0**	**kg**	_____	%
Cr-T	**143.5**	**1.6**	**kg**	_____	%
Ni	**64.7**	**100.0**	**kg**	_____	%
PCBs			**kg**	_____	%
gamma-HCH			**kg**	_____	%
NO3-N			**tonnes**	_____	%
PO4-P			**tonnes**	_____	%
Tot-N	**179.1**	**559.9**	**tonnes**	_____	%
Tot-P	**44.0**	**30.2**	**tonnes**	_____	%
S.P.M.	**282827**	**917675**	**tonnes**	_____	%
TOC		**6.2**	**tonnes**	_____	%
COD	**52452.7**		**tonnes**	_____	%

Table 3.4 Industrial Effluents toThe Barents Sea Region (1995).

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		**kg**	_____	%
Hg		**kg**	_____	%
Cu		**kg**	_____	%
Zn		**kg**	_____	%
Pb		**kg**	_____	%
Arsenic	**0.0**	**kg**	_____	%
Cr-T	**0.0**	**kg**	_____	%
Ni		**kg**	_____	%
PCBs		**kg**	_____	%
gamma-HCH		**kg**	_____	%
NO3-N		**tonnes**	_____	%
PO4-P		**tonnes**	_____	%
Tot-N	**3.0**	**tonnes**	_____	%
Tot-P	**0.5**	**tonnes**	_____	%
S.P.M.	**2245705**	**tonnes**	_____	%
TOC		**tonnes**	_____	%
COD		**tonnes**	_____	%

APPENDIX IV : MAIN RIVERINE INPUTS 1995 (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 - 1996)

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

Table 4.1 MAIN RIVERINE INPUTS 1995 (1) Glomma

Total volume: 64400 1000 m3/day
Minimum flow: 24365 1000 m3/day
Maximum flow: 317002 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 *	0.03	24	0.00	0.29	µg/l	0.67	tonnes	YES	_____	%
Cadmium **	0.03	24	0.01	0.29	µg/l	0.69	tonnes		_____	%
Mercury *	2.76	23	1.00	6.00	ng/l	68.00	kg	YES	_____	%
Mercury **	2.76	23	1.00	6.00	ng/l	68.00	kg		_____	%
Copper	2.46	24	1.40	5.10	µg/l	56.51	tonnes	YES	_____	%
Zinc	6.90	24	2.90	18.20	µg/l	166.7	tonnes	YES	_____	%
Lead	1.09	24	0.23	3.06	µg/l	21.90	tonnes	YES	_____	%
Arsenic *	0.16	1	0.16	0.16	µg/l	3.76	tonnes	YES	_____	%
Arsenic **	0.16	1	0.16	0.16	µg/l	3.76	tonnes		_____	%
Total Cr-T *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO	_____	%
Total Cr-T **	0.50	1	0.50	0.50	µg/l	11.75	tonnes		_____	%
Ni *	1.19	24	0.50	3.30	µg/l	27.09	tonnes	YES	_____	%
Ni **	1.19	24	0.50	3.30	µg/l	27.09	tonnes		_____	%
PCBs *		8			ng/l	0.00	kg	NO	_____	%
PCBs **		8			ng/l	4.94	kg		_____	%
gamma-HCH (lindane)	0.67	8	0.34	0.94	ng/l	15.68	kg	YES	_____	%
Ammonia (NH4-N)	28.33	12	5.00	60.00	µg/l	701	tonnes	YES	_____	%
Nitrates (NO3-N)	340.68	47	175.00	650.00	µg/l	9128	tonnes	YES	_____	%
Orthoph. (PO4-P)	8.84	12	2.00	38.00	µg/l	430	tonnes	YES	_____	%
Total N	538.40	48	385.00	920.00	µg/l	13377	tonnes	YES	_____	%
Total P	36.08	48	7.00	128.00	µg/l	628	tonnes	YES	_____	%
SiO2	2.76	23	1.80	3.90	mg/l	66929	tonnes	YES	_____	%
Susp. Part. Matter	17.04	48	1.73	64.00	mg/l	313327	tonnes	YES	_____	%
TOC	4.30	47	2.90	6.00	mg/l	99337	tonnes	YES	_____	%

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

Table 4.2 MAIN RIVERINE INPUTS 1995 (2) Drammenselva

Total volume: 28671 1000 m3/day
Minimum flow: 7776 1000 m3/day
Maximum flow: 133661 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 *	0.01	26	0.00	0.04	µg/l	0.14	tonnes	YES	_____	%
Cadmium **	0.02	26	0.01	0.04	µg/l	0.17	tonnes		_____	%
Mercury *	2.15	23	0.00	4.00	ng/l	18.34	kg	YES	_____	%
Mercury **	2.24	23	1.00	4.00	ng/l	19.77	kg		_____	%
Copper	0.93	26	0.50	1.70	µg/l	10.19	tonnes	YES	_____	%
Zinc	3.40	26	2.40	7.70	µg/l	39.90	tonnes	YES	_____	%
Lead	0.21	26	0.05	0.63	µg/l	1.94	tonnes	YES	_____	%
Arsenic *	0.12	1	0.12	0.12	µg/l	1.26	tonnes	YES	_____	%
Arsenic **	0.12	1	0.12	0.12	µg/l	1.26	tonnes		_____	%
Total Cr-T *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO	_____	%
Total Cr-T **	0.50	1	0.50	0.50	µg/l	5.23	tonnes		_____	%
Ni *	0.43	26	0.00	1.10	µg/l	4.28	tonnes	NO	_____	%
Ni **	0.62	26	0.50	1.10	µg/l	6.45	tonnes		_____	%
PCBs *		8			ng/l	0.00	kg	NO	_____	%
PCBs **		8			ng/l	2.20	kg		_____	%
gamma-HCH (lindane)	0.90	8	0.62	1.17	ng/l	9.13	kg	YES	_____	%
Ammonia (NH4-N)	15.08	12	3.00	24.00	µg/l	131.7	tonnes	YES	_____	%
Nitrates (NO3-N)	286.94	33	139.00	535.00	µg/l	3177	tonnes	YES	_____	%
Orthoph. (PO4-P)	2.03	33	0.50	9.00	µg/l	19.17	tonnes	YES	_____	%
Total N	459.39	33	290.00	725.00	µg/l	4828	tonnes	YES	_____	%
Total P	7.94	33	3.00	22.00	µg/l	73	tonnes	YES	_____	%
SiO2	2.46	23	1.10	3.00	mg/l	26123	tonnes	YES	_____	%
Susp. Part. Matter	3.62	33	0.68	18.20	mg/l	34488	tonnes	YES	_____	%
TOC	3.79	30	2.80	4.50	mg/l	38914	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.3 MAIN RIVERINE INPUTS 1995 (3) Numedalslågen

Total volume: 10614 1000 m3/day
Minimum flow: 4130 1000 m3/day
Maximum flow: 49939 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 *	0.06	12	0.00	0.48	µg/l	0.40	tonnes	YES	_____	%
Cadmium **	0.06	12	0.01	0.48	µg/l	0.41	tonnes		_____	%
Mercury *	3.30	10	1.00	10.50	ng/l	13.37	kg	YES	_____	%
Mercury **	3.30	10	1.00	10.50	ng/l	13.37	kg		_____	%
Copper	1.44	12	0.60	4.00	µg/l	5.28	tonnes	YES	_____	%
Zinc	5.47	12	1.90	8.10	µg/l	23.04	tonnes	YES	_____	%
Lead	0.46	12	0.11	0.93	µg/l	1.97	tonnes	YES	_____	%
Arsenic *	0.30	1	0.30	0.30	µg/l	1.16	tonnes	YES	_____	%
Arsenic **	0.30	1	0.30	0.30	µg/l	1.16	tonnes		_____	%
Total Cr-T *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO	_____	%
Total Cr-T **	0.50	1	0.50	0.50	µg/l	1.94	tonnes		_____	%
Ni *	0.27	12	0.00	0.80	µg/l	1.09	tonnes	NO	_____	%
Ni **	0.56	12	0.50	0.80	µg/l	2.20	tonnes		_____	%
PCBs *		3			ng/l	0.00	kg	NO	_____	%
PCBs **		3			ng/l	0.81	kg		_____	%
gamma-HCH (lindane)	0.81	3	0.54	1.03	ng/l	3.47	kg	YES	_____	%
Ammonia (NH4-N)	30.83	12	8.00	59.00	µg/l	103.1	tonnes	YES	_____	%
Nitrates (NO3-N)	180.92	12	88.00	355.00	µg/l	692	tonnes	YES	_____	%
Orthoph. (PO4-P)	3.63	12	0.50	6.00	µg/l	14.27	tonnes	YES	_____	%
Total N	359.17	12	215.00	530.00	µg/l	1437	tonnes	YES	_____	%
Total P	10.75	12	4.00	43.00	µg/l	44	tonnes	YES	_____	%
SiO2	2.43	11	1.10	3.30	mg/l	9762	tonnes	YES	_____	%
Susp. Part. Matter	4.06	12	1.58	7.26	mg/l	17336	tonnes	YES	_____	%
TOC	3.40	1	3.40	3.40	mg/l	13172	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.4 MAIN RIVERINE INPUTS 1995 (4) Skienselva

Total volume: 24724 1000 m3/day
Minimum flow: 7776 1000 m3/day
Maximum flow: 57629 1000 m3/day

Long term average flow (LTA): 22611 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	0.05	µg/l	0.16	tonnes	YES	%
Cadmium **	0.02	12	0.01	0.05	µg/l	0.18	tonnes		%
Mercury *	1.25	10	0.00	2.50	ng/l	11.80	kg	YES	%
Mercury **	1.45	10	1.00	2.50	ng/l	13.07	kg		%
Copper	1.80	12	0.40	15.40	µg/l	14.23	tonnes	YES	%
Zinc	3.77	12	2.40	12.20	µg/l	32.87	tonnes	YES	%
Lead	0.09	12	0.04	0.20	µg/l	0.80	tonnes	YES	%
Arsenic *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO	%
Arsenic **	0.10	1	0.10	0.10	µg/l	0.90	tonnes		%
Total Cr-T *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO	%
Total Cr-T **	0.50	1	0.50	0.50	µg/l	4.51	tonnes		%
Ni *	0.17	12	0.00	1.50	µg/l	1.49	tonnes	NO	%
Ni **	0.58	12	0.50	1.50	µg/l	5.13	tonnes		%
PCBs *		3			ng/l	0.00	kg	NO	%
PCBs **		3			ng/l	1.90	kg		%
gamma-HCH (lindane)	0.92	3	0.83	1.06	ng/l	8.55	kg	YES	%
Ammonia (NH4-N)	12.08	12	3.00	23.00	µg/l	101.3	tonnes	YES	%
Nitrates (NO3-N)	220.00	12	160.00	260.00	µg/l	2011	tonnes	YES	%
Orthoph. (PO4-P)	0.71	12	0.50	2.00	µg/l	6.26	tonnes	YES	%
Total N	331.67	12	285.00	405.00	µg/l	2963	tonnes	YES	%
Total P	3.25	12	2.00	5.00	µg/l	31	tonnes	YES	%
SiO2	1.94	11	1.60	2.10	mg/l	17649	tonnes	YES	%
Susp. Part. Matter	0.83	12	0.49	1.26	mg/l	7600	tonnes	YES	%
TOC	2.20	1	2.20	2.20	mg/l	19854	tonnes	YES	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.5 MAIN RIVERINE INPUTS 1995 (5) Otra

Total volume: 13183 1000 m3/day
Minimum flow: 4398 1000 m3/day
Maximum flow: 24615 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 *	0.03	12	0.00	0.05	µg/l	0.12	tonnes	YES	_____	%
Cadmium **	0.03	12	0.01	0.05	µg/l	0.13	tonnes		_____	%
Mercury *	1.95	10	0.00	15.00	ng/l	11.11	kg	NO	_____	%
Mercury **	2.45	10	1.00	15.00	ng/l	13.69	kg		_____	%
Copper	0.67	12	0.40	1.30	µg/l	3.42	tonnes	YES	_____	%
Zinc	5.64	12	3.50	9.80	µg/l	29.37	tonnes	YES	_____	%
Lead	0.40	12	0.20	0.92	µg/l	2.13	tonnes	YES	_____	%
Arsenic *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO	_____	%
Arsenic **	0.10	1	0.10	0.10	µg/l	0.48	tonnes		_____	%
Total Cr-T *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO	_____	%
Total Cr-T **	0.50	1	0.50	0.50	µg/l	2.41	tonnes		_____	%
Ni *	0.84	12	0.00	1.50	µg/l	4.54	tonnes	YES	_____	%
Ni **	0.88	12	0.50	1.50	µg/l	4.61	tonnes		_____	%
PCBs *		3			ng/l	0.00	kg	NO	_____	%
PCBs **		3			ng/l	1.01	kg		_____	%
gamma-HCH (lindane)	0.58	3	0.27	0.76	ng/l	2.98	kg	YES	_____	%
Ammonia (NH4-N)	10.17	12	3.00	22.00	µg/l	53.19	tonnes	YES	_____	%
Nitrates (NO3-N)	146.17	12	88.00	210.00	µg/l	746	tonnes	YES	_____	%
Orthoph. (PO4-P)	1.96	12	0.50	9.00	µg/l	10.06	tonnes	YES	_____	%
Total N	244.08	12	149.00	335.00	µg/l	1236	tonnes	YES	_____	%
Total P	5.33	12	2.00	12.00	µg/l	27	tonnes	YES	_____	%
SiO2	1.41	11	0.90	1.70	mg/l	7113	tonnes	YES	_____	%
Susp. Part. Matter	3.55	12	0.65	12.20	mg/l	19618	tonnes	YES	_____	%
TOC	2.42	12	1.80	3.50	mg/l	12126	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.6 MAIN RIVERINE INPUTS 1995 (6) Orreelva

Total volume:	**343**	**1000 m3/day**	**Long term average flow (LTA):**	**333** **1000 m3/day**
Minimum flow:	**10**	**1000 m3/day**	**LTA period : 1961 to 1990**	
Maximum flow:	**1426**	**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 *	0.01	12	0.00	0.03	µg/l	0.00	tonnes	NO	_____	%
Cadmium **	0.01	12	0.01	0.03	µg/l	0.00	tonnes		_____	%
Mercury *	1.30	10	0.00	3.50	ng/l	0.22	kg	YES	_____	%
Mercury **	1.50	10	1.00	3.50	ng/l	0.25	kg		_____	%
Copper	2.09	12	0.90	8.30	µg/l	0.26	tonnes	YES	_____	%
Zinc	2.56	12	0.50	5.40	µg/l	0.42	tonnes	YES	_____	%
Lead	0.32	12	0.04	0.62	µg/l	0.06	tonnes	YES	_____	%
Arsenic *	0.40	1	0.40	0.40	µg/l	0.05	tonnes	YES	_____	%
Arsenic **	0.40	1	0.40	0.40	µg/l	0.05	tonnes		_____	%
Total Cr-T *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO	_____	%
Total Cr-T **	0.50	1	0.50	0.50	µg/l	0.06	tonnes		_____	%
Ni *	1.81	12	1.50	2.20	µg/l	0.21	tonnes	YES	_____	%
Ni **	1.81	12	1.50	2.20	µg/l	0.21	tonnes		_____	%
PCBs *		3			ng/l	0.00	kg	NO	_____	%
PCBs **		3			ng/l	0.03	kg		_____	%
gamma-HCH (lindane)	0.95	3	0.24	1.81	ng/l	0.07	kg	YES	_____	%
Ammonia (NH4-N)	55.25	12	14.00	100.00	µg/l	6.12	tonnes	YES	_____	%
Nitrates (NO3-N)	941.92	12	4.00	2090.00	µg/l	184.3	tonnes	YES	_____	%
Orthoph. (PO4-P)	13.58	12	2.00	31.00	µg/l	2.50	tonnes	YES	_____	%
Total N	1624.6	12	710.00	2680.00	µg/l	263	tonnes	YES	_____	%
Total P	51.25	12	20.00	99.00	µg/l	7	tonnes	YES	_____	%
SiO2	0.94	1	0.94	0.94	mg/l	118	tonnes	YES	_____	%
Susp. Part. Matter	7.17	12	3.23	11.50	mg/l	1004	tonnes	YES	_____	%
TOC	5.50	1	5.50	5.50	mg/l	688	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.7 MAIN RIVERINE INPUTS 1995 (7) Suldalslågen

Total volume: 3747 1000 m3/day
Minimum flow: 1210 1000 m3/day
Maximum flow: 18403 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 *	0.01	4	0.00	0.02	µg/l	0.01	tonnes	NO		%
Cadmium **	0.02	4	0.01	0.02	µg/l	0.02	tonnes			%
Mercury *	0.25	4	0.00	1.00	ng/l	0.41	kg	NO		%
Mercury **	1.00	4	1.00	1.00	ng/l	1.37	kg			%
Copper	0.45	4	0.20	0.90	µg/l	0.57	tonnes	YES		%
Zinc	2.55	4	2.00	3.80	µg/l	3.35	tonnes	YES		%
Lead	0.09	4	0.04	0.20	µg/l	0.11	tonnes	YES		%
Arsenic *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO		%
Arsenic **	0.10	1	0.10	0.10	µg/l	0.14	tonnes			%
Total Cr-T *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO		%
Total Cr-T **	0.50	1	0.50	0.50	µg/l	0.68	tonnes			%
Ni *	0.00	4	0.00	0.00	µg/l	0.00	tonnes	NO		%
Ni **	0.50	4	0.50	0.50	µg/l	0.68	tonnes			%
PCBs *		2			ng/l	0.00	kg	NO		%
PCBs **		2			ng/l	0.29	kg			%
gamma-HCH (lindane)	0.60	2	0.53	0.66	ng/l	0.83	kg	YES		%
Ammonia (NH4-N)	3.75	4	3.00	6.00	µg/l	5.11	tonnes	YES		%
Nitrates (NO3-N)	171.25	4	160.00	185.00	µg/l	233	tonnes	YES		%
Orthoph. (PO4-P)	0.50	4	0.50	0.50	µg/l	0.68	tonnes	YES		%
Total N	222.50	4	195.00	250.00	µg/l	301	tonnes	YES		%
Total P	1.75	4	1.00	3.00	µg/l	2	tonnes	YES		%
SiO2	0.90	1	0.90	0.90	mg/l	1231	tonnes	YES		%
Susp. Part. Matter	0.70	4	0.47	1.17	mg/l	900	tonnes	YES		%
TOC	0.50	1	0.50	0.50	mg/l	684	tonnes	YES		%

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

Table 4.8 MAIN RIVERINE INPUTS 1995 (8) Orkla

Total volume: 5695 1000 m3/day
Minimum flow: 1313 1000 m3/day
Maximum flow: 53222 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 *	0.06	22	0.01	0.13	µg/l	0.13	tonnes	YES		%
Cadmium **	0.06	22	0.01	0.13	µg/l	0.13	tonnes			%
Mercury *	1.75	10	0.00	10.00	ng/l	3.10	kg	YES		%
Mercury **	2.05	10	1.00	10.00	ng/l	3.53	kg			%
Copper	8.38	22	3.20	21.30	µg/l	18.25	tonnes	YES		%
Zinc	24.41	22	7.30	57.90	µg/l	51.40	tonnes	YES		%
Lead *	0.04	22	0.00	0.15	µg/l	0.09	tonnes	YES		%
Lead **	0.05	22	0.02	0.15	µg/l	0.10	tonnes			%
Arsenic *	0.31	13	0.00	0.70	µg/l	0.68	tonnes	YES		%
Arsenic **	0.32	13	0.10	0.70	µg/l	0.68	tonnes			%
Total Cr-T *	0.06	13	0.00	0.80	µg/l	0.32	tonnes	NO		%
Total Cr-T **	0.52	13	0.50	0.80	µg/l	1.16	tonnes			%
Ni *	1.45	22	0.60	3.70	µg/l	2.83	tonnes	YES		%
Ni **	1.45	22	0.60	3.70	µg/l	2.83	tonnes			%
PCBs *		3			ng/l	0.03	kg	NO		%
PCBs **		3			ng/l	0.44	kg			%
gamma-HCH (lindane)	0.53	3	0.14	1.07	ng/l	1.78	kg	YES		%
Ammonia (NH4-N)	7.67	12	3.00	17.00	µg/l	14.24	tonnes	YES		%
Nitrates (NO3-N)	223.92	12	103.00	405.00	µg/l	419.2	tonnes	YES		%
Orthoph. (PO4-P)	1.05	13	0.50	3.00	µg/l	2.32	tonnes	YES		%
Total N	344.77	13	233.00	490.00	µg/l	688	tonnes	YES		%
Total P	4.02	13	3.00	5.90	µg/l	9	tonnes	YES		%
SiO2	2.65	1	2.65	2.65	mg/l	5509	tonnes	YES		%
Susp. Part. Matter	1.24	12	0.60	3.10	mg/l	3374	tonnes	YES		%
TOC	2.95	12	2.10	4.10	mg/l	6477	tonnes	YES		%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.9 MAIN RIVERINE INPUTS 1995 (9) Vefsna

Total volume: 18179 1000 m3/day
Minimum flow: 4277 1000 m3/day
Maximum flow: 147528 1000 m3/day

Long term average flow (LTA): 15620 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	1.07	µg/l	1.56	tonnes	YES	%
Cadmium **	0.10	12	0.01	1.07	µg/l	1.57	tonnes		%
Mercury *	1.45	10	0.00	3.50	ng/l	18.25	kg	YES	%
Mercury **	1.75	10	1.00	3.50	ng/l	18.67	kg		%
Copper	2.71	12	0.40	5.10	µg/l	14.88	tonnes	YES	%
Zinc	6.92	12	0.50	22.60	µg/l	32.30	tonnes	YES	%
Lead	1.56	12	0.03	11.40	µg/l	8.27	tonnes	YES	%
Arsenic *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO	%
Arsenic **	0.10	1	0.10	0.10	µg/l	0.66	tonnes		%
Total Cr-T *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO	%
Total Cr-T **	0.50	1	0.50	0.50	µg/l	3.32	tonnes		%
Ni *	0.94	12	0.00	2.00	µg/l	7.35	tonnes	YES	%
Ni **	0.98	12	0.50	2.00	µg/l	7.57	tonnes		%
PCBs *		3			ng/l	0.00	kg	NO	%
PCBs **		3			ng/l	1.39	kg		%
gamma-HCH (lindane)	0.55	3	0.22	1.07	ng/l	5.15	kg	YES	%
Ammonia (NH4-N)	13.92	12	3.00	38.00	µg/l	72.47	tonnes	YES	%
Nitrates (NO3-N)	77.58	12	21.00	175.00	µg/l	348.5	tonnes	YES	%
Orthoph. (PO4-P)	3.96	12	0.50	14.00	µg/l	46.97	tonnes	YES	%
Total N	277.08	12	90.00	530.00	µg/l	1547	tonnes	YES	%
Total P	10.17	12	2.00	34.00	µg/l	104	tonnes	YES	%
SiO2	1.41	1	1.41	1.41	mg/l	9356	tonnes	YES	%
Susp. Part. Matter	5.59	12	0.51	25.80	mg/l	88368	tonnes	YES	%
TOC	3.40	1	3.40	3.40	mg/l	22560	tonnes	YES	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

Table 4.10 MAIN RIVERINE INPUTS 1995 (10) Altaelva

Total volume: 8586 1000 m3/day
Minimum flow: 1737 1000 m3/day
Maximum flow: 82762 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 *	0.01	4	0.00	0.04	µg/l	0.03	tonnes	NO	_____	%
Cadmium **	0.02	4	0.01	0.04	µg/l	0.04	tonnes		_____	%
Mercury *	0.88	4	0.00	1.50	ng/l	0.52	kg	YES	_____	%
Mercury **	1.13	4	1.00	1.50	ng/l	3.21	kg		_____	%
Copper	1.08	4	0.50	1.70	µg/l	4.96	tonnes	YES	_____	%
Zinc	1.00	4	0.50	2.40	µg/l	6.69	tonnes	YES	_____	%
Lead *	0.12	4	0.00	0.30	µg/l	0.83	tonnes	YES	_____	%
Lead **	0.12	4	0.02	0.30	µg/l	0.83	tonnes		_____	%
Arsenic *	0.29	1	0.29	0.29	µg/l	0.91	tonnes	YES	_____	%
Arsenic **	0.29	1	0.29	0.29	µg/l	0.91	tonnes		_____	%
Total Cr-T *	0.00	1	0.00	0.00	µg/l	0.00	tonnes	NO	_____	%
Total Cr-T **	0.50	1	0.50	0.50	µg/l	1.57	tonnes		_____	%
Ni *	0.65	4	0.00	1.50	µg/l	4.20	tonnes	YES	_____	%
Ni **	0.78	4	0.50	1.50	µg/l	4.27	tonnes		_____	%
PCBs *		2			ng/l	0.00	kg	NO	_____	%
PCBs **		2			ng/l	0.66	kg		_____	%
gamma-HCH (lindane)	0.05	2	0.03	0.07	ng/l	0.17	kg	YES	_____	%
Ammonia (NH4-N)	9.25	4	3.00	24.00	µg/l	66.5	tonnes	YES	_____	%
Nitrates (NO3-N)	103.50	4	34.00	255.00	µg/l	709	tonnes	YES	_____	%
Orthoph. (PO4-P)	11.50	4	7.00	16.00	µg/l	47.2	tonnes	YES	_____	%
Total N	189.75	4	149.00	275.00	µg/l	811	tonnes	YES	_____	%
Total P	16.25	4	11.00	26.00	µg/l	76	tonnes	YES	_____	%
SiO2	4.60	1	4.60	4.60	mg/l	14417	tonnes	YES	_____	%
Susp. Part. Matter	9.32	4	0.88	34.30	mg/l	92616	tonnes	YES	_____	%
TOC	3.50	1	3.50	3.50	mg/l	10969	tonnes	YES	_____	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**

APPENDIX V : INPUTS FROM TRIBUTARY RIVERS 1995 (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 - 1996)

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 1995 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 *	0.02	0.02	0.01	0.03	0.05	0.61	tonnes	YES	_____	%
Cd **	0.02	0.02	0.01	0.03	0.05	0.61	tonnes		_____	%
Hg *	0.26	1.12	0.00	0.16	1.09	9.52	kg	NO	_____	%
Hg **	1.38	1.33	0.16	0.60	1.09	13.61	kg		_____	%
Cu	1.7	1.2	0.9	0.9	0.7	5.9	tonnes	YES	_____	%
Zn	4.1	3.2	2.9	12.3	8.3	71.3	tonnes	YES	_____	%
Pb *	0.30	0.22	0.38	0.31	0.40	5.80	tonnes	YES	_____	%
Pb **	0.30	0.22	0.38	0.31	0.40	5.80	tonnes		_____	%
Arsenic *	0.22	0.10	0.21	0.17	0.34	2.39	tonnes	YES	_____	%
Arsenic **	0.22	0.11	0.21	0.17	0.34	2.39	tonnes		_____	%
Cr-T *	0.06	0.19	0.67	0.00	1.22	7.21	tonnes	NO	_____	%
Cr-T **	0.62	0.41	0.67	0.30	1.22	7.21	tonnes		_____	%
Ni *	1.09	0.47	1.12	0.71	0.31	1.94	tonnes	YES	_____	%
Ni **	1.09	0.60	1.12	0.71	0.31	1.94	tonnes		_____	%
PCBs *	0.00	0.07	0.00	0.00	0.00	0.00	kg	NO	_____	%
PCBs **	0.25	0.15	0.03	0.13	0.23	2.13	kg		_____	%
gamma-HCH	0.79	0.33	0.04	0.22	1.09	8.97	kg	YES	_____	%
NH4-N	24	48	13	40	42	401	tonnes	YES	_____	%
NO3-N	941	383	171	519	185	2127	tonnes	YES	_____	%
PO4-P	8	5	4	10	1	6	tonnes	YES	_____	%
Total N	1339	647	172	697	414	3826	tonnes	YES	_____	%
Total P	26	18	5	12	4	45	tonnes	YES	_____	%
SiO2	2320						tonnes	YES	_____	%
S.P.M.	3506	3489	1674	2202	1130	13799	tonnes	YES	_____	%
TOC	8068	2848	921	2530	3693	30764	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 1995 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 *	1.69	0.89	tonnes	YES	_____	%
Cd **	1.70	0.96	tonnes		_____	%
Hg *	5.36	27.73	kg	NO	_____	%
Hg **	16.25	46.43	kg		_____	%
Cu	7.9	12.2	tonnes	YES	_____	%
Zn	70.6	83.4	tonnes	YES	_____	%
Pb *	7.51	3.31	tonnes	YES	_____	%
Pb **	7.51	3.39	tonnes		_____	%
Arsenic *	3.70	2.38	tonnes	YES	_____	%
Arsenic **	3.70	2.40	tonnes		_____	%
Cr-T *	17.51	26.11	tonnes	YES	_____	%
Cr-T **	17.51	26.11	tonnes		_____	%
Ni *	4.07	2.43	tonnes	YES	_____	%
Ni **	4.07	2.47	tonnes		_____	%
PCBs *	0.00	0.00	kg	NO	_____	%
PCBs **	3.12	7.48	kg		_____	%
gamma-HCH	8.61	9.59	kg	YES	_____	%
NH4-N	326	251	tonnes	YES	_____	%
NO3-N	3703	4702	tonnes	YES	_____	%
PO4-P	25	38	tonnes	YES	_____	%
Total N	5468	7576	tonnes	YES	_____	%
Total P	80	134	tonnes	YES	_____	%
SiO2	10223	4330	tonnes	YES	_____	%
S.P.M.	17838	37496	tonnes	YES	_____	%
TOC	32235	31987	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 1995 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 *	0.64	0.08	tonnes	NO	_____	%
Cd **	0.71	0.36	tonnes		_____	%
Hg *	100.2	102.2	kg	YES	_____	%
Hg **	109.3	103.4	kg		_____	%
Cu	67.9	31.5	tonnes	YES	_____	%
Zn	100.4	53.0	tonnes	YES	_____	%
Pb *	6.83	8.64	tonnes	YES	_____	%
Pb **	6.83	8.69	tonnes		_____	%
Arsenic *	6.63	10.27	tonnes	YES	_____	%
Arsenic **	7.76	11.03	tonnes		_____	%
Cr-T *	60.18	9.60	tonnes	NO	_____	%
Cr-T **	63.81	19.17	tonnes		_____	%
Ni *	40.57	20.16	tonnes	YES	_____	%
Ni **	41.15	26.53	tonnes		_____	%
PCBs *	0.48	0.00	kg	NO	_____	%
PCBs **	16.18	6.74	kg		_____	%
gamma-HCH	16.26	9.54	kg	YES	_____	%
NH4-N	413	482	tonnes	YES	_____	%
NO3-N	4070	1795	tonnes	YES	_____	%
PO4-P	74	69	tonnes	YES	_____	%
Total N	8557	4563	tonnes	YES	_____	%
Total P	175	143	tonnes	YES	_____	%
SiO2	39415	42939	tonnes	YES	_____	%
S.P.M.	57419	145269	tonnes	YES	_____	%
TOC	47358	6647	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 1995 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 *	0.15	tonnes	NO	%
Cd **	0.28	tonnes		%
Hg *	13.45	kg	NO	%
Hg **	29.22	kg		%
Cu	18.9	tonnes	YES	%
Zn	27.3	tonnes	YES	%
Pb *	2.62	tonnes	YES	%
Pb **	2.66	tonnes		%
Arsenic *	4.11	tonnes	YES	%
Arsenic **	4.29	tonnes		%
Cr-T *	4.71	tonnes	NO	%
Cr-T **	11.43	tonnes		%
Ni *	42.66	tonnes	NO	%
Ni **	46.07	tonnes		%
PCBs *	0.00	kg	NO	%
PCBs **	4.36	kg		%
gamma-HCH	4.18	kg	YES	%
NH4-N	147	tonnes	YES	%
NO3-N	481	tonnes	YES	%
PO4-P	23	tonnes	YES	%
Total N	2859	tonnes	YES	%
Total P	84	tonnes	YES	%
SiO2	92728	tonnes	YES	%
S.P.M.	14802	tonnes	YES	%
TOC	47490	tonnes	YES	%

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

APPENDIX VI : OTHER INPUTS 1995 (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 - 1996)

Table 6.1 Nutrients from "Down Stream Areas" of main and tributary rivers and rivers not monitored 1995.

Direct runoff of P and N :

Sub-areas:		Back-ground tonnes	Agriculture Area tonnes	Point tonnes	Sum tonnes
1 Glomma	P	18.4	9.9	0.4	28.8
	N	463.1	490.8	6.1	959.9
	PO4-P	3.7	3.0	0.3	6.9
	NO3-N	277.8	343.5	0.7	622.1
	NH4-N	23.2	34.4	4.8	62.3
1 Inner Oslofjord	P	3.4	1.9	0.3	5.6
	N	72.8	83.3	2.5	158.6
	PO4-P	0.7	0.6	0.2	1.4
	NO3-N	43.7	58.3	0.3	102.3
	NH4-N	3.6	5.8	2.0	11.5
2 Drammenselva	P	1.4	2.1	0.0	3.5
	N	64.0	67.7	0.6	132.3
	PO4-P	0.3	0.6	0.0	0.9
	NO3-N	38.4	47.4	0.1	85.8
	NH4-N	3.2	4.7	0.5	8.4
3 Numedalslågen	P	4.9	10.1	0.2	15.2
	N	184.7	426.0	1.7	612.4
	PO4-P	1.0	3.0	0.1	4.1
	NO3-N	110.8	298.2	0.2	409.2
	NH4-N	9.2	29.8	1.3	40.4
4 Skienselva	P	6.8	1.9	0.1	8.8
	N	331.3	87.6	1.4	420.3
	PO4-P	1.4	0.6	0.1	2.0
	NO3-N	198.8	61.3	0.2	260.3
	NH4-N	16.6	6.1	1.1	23.8
5 Otra	P	7.0	3.6	0.3	10.9
	N	391.8	94.8	3.2	489.8
	PO4-P	1.4	1.1	0.2	2.7
	NO3-N	235.1	66.3	0.4	301.8
	NH4-N	19.6	6.6	2.6	28.8
6 Orreelva	P	22.8	43.5	4.1	70.4
	N	1463.8	1262.5	48.9	2775.2
	PO4-P	4.6	13.1	2.8	20.4
	NO3-N	878.3	883.7	5.9	1767.9
	NH4-N	73.2	88.4	39.1	200.7
7 Suldalslågen	P	58.0	62.2	6.9	127.2
	N	5151.3	1265.3	93.7	6510.3
	PO4-P	11.6	18.7	4.8	35.0
	NO3-N	3090.8	885.7	11.2	3987.7
	NH4-N	257.6	88.6	74.9	421.1
8 Orkla	P	142.1	139.9	13.6	295.5
	N	3850.8	3444.2	182.7	7477.6
	PO4-P	28.4	42.0	9.4	79.7
	NO3-N	2310.5	2410.9	21.9	4743.3
	NH4-N	192.5	241.1	146.2	579.8
9 Vefsna	P	83.6	32.5	6.9	123.0
	N	1920.5	829.7	99.3	2849.5
	PO4-P	16.7	9.8	4.8	31.2
	NO3-N	1152.3	580.8	11.9	1745.0
	NH4-N	96.0	58.1	79.5	233.6
10 Altaelva	P	86.1	1.6	0.5	88.2
	N	1618.3	54.9	7.5	1680.7
	PO4-P	17.2	0.5	0.4	18.1
	NO3-N	971.0	38.4	0.9	1010.3
	NH4-N	80.9	3.8	6.0	90.7

SUM	P	777	tonnes
SUM	N	24066	tonnes
SUM	PO4-P	203	tonnes
SUM	NO3-N	15036	tonnes
SUM	NH4-N	1701	tonnes

APPENDIX VII : MAIN RIVERS 1 - 10. MEASURED CONCENTRATIONS 1995 **Page:**

Table 7.1 Measured concentrations - 1995

Watercourse : Glomma

Annual flow . . . : 23506 mill.cbm Min : 282 cbm/s

Draining area . : 41218 km² Max: 3669 cbm/s

																	PCB(The following Congeners) IUPAC NOS										
	Q m³/s	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	SiO2 mg/l	TOC mg/l	Hg ng/l	HCH ng/l	28 ng/l	52 ng/l	101 ng/l	118 ng/l	138 ng/l	153 ng/l	180 ng/l	As µg/l	Cr-T µg/l	Ni µg/l
950116	486.9	5.42	20	11	845	625	48	1.8	18.2	0.05	0.56	13.3			1.5											1.5
950216	384.3	5.35	45	9	920	650	60	2	7.5	0.02	0.99	11.3	3.4	4.3		0.44	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.8
950313	358.7	5.07	11	6	655	460	34	1.4	5.6	<0.01	0.94	6.62	3.6	4.1	2											1
950410	455	5.38	21	12	750	535	23	2	5.3	0.01	0.65	16.7	3.4	3.2	2.5											1.4
950510	1212	3.17	20	9	775	520	51	2.1	7.3	0.02	0.51	11.5	3.9	5.9	3											1.5
950530	2019		9		435							9.6		4.7												
950601	2818		19		425	175						16.6		5.9												
950602	3090		30		425	205						20.4		5.6												
950603	3243		36		460	270						20.2		5.8												
950604	3424		57		460	255						26.6		5.2												
950605	3597		67		515	315						37		5.6												
950606	3658	3.24	57	38	555	275	31	3.5	9.4	0.29	2.76	42.2	2.5	5.8	4.5	0.84	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.5
950607	3648		90		600	290						44		6												
950608	3648		128		475	205		4.3	12.3	0.08	3.06	64	2.6	6	6											0.6
950609	3660		112		460	220						54		5.6												
950610	3669		107		470	218		5.1	11.7	0.06	3.04	47	2.5	4.7	3											0.8
950611	3669		80		470	245						36		4.3												
950612	3621		78		453	265		4	9	0.02	3.03	27.1	2.6	4.7	1.5	0.68	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.4
950613	3536		45		525	297						26.8		4.2												
950614	3434		41		525	300		3.1	10.8	0.03	2.06	24.9	2.6	4.4	4											1.2
950615	3305		45		730	505						26.2		4.6												
950616	3182		43		710	516		3.6	10.1	0.02	1.29	21.6	2.6	4.9	2	0.34	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.4
950617	2973		50		530	339						22.1		4.5												
950618	2782		62		605	397		1.9	4.3	0.01	0.82	24.7	2.8	4.6	1											1
950619	2627		51		605	456						19		4.7												
950620	2345		41		665	480		1.9	3.8	0.01	0.62	15.4	2.9	4.3	3.5	0.94	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1
950621	2221		33		620	440						13.9		4.4												
950622	2306		32		575	390		2.2	4.1	0.02	0.67	11.9	2.8	4.5	1											1
950623	2079		27		595	455						10.4		3.9												
950624	1951		23		555	365		2	3.8	0.01	0.43	7.5	2.8	3.6	2.5	0.82	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1
950625	1815		24		505	355						9.4		3.5												
950626	1785		24		480	350		1.9	3.3	0.02	0.54	8.4	2.8	3.4	2.5											3.3
950627	1659		20		460	345						7.1		3.4												
950628	1807		18		430	320		1.7	2.9	0.01	0.45	7	2.6	3.7	2	0.76	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.6
950629	1845		20		450	290						7.8		3.9												
950630	1781		18		465	300		1.7	3.1	0.02	0.99	6.7	2.6	3.8	3											1.6

Table 7.1 Measured concentrations - 1995

Watercourse : Glomma

Annual flow . . . : 23506 mill.cbm Min : 282 cbm/s

Draining area . : 41218 km² Max: 3669 cbm/s

	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	SiO2	TOC	Hg	HCH	PCB(The following 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	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
950706	1255		17		465	285						5.3		3.7												
950712	871.1	4.02	13	4.1	470	270	10	2.5	3.3	0.01	0.26	3.46	2.3	3.2	3.5											1
950719	1127		8		450	285						3.1		2.9												
950726	925.4		14		465	254						3.5		3.3												
950731	717.4		9		385	190						3.4		3.2												
950808	717.4		14		465	215						4.2		3.9												
950816	608.7	4.03	10	3	445	225	5	2.6	5.6	0.01	0.78	3.67	2.1	3.6	5											1
950828	492.9		9		390	220						2.6		2.9												
950920	384.3	4.1	7	2	425	250	21	1.5	13.4	<0.01	0.72	1.73	1.8	3.2	3											0.8
951011	384.4	4.74	12	4	620	440	16	1.9	3.1	0.01	0.37	5.82	2.4	4	2.5	0.57	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.16	<0.5	0.8
951122	409.9	4.54	8	4	505	365	15	2.6	4.9	0.03	0.32	3.41	2.9	3.3	2.5											0.8
951207	486.8	4.86	7	4	580	385	26	1.7	2.9	0.01	0.23	2.93	2.9	3.3	1.5											0.6
Min:	358.7	3.17	7	2	385	175	5	1.4	2.9	0.01	0.23	1.73	1.8	2.9	1	0.34	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.16	0.5	0.5
Max:	3669	5.42	128	38	920	650	60	5.1	18.2	0.29	3.06	64	3.9	6	6	0.94	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.16	0.5	3.3
Aver.:	2051.5	4.49	36.08	8.84	538.4	340.7	28.3	2.46	6.90	0.03	1.09	17.04	2.76	4.30	2.76	0.67	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.16	0.50	1.19
St.dev.:	1210.9	0.79	29.58	9.75	120.1	116.4	17.2	0.97	4.11	0.06	0.94	14.79	0.47	0.92	1.25	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.57
Numb.:	48	12	48	12	48	47	12	24	24	24	24	48	23	47	23	8	8	8	8	8	8	8	8	1	1	24

Table 7.2 Measured concentrations - 1995
Watercourse : Drammenselva
Annual flow . . . : 10465 mill.cbm Min : 90 cbm/s
Draining area . : 17028 km² Max: 1547 cbm/s

																	PCB(The following Congeners) IUPAC NOS										
	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	SiO2	TOC	Hg	HCH	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	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
950116	288.1	3.57	4	0.5	430	290	17	1	7.7	0.02	0.23	1.43			<1											<0.5
950213	304	3.47	4	0.5	440	310	18	0.6	2.8	<0.01	0.15	0.68	2.4			0.76	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.5
950316	295.5	3.6	4	1	440	310	18	1.5	3.9	0.02	0.15	0.68	2.3	2.8	1											0.6
950413	281.7	4.53	7	2	685	530	3	1.2	4.7	0.01	0.23	5.42	2.8	3.5	1.5											0.8
950508	414.5	5.11	7	2	400	285	3	0.9	4.7	0.02	0.17	4.27	2.7	4.5	1.5											0.6
950602	1403		21	9	685	435		1.2	4.5	0.03	0.63	18.2		4												<0.5
950604	1547		15	7	495	305		1.1	3.3	0.02	0.38	9.6		4												<0.5
950606	1339	2.9	13	7	455	280	8	0.9	2.8	0.02	0.42	5.69	2.8	4.5	2.5	0.76	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.5
950608	1249		16	6	515	395		0.8	3.5	0.02	0.43	10.1	2.7	4.5	3											<0.5
950610	1355		11	2	540	295		0.8	2.9	0.02	0.27	5.9	2.7	4	2.5											<0.5
950612	1355		10	2	435	280		0.8	2.7	0.02	0.21	4.8	2.6	3.9	2.5	1.17	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.5
950614	1074		22	4	725	535		0.9	3.9	0.01	0.42	9.4	2.9	4.3	2.5											0.9
950616	1036		10	2	575	435		0.8	3.3	0.01	0.21	5.6	3	4.1	3	1.11	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.6
950618	1010		11	3	485	310		0.6	2.9	0.01	0.21	3.3	2.7	3.9	3											0.7
950620	967.3		8	2	480	305		1.7	2.6	0.01	0.16	2.6	2.8	4	2.5	1.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.6
950622	823.8		7	2	465	285		0.8	3	0.01	0.15	3.3	2.8	3.8	2.5											0.6
950624	717.5		7	1	470	290		0.7	2.8	0.01	0.13	2	1.1	3.8	3	0.87	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.6
950626	664.3		6	0.5	460	280		0.8	2.5	0.01	0.12	2.1	1.1	3.7	2											0.6
950628	621.8		6	2	445	255		0.5	2.6	0.04	0.05	2.1	2.6	3.8	4	0.84	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.5
950630	558		6	1	415	240		0.7	2.4	0.01	0.16	2	2.5	3.6	3											1.1
950705	350.8		6	1	425	225						3.4		3.7												
950713	212.6	3.65	7	1	425	230	9	1.1	3.2	<0.01	0.12	1.55	2.4	4.3	1.5											0.9
950721	267.9		5	1	415	225						1.53		4.2												
950727	262.5		5	0.5	365	215						1.04		3.6												
950802	255.1		5	0.5	375	215						1.53		3.6												
950809	146.7		5	0.5	360	175						1.36		3.2												
950816	112.7	3.75	6	0.5	415	200	24	1	2.4	<0.01	0.09	1.47	2.1	3.7	1.5											0.7
950823	122.2		6	1	290	139						1.53		3.2												
950831	124.4		4	0.5	395	185						1.2		3.5												
950919	260.4	3.6	5	1	425	240	19	1	4.1	0.01	0.15	1.96	2.3	3.6	1.5									0.12	<0.5	0.8
951010	289.1	3.14	6	1	400	255	23	0.9	3.4	0.03	0.09	1.85	2.5	2.9	3.5	0.62	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.5
951115	233.8	3.44	4	1	410	255	22	1.2	3.1	0.01	0.06	1.03	2.5	3.4	1.5											0.6
951211	200.9	3	3	1	420	260	17	0.6	2.6	<0.01	0.06	0.79	2.3		<1											<0.5
Min:	112.7	2.9	3	0.5	290	139	3	0.5	2.4	0.01	0.05	0.68	1.1	2.8	1	0.62	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.12	0.5	0.5
Max:	1547	5.11	22	9	725	535	24	1.7	7.7	0.04	0.63	18.2	3	4.5	4	1.17	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.12	0.5	1.1
Aver.:	610.4	3.65	7.94	2.03	459.4	286.9	15.1	0.93	3.40	0.02	0.21	3.62	2.46	3.79	2.24	0.90	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.12	0.50	0.62
St.dev.:	461.1	0.62	4.72	2.16	93.5	90.2	7.4	0.28	1.12	0.01	0.14	3.69	0.48	0.43	0.85	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.16
Numb.:	33	12	33	33	33	33	12	26	26	26	26	33	23	30	23	8	8	8	8	8	8	8	8	1	1	26

Table 7.3 Measured concentrations - 1995

Watercourse : Numedalslågen

Annual flow . . . : 3874 mill.cbm Min : 47.8 cbm/s

Draining area . : 5513 km² Max: 578 cbm/s

																	PCB(The following Congeners) IUPAC NOS										
	Q m³/s	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	SiO2 mg/l	TOC mg/l	Hg ng/l	HCH ng/l	28 ng/l	52 ng/l	101 ng/l	118 ng/l	138 ng/l	153 ng/l	180 ng/l	As µg/l	Cr-T µg/l	Ni µg/l
950117	115.9	2.65	43	6	375	200	42	0.9	3.6	<0.01	0.26	5.69			10.5											<0.5
950214	96.32	2.85	10	6	405	235	59	1.3	4.1	0.02	0.33	4.44	2.7			0.87	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.5
950314	78.74	3.18	9	5	420	250	57	2.5	5.7	0.02	0.86	5.29	2.7		1.5											0.6
950410	109.3	3.61	11	6	530	355	30	0.9	5.7	0.02	0.36	7.26	3.3		3											0.7
950515	131.9	2.37	4	1	310	156	14	0.9	7.5	0.02	0.35	2.64	2.6		2.5											0.5
950612	250.2	2.06	12	4	380	146	8	1.4	7.5	0.48	0.93	6.3	2.6		3	1.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.5
950715	83.88	2.48	5	2	260	114	23	0.6	2.4	<0.01	0.2	1.82	1.6													<0.5
950815	70.06	2.26	4	0.5	215	88	12	1	1.9	<0.01	0.11	1.58	1.1		1											<0.5
950918	194.5	2.45	9	3	440	160	12	1.2	8	0.04	0.53	4.96	2.8		3.5									0.3	<0.5	0.8
951016	86.48	2.69	7	2	390	190	29	2	8.1	0.06	0.64	1.86	2.6		4	0.54	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.5
951116	79.91	2.51	7	3	310	155	48	4	7.6	0.03	0.48	2.4	2.5		2.5											0.6
951207	95.29	2.18	8	5	275	122	36	0.6	3.5	0.01	0.42	4.5	2.2	3.4	1.5											<0.5
Min:	70.06	2.06	4	0.5	215	88	8	0.6	1.9	0.01	0.11	1.58	1.1	3.4	1	0.54	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.3	0.5	0.5
Max:	250.2	3.61	43	6	530	355	59	4	8.1	0.48	0.93	7.26	3.3	3.4	10.5	1.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.3	0.5	0.8
Aver.:	116.0	2.61	10.75	3.63	359.2	180.9	30.8	1.44	5.47	0.06	0.46	4.06	2.43	3.40	3.30	0.81	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.30	0.50	0.56
St.dev.:	53.9	0.44	10.48	1.99	88.3	72.6	17.8	0.98	2.29	0.13	0.25	1.94	0.60		2.70	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.10
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	11	1	10	3	3	3	3	3	3	3	3	1	1	12

Table 7.4 Measured concentrations - 1995

Watercourse : Skienselva

Annual flow . . . : 9024 mill.cbm Min : 90 cbm/s

Draining area . : 10348 km² Max: 667 cbm/s

																	PCB(The following Congeners) IUPAC NOS									
	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	SiO2	TOC	Hg	HCH	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	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
950115	252	2.19	3	0.5	340	260	6	0.5	2.8	<0.01	0.09	0.49			<1											<0.5
950214	303	2.23	5	2	405	255	14	1.3	3.9	0.05	0.2	0.93	2.1			0.83	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.5
950315	267	2.22	3	1	350	255	10	0.5	2.8	0.01	0.11	0.53	2.1		1											<0.5
950410	290	2.21	2	0.5	345	255	3	0.6	2.7	0.01	0.08	0.88	2.1		2											<0.5
950511	453	2.15	3	0.5	325	250	3	0.4	3.3	0.03	0.04	0.66	2.1		1											<0.5
950606	578	2.11	4	0.5	320	225	3	0.4	3.1	<0.01	0.05	0.97	2		1	1.06	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.5
950714	130	2.07	3	0.5	370	200	18	0.4	3.2	0.02	0.08	1.05	1.9													<0.5
950815	125	1.82	2	0.5	290	160	10	0.6	2.6	0.02	0.07	0.98	1.6		1											<0.5
950918	457	1.99	3	0.5	285	180	19	0.6	2.4	0.02	0.05	0.91	1.7		1.5									<0.1	<0.5	0.5
951009	375	1.92	5	0.5	310	195	23	0.5	3.1	0.02	0.13	1.26	1.9		2.5	0.87	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.5
951118	254	1.96	3	1	305	195	15	15.4	12.2	0.03	0.12	0.6	1.9		2.5											1.5
951208	208	1.98	3	0.5	335	210	21	0.4	3.1	0.01	0.11	0.71	1.9	2.2	<1											<0.5
Min:	125	1.82	2	0.5	285	160	3	0.4	2.4	0.01	0.04	0.49	1.6	2.2	1	0.83	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.1	0.5	0.5
Max:	578	2.23	5	2	405	260	23	15.4	12.2	0.05	0.2	1.26	2.1	2.2	2.5	1.06	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.1	0.5	1.5
Aver.:	307.7	2.07	3.25	0.71	331.7	220.0	12.1	1.80	3.77	0.02	0.09	0.83	1.94	2.20	1.45	0.92	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.10	0.50	0.58
St.dev.:	136.1	0.14	0.97	0.45	34.0	34.6	7.3	4.29	2.68	0.01	0.04	0.23	0.17		0.64	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.29
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	11	1	10	3	3	3	3	3	3	3	3	1	1	12

Table 7.5 Measured concentrations - 1995

Watercourse : Otra

Annual flow . . . : 4812 mill.cbm Min : 50.9 cbm/s

Draining area . : 3730 km² Max: 284.9 cbm/s

																	PCB(The following Congeners) IUPAC NOS									
	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	SiO2	TOC	Hg	HCH	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	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
950119	234.2	2.63	12	5	335	210	22	0.8	8.6	<0.01	0.63	8.68		3.3	<1											0.9
950215	233.9	2.56	7	4	295	180	3	1.3	9.8	0.05	0.92	12.2	1.7	3.5												1.5
950315	126.8	2.15	11	9	265	170	18	0.9	5.8	0.03	0.51	9.27	1.5	2.4	<1	0.72	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.9
950418	193.7	2.07	4	1	245	150	15	0.6	5.7	0.03	0.4	1.94	1.5	2.7	1											1.5
950510	233.9	1.88	4	0.5	235	145	3	0.5	4.7	0.01	0.3	1.57	1.4	2.2	<1											0.6
950607	122.8	2.04	4	0.5	245	127	3	0.5	4.5	<0.01	0.2	1.88	1.2	2.7	<1	0.27	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.6
950712	51.86	1.59	5	1	149	112	3	0.5	4.3	0.03	0.3	1.53	1.2	1.8												0.6
950815	56.95	1.64	4	0.5	200	88	3	0.4	3.5	0.02	0.22	1.74	0.9	2.3	1											<0.5
950918	138.3	1.94	6	0.5	210	117	7	0.6	5.5	0.04	0.31	0.98	1.3	1.9	1									<0.1	<0.5	0.9
951011	211	2.44	3	0.5	240	135	12	0.6	6.4	0.04	0.48	1.28	1.6	2.1	15	0.76	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.3
951121	164.7	1.88	2	0.5	240	145	14	0.9	4.4	0.03	0.23	0.91	1.5	2.1	1.5											0.7
951206	163.7	1.88	2	0.5	270	175	19	0.4	4.5	0.03	0.28	0.65	1.7	2	<1											0.6
Min:	51.86	1.59	2	0.5	149	88	3	0.4	3.5	0.01	0.2	0.65	0.9	1.8	1	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.1	0.5	0.5
Max:	234.2	2.63	12	9	335	210	22	1.3	9.8	0.05	0.92	12.2	1.7	3.5	15	0.76	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.1	0.5	1.5
Aver.:	161.0	2.06	5.33	1.96	244.1	146.2	10.2	0.67	5.64	0.03	0.40	3.55	1.41	2.42	2.45	0.58	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.10	0.50	0.88
St.dev.:	64.3	0.34	3.23	2.69	46.9	33.7	7.3	0.26	1.86	0.01	0.21	4.02	0.24	0.54	4.41	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.36
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	11	12	10	3	3	3	3	3	3	3	3	1	1	12

Table 7.6 Measured concentrations - 1995

Watercourse : Orreelva

Annual flow . . . : 125.1 mill.cbm Min : 0.11 cbm/s

Draining area . : 105 km² Max: 16.5 cbm/s

																	PCB(The following Congeners) IUPAC NOS									
	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	SiO2	TOC	Hg	HCH	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	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
950116	7.72	17.6	68	31	2680	2090	63	1.7	4.2	0.02	0.57	8.92			3.5											1.8
950213	8.45	16.8	70	24	2560	2030	14	1.7	3.3	0.01	0.62	9.93														1.6
950313	5.93	16.1	58	21	2550	2000	17	1.9	4.6	<0.01	0.44	9.1			2.5	0.24	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.8
950418	3.5	16.9	40	6	1900	1330	18	1.9	1.7	<0.01	0.26	6.65			1											1.7
950508	1.72	17.2	38	8	1630	1100	29	1.5	1.9	0.03	0.09	5.61			1											1.8
950606	0.98	18.9	50	7	840	10	86	2	1.3	<0.01	0.15	5.95			<1	1.81	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.8
950707	0.63	20	20	2	710	4	51	1.2	0.5	<0.01	0.04	3.98														2.2
950814	0.16	20.6	48	4	870	13	41	0.9	0.9	<0.01	0.22	8.63			1											2.2
950918	0.89	21.1	53	7	935	76	82	1.2	1.4	<0.01	0.27	8.71			1									0.4	<0.5	1.7
951009	4.8	19.6	99	25	1340	370	71	1.4	3.7	0.01	0.61	11.5			1.5	0.79	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.5
951120	2.57	18.5	36	13	1660	1105	91	8.3	5.4	<0.01	0.25	3.77			1.5											2
951211	4.64	19.9	35	15	1820	1175	100	1.4	1.8	<0.01	0.37	3.23	0.94	5.5	<1											1.6
Min:	0.16	16.1	20	2	710	4	14	0.9	0.5	0.01	0.04	3.23	0.94	5.5	1	0.24	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.4	0.5	1.5
Max:	8.45	21.1	99	31	2680	2090	100	8.3	5.4	0.03	0.62	11.5	0.94	5.5	3.5	1.81	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.4	0.5	2.2
Aver.:	3.5	18.60	51.25	13.58	1624.6	941.9	55.3	2.09	2.56	0.01	0.32	7.17	0.94	5.50	1.50	0.95	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.40	0.50	1.81
St.dev.:	2.8	1.66	20.78	9.54	709.6	829.3	31.2	1.98	1.61	0.01	0.20	2.68			0.85	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.22
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	1	1	10	3	3	3	3	3	3	3	3	1	1	12

Table 7.7 Measured concentrations - 1995

Watercourse : Suldalslågen

Annual flow . . . : 1368 mill.cbm Min : 14 cbm/s

Draining area . : 1457 km² Max: 213 cbm/s

	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	SiO2	TOC	Hg	HCH	PCB(The following 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	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
950216	34.01	2.84	3	0.5	250	185	3	0.9	3.8	0.02	0.2	1.17			<1	0.53	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			<0.5
950606	44.81	1.68	2	0.5	220	160	6	0.2	2.1	<0.01	0.05	0.47			<1											<0.5
950820	49.16	1.4	1	0.5	195	165	3	0.4	2	<0.01	0.04	0.53			<1											<0.5
951010	54.84	1.62	1	0.5	225	175	3	0.3	2.3	0.02	0.07	0.61	0.9	0.5	1	0.66	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.1	<0.5	<0.5
Min:	34.01	1.4	1	0.5	195	160	3	0.2	2	0.01	0.04	0.47	0.9	0.5	1	0.53	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.1	0.5	0.5
Max:	54.84	2.84	3	0.5	250	185	6	0.9	3.8	0.02	0.2	1.17	0.9	0.5	1	0.66	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.1	0.5	0.5
Aver.:	45.7	1.89	1.75	0.50	222.5	171.3	3.8	0.45	2.55	0.02	0.09	0.70	0.90	0.50	1.00	0.60	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.10	0.50	0.50
St.dev.:	8.8	0.65	0.96	0.00	22.5	11.1	1.5	0.31	0.84	0.01	0.07	0.32			0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00
Numb.:	4	4	4	4	4	4	4	4	4	4	4	4	1	1	4	2	2	2	2	2	2	2	2	1	1	4

Table 7.8 Measured concentrations - 1995

Watercourse : Orkla

Annual flow . . . : 2079 mill.cbm Min : 15.2 cbm/s

Draining area . : 2872 km² Max: 616 cbm/s

	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	SiO2	TOC	Hg	HCH	PCB(The following 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	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
950116	43.12	6.5						5.3	19.8	0.04	0.15			2.8										0.2	<0.5	1
950124	45.16		4	3	295	190	17	5.3	17.1	0.03	0.06	0.68			1											1
950215	46.18	7.6						5.9	19.6	0.04	0.03			2.7										0.2	<0.5	1
950222	43.12		3	0.5	300	185	17	5.1	17.6	0.04	0.04	0.68														0.9
950317	28.58	8.9	3.1	1.5	404			6.5	22.5	0.13	0.08			3.1										0.5	<0.5	1.2
950328	29.4					275	3	7.7	29.4	0.07	0.03	0.86			<1	0.14	<0.03	<0.03	<0.03	0.03	0.03	0.03	<0.03			1
950418	33.69	9.8						13.7	38.6	0.12	0.08			4.1										0.7	<0.5	1.1
950419	43.12		4	1	440	315	7	20	57.9	0.12	0.06	1.68			<1											1.2
950515	63.01	6.5						17.5	44.9	0.09	0.06			4.1										0.6	<0.5	1.2
950516	60.62		4	0.5	405	285	3	21.3	48	0.11	<0.02	1.94			1											1.4
950612	142.96					103	3	8.8	19.3	0.05	0.03	3.1			1.5	1.07	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.3
950615	113.84	4	5.9	1.7	233			9.1	17.8	0.01	0.07			3.7										0.3	0.8	1.3
950717	53.72	4.3	3	0.5	310	225	3	4.5	14.9	0.03	<0.02	0.67		2.1										0.5	<0.5	0.9
950802	28.58		3.4	0.5	345	210	3	4.1	7.3	0.02	<0.02	2.16			1.5											0.8
950815	38.27	5.4						3.2	9.4	0.03	0.04			2.5										0.2	<0.5	2.4
950918	22.41	6.9	5.2	0.7	300			4.5	11	0.04	0.03			2.6										0.2	<0.5	3.7
950925	21.69					180	3	4.3	14.7	0.03	<0.02	0.66			<1									<0.1	<0.5	1
951017	20.99	7.1	4	0.5	330	170	9	4.9	18.2	0.05	0.02	1.04		2.2	1.5	0.39	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.2	<0.5	3.7
951115	34.25	6						6.4	24.9	0.07	0.02			2.3										0.2	<0.5	3
951122	24.57		3	0.5	490	405	9	11.3	30.4	0.09	0.07	0.77			10											1.1
951212	99.79	7	5.7	0.7	360			8.4	34.9	0.13	0.05			3.2										0.2	<0.5	1.2
951231	36.39		4	2	270	144	15	6.6	18.9	0.04	0.04	0.6	2.65		1											0.6
Min:	20.99	4	3	0.5	233	103	3	3.2	7.3	0.01	0.02	0.6	2.65	2.1	1	0.14	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.1	0.5	0.6
Max:	142.96	9.8	5.9	3	490	405	17	21.3	57.9	0.13	0.15	3.1	2.65	4.1	10	1.07	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.7	0.8	3.7
Aver.:	48.8	6.67	4.02	1.05	344.8	223.9	7.7	8.38	24.41	0.06	0.05	1.24	2.65	2.95	2.05	0.53	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.32	0.52	1.45
St.dev.:	31.5	1.67	1.00	0.78	72.8	83.2	5.7	5.23	13.16	0.04	0.03	0.80		0.70	2.80	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.08	0.89
Numb.:	22	12	13	13	13	12	12	22	22	22	22	12	1	12	10	3	3	3	3	3	3	3	3	13	13	22

Table 7.9 Measured concentrations - 1995

Watercourse : Vefsna

Annual flow . . . : 6635 mill.cbm Min : 49.5 cbm/s

Draining area . : 4113 km² Max: 1707.5 cbm/s

																	PCB(The following Congeners) IUPAC NOS										
	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	SiO2	TOC	Hg	HCH	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	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
950116	57.16	6.18	4	2	355	80	16	4.6	9.8	0.02	0.58	0.55			<1											0.9
950214	60.71	8.32	25	10	360	101	11	3.4	9.1	0.02	2	22.2														2
950313	51.08	6.23	3	2	325	115	25	1.9	7.5	0.01	0.53	0.85			1.5	0.35	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.6
950410	51.45	8.38	6	4	345	92	12	2.2	6.6	0.02	0.85	0.61			<1											1.3
950509	190.1	6.66	3	1	230	56	38	5.1	7.9	0.02	0.19	2			2											0.9
950606	1366	3.85	20	14	250	59	10	2.4	3.5	0.03	1.75	25.8			3.5	1.07	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			1.6
950710	388.2	3.21	34	0.5	90	32	3	0.4	0.5	<0.01	0.03	1.37														0.6
950814	221.3	3.09	3	0.5	230	34	5	1.8	2.9	<0.01	0.3	1.36			1.5											<0.5
950913	81.64	6.38	2	0.5	165	72	5	2	2.3	<0.01	0.09	0.51			1									<0.1	<0.5	0.7
951009	681.7	2.56	10	3	225	21	10	1.8	7.5	1.07	0.83	8.76	1.41		3	0.22	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.9
951120	95.23	7.4	3	1	220	94	3	3	2.8	0.01	0.16	1.04			2											0.5
951211	71.69	8.61	9	9	530	175	29	3.9	22.6	0.01	11.4	1.99		3.4	<1											1.3
Min:	51.08	2.56	2	0.5	90	21	3	0.4	0.5	0.01	0.03	0.51	1.41	3.4	1	0.22	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.1	0.5	0.5
Max:	1366	8.61	34	14	530	175	38	5.1	22.6	1.07	11.4	25.8	1.41	3.4	3.5	1.07	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.1	0.5	2
Aver.:	276.4	5.91	10.17	3.96	277.1	77.6	13.9	2.71	6.92	0.10	1.56	5.59	1.41	3.40	1.75	0.55	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.10	0.50	0.98
St.dev.:	391.2	2.20	10.50	4.52	113.8	42.6	11.2	1.34	5.78	0.30	3.16	8.92			0.89	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.47
Numb.:	12	12	12	12	12	12	12	12	12	12	12	12	1	1	10	3	3	3	3	3	3	3	3	1	1	12

Table 7.10 Measured concentrations - 1995

Watercourse : Altaelva

Annual flow . . . : 3134 mill.cbm Min : 20.1 cbm/s

Draining area . : 7367 km² Max: 957.9 cbm/s

																	PCB(The following Congeners) IUPAC NOS									
	Q	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	SiO2	TOC	Hg	HCH	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	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
950403	38.3	22.4	16	15	150	48	3	0.5	0.5	<0.01	0.12	0.88			1	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03			0.5
950606	888.7	4.34	26	16	275	255	24	1.7	2.4	0.01	0.3	34.3			<1											1.5
950826	59.1	14.1	11	7	149	34	7	0.6	0.5	<0.01	<0.02	1.01			1											0.6
951119	50.4	16	12	8	185	77	3	1.5	0.6	0.04	0.04	1.09	4.6	3.5	1.5	0.07	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.29	<0.5	<0.5
Min:	38.3	4.34	11	7	149	34	3	0.5	0.5	0.01	0.02	0.88	4.6	3.5	1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.29	0.5	0.5
Max:	888.7	22.4	26	16	275	255	24	1.7	2.4	0.04	0.3	34.3	4.6	3.5	1.5	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.29	0.5	1.5
Aver.:	259.1	14.21	16.25	11.50	189.8	103.5	9.3	1.08	1.00	0.02	0.12	9.32	4.60	3.50	1.13	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.29	0.50	0.78
St.dev.:	419.8	7.48	6.85	4.65	59.2	102.6	10.0	0.61	0.93	0.02	0.13	16.65			0.25	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.49
Numb.:	4	4	4	4	4	4	4	4	4	4	4	4	1	1	4	2	2	2	2	2	2	2	2	1	1	4

APPENDIX VIII : TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995 **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 1995.

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.	Hg
					Normal	1995	Normal	1995												
		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	ng/l
Østfold	Tista, Iddefj.	1588	1582	1582	14.4	15.5	14.4	15.5	4.86	12.1	4.0	964	710	5	1.3	3.4	0.02	0.25	2.08	<1.0
(1.)	Mosselva, Mossesundet	690	689	689	14.5	15.8	14.5	15.8	10.1	29.4	3.0	1099	605	43	1.5	3.0	0.02	0.20	2.55	<1.0
Oslo &	Hølenelva, Drøbaksundet Ø	137	121		14.0	15.3			24.8	104	73.0	3710	3160	96	2.7	6.9	0.03	0.72	17.5	4.5
Akershus	Årungelva, I. Oslofj.	52	50		13.0	14.3			22.6	28.0	3.0	2710	1975	12	4.1	9.0	0.04	0.69	7.37	2.0
(1.)	Gjersjøelva, I. Oslofj.	86	85	85	14.0	7.0		7.0	18.17	11.0	2.5	1725	1338	19	1.7	2.0	0.02	0.05	0.71	1.0
	Ljanselva, I. Oslofj.	42	41	41	13.0	11.7		11.7	29.0	63.0	29.0	2420	1100	328	5.0	12.5	0.27	0.98	16.2	3.0
	Loelva/Alna, I. Oslofj.	75	69	69	13.0	21.0		21.0	32.0	120	41.0	2320	1640	199	4.1	9.0	0.04	0.69	34.2	3.0
	Akerselva, I. Oslofj.	227	225	225	17.5	26.4		26.4	5.00	18.0	3.0	545	185	59	0.8	7.1	0.03	0.45	3.80	3.5
	Frognerelva, I. Oslofj.	23	20	20	15.0	20.7		20.7	21.0	55.0	28.0	1280	500	36	6.7	13.0	0.04	1.06	9.30	3.5
	Lysakerelva, I. Oslofj.	178	173	173	16.8	27.7	16.8	27.7	6.70	15.0	4.0	550	350	20	2.7	3.9	0.02	0.18	3.00	<1.0
	Sandvikselva, I. Oslofj.	223	187	187	18.4	19.1	18.4		14.12	21.0	6.0	1030	490	80	0.8	1.6	0.01	0.09	0.94	1.5
	Åroselva, I. Oslofj.	113	109	109	17.0	17.7	17.0		16.5	33.8	14.0	1525	1190	163	1.3	2.2	0.03	0.29	1.79	<1.0
Buskerud	Lierelva, Drammensfj. Ø	309	266	222	18.6	18.6	18.6	18.6	25.7	31.0	24.0	1100	1095	82	6.0	18.6	0.09	2.42	10.73	<1.0
(2.)																				
Vestfold	Sandeelva, Sandebukta	193	190		17.0	17.0	17.0		80.9	17.0	14.0	1340	1030	151	1.0	88.7	0.17	0.56	2.42	<1.0
(3.)	Aulielva, Tønsbergfj.	363	362	362	14.9	13.6	14.9	13.6	17.8	53.3	45.4	2393	1798	125	1.6	10.2	0.04	0.52	11.50	1.0
	Farriselva, Larvikfj.	491	491	491	21.6	22.0	21.6		3.80	5.4	3.3	555	396	15	1.5	5.0	0.01	0.50	0.50	<1.0
Telemark	Tokkeelva, Kragerø	1238	1200	1200	26.7	28.7	26.7	28.7	2.14	3.9	0.5	381	170	39	0.6	7.6	0.05	0.37	1.04	1.0
(4.)																				
Aust-	Gjerstadelva, Søndeledfj.	419	414	291	27.0	29.1	27.0	29.1	2.93	6.0	0.5	443	245	46	0.7	7.9	0.10	0.74	1.67	1.5
Agder	Vegårdselva, Sandnesfj.	457	429	291	29.3	30.3	29.3		2.98	5.3	1.0	403	201	48	0.6	11.2	0.07	0.44	1.37	1.0
(5.)	Nidelva, Arendal	4025	4020	3956	29.8	30.6	29.8	30.6	1.88	4.0	0.5	313	191	35	0.8	7.2	0.07	0.51	1.66	<1.0

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

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.	Hg
					Normal	1995	Normal	1995												
		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	ng/l
Vest-	Tovdalselva, Topdalsfj.	1856	1854	1794	33.9	32.9	33.9	32.9	2.35	4.0	0.5	443	165	44	0.4	7.5	0.07	0.67	1.19	2.0
Agder	Søgneelva, Flekkerøy	204	192	192	38.0	35.5	38.0	35.5	8.03	6.0	2.0	1025	800	56	0.7	10.5	0.11	0.41	1.56	<1.0
(5.)	Mandalselva, Mannefj.	1809	1800	1740	46.0	48.0	47.6		2.09	5.0	0.5	306	169	39	0.4	5.3	0.03	0.62	1.03	1.5
	Audna, Sniksfj.	450	400	59	45.0	48.0	51.8	54.4	5.27	4.0	0.5	615	430	41	0.4	7.7	0.06	0.48	1.21	1.0
(6.)	Lygna, Lyngdalsfj.	664	660	266	48.0	50.6	57.9	60.5	2.93	4.0	0.5	393	231	30	0.2	10.5	0.06	0.63	1.19	<1.0
	Kvina, Fedafj.	1445	1140	1140	57.6	57.6	57.6	57.6	3.11	5.0	1.0	350	141	24	0.2	6.6	0.01	0.86	1.71	<1.0
	Sira, Åna-Sira	1916	1872	1872	59.4	59.4	59.4	59.4	3.47	3.0	0.5	265	178	30	0.1	4.4	0.01	0.49	0.38	<1.0
Rogaland	Sokndalselva, Sogndalsstr.	294	293	107	51.1	54.2	51.1	54.2	5.37	5.0	2.0	370	275	30	0.1	8.3	0.01	0.25	0.80	<1.0
(6.)	Hellelandselva, Egersund	241	240	194	57.5	60.5	71.1		4.61	7.0	2.0	450	330	12	0.1	6.6	0.01	0.38	0.73	1.0
	Bjerkreimselva, Egersund	705	704	633	77.7	66.9	86.4	75.6	3.40	2.9	0.5	466	389	12	0.1	4.8	0.01	0.21	0.45	1.0
	Håelva, Håtangen	165	160	135	46.9	49.0	46.9	49.0	11.3	32.0	16.5	1802	1065	63	0.1	0.0	0.01	0.28	1.74	<1.0
	Figgjo, Solavika	229	218	135	50.0	52.2	50.0		10.4	18.0	9.0	1090	775	66	0.7	5.9	0.01	0.65	2.44	<1.0
	Ims-Lutsi. Høgsfj.Boknafj.	127	127	127	34.9	44.0	34.9	44.0	7.45	8.0	0.5	716	424	18	0.5	2.7	0.02	0.14	0.94	1.0
	Oltedalse.,Høgsfj.Boknafj.	102	101	129	70.0	73.5	70.0		3.62	15.0	2.0	396	290	29	0.3	4.3	0.03	0.21	0.70	<1.0
	Dirdalse., Høgsfj.Boknafj.	158	158	95	83.0	86.4	83.0		2.52	3.0	0.5	328	260	11	0.2	2.6	0.02	0.40	0.26	<1.0
	Frafjorde.,Frafj. Boknafj.	178	178	124	94.4	98.2	94.4		2.70	4.0	0.5	261	203	13	0.2	2.7	0.03	0.42	0.42	<1.0
	Espedalse.,Høgsfj.Boknafj.	138	138	124	90.0	93.6	90.0		2.78	3.0	0.5	255	220	9	0.3	2.8	0.06	0.27	0.51	<1.0
	Lysee., Lysefj.Boknafj.	182	182	46	74.0	77.0	74.0		2.50	3.0	1.0	310	200	9	9.0	1.0	3.00	0.06	0.51	<1.0
	Årdalse., Årdalsfj.Boknafj.	519	516	501	81.4	85.5	81.4		2.38	11.0	6.0	195	151	11	1.0	3.6	0.05	1.01	5.28	2.0
	Førree., Jøsenfj.Boknafj.	163	163	163	85.8	90.0	85.8		2.30	3.0	0.5	252	249	7	0.3	0.9	<0.01	0.20	0.18	1.0
	Ulla, Jøsenfj.Boknafj.	393	393	385	83.4	87.5	83.4		2.32	3.0	0.5	320	245	13	0.4	2.7	0.08	0.30	0.43	<1.0
(7.)	Saudae., Saudafj.Boknafj.	353	353		85.0	88.4	85.0		3.49	3.0	0.5	880	795	3	0.7	21.0	0.10	0.11	0.35	1.0
	Åbøelva, Saudafj.Boknafj.	82	82		85.0	88.4	85.0		1.58	3.0	1.0	240	165	8	8.0	1.3	0.01	0.11	0.33	1.0
	Vikedalse., Boknafj.	118	117		80.0	102.3	80.0	102.3	2.26	5.0	3.0	236	152	11	0.4	3.3	0.04	0.19	1.17	<1.0

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

County	Watercourse	Runoff data							Parameters (mean values)											
		Drainage area			Discharge															
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station													
					Normal	1995	Normal	1995	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	Hg
		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	ng/l
Hordaland	Etneelva, Etnefj. Bømlafj.	252	250	127	48.8	63.1	96.0	124.2	3.29	4.5	0.5	650	410	14	0.3	2.7	0.04	0.09	0.71	<1.0
(7.)	Opo, Sørfj. Hardangerfj.	482	480	464	79.3	107.1	79.3	107.1	0.90	4.0	0.5	225	108	6	0.1	3.1	0.04	0.20	0.84	2.0
	Tysso, Sørfj. Hardangerfj.	388	385	407	79.3	107.1	79.3		1.78	2.0	0.5	200	101	5	0.1	2.7	0.04	<0.02	0.11	1.0
	Kinso, Sørfj. Hardangerfj.	281	281	232	46.0	70.3	46.0	70.3	2.01	2.0	0.5	96	63	5	0.1	1.4	0.01	0.05	0.91	<1.0
	Veig, Eidfjv. Hardangerfj.	496	496	386	41.8	39.9	41.8	39.9	2.04	3.5	0.5	145	46	5	0.1	0.5	<0.01	0.07	0.32	1.0
	Bjoreia, " , Hardangerfj.	592	592	592	26.0	10.3	26.0	10.3	2.10	2.5	0.5	258	46	5	0.1	0.5	<0.01	0.07	0.32	1.0
	Sima, Eidfj. Hardangerfj.	145	145	128	69.2	72.0	69.2		2.21	3.5	0.5	180	95	5	0.1	0.5	0.04	<0.02	0.61	<1.0
	Austdøla, Osafj. Eidfj.	131	130	89	74.6	82.8	74.6		1.28	3.0	2.0	203	148	5	0.2	0.8	<0.01	0.04	0.16	<1.0
	Norddøla, Osafj. Eidfj.	40	39	89	74.6	82.8	74.6		8.52	3.0	0.5	209	182	5	0.1	0.5	<0.01	0.02	0.34	<1.0
	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	1.0
	Oselva, Fusafj.	109	108	50	91.7	105.4	91.7	105.4	3.04	10.0	7.0	300	178	5	1.0	10.0	0.01	0.30	1.01	<1.0
	Bergsdalse, Veafj.Herdlafj.	198	198		80.0	90.4	80.0		1.91	3.0	0.5	137	85	6	0.1	2.1	0.03	0.12	0.47	<1.0
	Vosso, Veafj. Sørfj.	1492	1465	1102	58.2	64.6	58.2		1.76	2.0	0.5	128	85	8	0.2	1.3	0.02	0.08	0.56	2.5
	Ekso, Osterfj.	414	400	342	86.2	91.4	86.2		1.84	4.0	2.0	212	147	5	1.0	5.0	0.01	0.10	0.70	<1.0
	Modalselva, Osterfj.	385	384	248	95.5	103.1	95.5		1.58	4.0	0.5	202	156	5	1.0	5.0	0.01	0.10	0.50	<1.0

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

County	Watercourse	Runoff data							Parameters (mean values)											
		Drainage area			Discharge															
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station													
					Normal	1995	Normal	1995	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	Hg
		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	ng/l
Sogn og Fjordane (7.)	Nærøye., Aurl.fj. Sognefj.	290	290	267	59.5	65.5	59.5		3.34	2.5	0.5	170	126	5	0.1	0.6	0.02	0.03	0.19	1.0
	Flåmse., Aurl.fj. Sognefj.	280	275	275	52.4	76.9	52.4	76.9	2.26	1.5	0.5	137	103	5	0.1	0.9	0.02	<0.02	1.22	<1.0
	Aurlandv. Aurl.fj. Sognefj.	800	799	762	48.6	50.0	48.6		1.44	2.0	0.5	122	86	5	0.1	1.1	0.02	0.10	0.56	<1.0
	Erdalse., Lærd.fj. Sognefj.	138	138		30.0	30.9	30.0		1.43	2.0	0.5	122	85	5	0.1	0.9	<0.01	0.04	0.45	<1.0
	Lærdalsv. Lærd.fj. Sognefj.	1184	1172	1172	30.0	33.2	30.0	33.2	1.79	5.3	0.5	230	190	5	0.2	1.1	0.01	<0.02	1.18	<1.0
	Årdalsv., Årdalsfj.Sognefj.	989	989	989	44.9	50.0	44.9	50.0	1.21	4.2	1.7	174	85	8	0.9	0.8	<0.01	0.07	2.97	3.0
	Fortunv., Lusterfj.Sognefj.	508	508	367	51.0	53.6	51.0		1.11	2.5	1.0	137	103	5	0.2	0.9	0.02	0.08	1.61	2.0
	Mørkrisv., Lusterfj.Sognefj.	282	282	203	54.7	57.4	54.7		1.28	1.5	0.5	137	103	5	0.1	0.6	0.02	<0.02	0.51	1.0
	Jostedøla, " Sognefj.	865	864	573	68.0	72.1	68.0		1.46	3.5	2.0	160	122	5	0.3	1.7	0.02	0.17	1.14	<1.0
	Årøye., Sognd.fj. Sognefj.	449	446	384	77.2	80.3	77.2		1.58	2.5	0.5	120	59	6	0.2	1.5	0.02	0.03	0.46	<1.0
	Sogndalse, " Sognefj.	175	172	111	66.1	68.7	66.1		1.48	5.5	3.0	225	160	5	0.2	1.1	0.10	0.06	0.77	<1.0
	Gaular, Dalsfj. Bufj.	627	625	505	79.3	98.0	79.3	98.0	1.36	4.0	1.0	213	102	5	0.4	1.4	<0.01	0.14	0.38	1.0
	Jølstra, Førdefj.	714	709	384	74.3	86.5	74.3	86.5	1.80	3.8	2.0	200	111	17	0.1	2.0	0.01	0.04	0.54	<1.0
	Nausta, Førdefj.	277	273	232	81.7	93.7	81.7		1.80	7.0	2.0	155	67	8	0.1	1.0	0.02	0.11	0.84	<1.0
	Oselva, Høydalsfj.	287	285	225	78.7	81.1	78.7		2.36	4.5	0.5	369	79	11	0.1	2.1	0.09	0.13	0.31	<1.0
	Hopse., Hyefj. Nordfj.S	73	73	161	75.0	81.8	75.0		1.71	3.0	1.0	126	90	5	0.1	0.9	0.02	0.11	0.41	1.0
	Gjengedalse.," Nordfj.S	170	168	161	75.0	90.0	75.0		1.56	4.0	1.0	123	64	11	0.3	2.2	0.08	0.19	0.11	2.5
	Breimse., Gloppenfj. "	636	634	585	68.0	82.6	68.8		1.98	8.6	0.5	262	143	11	0.1	1.6	0.07	0.13	0.51	<1.0
	Oldene., Indre Nordfj.	226	225	214	70.1	84.1	70.1		1.97	4.5	0.5	260	136	6	0.1	0.5	0.01	0.03	0.59	<1.0
	Loenelva, Indre Nordfj.	261	260	234	65.0	78.0	65.0		1.90	5.0	1.5	188	103	6	0.2	0.6	0.08	0.02	0.81	<1.0
	Strynee., Indre Nordfj.	532	530	493	60.2	72.4	60.2	72.4	1.90	3.5	1.0	208	135	5	0.1	0.5	<0.01	0.02	8.66	1.0
	Hornindalse., Nordfj. N	428	424	378	58.1	71.7	58.1	71.7	2.03	3.8	2.0	197	75	11	0.3	1.4	0.01	0.17	1.55	1.0

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

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.	Hg
					Normal	1995	Normal	1995												
		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	ng/l
Møre og	Ørstae., Ørstafj.	160	155		70.0	84.0	70.0		3.05	16.0	8.0	359	195	14	0.5	2.7	0.04	0.17	2.93	1.0
Romsdal	Valldøla, Nordalfj.Storfj.	359	357		60.0	72.0	60.0		2.01	3.0	0.5	170	108	5	0.3	0.5	0.01	0.04	0.77	<1.0
(8.)	Rauma, Romsdalsfj.Moldefj.	1202	1190	1142	32.8	41.2	32.8	41.2	2.31	2.5	0.5	104	111	5	0.4	0.7	0.01	0.05	0.37	<1.0
	Isa, Isfj. Moldefj.	175	175	89	57.0	70.1	57.0		2.56	3.0	0.5	160	90	11	0.7	1.1	0.01	0.09	0.51	1.0
	Eira, Eresfj. Moldefj.	1119	1119	1085	34.8	42.5	34.8		2.61	2.5	0.5	175	112	5	0.4	3.5	0.03	0.13	0.26	1.5
	Littledalse., Sunndalsfj.	359	330	330	41.0	51.3	41.0		1.08	2.0	0.5	51	15	5	0.8	0.8	0.01	0.11	0.29	<1.0
	Driva, Sunnd.fj.Tingvollfj.	2487	2435	2435	27.9	31.0	27.9		3.82	5.5	0.5	265	152	11	6.9	12.3	0.04	1.47	0.65	<1.0
	Ulvåa, Ålvundfj.	199	199	207	57.0	75.3	60.7		1.95	3.5	1.0	137	76	5	0.3	0.9	0.08	0.10	0.09	1.0
	Toåa, Todalsfj.	251	251	207	58.5	67.3	58.5		1.51	4.0	1.0	117	21	5	0.2	0.5	0.02	0.02	0.39	<1.0
	Surna, Surnadalsfj.	1200	1200	1125	48.0	54.4	49.3	55.7	2.57	8.5	3.0	239	175	5	0.5	0.8	0.01	0.10	0.57	4.8
	Bøvra, Hamnesfj. Halsafj.	243	243	196	55.0	67.1	55.0		2.78	3.0	0.5	250	140	8	0.4	0.5	<0.01	0.08	1.01	<1.0
Sør-	Børse.,Gaulosen Tr.h.fj.	110	100		30.0	36.0	30.0		10.1	8.0	1.0	500	290	5	1.0	0.5	<0.01	0.10	1.38	3.5
Trøndelag	Vigda, Gaulosen Tr.h.fj.	150	150		30.0	36.0	30.0		10.9	7.0	3.0	295	117	5	0.8	0.5	<0.01	0.11	3.51	3.0
(8.)	Gaula, Gaulosen Tr.h.fj.	3659	3650	3062	26.4	29.0	26.4	29.0	6.46	7.0	4.0	255	129	16	1.1	1.5	0.02	0.19	6.10	1.0
	Nidelva, Trondheimsfj.	3110	3100	3049	35.5	37.0	35.5	37.0	3.58	3.0	0.8	200	62	6	0.8	0.7	<0.01	0.05	0.68	4.0
	Homla, Stjørd.fj.Tr.h.fj.	157	157		30.0	36.6	30.0		6.45	5.0	1.0	240	26	5	1.2	0.7	<0.01	0.08	0.51	4.0
Nord-	Stjørdalsv, " Tr.h.fj.	2117	2117	1863	38.5	42.2	38.5	42.2	3.64	4.0	3.0	260	109	16	1.7	4.1	0.01	0.16	3.60	4.0
Trøndelag	Gråe., " Tr.h.fj.	93	93		25.0	26.0	25.0		18.5	11.0	6.0	1170	960	6	1.2	0.7	<0.01	0.12	1.24	3.5
(8.)	Verdalsvassdr., Tr.h.fj.	1472	1472	898	40.0	42.1	44.5	46.6	6.34	3.0	1.0	290	175	9	1.0	0.6	<0.01	0.09	0.70	2.5
	Figga/Leksdalse.,Tr.h.fj.	282	282	178	30.0	35.7	33.6	39.3	4.30	11.0	5.0	450	307	10	1.0	1.3	0.01	0.19	6.27	<1.0
	Snåsavassdr., Trondh.fj.	2153	2125	2125	35.1	37.4	35.1	37.4	4.93	4.0	0.5	310	175	7	0.6	0.9	0.01	0.07	1.05	<1.0
	Årgårdselva, Namsfj.	543	510	238	43.0	48.8	50.9	57.7	14.1	19.0	6.0	370	50	17	1.2	1.2	<0.01	0.18	1.71	5.0
	Namsen, Namsfj. Ø	6277	6276	5718	43.4	59.8	43.4	59.8	11.3	3.0	2.0	160	51	13	2.6	2.9	0.02	0.05	0.77	3.5
	Salsvatnelva, Follafj.	432	432	422	59.7	81.9	59.7	81.9	4.53	1.0	0.5	146	58	6	0.2	1.2	0.02	0.08	0.39	5.0

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

County	Watercourse	Runoff data							Parameters (mean values)											
		Drainage area			Discharge															
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station													
					Normal	1995	Normal	1995	Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	Cd	Pb	S.P.M.	Hg
		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	ng/l
Nordland	Åbjøra, Bindalsfj. S	526	520	384	80.2	104.3	80.2		8.01	3.0	2.0	114	26	3	0.4	0.5	<0.01	0.18	2.27	4.5
(9.)	Skjerva, Vefsenfj. S	104	104	98	41.3	55.8	41.3		5.29	15.0	5.0	490	235	8	1.0	1.0	0.01	0.30	11.90	2.0
	Fusta, Vefsenfj. N	544	543	520	63.4	77.8	63.4	77.8	2.53	5.0	4.0	160	43	19	0.7	1.0	<0.01	0.17	4.50	1.0
	Drevja, Vefsenfj. N	177	176	98	65.0	79.8	65.0		3.85	4.0	2.0	190	81	3	0.6	0.9	<0.01	0.22	4.42	4.5
	Røssåga, Sørfj.	2092	2087	1880	45.4	49.8	45.4	49.8	4.73	15.0	8.0	230	82	28	1.6	3.7	<0.01	0.74	13.9	5.5
	Bjerka, Sørfj.	385	385	273	55.4	74.0	55.4	74.0	2.66	2.0	0.6	155	42	6	0.7	0.8	<0.01	0.14	1.05	4.0
	Dalselva, Ranafj. N	211	211	129	39.5	51.4	39.5		2.06	5.0	1.0	195	34	25	0.6	1.1	0.01	0.19	2.43	1.0
	Ranavassdraget, Ranafj. N	3847	3846	1892	44.9	56.1	44.9		2.97	4.0	2.0	220	110	30	0.8	2.1	<0.01	0.35	7.07	3.5
	Fykanåga, Glomfjord	297	297	243	103.7	103.7	103.7		2.91	3.0	2.0	85	40	7	0.5	1.0	0.01	0.30	2.01	<1.0
	Beiare., Beiarfj. Nordfj.	1064	875	797	45.1	50.0	45.1		8.05	4.0	2.5	160	45	28	1.7	3.3	0.02	0.87	8.59	4.5
	Saltdalsvassdr., Saltd.fj.S	1544	1543	1168	32.1	20.5	32.1		2.26	4.0	2.0	98	38	17	0.6	2.0	<0.01	0.30	9.53	3.5
	Sulitjelmavassdr., Saltd.fj	1028	800	791	44.0	55.0	44.0		21.4	1.0	0.7	74	23	8	6.5	5.7	0.03	0.23	0.53	3.5
	Kobbe., Leirfj. Sørfolda N	405	405	386	66.9	31.3	66.9	31.3	0.85	3.0	2.0	107	43	6	0.3	1.0	<0.01	0.30	3.17	4.0
	Skjoma, Ofotfj. S	845	840	797	36.3	32.9	36.3	32.9	1.57	2.0	0.5	65	7	16	0.3	1.6	<0.01	0.29	0.41	2.5

Table 8.1 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

County	Watercourse	Runoff data							Parameters (mean values)											
		Drainage area			Discharge															
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station													
					Normal	1995	Normal	1995												
		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	Hg ng/l
Troms	Spanselva, Astafj. Vågsfj.	142	142	533	50.0	62.5	50.0		6.01	2.0	0.6	35	11	6	0.3	0.5	<0.01	0.02	0.28	2.5
(9.)	Salangse., Astafj. Vågsfj.	539	539	533	40.9	50.0	40.9		6.92	2.0	0.5	59	12	8	0.3	0.5	<0.01	0.03	0.29	2.5
	Rossfjorde., Malangen	196	190		39.5	45.4	39.5		7.46	3.0	0.5	108	4	11	0.4	0.5	<0.01	0.09	0.25	3.5
	Målse., Målselvfj. "	3239	3200	3118	28.7	34.4	28.7		6.30	3.0	0.8	78	29	5	0.4	0.5	<0.01	0.06	1.25	2.0
	Bardue., Målselva	2906	2906	2049	28.3	34.3	28.3		6.30	3.0	0.8	78	29	3	0.4	0.5	<0.01	0.06	1.25	2.0
	Nordkjoselva, Balsfj.	191	191	415	27.7	29.9	27.7		3.99	2.0	2.0	54	12	5	0.3	0.5	<0.01	<0.02	0.44	3.0
	Signaldalselva, Lyngen V	473	467	415	27.7	34.0	27.7		3.31	2.0	0.5	66	8	3	0.5	0.5	<0.01	<0.02	0.79	3.5
	Skibotnelva, Lyngen	770	770	724	18.0	20.7	18.0		2.99	2.0	0.5	90	28	6	0.7	0.5	<0.01	0.04	0.36	3.5
	Kåfjordelva, Lyngen Ø	358	358	348	20.0	23.6	20.0		3.14	1.0	0.5	93	48	3	1.2	0.5	<0.01	<0.02	0.33	<1.0
	Reisa, Reisafj.	2702	2702		16.0	18.9	16.0		5.74	3.0	0.6	126	71	3	0.6	0.5	<0.01	<0.02	0.46	3.5
Finnmark	Mattiselva, Kåfj. Altafj.	325	325	319	26.5	29.7	26.5		5.88	2.0	0.5	78	17	11	0.4	0.5	<0.01	<0.02	0.50	3.0
(10.)	Tverrelva, Altafj.	234	233	233	15.1	16.9	15.1		5.29	3.0	0.9	205	101	3	0.5	0.5	<0.01	0.03	0.40	<1.0
	Repparfjordv., Repparfj.	1090	1089		25.0	31.0	25.0		4.66	2.0	0.5	114	51	3	0.4	0.5	<0.01	<0.02	0.32	2.5
	Stabburse., I. Porsangen V	1108	1102	870	18.3	22.0	18.3		4.45	2.0	0.5	78	42	5	0.3	0.5	0.01	0.02	0.41	<1.0
	Lakse., Indre Porsangen S	1533	1532	941	15.9	18.0	15.9		5.35	3.0	0.9	90	3	5	0.5	0.5	<0.01	0.03	1.16	3.0
	Børselva.Indre Porsangen Ø	883	883	863	29.8	31.6	29.8		5.02	1.0	0.5	59	3	6	0.2	0.5	<0.01	<0.02	0.29	3.0
	Mattusjåkka, I. Laksefj. V	101	101	101	22.8	26.3	22.8		7.32	1.0	0.5	59	2	3	0.2	0.5	<0.01	<0.02	0.31	4.0
	Storelva.Indre Laksefj. V	690	690	760	21.9	24.1	19.9		2.05	1.0	0.5	78	50	6	0.1	1.9	<0.01	0.04	0.21	2.5
	Soussjåkka, I. Laksefj. V	92	92	102	25.3	27.8	22.8		6.72	1.0	0.5	54	12	3	0.2	0.5	<0.01	<0.02	0.21	3.0
	Adamselva, I. Laksefj. Ø	705	705	760	19.9	22.0	19.9		7.19	1.0	0.5	78	6	11	0.4	1.4	0.02	1.12	0.39	3.0
	Tanavassdraget, Tanafj. S	16389	15713	14169	11.5	13.8	11.5		5.33	7.3	2.2	183	46	6	1.3	2.6	0.02	0.24	0.87	<1.0
	Vesterelva, Syltefj.	469	469	79	34.6	38.0	34.6		5.57	2.0	0.5	48	3	3	0.2	0.5	<0.01	0.08	0.33	2.0
	V. Jakobse., Y.Varangerfj.	627	627	239	18.1	19.4	18.1		2.89	2.0	0.5	53	3	3	0.2	0.5	<0.01	0.03	0.54	<1.0
	Passvike., Bøkfj.Varang.fj.	18404	18400	18175	9.3	11.2	9.3		3.36	3.0	0.6	140	3	8	1.1	0.7	<0.01	0.04	0.71	<1.0
	Neiden, Munkfj. Varang.fj.	2960	2960	2911	9.8	12.5	9.8		7.02	3.0	0.7	160	3	17	0.7	0.5	<0.01	0.03	0.95	<1.0
	Grense Jakobse.,Varang.fj.	234	234		18.0	19.3	18.0		4.70	2.0	1.0	108	6	16	2.0	0.8	<0.01	0.06	1.92	1.0

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

County	Watercourse	Runoff data							Parameters (mean values)												
		Drainage area			Discharge																
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Gamma	PCB (The folloving Congeners) IUPAC NOS								TOC	SiO2	Cr-T	Ni	As
					Normal	1995	Normal	1995	HCH	28	52	101	118	138	153	180					
		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	mg/l	mg/l	ug/l	ug/l	ug/l
Østfold	Tista, Iddefj.	1588	1582	1582	14.4	15.5	14.4	15.5	0.60	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	6.60	3.00	<0.5	0.70	0.12
(1.)	Mosselva, Mossesundet	690	689	689	14.5	15.8	14.5	15.8	0.90	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	6.95		<0.5	1.10	0.27
Oslo &	Hølenelva, Drøbaksundet Ø	137	121		14.0	15.3			0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	9.90		1.10	3.00	0.60
Akershus	Årungelva, I. Oslofj.	52	50		13.0	14.3			0.60	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.80		<0.5	1.50	0.23
(1.)	Gjersjøelva, I. Oslofj.	86	85	85	14.0	7.0		7.0	0.60	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4.90		<0.5	5.60	0.13
	Ljanselva, I. Oslofj.	42	41	41	13.0	11.7		11.7	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	6.90		<0.5	4.80	0.27
	Loelva/Alna, I. Oslofj.	75	69	69	13.0	21.0		21.0	0.42	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	5.70		<0.5	1.50	0.38
	Akerselva, I. Oslofj.	227	225	225	17.5	26.4		26.4	0.84	0.03	0.03	0.03	<0.03	0.04	0.05	0.03	3.70		1.00	0.60	0.20
	Frognerelva, I. Oslofj.	23	20	20	15.0	20.7		20.7	0.60	<0.03	<0.03	0.11	0.07	0.10	0.11	0.05	3.60		<0.5	0.90	0.25
	Lysakerelva, I. Oslofj.	178	173	173	16.8	27.7	16.8	27.7	0.55	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4.60		<0.5	<0.5	<0.1
	Sandvikselva, I. Oslofj.	223	187	187	18.4	19.1	18.4		0.20	<0.03	<0.03	0.04	0.04	0.05	0.07	0.03	5.20		<0.5	<0.5	0.14
	Åroselva, I. Oslofj.	113	109	109	17.0	17.7	17.0		0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	5.05		<0.5	1.00	0.16
Buskerud	Lierelva, Drammensfj. Ø	309	266	222	18.6	18.6	18.6	18.6	0.25	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	5.90		4.30	7.20	1.32
(2.)																					
Vestfold	Sandeelva, Sandebukta	193	190		17.0	17.0	17.0		0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.60		<0.5	1.20	0.77
(3.)	Aulielva, Tønsbergfj.	363	362	362	14.9	13.6	14.9	13.6	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4.94		<0.5	2.80	0.28
	Farriselva, Larvikfj.	491	491	491	21.6	22.0	21.6		0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4.10		<0.5	0.45	0.15
Telemark	Tokkeelva, Kragerø	1238	1200	1200	26.7	28.7	26.7	28.7	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	29.1	27.0	29.1	1.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4.12		0.51	1.14	0.31
Agder	Vegårdselva, Sandnesfj.	457	429	291	29.3	30.3	29.3		1.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.89		0.95	0.49	0.19
(5.)	Nidelva, Arendal	4025	4020	3956	29.8	30.6	29.8	30.6	1.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.64		0.51	0.11	0.18

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

County	Watercourse	Runoff data							Parameters (mean values)												
		Drainage area			Discharge																
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Gamma	PCB (The folloving Congeners) IUPAC NOS							TOC	SiO2	Cr-T	Ni	As
					Normal	1995	Normal	1995	HCH	28	52	101	118	138	153	180					
		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	mg/l	mg/l	ug/l	ug/l	ug/l
Vest-	Tovdalselva, Topdalsfj.	1856	1854	1794	33.9	32.9	33.9	32.9	1.00	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.68		0.84	0.22	0.35
Agder	Søgneelva, Flekkerøy	204	192	192	38.0	35.5	38.0	35.5	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	48.0	47.6		0.70	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.83		0.66	0.07	0.19
	Audna, Sniksfj.	450	400	59	45.0	48.0	51.8	54.4	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	50.6	57.9	60.5	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.18		1.82	0.27	0.15
	Kvina, Fedafj.	1445	1140	1140	57.6	57.6	57.6	57.6	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.90	1.56	1.43	0.05	0.33
	Sira, Åna-Sira	1916	1872	1872	59.4	59.4	59.4	59.4	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.60	0.96	0.82	0.07	0.14
Rogaland	Sokndalselva, Sogndalsstr.	294	293	107	51.1	54.2	51.1	54.2	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	60.5	71.1		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	66.9	86.4	75.6	0.90	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.95	1.48	0.49	0.51	0.87
	Håelva, Håtangen	165	160	135	46.9	49.0	46.9	49.0	0.81	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4.09		0.87	0.87	0.15
	Figgjo, Solavika	229	218	135	50.0	52.2	50.0		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-Lutsi. Høgsfj.Boknafj.	127	127	127	34.9	44.0	34.9	44.0	0.80	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.40	0.94	4.05	0.25	0.24
	Oltedalse.,Høgsfj.Boknafj.	102	101	129	70.0	73.5	70.0		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	86.4	83.0		0.80	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.90		1.68	0.03	0.13
	Frafjorde.,Frafj. Boknafj.	178	178	124	94.4	98.2	94.4		0.60	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.30	0.96	1.47	0.03	0.11
	Espedalse.,Høgsfj.Boknafj.	138	138	124	90.0	93.6	90.0		0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.10	1.80	1.86	0.02	0.09
	Lysee., Lysefj.Boknafj.	182	182	46	74.0	77.0	74.0		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	85.5	81.4		0.36	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.08		2.01	0.31	0.38
	Førree., Jøsenfj.Boknafj.	163	163	163	85.8	90.0	85.8		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	87.5	83.4		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	88.4	85.0		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	88.4	85.0		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	102.3	80.0	102.3	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.10		2.15	0.35	0.20

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

County	Watercourse	Runoff data							Parameters (mean values)												
		Drainage area			Discharge																
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Gamma	PCB (The folloving Congeners) IUPAC NOS							TOC	SiO2	Cr-T	Ni	As
					Normal	1995	Normal	1995	HCH	28	52	101	118	138	153	180					
		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	mg/l	mg/l	ug/l	ug/l	ug/l
Hordaland	Etneelva, Etnefj. Bømlafj.	252	250	127	48.8	63.1	96.0	124.2	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.93		1.15	0.15	0.10
(7.)	Opo, Sørfj. Hardangerfj.	482	480	464	79.3	107.1	79.3	107.1	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.73		1.00	0.05	0.10
	Tysso, Sørfj. Hardangerfj.	388	385	407	79.3	107.1	79.3		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	70.3	46.0	70.3	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	39.9	41.8	39.9	0.23	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.10		0.60	0.15	0.01
	Bjoreia, " , Hardangerfj.	592	592	592	26.0	10.3	26.0	10.3	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	72.0	69.2		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	82.8	74.6		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	82.8	74.6		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		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	105.4	91.7	105.4	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	90.4	80.0		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	64.6	58.2		0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.90	0.94	0.85	<0.01	0.10
	Ekso, Osterfj.	414	400	342	86.2	91.4	86.2		0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.19		0.05	0.01	0.15
	Modalselva, Osterfj.	385	384	248	95.5	103.1	95.5		0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.72		0.05	0.01	0.15

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

County	Watercourse	Runoff data							Parameters (mean values)												
		Drainage area			Discharge																
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Gamma	PCB (The folloving Congeners) IUPAC NOS								TOC	SiO2	Cr-T	Ni	As
					Normal	1995	Normal	1995	HCH	28	52	101	118	138	153	180					
		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	mg/l	mg/l	ug/l	ug/l	ug/l
Sogn og Fjordane (7.)	Nærøye., Aurl.fj. Sognefj.	290	290	267	59.5	65.5	59.5		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	76.9	52.4	76.9	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	50.0	48.6		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	30.9	30.0		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	33.2	30.0	33.2	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.65		0.15	0.05	0.05
	Årdalsv., Årdalsfj.Sognefj.	989	989	989	44.9	50.0	44.9	50.0	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	53.6	51.0		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	57.4	54.7		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	72.1	68.0		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	80.3	77.2		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	68.7	66.1		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	98.0	79.3	98.0	0.36	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.18		0.40	0.10	0.10
	Jølstra, Førdefj.	714	709	384	74.3	86.5	74.3	86.5	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	93.7	81.7		0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.41		1.20	0.10	0.03
	Oselva, Høydalsfj.	287	285	225	78.7	81.1	78.7		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	81.8	75.0		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	90.0	75.0		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	82.6	68.8		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	84.1	70.1		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	78.0	65.0		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	72.4	60.2	72.4	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.50	1.26	0.75	0.10	0.05
	Hornindalse., Nordfj. N	428	424	378	58.1	71.7	58.1	71.7	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 1995.

County	Watercourse	Runoff data							Parameters (mean values)												
		Drainage area			Discharge																
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Gamma	PCB (The folloving Congeners) IUPAC NOS								TOC	SiO2	Cr-T	Ni	As
					Normal	1995	Normal	1995	HCH	28	52	101	118	138	153	180					
		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	mg/l	mg/l	ug/l	ug/l	ug/l
Møre og Romsdal (8.)	Ørstae., Ørstafj.	160	155		70.0	84.0	70.0		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	72.0	60.0		0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.50		0.13	0.09	<0.1
	Rauma, Romsdalsfj.Moldefj.	1202	1190	1142	32.8	41.2	32.8	41.2	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.70	2.82	0.11	0.11	<0.1
	Isa, Isfj. Moldefj.	175	175	89	57.0	70.1	57.0		0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.00		0.72	0.48	<0.1
	Eira, Eresfj. Moldefj.	1119	1119	1085	34.8	42.5	34.8		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	51.3	41.0		0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.60		0.73	0.35	<0.1
	Driva, Sunnd.fj.Tingvollfj.	2487	2435	2435	27.9	31.0	27.9		0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.80		5.92	4.28	<0.1
	Ulvåa, Ålvundfj.	199	199	207	57.0	75.3	60.7		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	67.3	58.5		0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.10		<0.1	0.06	<0.1
	Surna, Surnadalsfj.	1200	1200	1125	48.0	54.4	49.3	55.7	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.60		0.15	0.22	<0.1
	Bøvra, Hamnesfj. Halsafj.	243	243	196	55.0	67.1	55.0		0.70	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.00		0.17	0.18	<0.1
Sør-Trøndelag (8.)	Børse.,Gaulosen Tr.h.fj.	110	100		30.0	36.0	30.0		0.90	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.90	<0.5	1.60	0.40
	Vigda, Gaulosen Tr.h.fj.	150	150		30.0	36.0	30.0		0.80	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.80	0.80	<0.5	1.10	0.24
	Gaula, Gaulosen Tr.h.fj.	3659	3650	3062	26.4	29.0	26.4	29.0	0.70	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.20	2.87	0.80	2.00	0.24
	Nidelva, Trondheimsfj.	3110	3100	3049	35.5	37.0	35.5	37.0	0.57	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.60	<0.5	1.10	0.22
	Homla, Stjørd.fj.Tr.h.fj.	157	157		30.0	36.6	30.0		0.55	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.40	<0.5	0.70	0.56
Nord-Trøndelag (8.)	Stjørdalsv, " Tr.h.fj.	2117	2117	1863	38.5	42.2	38.5	42.2	0.55	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.70	0.80	0.40	0.69	0.10
	Gråe., " Tr.h.fj.	93	93		25.0	26.0	25.0		0.55	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		5.60	0.50	1.70	0.77
	Verdalsvassdr., Tr.h.fj.	1472	1472	898	40.0	42.1	44.5	46.6	0.55	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.80	<0.5	1.00	0.84
	Figga/Leksdalse.,Tr.h.fj.	282	282	178	30.0	35.7	33.6	39.3	0.54	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	4.50	1.50	0.54	0.68	0.20
	Snåsavassdr., Trondh.fj.	2153	2125	2125	35.1	37.4	35.1	37.4	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<3	3.50	0.90	0.26	0.92	<0.1
	Årgårdselva, Namsfj.	543	510	238	43.0	48.8	50.9	57.7	0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.10	1.40	0.90	1.24
	Namsen, Namsfj. Ø	6277	6276	5718	43.4	59.8	43.4	59.8	0.24	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.70	3.10	0.90	0.11
	Salsvatnelva, Follafj.	432	432	422	59.7	81.9	59.7	81.9	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.00	<0.5	<0.5	0.26

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

County	Watercourse	Runoff data							Parameters (mean values)												
		Drainage area			Discharge																
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Gamma	PCB (The folloving Congeners) IUPAC NOS							TOC	SiO2	Cr-T	Ni	As
					Normal	1995	Normal	1995	HCH	28	52	101	118	138	153	180					
		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	mg/l	mg/l	ug/l	ug/l	ug/l
Nordland	Åbjøra, Bindalsfj. S	526	520	384	80.2	104.3	80.2		0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.70	<0.5	<0.5	0.38
(9.)	Skjerva, Vefsenfj. S	104	104	98	41.3	55.8	41.3		0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.80	<0.5	1.00	0.65
	Fusta, Vefsenfj. N	544	543	520	63.4	77.8	63.4	77.8	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.70	<0.5	0.50	0.50
	Drevja, Vefsenfj. N	177	176	98	65.0	79.8	65.0		0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.80	<0.5	0.60	0.38
	Røssåga, Sørfj.	2092	2087	1880	45.4	49.8	45.4	49.8	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.00	1.30	2.20	0.49
	Bjerka, Sørfj.	385	385	273	55.4	74.0	55.4	74.0	0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.00	<0.5	0.70	0.22
	Dalselva, Ranafj. N	211	211	129	39.5	51.4	39.5		0.25	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.10	<0.5	0.90	0.23
	Ranavassdraget, Ranafj. N	3847	3846	1892	44.9	56.1	44.9		0.25	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.90	0.50	0.90	0.37
	Fykanåga, Glomfjord	297	297	243	103.7	103.7	103.7		0.25	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.90	0.50	0.90	0.37
	Beiare., Beiarfj. Nordfj.	1064	875	797	45.1	50.0	45.1		0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.60	3.92	0.80	1.20	0.64
	Saltdalsvassdr., Saltd.fj.S	1544	1543	1168	32.1	20.5	32.1		0.70	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.30	<0.5	0.70	0.53
	Sulitjelmavassdr., Saltd.fj	1028	800	791	44.0	55.0	44.0		0.74	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.80	<0.5	0.60	0.63
	Kobbe., Leirfj. Sørfolda N	405	405	386	66.9	31.3	66.9	31.3	0.50	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.50	<0.5	<0.5	0.45
	Skjoma, Ofotfj. S	845	840	797	36.3	32.9	36.3	32.9	0.40	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.50	<0.5	<0.5	0.46

Table 8.2 TRIBUTARY RIVERS. MEAN CONCENTRATIONS 1995.

County	Watercourse	Runoff data							Parameters (mean values)												
		Drainage area			Discharge																
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Gamma	PCB (The folloving Congeners) IUPAC NOS							TOC	SiO2	Cr-T	Ni	As
					Normal	1995	Normal	1995	HCH	28	52	101	118	138	153	180					
		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	mg/l	mg/l	ug/l	ug/l	ug/l
Troms	Spanselva, Astafj. Vågsfj.	142	142	533	50.0	62.5	50.0		0.35	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.80	<0.5	0.50	0.40
(9.)	Salangse., Astafj. Vågsfj.	539	539	533	40.9	50.0	40.9		0.35	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.60	<0.5	<0.5	0.32
	Rossfjorde., Malangen	196	190		39.5	45.4	39.5		0.33	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		0.50	<0.5	0.60	<0.1
	Målse., Målselvfj. "	3239	3200	3118	28.7	34.4	28.7		0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.40	<0.5	<0.5	<0.1
	Bardue., Målselva	2906	2906	2049	28.3	34.3	28.3		0.20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.40	<0.5	<0.5	<0.1
	Nordkjoselva, Balsfj.	191	191	415	27.7	29.9	27.7		0.10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.80	<0.5	<0.5	<0.1
	Signaldalselva, Lyngen V	473	467	415	27.7	34.0	27.7		0.10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.40	<0.5	<0.5	<0.1
	Skibotnelva, Lyngen	770	770	724	18.0	20.7	18.0		0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.60	0.70	0.50	0.21
	Kåfjordelva, Lyngen Ø	358	358	348	20.0	23.6	20.0		0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.50	<0.5	0.60	0.38
	Reisa, Reisafj.	2702	2702		16.0	18.9	16.0		0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	1.90	4.28	<0.5	<0.5	0.28
Finnmark	Mattiselva, Kåfj. Altafj.	325	325	319	26.5	29.7	26.5		0.10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.84	<0.5	<0.5	0.36
(10.)	Tverrelva, Altafj.	234	233	233	15.1	16.9	15.1		0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		2.60	<0.5	<0.5	0.17
	Repparfjordv., Repparfj.	1090	1089		25.0	31.0	25.0		0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.30	<0.5	<0.5	<0.1
	Stabburse., I. Porsangen V	1108	1102	870	18.3	22.0	18.3		0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.40	2.84	<0.5	<0.5	0.15
	Lakse., Indre Porsangen S	1533	1532	941	15.9	18.0	15.9		0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		2.20	<0.5	<0.5	0.06
	Børselva.Indre Porsangen Ø	883	883	863	29.8	31.6	29.8		0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		3.90	<0.5	<0.5	0.16
	Mattusjåkka, I. Laksefj. V	101	101	101	22.8	26.3	22.8		0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		1.40	<0.5	<0.5	<0.1
	Storelva.Indre Laksefj. V	690	690	760	21.9	24.1	19.9		0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		3.50	<0.5	<0.5	<0.1
	Soussjåkka, I. Laksefj. V	92	92	102	25.3	27.8	22.8		0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		4.00	<0.5	<0.5	<0.1
	Adamselva, I. Laksefj. Ø	705	705	760	19.9	22.0	19.9		0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		3.40	4.45	1.13	0.20
	Tanavassdraget, Tanafj. S	16389	15713	14169	11.5	13.8	11.5		0.11	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	2.97	7.13	0.37	0.50	0.05
	Vesterelva, Syltefj.	469	469	79	34.6	38.0	34.6		0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		2.30	<0.5	<0.5	0.32
	V. Jakobse., Y.Varangerfj.	627	627	239	18.1	19.4	18.1		0.30	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		4.70	<0.5	<0.5	0.13
	Passvike., Bøkfj.Varang.fj.	18404	18400	18175	9.3	11.2	9.3		0.32	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	3.90	3.70	<0.5	5.80	0.39
	Neiden, Munkfj. Varang.fj.	2960	2960	2911	9.8	12.5	9.8		0.35	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		2.20	<0.5	<0.5	0.37
	Grense Jakobse.,Varang.fj.	234	234		18.0	19.3	18.0		0.35	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		3.80	<0.5	7.00	0.27

APPENDIX IX : TRIBUTARY RIVERS. ANNUAL LOAD 1995 **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 1995.

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	1995	Normal	1995	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
Østfold	Tista, Iddefj.	1588	1582	1582	14.4	15.5	14.4	15.5	4.86	9.36	3.09	745.5	549.0	3.87	1.01	2.63	0.02	0.02	0.19	0.19	1.61	0.00	0.77
(1.)	Mosselva, Mossesundet	690	689	689	14.5	15.8	14.5	15.8	10.1	10.09	1.03	377.3	207.7	14.76	0.51	1.03	0.01	0.01	0.07	0.07	0.88	0.00	0.34
Oslo &	Hølenelva, Drøbaksundet Ø	137	121		14	15.3			24.8	6.07	4.26	216.6	184.5	5.60	0.16	0.40	0.00	0.00	0.04	0.04	1.02	0.26	0.26
Akershus	Årungelva, I. Oslofj.	52	50		13	14.3			22.6	0.63	0.07	61.1	44.5	0.27	0.09	0.20	0.00	0.00	0.02	0.02	0.17	0.05	0.05
(1.)	Gjersjøelva, I. Oslofj.	86	85	85	14	7		7	18.17	0.21	0.05	32.4	25.1	0.36	0.03	0.04	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	Ljanselva, I. Oslofj.	42	41	41	13	11.7		11.7	29	0.95	0.44	36.6	16.6	4.96	0.08	0.19	0.00	0.00	0.01	0.01	0.25	0.05	0.05
	Loelva/Alna, I. Oslofj.	75	69	69	13	21		21	32	5.48	1.87	106.0	74.9	9.09	0.19	0.41	0.00	0.00	0.03	0.03	1.56	0.14	0.14
	Akerselva, I. Oslofj.	227	225	225	17.5	26.4		26.4	5	3.37	0.56	102.1	34.7	11.05	0.15	1.33	0.01	0.01	0.08	0.08	0.71	0.66	0.66
	Frognerelva, I. Oslofj.	23	20	20	15	20.7		20.7	21	0.72	0.37	16.7	6.5	0.47	0.09	0.17	0.00	0.00	0.01	0.01	0.12	0.05	0.05
	Lysakerelva, I. Oslofj.	178	173	173	16.8	27.7	16.8	27.7	6.7	2.27	0.60	83.1	52.9	3.02	0.41	0.59	0.00	0.00	0.03	0.03	0.45	0.00	0.15
	Sandvikselva, I. Oslofj.	223	187	187	18.4	19.1	18.4		14.12	2.37	0.68	116.0	55.2	9.01	0.09	0.18	0.00	0.00	0.01	0.01	0.11	0.17	0.17
	Åroselva, I. Oslofj.	113	109	109	17	17.7	17		16.5	2.06	0.85	92.8	72.4	9.92	0.08	0.13	0.00	0.00	0.02	0.02	0.11	0.00	0.06
Buskerud	Lierelva, Drammensfj. Ø	309	266	222	18.6	18.6	18.6	18.6	25.7	4.84	3.74	171.6	170.9	12.79	0.94	2.90	0.01	0.01	0.38	0.38	1.67	0.00	0.16
(2.)																							
Vestfold	Sandeelva, Sandebukta	193	190		17	17	17		80.9	1.73	1.43	136.5	104.9	15.38	0.10	9.04	0.02	0.02	0.06	0.06	0.25	0.00	0.10
(3.)	Aulielva, Tønsbergfj.	363	362	362	14.9	13.6	14.9	13.6	17.8	8.28	7.05	371.5	279.2	19.41	0.25	1.58	0.01	0.01	0.08	0.08	1.79	0.16	0.16
	Farriselva, Larvikfj.	491	491	491	21.6	22	21.6		3.8	1.84	1.12	189.1	134.9	5.11	0.51	1.70	0.00	0.00	0.17	0.17	0.17	0.00	0.34
Telemark	Tokkeelva, Kragerø	1238	1200	1200	26.7	28.7	26.7	28.7	2.14	4.24	0.54	413.8	184.6	42.36	0.65	8.25	0.05	0.05	0.40	0.40	1.13	1.09	1.09
(4.)																							
Aust-Agder	Gjerstadelva, Søndeledfj.	419	414	291	27	29.1	27	29.1	2.93	2.28	0.19	168.3	93.1	17.48	0.27	3.00	0.04	0.04	0.28	0.28	0.63	0.57	0.57
(5.)	Vegårdselva, Sandnesfj.	457	429	291	29.3	30.3	29.3		2.98	2.17	0.41	165.2	82.4	19.68	0.25	4.59	0.03	0.03	0.18	0.18	0.56	0.41	0.41
	Nidelva, Arendal	4025	4020	3956	29.8	30.6	29.8	30.6	1.88	15.52	1.94	1214.2	740.9	135.78	3.10	27.93	0.27	0.27	1.98	1.98	6.44	0.00	3.88

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Runoff data								Parameters (mean values)														
		Drainage area			Discharge																			
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station																	
					Normal	1995	Normal	1995	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
Vest-Agder	Tovdalselva, Topdalsfj.	1856	1854	1794	33.9	32.9	33.9	32.9	2.35	7.69	0.96	852.1	317.4	84.64	0.77	14.43	0.13	0.13	1.29	1.29	2.29	3.85	3.85
(5.)	Søgneelva, Flekkerøy	204	192	192	38	35.5	38	35.5	8.03	1.29	0.43	220.3	172.0	12.04	0.15	2.26	0.02	0.02	0.09	0.09	0.34	0.00	0.21
	Mandalselva, Mannefj.	1809	1800	1740	46	48	47.6		2.09	13.62	1.36	833.8	460.5	106.26	1.09	14.44	0.08	0.08	1.69	1.69	2.81	4.09	4.09
	Audna, Sniksfj.	450	400	59	45	48	51.8	54.4	5.27	2.42	0.30	372.4	260.4	24.83	0.24	4.66	0.04	0.04	0.29	0.29	0.73	0.61	0.61
(6.)	Lygna, Lyngdalsfj.	664	660	266	48	50.6	57.9	60.5	2.93	4.21	0.53	413.9	243.3	31.60	0.21	11.06	0.06	0.06	0.66	0.66	1.25	0.00	1.05
	Kvina, Fedafj.	1445	1140	1140	57.6	57.6	57.6	57.6	3.11	10.35	2.07	724.8	292.0	49.70	0.41	13.67	0.02	0.02	1.78	1.78	3.54	0.00	2.07
	Sira, Åna-Sira	1916	1872	1872	59.4	59.4	59.4	59.4	3.47	10.52	1.75	929.3	624.2	105.20	0.35	15.43	0.04	0.04	1.72	1.72	1.33	0.00	3.51
Rogaland	Sokndalselva, Sogndalsstr.	294	293	107	51.1	54.2	51.1	54.2	5.37	2.50	1.00	185.3	137.7	15.02	0.05	4.16	0.01	0.01	0.13	0.13	0.40	0.00	0.50
(6.)	Hellelandselva, Egersund	241	240	194	57.5	60.5	71.1		4.61	3.21	0.92	206.1	151.1	5.49	0.05	3.02	0.00	0.00	0.17	0.17	0.33	0.46	0.46
	Bjerkreimselva, Egersund	705	704	633	77.7	66.9	86.4	75.6	3.4	4.31	0.74	692.1	577.8	17.82	0.15	7.13	0.01	0.01	0.31	0.31	0.67	1.49	1.49
	Håelva, Håtangen	165	160	135	46.9	49	46.9	49	11.3	7.91	4.08	445.5	263.3	15.58	0.02	0.00	0.00	0.00	0.07	0.07	0.43	0.00	0.25
	Figgjo, Solavika	229	218	135	50	52.2	50		10.4	6.46	3.23	391.2	278.1	23.69	0.25	2.12	0.00	0.00	0.23	0.23	0.88	0.00	0.36
	Ims-Lutsi. Høgsfj.Boknafj.	127	127	127	34.9	44	34.9	44	7.45	1.41	0.09	126.2	74.7	3.17	0.09	0.48	0.00	0.00	0.02	0.02	0.17	0.18	0.18
	Oltedalse.,Høgsfj.Boknafj.	102	101	129	70	73.5	70		3.62	3.51	0.47	92.7	67.9	6.79	0.07	1.01	0.01	0.01	0.05	0.05	0.16	0.00	0.23
	Dirdalse., Høgsfj.Boknafj.	158	158	95	83	86.4	83		2.52	1.29	0.22	141.2	111.9	4.74	0.09	1.12	0.01	0.01	0.17	0.17	0.11	0.00	0.43
	Frafjorde.,Frafj. Boknafj.	178	178	124	94.4	98.2	94.4		2.7	2.20	0.28	143.9	111.9	7.17	0.11	1.49	0.02	0.02	0.23	0.23	0.23	0.00	0.55
	Espedalse.,Høgsfj.Boknafj.	138	138	124	90	93.6	90		2.78	1.22	0.20	103.9	89.6	3.67	0.12	1.14	0.02	0.02	0.11	0.11	0.21	0.00	0.41
	Lysee., Lysefj.Boknafj.	182	182	46	74	77	74		2.5	1.33	0.44	137.0	88.4	3.98	3.98	0.44	1.33	1.33	0.03	0.03	0.23	0.00	0.44
	Årdalse., Årdalsfj.Boknafj.	519	516	501	81.4	85.5	81.4		2.38	15.30	8.35	271.3	210.1	15.30	1.39	5.01	0.07	0.07	1.41	1.41	7.35	2.78	2.78
	Førree., Jøsenfj.Boknafj.	163	163	163	85.8	90	85.8		2.3	1.39	0.23	116.6	115.2	3.24	0.14	0.42	0.00	0.00	0.09	0.09	0.08	0.46	0.46
	Ulla, Jøsenfj.Boknafj.	393	393	385	83.4	87.5	83.4		2.32	3.25	0.54	347.0	265.7	14.10	0.43	2.93	0.09	0.09	0.33	0.33	0.47	0.00	1.08
(7.)	Saudae., Saudafj.Boknafj.	353	353		85	88.4	85		3.49	2.95	0.49	866.0	782.3	2.95	0.69	20.67	0.10	0.10	0.11	0.11	0.34	0.98	0.98
	Åbøelva, Saudafj.Boknafj.	82	82		85	88.4	85		1.58	0.69	0.23	54.9	37.7	1.83	1.83	0.30	0.00	0.00	0.03	0.03	0.08	0.23	0.23
	Vikedalse., Boknafj.	118	117		80	102.3	80	102.3	2.26	1.89	1.13	89.1	57.4	4.15	0.15	1.25	0.02	0.02	0.07	0.07	0.44	0.00	0.38

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Runoff data								Parameters (mean values)														
		Drainage area			Discharge																			
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station																	
					Normal	1995	Normal	1995	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	63.1	96	124.2	3.29	2.24	0.25	323.4	204.0	6.96	0.15	1.34	0.02	0.02	0.04	0.04	0.35	0.00	0.50
(7.)	Opo, Sørfj. Hardangerfj.	482	480	464	79.3	107.1	79.3	107.1	0.9	6.48	0.81	364.8	175.1	9.73	0.16	5.03	0.06	0.06	0.32	0.32	1.36	3.24	3.24
	Tysso, Sørfj. Hardangerfj.	388	385	407	79.3	107.1	79.3		1.78	2.60	0.65	260.1	131.3	6.50	0.13	3.51	0.05	0.05	0.00	0.03	0.14	1.30	1.30
	Kinso, Sørfj. Hardangerfj.	281	281	232	46	70.3	46	70.3	2.01	1.25	0.31	59.8	39.2	3.11	0.06	0.87	0.01	0.01	0.03	0.03	0.57	0.00	0.62
	Veig, Eidfjv. Hardangerfj.	496	496	386	41.8	39.9	41.8	39.9	2.04	2.18	0.31	90.5	28.7	3.12	0.06	0.31	0.00	0.01	0.04	0.04	0.20	0.62	0.62
	Bjoreia, " , Hardangerfj.	592	592	592	26	10.3	26	10.3	2.1	0.48	0.10	49.6	8.8	0.96	0.02	0.10	0.00	0.00	0.01	0.01	0.06	0.19	0.19
	Sima, Eidfj. Hardangerfj.	145	145	128	69.2	72	69.2		2.21	1.15	0.16	59.3	31.3	1.65	0.03	0.16	0.01	0.01	0.00	0.01	0.20	0.00	0.33
	Austdøla, Osafj. Eidfj.	131	130	89	74.6	82.8	74.6		1.28	1.02	0.68	68.9	50.2	1.70	0.07	0.27	0.00	0.00	0.01	0.01	0.05	0.00	0.34
	Norddøla, Osafj. Eidfj.	40	39	89	74.6	82.8	74.6		8.52	0.31	0.05	21.3	18.5	0.51	0.01	0.05	0.00	0.00	0.00	0.00	0.03	0.00	0.10
	Tysseelva, Fusafj.	240	240		85	93.5	85		2.02	2.12	0.35	143.7	82.1	4.25	0.35	1.91	0.00	0.01	0.18	0.18	0.98	0.71	0.71
	Oselva, Fusafj.	109	108	50	91.7	105.4	91.7	105.4	3.04	3.59	2.51	107.7	63.9	1.79	0.36	3.59	0.00	0.00	0.11	0.11	0.36	0.00	0.36
	Bergsdalse, Veafj.Herdlafj.	198	198		80	90.4	80		1.91	1.69	0.28	77.3	48.0	3.39	0.06	1.19	0.02	0.02	0.07	0.07	0.27	0.00	0.56
	Vosso, Veafj. Sørfj.	1492	1465	1102	58.2	64.6	58.2		1.76	5.97	1.49	382.0	253.7	23.88	0.60	3.88	0.06	0.06	0.24	0.24	1.67	7.46	7.46
	Ekso, Osterfj.	414	400	342	86.2	91.4	86.2		1.84	4.61	2.31	244.4	169.5	5.76	1.15	5.76	0.01	0.01	0.12	0.12	0.81	0.00	1.15
	Modalselva, Osterfj.	385	384	248	95.5	103.1	95.5		1.58	4.99	0.62	252.2	194.8	6.24	1.25	6.24	0.01	0.01	0.12	0.12	0.62	0.00	1.25

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Runoff data								Parameters (mean values)														
		Drainage area			Discharge																			
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station																	
					Normal	1995	Normal	1995	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	65.5	59.5		3.34	1.50	0.30	101.8	75.5	3.00	0.06	0.36	0.01	0.01	0.02	0.02	0.11	0.60	0.60
	Flåmse., Aurl.fj. Sognefj.	280	275	275	52.4	76.9	52.4	76.9	2.26	1.00	0.33	91.4	68.7	3.33	0.07	0.60	0.01	0.01	0.00	0.01	0.81	0.00	0.67
	Aurlandv. Aurl.fj. Sognefj.	800	799	762	48.6	50	48.6		1.44	2.52	0.63	153.7	108.3	6.30	0.13	1.39	0.03	0.03	0.13	0.13	0.71	0.00	1.26
	Erdalse., Lærd.fj. Sognefj.	138	138		30	30.9	30		1.43	0.27	0.07	16.4	11.4	0.67	0.01	0.12	0.00	0.00	0.01	0.01	0.06	0.00	0.13
	Lærdalsv. Lærd.fj. Sognefj.	1184	1172	1172	30	33.2	30	33.2	1.79	6.50	0.61	282.2	233.1	6.14	0.25	1.35	0.01	0.01	0.00	0.02	1.45	0.00	1.23
	Årdalsv., Årdalsfj.Sognefj.	989	989	989	44.9	50	44.9	50	1.21	6.55	2.65	271.3	132.6	12.48	1.40	1.25	0.00	0.02	0.11	0.11	4.63	4.68	4.68
	Fortunv., Lusterfj.Sognefj.	508	508	367	51	53.6	51		1.11	2.15	0.86	117.6	88.4	4.29	0.17	0.77	0.02	0.02	0.07	0.07	1.38	1.72	1.72
	Mørkrisv., Lusterfj.Sognefj.	282	282	203	54.7	57.4	54.7		1.28	0.77	0.26	69.9	52.6	2.55	0.05	0.31	0.01	0.01	0.00	0.01	0.26	0.51	0.51
	Jostedøla, " Sognefj.	865	864	573	68	72.1	68		1.46	6.88	3.93	314.3	239.7	9.82	0.59	3.34	0.04	0.04	0.33	0.33	2.24	0.00	1.96
	Årøye., Sognd.fj. Sognefj.	449	446	384	77.2	80.3	77.2		1.58	2.82	0.56	135.5	66.6	6.78	0.23	1.69	0.02	0.02	0.03	0.03	0.52	0.00	1.13
	Sogndalse, " Sognefj.	175	172	111	66.1	68.7	66.1		1.48	2.05	1.12	83.8	59.6	1.86	0.07	0.41	0.04	0.04	0.02	0.02	0.29	0.00	0.37
	Gaular, Dalsfj. Bufj.	627	625	505	79.3	98	79.3	98	1.36	7.73	1.93	411.4	197.0	9.66	0.77	2.70	0.00	0.02	0.27	0.27	0.73	1.93	1.93
	Jølstra, Førdefj.	714	709	384	74.3	86.5	74.3	86.5	1.8	7.35	3.87	386.8	214.7	32.88	0.19	3.87	0.02	0.02	0.08	0.08	1.04	0.00	1.93
	Nausta, Førdefj.	277	273	232	81.7	93.7	81.7		1.8	5.65	1.61	125.0	54.0	6.45	0.08	0.81	0.02	0.02	0.09	0.09	0.68	0.00	0.81
	Oselva, Høydalsfj.	287	285	225	78.7	81.1	78.7		2.36	3.28	0.36	269.0	57.6	8.02	0.07	1.53	0.07	0.07	0.09	0.09	0.23	0.00	0.73
	Hopse., Hyefj. Nordfj.S	73	73	161	75	81.8	75		1.71	0.56	0.19	23.7	16.9	0.94	0.02	0.17	0.00	0.00	0.02	0.02	0.08	0.19	0.19
	Gjengedalse.," Nordfj.S	170	168	161	75	90	75		1.56	1.91	0.48	58.6	30.5	5.25	0.14	1.05	0.04	0.04	0.09	0.09	0.05	1.19	1.19
	Breimse., Gloppenfj. "	636	634	585	68	82.6	68.8		1.98	14.20	0.83	432.7	236.2	18.17	0.17	2.64	0.12	0.12	0.21	0.21	0.84	0.00	1.65
	Oldene., Indre Nordfj.	226	225	214	70.1	84.1	70.1		1.97	2.69	0.30	155.2	81.2	3.58	0.06	0.30	0.01	0.01	0.02	0.02	0.35	0.00	0.60
	Loenelva, Indre Nordfj.	261	260	234	65	78	65		1.9	3.20	0.96	120.2	65.9	3.84	0.13	0.38	0.05	0.05	0.01	0.01	0.52	0.00	0.64
	Strynee., Indre Nordfj.	532	530	493	60.2	72.4	60.2	72.4	1.9	4.24	1.21	251.7	163.4	6.05	0.12	0.61	0.00	0.01	0.02	0.02	10.48	1.21	1.21
	Hornindalse., Nordfj. N	428	424	378	58.1	71.7	58.1	71.7	2.03	3.64	1.92	188.9	71.9	10.55	0.29	1.34	0.01	0.01	0.16	0.16	1.49	0.96	0.96

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Runoff data								Parameters (mean values)														
		Drainage area			Discharge													C d		P b		S.P.M.	H g	
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn	zero	limit	zero	limit		zero	limit
					Normal	1995	Normal	1995																
		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
Møre og Romsdal (8.)	Ørstae., Ørstafj.	160	155		70	84	70		3.05	6.57	3.28	147.4	80.1	5.75	0.21	1.11	0.02	0.02	0.07	0.07	1.20	0.41	0.41
	Valldøla, Nordalfj.Storfj.	359	357		60	72	60		2.01	2.43	0.41	137.8	87.5	4.05	0.24	0.41	0.01	0.01	0.03	0.03	0.62	0.00	0.81
	Rauma, Romsdalsfj.Moldefj.	1202	1190	1142	32.8	41.2	32.8	41.2	2.31	3.87	0.77	160.8	171.6	7.73	0.62	1.08	0.02	0.02	0.08	0.08	0.57	0.00	1.55
	Isa, Isfj. Moldefj.	175	175	89	57	70.1	57		2.56	1.16	0.19	61.9	34.8	4.26	0.27	0.43	0.00	0.00	0.03	0.03	0.20	0.39	0.39
	Eira, Eresfj. Moldefj.	1119	1119	1085	34.8	42.5	34.8		2.61	3.75	0.75	262.5	168.0	7.50	0.60	5.25	0.04	0.04	0.19	0.19	0.39	2.25	2.25
	Littledalse., Sunndalsfj.	359	330	330	41	51.3	41		1.08	1.07	0.27	27.2	8.0	2.67	0.43	0.43	0.01	0.01	0.06	0.06	0.15	0.00	0.53
	Driva, Sunnd.fj.Tingvollfj.	2487	2435	2435	27.9	31	27.9		3.82	13.09	1.19	630.8	361.8	26.19	16.43	29.28	0.10	0.10	3.50	3.50	1.55	0.00	2.38
	Ulvåa, Ålvundfj.	199	199	207	57	75.3	60.7		1.95	1.65	0.47	64.7	35.9	2.36	0.14	0.43	0.04	0.04	0.05	0.05	0.04	0.47	0.47
	Toåa, Todalsfj.	251	251	207	58.5	67.3	58.5		1.51	2.13	0.53	62.3	11.2	2.66	0.11	0.27	0.01	0.01	0.01	0.01	0.21	0.00	0.53
	Surna, Surnadalsfj.	1200	1200	1125	48	54.4	49.3	55.7	2.57	17.50	6.18	492.0	360.3	10.29	1.03	1.65	0.02	0.02	0.21	0.21	1.17	9.88	9.88
	Bøvra, Hamnesfj. Halsafj.	243	243	196	55	67.1	55		2.78	1.54	0.26	128.6	72.0	4.11	0.21	0.26	0.00	0.01	0.04	0.04	0.52	0.00	0.51
Sør-Trøndelag (8.)	Børse.,Gaulosen Tr.h.fj.	110	100		30	36	30		10.1	0.91	0.11	56.8	32.9	0.57	0.11	0.06	0.00	0.00	0.01	0.01	0.16	0.40	0.40
	Vigda, Gaulosen Tr.h.fj.	150	150		30	36	30		10.9	1.19	0.51	50.2	19.9	0.85	0.14	0.09	0.00	0.00	0.02	0.02	0.60	0.51	0.51
	Gaula, Gaulosen Tr.h.fj.	3659	3650	3062	26.4	29	26.4	29	6.46	23.37	13.35	851.2	430.6	53.41	3.67	5.01	0.07	0.07	0.63	0.63	20.36	3.34	3.34
	Nidelva, Trondheimsfj.	3110	3100	3049	35.5	37	35.5	37	3.58	10.85	2.89	723.4	224.3	21.70	2.89	2.53	0.00	0.04	0.18	0.18	2.46	14.47	14.47
	Homla, Stjørd.fj.Tr.h.fj.	157	157		30	36.6	30		6.45	0.91	0.18	43.5	4.7	0.91	0.22	0.13	0.00	0.00	0.01	0.01	0.09	0.72	0.72
Nord-Trøndelag (8.)	Stjørdalsv, " Tr.h.fj.	2117	2117	1863	38.5	42.2	38.5	42.2	3.64	11.27	8.45	732.5	307.1	45.08	4.79	11.55	0.03	0.03	0.45	0.45	10.14	11.27	11.27
	Gråe., " Tr.h.fj.	93	93		25	26	25		18.5	0.84	0.46	89.2	73.2	0.46	0.09	0.05	0.00	0.00	0.01	0.01	0.09	0.27	0.27
	Verdalsvassdr., Tr.h.fj.	1472	1472	898	40	42.1	44.5	46.6	6.34	5.86	1.95	566.8	342.0	17.59	1.95	1.17	0.00	0.02	0.18	0.18	1.37	4.89	4.89
	Figga/Leksdalse.,Tr.h.fj.	282	282	178	30	35.7	33.6	39.3	4.3	3.49	1.59	142.9	97.5	3.17	0.32	0.41	0.00	0.00	0.06	0.06	1.99	0.00	0.32
	Snåsavassdr., Trondh.fj.	2153	2125	2125	35.1	37.4	35.1	37.4	4.93	10.03	1.25	777.0	438.6	17.54	1.50	2.26	0.03	0.03	0.18	0.18	2.63	0.00	2.51
	Årgårdselva, Namsfj.	543	510	238	43	48.8	50.9	57.7	14.1	14.91	4.71	290.4	39.2	13.34	0.94	0.94	0.00	0.01	0.14	0.14	1.34	3.92	3.92
	Namsen, Namsfj. Ø	6277	6276	5718	43.4	59.8	43.4	59.8	11.3	35.51	23.67	1893.7	603.6	153.86	30.77	34.32	0.24	0.24	0.59	0.59	9.11	41.42	41.42
	Salsvatnelva, Follafj.	432	432	422	59.7	81.9	59.7	81.9	4.53	1.12	0.56	162.9	64.7	6.69	0.22	1.34	0.02	0.02	0.09	0.09	0.44	5.58	5.58

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Runoff data								Parameters (mean values)														
		Drainage area			Discharge													C d		P b			H g	
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station		Cond	Tot-P	PO4-P	Tot-N	NO3-N	NH4-N	Cu	Zn					S.P.M.		
					Normal	1995	Normal	1995										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	Åbjøra, Bindalsfj. S	526	520	384	80.2	104.3	80.2		8.01	5.13	3.42	195.0	44.5	5.13	0.68	0.86	0.00	0.02	0.31	0.31	3.88	7.70	7.70
(9.)	Skjerva, Vefsenfj. S	104	104	98	41.3	55.8	41.3		5.29	2.75	0.92	89.7	43.0	1.46	0.18	0.18	0.00	0.00	0.05	0.05	2.18	0.37	0.37
	Fusta, Vefsenfj. N	544	543	520	63.4	77.8	63.4	77.8	2.53	6.66	5.33	213.2	57.3	25.31	0.93	1.33	0.00	0.01	0.23	0.23	6.00	1.33	1.33
	Drevja, Vefsenfj. N	177	176	98	65	79.8	65		3.85	1.77	0.89	84.2	35.9	1.33	0.27	0.40	0.00	0.00	0.10	0.10	1.96	1.99	1.99
	Røssåga, Sørfj.	2092	2087	1880	45.4	49.8	45.4	49.8	4.73	49.16	26.22	753.9	268.8	91.77	5.24	12.13	0.00	0.03	2.43	2.43	45.56	18.03	18.03
	Bjerka, Sørfj.	385	385	273	55.4	74	55.4	74	2.66	1.80	0.54	139.3	37.7	5.39	0.63	0.72	0.00	0.01	0.13	0.13	0.94	3.59	3.59
	Dalselva, Ranafj. N	211	211	129	39.5	51.4	39.5		2.06	1.71	0.34	66.7	11.6	8.55	0.21	0.38	0.00	0.00	0.06	0.06	0.83	0.34	0.34
	Ranavassdraget, Ranafj. N	3847	3846	1892	44.9	56.1	44.9		2.97	27.22	13.61	1496.9	748.5	204.13	5.44	14.29	0.00	0.07	2.38	2.38	48.11	23.81	23.81
	Fykanåga, Glomfjord	297	297	243	103.7	103.7	103.7		2.91	2.91	1.94	82.6	38.9	6.80	0.49	0.97	0.01	0.01	0.29	0.29	1.95	0.00	0.97
	Beiare., Beiarfj. Nordfj.	1064	875	797	45.1	50	45.1		8.05	5.52	3.45	220.8	62.1	38.63	2.35	4.55	0.03	0.03	1.20	1.20	11.85	6.21	6.21
	Saltdalsvassdr., Saltd.fj.S	1544	1543	1168	32.1	20.5	32.1		2.26	3.99	2.00	97.8	37.9	16.96	0.60	2.00	0.00	0.01	0.30	0.30	9.51	3.49	3.49
	Sulitjelmavassdr., Saltd.fj	1028	800	791	44	55	44		21.4	1.39	0.97	102.7	31.9	11.10	9.02	7.91	0.04	0.04	0.32	0.32	0.74	4.86	4.86
	Kobbe., Leirfj. Sørfolda N	405	405	386	66.9	31.3	66.9	31.3	0.85	1.20	0.80	42.8	17.2	2.40	0.12	0.40	0.00	0.00	0.12	0.12	1.27	1.60	1.60
	Skjoma, Ofotfj. S	845	840	797	36.3	32.9	36.3	32.9	1.57	1.74	0.44	56.6	6.1	13.94	0.26	1.39	0.00	0.01	0.25	0.25	0.36	2.18	2.18

Table 9.1 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Runoff data							Parameters (mean values)															
		Drainage area			Discharge																			
		Outlet	Sampl. station	Disch. gaug. station	Sampling station		gauging station																	
					Normal	1995	Normal	1995	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	62.5	50		6.01	0.56	0.17	9.8	3.1	1.68	0.08	0.14	0.00	0.00	0.01	0.01	0.08	0.70	0.70
(9.)	Salangse., Astafj. Vågsfj.	539	539	533	40.9	50	40.9		6.92	1.70	0.42	50.1	10.2	6.80	0.25	0.42	0.00	0.01	0.03	0.03	0.25	2.12	2.12
	Rossfjorde., Malangen	196	190		39.5	45.4	39.5		7.46	0.82	0.14	29.4	1.1	2.99	0.11	0.14	0.00	0.00	0.02	0.02	0.07	0.95	0.95
	Målse., Målselvfj. "	3239	3200	3118	28.7	34.4	28.7		6.3	10.41	2.78	270.8	100.7	17.36	1.39	1.74	0.00	0.03	0.21	0.21	4.34	6.94	6.94
	Bardue., Målselva	2906	2906	2049	28.3	34.3	28.3		6.3	9.43	2.51	245.2	91.2	9.43	1.26	1.57	0.00	0.03	0.19	0.19	3.93	6.29	6.29
	Nordkjoselva, Balsfj.	191	191	415	27.7	29.9	27.7		3.99	0.36	0.36	9.7	2.2	0.90	0.05	0.09	0.00	0.00	0.00	0.00	0.08	0.54	0.54
	Signaldalselva, Lyngen V	473	467	415	27.7	34	27.7		3.31	1.00	0.25	33.0	4.0	1.50	0.25	0.25	0.00	0.01	0.00	0.01	0.40	1.75	1.75
	Skibotnelva, Lyngen	770	770	724	18	20.7	18		2.99	1.01	0.25	45.2	14.1	3.02	0.35	0.25	0.00	0.01	0.02	0.02	0.18	1.76	1.76
	Kåfjordelva, Lyngen Ø	358	358	348	20	23.6	20		3.14	0.27	0.13	24.8	12.8	0.80	0.32	0.13	0.00	0.00	0.00	0.01	0.09	0.00	0.27
	Reisa, Reisafj.	2702	2702		16	18.9	16		5.74	4.83	0.97	202.9	114.3	4.83	0.97	0.81	0.00	0.02	0.00	0.03	0.74	5.64	5.64
Finnmark	Mattiselva, Kåfj. Altafj.	325	325	319	26.5	29.7	26.5		5.88	0.61	0.15	23.7	5.2	3.35	0.12	0.15	0.00	0.00	0.00	0.01	0.15	0.91	0.91
(10.)	Tverrelva, Altafj.	234	233	233	15.1	16.9	15.1		5.29	0.37	0.11	25.5	12.5	0.37	0.06	0.06	0.00	0.00	0.00	0.00	0.05	0.00	0.12
	Repparfjordv., Repparfj.	1090	1089		25	31	25		4.66	2.13	0.53	121.4	54.3	3.19	0.43	0.53	0.00	0.01	0.00	0.02	0.34	2.66	2.66
	Stabburse., I. Porsangen V	1108	1102	870	18.3	22	18.3		4.45	1.53	0.38	59.6	32.1	3.82	0.23	0.38	0.01	0.01	0.02	0.02	0.31	0.00	0.76
	Lakse., Indre Porsangen S	1533	1532	941	15.9	18	15.9		5.35	2.61	0.78	78.3	2.6	4.35	0.43	0.43	0.00	0.01	0.03	0.03	1.01	2.61	2.61
	Børselva.Indre Porsangen Ø	883	883	863	29.8	31.6	29.8		5.02	0.88	0.44	51.9	2.6	5.28	0.18	0.44	0.00	0.01	0.00	0.02	0.26	2.64	2.64
	Mattusjåkka, I. Laksefj. V	101	101	101	22.8	26.3	22.8		7.32	0.08	0.04	4.9	0.2	0.25	0.02	0.04	0.00	0.00	0.00	0.00	0.03	0.34	0.34
	Storelva.Indre Laksefj. V	690	690	760	21.9	24.1	19.9		2.05	0.52	0.26	40.9	26.2	3.15	0.05	1.00	0.00	0.01	0.02	0.02	0.11	1.31	1.31
	Soussjåkka, I. Laksefj. V	92	92	102	25.3	27.8	22.8		6.72	0.08	0.04	4.4	1.0	0.24	0.02	0.04	0.00	0.00	0.00	0.00	0.02	0.24	0.24
	Adamselva, I. Laksefj. Ø	705	705	760	19.9	22	19.9		7.19	0.49	0.24	38.2	2.9	5.38	0.20	0.68	0.01	0.01	0.55	0.55	0.19	1.47	1.47
	Tanavassdraget, Tanafj. S	16389	15713	14169	11.5	13.8	11.5		5.33	49.92	15.04	1251.4	314.6	41.03	8.75	17.78	0.14	0.14	1.64	1.64	5.95	0.00	6.84
	Vesterelva, Syltefj.	469	469	79	34.6	38	34.6		5.57	1.12	0.28	27.0	1.7	1.69	0.11	0.28	0.00	0.01	0.04	0.04	0.19	1.12	1.12
	V. Jakobse., Y.Varangerfj.	627	627	239	18.1	19.4	18.1		2.89	0.77	0.19	20.3	1.2	1.15	0.08	0.19	0.00	0.00	0.01	0.01	0.21	0.00	0.38
	Passvike., Bøkfj.Varang.fj.	18404	18400	18175	9.3	11.2	9.3		3.36	19.50	3.90	909.9	19.5	51.99	7.15	4.55	0.00	0.06	0.26	0.26	4.61	0.00	6.50
	Neiden, Munkfj. Varang.fj.	2960	2960	2911	9.8	12.5	9.8		7.02	3.50	0.82	186.7	3.5	19.84	0.82	0.58	0.00	0.01	0.04	0.04	1.11	0.00	1.17
	Grense Jakobse.,Varang.fj.	234	234		18	19.3	18		4.7	0.28	0.14	15.4	0.9	2.28	0.28	0.11	0.00	0.00	0.01	0.01	0.27	0.14	0.14

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Parameters (mean values)																							
			PCB (The folloving Congeners) IUPAC NOS																						
		Gamma HCH kg	28		52		101		118		138		153		180		Sum : PCB		TOC	SiO2	Cr- T		Ni		As	
			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	t.tons	zero tons	limit tons	zero tons	limit tons	zero tons	limit tons
Østfold	Tista, Iddefj.	0.464	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	5.10	2.32	0.00	0.39	0.54	0.54	0.09	0.09
(1.)	Mosselva, Mossesundet	0.309	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	0.072	2.39		0.00	0.17	0.38	0.38	0.09	0.09
Oslo &	Hølenelva, Drøbaksundet Ø	0.018	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	0.58		0.06	0.06	0.18	0.18	0.04	0.04
Akershus	Årungelva, l. Oslofj.	0.014	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	0.005	0.06		0.00	0.01	0.03	0.03	0.01	0.01
(1.)	Gjersjøelva, l. 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	0.09		0.00	0.01	0.11	0.11	0.00	0.00
	Ljanselva, l. Oslofj.	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.10		0.00	0.01	0.07	0.07	0.00	0.00
	Loelva/Alna, l. Oslofj.	0.019	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	0.010	0.26		0.00	0.02	0.07	0.07	0.02	0.02
	Akerselva, l. Oslofj.	0.157	0.006	0.006	0.006	0.006	0.006	0.006	0.000	0.006	0.007	0.007	0.009	0.009	0.006	0.006	0.039	0.045	0.69		0.19	0.19	0.11	0.11	0.04	0.04
	Frognerelva, l. 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		0.00	0.01	0.01	0.01	0.00	0.00
	Lysakerelva, l. Oslofj.	0.083	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	0.032	0.70		0.00	0.08	0.00	0.08	0.00	0.02
	Sandvikselva, l. Oslofj.	0.023	0.000	0.003	0.000	0.003	0.005	0.005	0.005	0.005	0.006	0.006	0.008	0.008	0.003	0.003	0.026	0.033	0.59		0.00	0.06	0.00	0.06	0.02	0.02
	Åroselva, l. Oslofj.	0.012	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	0.013	0.31		0.00	0.03	0.06	0.06	0.01	0.01
Buskerud	Lierelva, Drammensfj. Ø	0.039	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	0.033	0.92		0.67	0.67	1.12	1.12	0.21	0.21
(2.)																										
Vestfold	Sandeelva, Sandebukta	0.015	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	0.37		0.00	0.05	0.12	0.12	0.08	0.08
(3.)	Aulielva, Tønsbergfj.	0.031	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	0.033	0.77		0.00	0.08	0.43	0.43	0.04	0.04
	Farriselva, Larvikfj.	0.170	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	0.072	1.40		0.00	0.17	0.15	0.15	0.05	0.05
Telemark	Tokkeelva, Kragerø	1.086	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	3.69		1.22	1.22	0.31	0.31	0.34	0.34
(4.)																										
Aust-Agder	Gjerstadelva, Søndeledfj.	0.380	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	1.57		0.19	0.19	0.43	0.43	0.12	0.12
(5.)	Vegårdselva, Sandnesfj.	0.410	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	1.59		0.39	0.39	0.20	0.20	0.08	0.08
	Nidelva, Arendal	3.879	0.000	0.116	0.000	0.116	0.000	0.116	0.000	0.116	0.000	0.116	0.000	0.116	0.000	0.116	0.000	0.815	10.2		1.98	1.98	0.43	0.43	0.70	0.70

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Parameters (mean values)																							
			PCB (The folloving Congeners) IUPAC NOS																						
		Gamma HCH	28		52		101		118		138		153		180		Sum : PCB		TOC	SiO2	Cr- T		Ni		As	
		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	t.tons	zero tons	limit tons	zero tons	limit tons	zero tons	limit tons
Vest-Agder	Tovdalselva, Topdalsfj.	1.924	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.404	7.08		1.62	1.62	0.42	0.42	0.67	0.67
(5.)	Søgneelva, Flekkerøy	0.172	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	0.045	0.82		0.38	0.38	0.18	0.18	0.07	0.07
	Mandalselva, Mannefj.	1.907	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	0.572	7.71		1.80	1.80	0.19	0.19	0.52	0.52
	Audna, Sniksfj.	0.303	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	0.127	1.76		0.85	0.85	0.08	0.08	0.24	0.24
(6.)	Lygna, Lyngdalsfj.	0.527	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	0.221	3.35		1.92	1.92	0.28	0.28	0.16	0.16
	Kvina, Fedafj.	1.035	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	0.435	8.08	3.23	2.96	2.96	0.10	0.10	0.68	0.68
	Sira, Åna-Sira	1.753	0.000	0.105	0.000	0.105	0.000	0.105	0.000	0.105	0.000	0.105	0.000	0.105	0.000	0.105	0.000	0.736	5.61	3.37	2.88	2.88	0.25	0.25	0.49	0.49
Rogaland	Sokndalselva, Sogndalsstr.	0.451	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	0.105	0.80		0.41	0.41	1.44	1.44	0.04	0.04
(6.)	Hellelandselva, Egersund	0.412	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	0.22	0.22	0.10	0.10
	Bjerkreimselva, Egersund	1.337	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	0.312	1.41	2.20	0.73	0.73	0.76	0.76	1.29	1.29
	Håelva, Håtangen	0.200	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	1.01		0.22	0.22	0.22	0.22	0.04	0.04
	Figgjo, Solavika	0.287	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	1.40		0.63	0.63	0.15	0.15	0.05	0.05
	Ims-Lutsi. Høgsfj.Boknafj.	0.141	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	0.037	0.60	0.17	0.71	0.71	0.04	0.04	0.04	0.04
	Oltedalse.,Høgsfj.Boknafj.	0.187	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	0.049	0.33		0.60	0.60	0.03	0.03	0.04	0.04
	Dirdalse., Høgsfj.Boknafj.	0.344	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	0.090	0.39		0.72	0.72	0.01	0.01	0.06	0.06
	Frafjorde.,Frafj. Boknafj.	0.331	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	0.116	0.72	0.53	0.81	0.81	0.02	0.02	0.06	0.06
	Espedalse.,Høgsfj.Boknafj.	0.204	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	0.73	0.76	0.76	0.01	0.01	0.04	0.04
	Lysee., Lysefj.Boknafj.	0.177	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	0.093	0.71		0.14	0.14	0.03	0.03	0.01	0.01
	Årdalse., Årdalsfj.Boknafj.	0.501	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	1.50		2.80	2.80	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.	0.542	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., Saudafj.Boknafj.	0.197	0.000	0.030	0.000	0.030	0.000	0.030	0.000	0.030	0.000	0.030	0.000	0.030	0.000	0.030	0.000	0.207	2.36		1.03	1.03	0.12	0.12	0.07	0.07
	Åbøelva, Saudafj.Boknafj.	0.046	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	0.21		0.22	0.22	0.01	0.01	0.01	0.01
	Vikedalse., Boknafj.	0.075	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	0.079	0.42		0.81	0.81	0.13	0.13	0.08	0.08

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Parameters (mean values)																							
			PCB (The folloving Congeners) IUPAC NOS																						
		Gamma HCH	28		52		101		118		138		153		180		Sum : PCB		TOC	SiO2	Cr- T		Ni		As	
		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	t.tons	zero tons	limit tons	zero tons	limit tons	zero tons	limit tons
Hordaland	Etneelva, Etnefj. Bømlafj.	0.249	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	0.104	0.46		0.57	0.57	0.07	0.07	0.05	0.05
(7.)	Opo, Sørfj. Hardangerfj.	0.648	0.000	0.049	0.000	0.049	0.000	0.049	0.000	0.049	0.000	0.049	0.000	0.049	0.000	0.049	0.000	0.340	1.18		1.62	1.62	0.08	0.08	0.16	0.16
	Tysso, Sørfj. Hardangerfj.	0.520	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	0.273	0.39		1.11	1.11	0.07	0.07	0.04	0.04
	Kinso, Sørfj. Hardangerfj.	0.206	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	0.131	0.31		0.22	0.22	0.00	0.01	0.06	0.06
	Veig, Eidfjv. Hardangerfj.	0.144	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	0.131	0.69		0.37	0.37	0.09	0.09	0.01	0.01
	Bjoreia, " , Hardangerfj.	0.044	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	0.21		0.12	0.12	0.03	0.03	0.00	0.00
	Sima, Eidfj. Hardangerfj.	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	0.010	0.000	0.069	0.10		0.30	0.30	0.01	0.01	0.01	0.01
	Austdøla, Osafj. Eidfj.	0.068	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.	0.072	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	0.87		0.50	0.50	0.02	0.02	0.04	0.04
	Bergsdalse, Veafj.Herdlafj.	0.113	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	0.51		0.65	0.65	0.11	0.11	0.01	0.01
	Vosso, Veafj. Sørfj.	0.597	0.000	0.090	0.000	0.090	0.000	0.090	0.000	0.090	0.000	0.090	0.000	0.090	0.000	0.090	0.000	0.627	2.69	2.81	2.54	2.54	0.00	0.03	0.30	0.30
	Ekso, Osterfj.	0.231	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	0.242	1.37		0.06	0.06	0.01	0.01	0.17	0.17
	Modalselva, Osterfj.	0.250	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	0.262	0.90		0.06	0.06	0.01	0.01	0.19	0.19

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Parameters (mean values)																							
			PCB (The folloving Congeners) IUPAC NOS																		TOC	SiO2	Cr- T		Ni		As	
		Gamma HCH	28		52		101		118		138		153		180		Sum : PCB											
			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	t.tons	tons	tons	tons	tons	tons	tons
Sogn og Fjordane (7.)	Nærøye., Aurl.fj. Sognefj.	0.120	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	0.126	0.24		0.81	0.81	0.06	0.06	0.06	0.06
	Flåmse., Aurl.fj. Sognefj.	0.133	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	0.140	0.20		0.47	0.47	0.10	0.10	0.03	0.03
	Aurlandv. Aurl.fj. Sognefj.	0.151	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	0.265	0.50		0.63	0.63	0.04	0.04	0.00	0.01
	Erdalse., Lærd.fj. Sognefj.	0.020	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	0.12		0.07	0.07	0.01	0.01	0.03	0.03
	Lærdalsv. Lærd.fj. Sognefj.	0.245	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	0.258	0.80		0.18	0.18	0.06	0.06	0.06	0.06
	Årdalsv., Årdalsfj.Sognefj.	0.390	0.000	0.047	0.000	0.047	0.000	0.047	0.000	0.047	0.000	0.047	0.000	0.047	0.000	0.047	0.000	0.327	1.19		0.62	0.62	0.16	0.16	0.05	0.05
	Fortunv., Lusterfj.Sognefj.	0.240	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	0.180	0.26		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.	0.550	0.000	0.059	0.000	0.059	0.000	0.059	0.000	0.059	0.000	0.059	0.000	0.059	0.000	0.059	0.000	0.413	0.79		0.98	0.98	0.20	0.20	0.10	0.10
	Årøye., Sognd.fj. Sognefj.	0.316	0.000	0.034	0.000	0.034	0.000	0.034	0.000	0.034	0.000	0.034	0.000	0.034	0.000	0.034	0.000	0.237	0.68		0.73	0.73	0.03	0.03	0.03	0.03
	Sogndalse, " Sognefj.	0.104	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	0.078	1.08		0.20	0.20	0.02	0.02	0.01	0.01
	Gaular, Dalsfj. Bufj.	0.695	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.406	2.28		0.77	0.77	0.19	0.19	0.19	0.19
	Jølstra, Førdefj.	0.580	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.058	0.000	0.406	2.13		1.84	1.84	0.06	0.06	0.10	0.10
	Nausta, Førdefj.	0.242	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	0.169	1.14		0.97	0.97	0.08	0.08	0.02	0.02
	Oselva, Høydalsfj.	0.219	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	0.153	1.82		1.38	1.38	0.02	0.02	0.01	0.01
	Hopse., Hyefj. Nordfj.S	0.056	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		0.26	0.26	0.01	0.01	0.00	0.00
	Gjengedalse.," Nordfj.S	0.143	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	0.71		0.38	0.38	0.05	0.05	0.02	0.02
	Breimse., Gloppenfj. "	0.495	0.000	0.050	0.000	0.050	0.000	0.050	0.000	0.050	0.000	0.050	0.000	0.050	0.000	0.050	0.000	0.347	1.16		1.32	1.32	0.08	0.08	0.03	0.03
	Oldene., Indre Nordfj.	0.179	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	0.125	0.48		0.45	0.45	0.03	0.03	0.00	0.01
	Loenelva, Indre Nordfj.	0.192	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	0.32		0.35	0.35	0.03	0.03	0.03	0.03
	Strynee., Indre Nordfj.	0.363	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	0.254	0.61	1.52	0.91	0.91	0.12	0.12	0.06	0.06
	Hornindalse., Nordfj. N	0.383	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	0.201	1.15		1.25	1.25	0.10	0.10	0.14	0.14

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Parameters (mean values)																							
			PCB (The folloving Congeners) IUPAC NOS																						
		Gamma HCH kg	28		52		101		118		138		153		180		Sum : PCB		TOC	SiO2	Cr- T		Ni		As	
			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	t.tons	zero tons	limit tons	zero tons	limit tons	zero tons	limit tons
Møre og Romsdal (8.)	Ørstae., Ørstafj.	0.021	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	0.55		0.49	0.49	0.12	0.12	0.00	0.00
	Valldøla, Nordalfj.Storfj.	0.405	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	0.41		0.11	0.11	0.07	0.07	0.00	0.08
	Rauma, Romsdalsfj.Moldefj.	0.773	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	0.325	1.08	4.36	0.17	0.17	0.17	0.17	0.00	0.15
	Isa, Isfj. Moldefj.	0.155	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	0.081	0.39		0.28	0.28	0.19	0.19	0.00	0.04
	Eira, Eresfj. Moldefj.	0.465	0.300	0.300	0.120	0.120	0.060	0.060	0.000	0.045	0.000	0.045	0.000	0.045	0.000	0.045	0.480	0.660	0.75		1.50	1.50	0.00	0.01	0.22	0.22
	Littledalse., Sunndalsfj.	0.214	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	0.32		0.39	0.39	0.19	0.19	0.00	0.05
	Driva, Sunnd.fj.Tingvollfj.	0.476	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	0.500	4.28		14.1	14.1	10.2	10.2	0.00	0.24
	Ulvåa, Ålvundfj.	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	0.099	0.66		0.31	0.31	0.01	0.01	0.00	0.00
	Toåa, Todalsfj.	0.107	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		0.00	0.05	0.03	0.03	0.00	0.05
	Surna, Surnadalsfj.	1.029	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	0.432	5.35		0.31	0.31	0.45	0.45	0.00	0.21
	Bøvra, Hamnesfj. Halsafj.	0.360	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	0.108	1.03		0.09	0.09	0.09	0.09	0.00	0.05
Sør-Trøndelag (8.)	Børse.,Gaulosen Tr.h.fj.	0.102	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	0.024		0.10	0.00	0.06	0.18	0.18	0.05	0.05
	Vigda, Gaulosen Tr.h.fj.	0.136	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	0.036	0.65	0.14	0.00	0.09	0.19	0.19	0.04	0.04
	Gaula, Gaulosen Tr.h.fj.	2.337	0.000	0.100	0.000	0.100	0.000	0.100	0.000	0.100	0.000	0.100	0.000	0.100	0.000	0.100	0.000	0.701	10.7	9.58	2.67	2.67	6.68	6.68	0.80	0.80
	Nidelva, Trondheimsfj.	2.062	0.000	0.109	0.000	0.109	0.000	0.109	0.000	0.109	0.000	0.109	0.000	0.109	0.000	0.109	0.000	0.760		5.79	0.00	1.81	3.98	3.98	0.80	0.80
	Homla, Stjørd.fj.Tr.h.fj.	0.100	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	0.038		0.25	0.00	0.09	0.13	0.13	0.10	0.10
Nord-Trøndelag (8.)	Stjørdalsv, " Tr.h.fj.	1.550	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	0.592	10.4	2.25	1.13	1.13	1.94	1.94	0.28	0.28
	Gråe., " Tr.h.fj.	0.042	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	0.016		0.43	0.04	0.04	0.13	0.13	0.06	0.06
	Verdalsvassdr., Tr.h.fj.	1.075	0.000	0.059	0.000	0.059	0.000	0.059	0.000	0.059	0.000	0.059	0.000	0.059	0.000	0.059	0.000	0.410		3.52	0.00	0.98	1.95	1.95	1.64	1.64
	Figga/Leksdalse.,Tr.h.fj.	0.171	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	1.43	0.48	0.17	0.17	0.22	0.22	0.06	0.06
	Snåsavassdr., Trondh.fj.	1.253	0.000	0.075	0.000	0.075	0.000	0.075	0.000	0.075	0.000	0.075	0.000	0.075	0.000	7.519	0.000	7.970	8.77	2.26	0.65	0.65	2.31	2.31	0.00	0.25
	Årgårdselva, Namsfj.	0.157	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	0.165		0.86	1.10	1.10	0.71	0.71	0.97	0.97
	Namsen, Namsfj. Ø	2.841	0.000	0.355	0.000	0.355	0.000	0.355	0.000	0.355	0.000	0.355	0.000	0.355	0.000	0.355	0.000	2.485		8.28	36.7	36.7	10.7	10.7	1.30	1.30
	Salsvatnelva, Follafj.	0.335	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	0.234		1.12	0.00	0.56	0.00	0.56	0.29	0.29

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Parameters (mean values)																							
			PCB (The folloving Congeners) IUPAC NOS																		TOC	SiO2	Cr- T		Ni		As	
		Gamma HCH	28		52		101		118		138		153		180		Sum : PCB											
			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	t.tons	tons	tons	tons	tons	tons	tons
Nordland	Åbjøra, Bindalsfj. S	0.513	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	0.359		1.20	0.00	0.86	0.00	0.86	0.65	0.65
(9.)	Skjerva, Vefsenfj. S	0.073	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	0.038		0.33	0.00	0.09	0.18	0.18	0.12	0.12
	Fusta, Vefsenfj. N	0.533	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	0.280		0.93	0.00	0.67	0.67	0.67	0.67	0.67
	Drevja, Vefsenfj. N	0.177	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	0.093		0.35	0.00	0.22	0.27	0.27	0.17	0.17
	Røssåga, Sørfj.	0.983	0.000	0.098	0.000	0.098	0.000	0.098	0.000	0.098	0.000	0.098	0.000	0.098	0.000	0.098	0.000	0.688		3.28	4.26	4.26	7.21	7.21	1.61	1.61
	Bjerka, Sørfj.	0.270	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		0.90	0.00	0.45	0.63	0.63	0.20	0.20
	Dalselva, Ranafj. N	0.086	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	0.072		0.38	0.00	0.17	0.31	0.31	0.08	0.08
	Ranavassdraget, Ranafj. N	1.701	0.000	0.204	0.000	0.204	0.000	0.204	0.000	0.204	0.000	0.204	0.000	0.204	0.000	0.204	0.000	1.429		6.12	3.40	3.40	6.12	6.12	2.52	2.52
	Fykanåga, Glomfjord	0.243	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	0.204		0.87	0.49	0.49	0.87	0.87	0.36	0.36
	Beiare., Beiarfj. Nordfj.	0.690	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	0.290	3.59	5.41	1.10	1.10	1.66	1.66	0.88	0.88
	Saltdalsvassdr., Saltd.fj.S	0.698	0.000	0.030	0.000	0.030	0.000	0.030	0.000	0.030	0.000	0.030	0.000	0.030	0.000	0.030	0.000	0.209		1.30	0.00	0.50	0.70	0.70	0.53	0.53
	Sulitjelmavassdr., Saltd.fj	1.027	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	0.291		1.11	0.00	0.69	0.83	0.83	0.87	0.87
	Kobbe., Leirfj. Sørfolda N	0.200	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	0.084		0.20	0.00	0.20	0.00	0.20	0.18	0.18
	Skjoma, Ofotfj. S	0.349	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		1.31	0.00	0.44	0.00	0.44	0.40	0.40

Table 9.2 TRIBUTARY RIVERS. ANNUAL LOAD 1995.

County	Watercourse	Parameters (mean values)																							
			PCB (The folloving Congeners) IUPAC NOS																		TOC	SiO2	Cr- T		Ni		As	
		Gamma HCH	28		52		101		118		138		153		180		Sum : PCB											
			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	t.tons	tons	tons	tons	tons	tons	tons
Troms	Spanselva, Astafj. Vågsfj.	0.098	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	0.059		0.22	0.00	0.14	0.14	0.14	0.11	0.11
(9.)	Salangse., Astafj. Vågsfj.	0.297	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	0.178		0.51	0.00	0.42	0.00	0.42	0.27	0.27
	Rossfjorde., Malangen	0.090	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	0.057		0.14	0.00	0.14	0.16	0.16	0.00	0.03
	Målse., Målselvfj. "	0.694	0.000	0.104	0.000	0.104	0.000	0.104	0.000	0.104	0.000	0.104	0.000	0.104	0.000	0.104	0.000	0.729		4.86	0.00	1.74	0.00	1.74	0.00	0.35
	Bardue., Målselva	0.629	0.000	0.094	0.000	0.094	0.000	0.094	0.000	0.094	0.000	0.094	0.000	0.094	0.000	0.094	0.000	0.660		4.40	0.00	1.57	0.00	1.57	0.00	0.31
	Nordkjoselva, Balsfj.	0.018	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	0.038		0.32	0.00	0.09	0.00	0.09	0.00	0.02
	Signaldalselva, Lyngen V	0.050	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	0.105		0.70	0.00	0.25	0.00	0.25	0.00	0.05
	Skibotnelva, Lyngen	0.025	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	0.106		0.80	0.35	0.35	0.25	0.25	0.11	0.11
	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	0.056		0.40	0.00	0.13	0.16	0.16	0.10	0.10
	Reisa, Reisafj.	0.081	0.000	0.048	0.000	0.048	0.000	0.048	0.000	0.048	0.000	0.048	0.000	0.048	0.000	0.048	0.000	0.338	3.06	6.89	0.00	0.81	0.00	0.81	0.45	0.45
Finnmark	Mattiselva, Kåfj. Altafj.	0.030	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	0.064		0.56	0.00	0.15	0.00	0.15	0.11	0.11
(10.)	Tverrelva, Altafj.	0.019	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	0.026		0.32	0.00	0.06	0.00	0.06	0.02	0.02
	Repparfjordv., Repparfj.	0.160	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	0.224		1.38	0.00	0.53	0.00	0.53	0.00	0.11
	Stabburse., I. Porsangen V	0.115	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	1.83	2.17	0.00	0.38	0.00	0.38	0.11	0.11
	Lakse., Indre Porsangen S	0.130	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		1.91	0.00	0.43	0.00	0.43	0.05	0.05
	Børselva.Indre Porsangen Ø	0.132	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	0.185		3.43	0.00	0.44	0.00	0.44	0.14	0.14
	Mattusjåkka, I. Laksefj. V	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	0.018		0.12	0.00	0.04	0.00	0.04	0.00	0.01
	Storelva.Indre Laksefj. 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	0.110		1.84	0.00	0.26	0.00	0.26	0.00	0.05
	Soussjåkka, I. Laksefj. V	0.012	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	0.017		0.32	0.00	0.04	0.00	0.04	0.00	0.01
	Adamselva, I. Laksefj. Ø	0.073	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	0.103		1.66	2.18	2.18	0.55	0.55	0.10	0.10
	Tanavassdraget, Tanafj. S	0.752	0.000	0.205	0.000	0.205	0.000	0.205	0.000	0.205	0.000	0.205	0.000	0.205	0.000	0.205	0.000	1.436	20.3	48.8	2.53	2.53	3.42	3.42	0.34	0.34
	Vesterelva, Syltefj.	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	0.017	0.000	0.118		1.29	0.00	0.28	0.00	0.28	0.18	0.18
	V. Jakobse., Y.Varangerfj.	0.115	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	0.081		1.80	0.00	0.19	0.00	0.19	0.05	0.05
	Passvike., Bøkfj.Varang.fj.	2.080	0.000	0.195	0.000	0.195	0.000	0.195	0.000	0.195	0.000	0.195	0.000	0.195	0.000	0.195	0.000	1.365	25.3	24.0	0.00	3.25	37.7	37.7	2.53	2.53
	Neiden, Munkfj. Varang.fj.	0.408	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	0.245		2.57	0.00	0.58	0.00	0.58	0.43	0.43
	Grense Jakobse.,Varang.fj.	0.050	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		0.54	0.00	0.07	1.00	1.00	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	3.9	*	2.1	*	7.2	tonnes
Cadmium			4.3	**	2.1	**	7.7	tonnes
Mercury		124	226	*	129	*	479	kg
Mercury			282	**	131	**	537	kg
Copper		68	128		121		317	tonnes
Zinc		144	397		354		895	tonnes
Lead		8.0	33.5	*	39.2	*	80.7	tonnes
Lead			33.7	**	39.2	**	80.9	tonnes
Arsenic		0.4	27.8		7.1	*	35.3	tonnes
Arsenic			29.6		9.2	**	39.2	tonnes
Cr-T		5.3	108.9	*	0.0	*	114.2	tonnes
Cr-T			127.5	**	30.2	**	163.0	tonnes
Ni		21.3	100.2	*	49.8	*	171.3	tonnes
Ni			109.3	**	51.1	**	181.8	tonnes
PCBs ***			0.4	*	0.2	*	0.6	kg
PCBs			36.4	**	12.7	**	49.1	kg
gamma-HCH			54		42		96	kg
NH4-N	1701	11324	1980		1135		16140	tonnes
NO3-N	15036	201	17510		14858		47604	tonnes
PO4-P	203	747	233		299		1482	tonnes
Total N	24066	17572	32663		24538		98839	tonnes
Total P	777	1477	646		1058		3958	tonnes
SiO2			166439		141761		308200	tonnes
S.P.M.		6272579	268822		499731		7041131	tonnes
TOC		20246	194892		205829		420967	tonnes
COD		257041					257041	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	0.7	*	1.4	*	2.2	tonnes
Cadmium			0.7	**	1.4	**	2.2	tonnes
Mercury		47.88	12	*	113	*	173	kg
Mercury			17	**	113	**	178	kg
Copper		24.15	11		85		119	tonnes
Zinc		18.58	99		257		375	tonnes
Lead		0.82	7.2	*	29.6	*	37.6	tonnes
Lead			7.2	**	29.6	**	37.6	tonnes
Arsenic		0.13	3.3	*	5.6	*	9.1	tonnes
Arsenic			3.3	**	6.9	**	10.4	tonnes
Cr-T		3.18	9.1	*	0.0	*	12.2	tonnes
Cr-T			10.1	**	23.6	**	36.9	tonnes
Ni		9.52	5.6	*	39.2	*	54.3	tonnes
Ni			5.7	**	39.2	**	54.4	tonnes
PCBs ***			0.1	*	0.0	*	0.1	kg
PCBs			2.8	**	9.9	**	12.7	kg
gamma-HCH			11		36		47	kg
NH4-N	175	4672.63	549		998		6395	tonnes
NO3-N	1781	156.48	4177		13116		19232	tonnes
PO4-P	18	92.43	32		240		382	tonnes
Total N	2773	7375.07	6841		20960		37949	tonnes
Total P	73	237.03	103		937		1350	tonnes
SiO2			2155		113359		115514	tonnes
S.P.M.		13174.40	24283		437144		474602	tonnes
TOC		7101.11	46859		169052		223012	tonnes
COD		132120.44					132120	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	2.4	*	0.0	*	3.4	tonnes
Cadmium			2.5	**	0.0	**	3.5	tonnes
Mercury		51.17	30	*	0	*	81	kg
Mercury			57	**	3	**	111	kg
Copper		10.97	19		1		31	tonnes
Zinc		67.40	145		7		219	tonnes
Lead		6.30	10.3	*	0.3	*	16.9	tonnes
Lead			10.4	**	0.3	**	16.9	tonnes
Arsenic		0.00	5.9	*	0.0	*	6.0	tonnes
Arsenic			5.9	**	0.3	**	6.2	tonnes
Cr-T		1.30	39.8	*	0.0	*	41.1	tonnes
Cr-T			39.8	**	1.4	**	42.5	tonnes
Ni		10.53	6.2	*	0.2	*	16.9	tonnes
Ni			6.2	**	1.6	**	18.3	tonnes
PCBs ***			0.0	*	0.0	*	0.0	kg
PCBs			9.7	**	0.6	**	10.3	kg
gamma-HCH			17		2		19	kg
NH4-N	622	3396.29	541		17		4576	tonnes
NO3-N	5756	22.64	7855		578		14211	tonnes
PO4-P	55	295.15	58		3		411	tonnes
Total N	9285	5115.13	12141		802		27344	tonnes
Total P	198	565.63	196		11		970	tonnes
SiO2			14290		2554			tonnes
S.P.M.		2801931.25	49838		2769		2854323	tonnes
TOC		6611.67	60231		2024		68866	tonnes
COD		42380.91					42381	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		0.15	0.6	*	0.7	*	1.4	tonnes
Cadmium			0.9	**	0.7	**	1.7	tonnes
Mercury		23.56	173	*	13	*	209	kg
Mercury			182	**	13	**	219	kg
Copper		32.95	83		32		148	tonnes
Zinc		57.47	131		87		276	tonnes
Lead		0.86	13.8	*	9.0	*	23.7	tonnes
Lead			13.9	**	9.0	**	23.7	tonnes
Arsenic		0.27	15.1	*	0.6	*	16.0	tonnes
Arsenic			16.7	**	1.2	**	18.2	tonnes
Cr-T		0.78	55.9	*	0.0	*	56.7	tonnes
Cr-T			67.8	**	3.8	**	72.4	tonnes
Ni		1.23	52.9	*	8.4	*	62.5	tonnes
Ni			58.9	**	8.4	**	68.6	tonnes
PCBs ***			0.4	*	0.2	*	0.6	kg
PCBs			20.2	**	1.6	**	21.8	kg
gamma-HCH			23		4		27	kg
NH4-N	813	3015.98	766		94		4690	tonnes
NO3-N	6488	20.11	5074		879		12462	tonnes
PO4-P	111	335.73	124		25		595	tonnes
Total N	10327	4760.27	11289		2255		28631	tonnes
Total P	419	633.75	277		66		1395	tonnes
SiO2			71815		13237		85052	tonnes
S.P.M.		1211125.97	182267		34267		1427661	tonnes
TOC		6181.67	48304		25158		79644	tonnes
COD		80955.64					80956	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	0.1	*	0.03	*	0.2	tonnes
Cadmium			0.2	**	0.03	**	0.3	tonnes
Mercury		1.28	12	*	2.74	*	16	kg
Mercury			25	**	2.74	**	29	kg
Copper		0.35	16		2.96		19	tonnes
Zinc		0.41	23		2.74		26	tonnes
Lead		0.01	2.2	*	0.33	*	2.6	tonnes
Lead			2.3	**	0.33	**	2.6	tonnes
Arsenic		0.00	3.5	*	0.80	*	4.2	tonnes
Arsenic			3.6	**	0.80	**	4.4	tonnes
Cr-T		0.04	4.1	*	0.00	*	4.1	tonnes
Cr-T			9.8	**	1.37	**	11.2	tonnes
Ni		0.06	35.6	*	1.95	*	37.6	tonnes
Ni			38.5	**	1.95	**	40.5	tonnes
PCBs ***			0.0	*	0.00	*	0.0	kg
PCBs			3.7	**	0.58	**	4.3	kg
gamma-HCH			4		0.14		4	kg
NH4-N	91	238.74	124		25		479	tonnes
NO3-N	1010	1.59	403		285		1700	tonnes
PO4-P	18	24.17	20		32		93	tonnes
Total N	1681	321.31	2392		521		4915	tonnes
Total P	88	40.80	71		44		244	tonnes
SiO2			78178		12611		90789	tonnes
S.P.M.		2246347.37	12433		25550		2284331	tonnes
TOC		351.77	39497		9595		49444	tonnes
COD		1583.63					1584	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	1995	Normal	1995											
	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	17.3	16.9	17.8	4.49	772.11	193.03	11539	7314	600.53	52.76	147.99	0.64	23.38	365.47
Drammensvassdr, Dr.fj. V	17034	17028	16020	17.1	18	18.2	19.1	3.65	72.54	18.37	4215	2635	137.74	8.54	31.22	0.18	1.93	33.24
Numedalslågen, Larvikfj.	5577	5513	5197	21.2	21.9	21.2	21.9	2.61	40.54	13.27	1323	667	114.26	5.31	20.16	0.22	1.70	14.96
Skiensvassdr, Grenlandsfj	10772	10348	10348	25.3	27.1	25.3	27.1	2.07	27.25	5.86	2741	1816	99.08	14.86	31.13	0.17	0.74	6.85
Otra, Kr.Sandsfj.	3738	3730	3668	39.8	40.1	39.8	42.6	2.06	24.81	9.18	1142	684	46.82	3.14	26.40	0.14	1.87	16.62
Orreelva, Orresanden	105	105	54	36.7	37	40.7	41.3	18.60	6.20	1.65	197	114	6.68	0.25	0.31	0.00	0.04	0.87
Suldalsl.,Sandsfj.Boknafj.	1457	1457	1457	59	29.2	59	29.2	1.89	4.74	1.36	605	464	10.30	1.22	6.91	0.03	0.24	1.90
Orkla, Orkdalsfj.Tr.h.fj.	3053	2872	2247	21.7	22.5	21.7	22.5	6.67	7.86	2.16	678	440	15.13	16.47	47.96	0.12	0.10	2.44
Vefsna, Vefsenfj. S	4122	4113	3323	43.9	50.9	43.9	50.9	5.91	58.08	22.55	1577	438	79.15	15.43	39.40	0.57	8.88	31.83
Altaelva, Altafj.	7373	7367	6257	11.8	13.5	11.8	13.5	14.21	43.86	31.53	521	285	25.50	2.96	2.74	0.03	0.33	25.55

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.	59.20	14.37	0.64	0.64	0.64	0.64	0.64	0.64	0.64	4.504	92.22	10.72	25.52	3.43
Drammensvassdr, Dr.fj. V	20.20	8.26	0.28	0.28	0.28	0.28	0.28	0.28	0.28	1.928	34.80	4.59	4.87	1.10
Numedalslågen, Larvikfj.	12.16	2.99	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.774	12.53	1.84	1.51	1.11
Skiensvassdr, Grenlandsfj	11.15	7.60	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.734	18.16	4.13	3.14	0.83
Otra, Kr.Sandsfj.	10.30	2.72	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.983	11.33	2.34	4.12	0.47
Orreelva, Orresanden	0.17	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.026	0.67	0.06	0.22	0.05
Suldalsl.,Sandsfj.Boknafj.	2.71	1.63	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.569	1.36	1.36	1.36	0.27
Orkla, Orkdalsfj.Tr.h.fj.	3.73	1.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.413	5.80	0.98	2.87	0.63
Vefsna, Vefsenfj. S	9.11	3.13	0.17	0.17	0.17	0.17	0.17	0.17	0.17	1.196	19.36	2.85	5.58	0.57
Altaelva, Altafj.	2.74	0.14	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.576	9.60	1.37	1.95	0.80

Table 10.5B 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	1995	Normal	1995											
	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	17.3	16.9	17.8	4.49	772.11	193.03	11539	7314	600.53	52.76	147.99	0.64	23.38	365.47
Drammensvassdr, Dr.fj. V	17034	17028	16020	17.1	18	18.2	19.1	3.65	72.54	18.37	4215	2635	137.74	8.54	31.22	0.18	1.93	33.24
Numedalslågen, Larvikfj.	5577	5513	5197	21.2	21.9	21.2	21.9	2.61	40.54	13.27	1323	667	114.26	5.31	20.16	0.22	1.70	14.96
Skiensvassdr, Grenlandsfj	10772	10348	10348	25.3	27.1	25.3	27.1	2.07	27.25	5.86	2741	1816	99.08	14.86	31.13	0.17	0.74	6.85
Otra, Kr.Sandsfj.	3738	3730	3668	39.8	40.1	39.8	42.6	2.06	24.81	9.18	1142	684	46.82	3.14	26.40	0.14	1.87	16.62
Orreelva, Orresanden	105	105	54	36.7	37	40.7	41.3	18.60	6.20	1.65	197	114	6.68	0.25	0.31	0.00	0.04	0.87
Suldalsl.,Sandsfj.Boknafj.	1457	1457	1457	59	29.2	59	29.2	1.89	4.74	1.36	605	464	10.30	1.22	6.91	0.03	0.24	1.90
Orkla, Orkdalsfj.Tr.h.fj.	3053	2872	2247	21.7	22.5	21.7	22.5	6.67	7.86	2.16	678	440	15.13	16.47	47.96	0.12	0.10	2.44
Vefsna, Vefsenfj. S	4122	4113	3323	43.9	50.9	43.9	50.9	5.91	58.08	22.55	1577	438	79.15	15.43	39.40	0.57	8.88	31.83
Altaelva, Altafj.	7373	7367	6257	11.8	13.5	11.8	13.5	14.21	43.86	31.53	521	285	25.50	2.96	2.74	0.03	0.33	25.55

Watercourse	Parameters (mean values)													
			PCB (The folloving Congeners) IUPAC NOS											
	Hg zero	Gamma HCH	28 zero	52 zero	101 zero	118 zero	138 zero	153 zero	180 zero	SUM : zero	TOC	Cr-T zero	Ni zero	As zero
	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	t.tons	tons	tons	tons
Glomma, Hvaler-Singlefj.	59.20	14.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	92.22	0.00	25.52	3.43
Drammensvassdr, Dr.fj. V	20.20	8.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	34.80	0.00	4.87	1.10
Numedalslågen, Larvikfj.	12.16	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	12.53	0.00	1.51	1.11
Skiensvassdr, Grenlandsfj	11.15	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	18.16	0.00	3.14	0.00
Otra, Kr.Sandsfj.	10.30	2.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	11.33	0.00	4.12	0.00
Orreelva, Orresanden	0.17	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.67	0.00	0.22	0.05
Suldalsl.,Sandsfj.Boknafj.	0.00	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	1.36	0.00	0.00	0.00
Orkla, Orkdalsfj.Tr.h.fj.	3.73	1.04	0.00	0.00	0.00	0.06	0.06	0.06	0.00	0.177	5.80	0.00	2.87	0.63
Vefsna, Vefsenfj. S	9.11	3.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	19.36	0.00	5.58	0.00
Altaelva, Altafj.	2.74	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	9.60	0.00	1.95	0.80

Table 10.6 The Skagerrak Region. "Mean" inputs from tributary rivers in The Sub-areas (1 - 5)
(Mean concentrations 1995 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 *	0.02	0.02	0.01	0.03	0.05	0.60	tonnes	YES	_____	%
Cd **	0.02	0.02	0.01	0.03	0.05	0.60	tonnes		_____	%
Hg *	0.24	0.84	0.00	0.17	1.01	9.37	kg	NO	_____	%
Hg **	1.27	0.99	0.16	0.61	1.01	13.38	kg		_____	%
Cu	1.6	0.9	0.9	0.9	0.6	5.7	tonnes	YES	_____	%
Zn	3.8	2.4	2.9	12.4	7.7	69.9	tonnes	YES	_____	%
Pb *	0.28	0.16	0.38	0.31	0.37	5.68	tonnes	YES	_____	%
Pb **	0.28	0.16	0.38	0.31	0.37	5.68	tonnes		_____	%
Arsenic *	0.20	0.08	0.21	0.18	0.31	2.35	tonnes	YES	_____	%
Arsenic **	0.20	0.09	0.21	0.18	0.31	2.35	tonnes		_____	%
Cr-T *	0.06	0.12	0.67	0.00	1.13	7.08	tonnes	NO	_____	%
Cr-T **	0.58	0.31	0.67	0.30	1.13	7.08	tonnes		_____	%
Ni *	1.01	0.51	1.12	0.75	0.29	1.90	tonnes	YES	_____	%
Ni **	1.01	0.61	1.12	0.75	0.29	1.90	tonnes		_____	%
PCBs *	0.00	0.06	0.00	0.00	0.00	0.00	kg	NO	_____	%
PCBs **	0.23	0.12	0.03	0.13	0.21	2.08	kg		_____	%
gamma-HC	0.73	0.25	0.04	0.22	1.01	8.80	kg	YES	_____	%
NH4-N	22.27	39.81	12.79	41.66	39.41	392.7	tonnes	YES	_____	%
NO3-N	869	338	171	543	172	2084	tonnes	YES	_____	%
PO4-P	7.7	4.3	3.7	10.3	0.5	5.5	tonnes	YES	_____	%
Total N	1237	558	172	729	385	3760	tonnes	YES	_____	%
Total P	24	14	5	13	4	44	tonnes	YES	_____	%
SiO2	2155						tonnes	YES	_____	%
S.P.M.	3233	2459	1674	2370	1051	13497	tonnes	YES	_____	%
TOC	7460	2293	921	2578	3435	30172	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 1995 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 *	1.63	0.78	tonnes	YES	_____	%
Cd **	1.63	0.84	tonnes		_____	%
Hg *	5.39	24.41	kg	NO	_____	%
Hg **	16.04	40.95	kg		_____	%
Cu	7.6	11.1	tonnes	YES	_____	%
Zn	70.0	74.5	tonnes	YES	_____	%
Pb *	7.39	2.91	tonnes	YES	_____	%
Pb **	7.39	2.98	tonnes		_____	%
Arsenic *	3.85	2.06	tonnes	YES	_____	%
Arsenic **	3.85	2.08	tonnes		_____	%
Cr-T *	17.00	22.82	tonnes	YES	_____	%
Cr-T **	17.00	22.82	tonnes		_____	%
Ni *	4.03	2.16	tonnes	YES	_____	%
Ni **	4.03	2.19	tonnes		_____	%
PCBs *	0.00	0.00	kg	NO	_____	%
PCBs **	3.09	6.61	kg		_____	%
gamma-HC	8.60	8.32	kg	YES	_____	%
NH4-N	321.42	219.72	tonnes	YES	_____	%
NO3-N	3683	4172	tonnes	YES	_____	%
PO4-P	24.3	33.3	tonnes	YES	_____	%
Total N	5416	6725	tonnes	YES	_____	%
Total P	78	117	tonnes	YES	_____	%
SiO2	10495	3795	tonnes	YES	_____	%
S.P.M.	17336	32501	tonnes	YES	_____	%
TOC	31565	28666	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 1995 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 *	0.52	0.07	tonnes	NO			%
Cd **	0.59	0.32	tonnes				%
Hg *	82.62	90.46	kg	YES			%
Hg **	90.60	91.65	kg				%
Cu	55.8	26.9	tonnes	YES			%
Zn	83.8	47.1	tonnes	YES			%
Pb *	6.00	7.83	tonnes	YES			%
Pb **	6.00	7.87	tonnes				%
Arsenic *	5.78	9.34	tonnes	YES			%
Arsenic **	6.76	9.97	tonnes				%
Cr-T *	47.51	8.39	tonnes	NO			%
Cr-T **	50.82	16.96	tonnes				%
Ni *	35.04	17.81	tonnes	YES			%
Ni **	35.46	23.44	tonnes				%
PCBs *	0.39	0.00	kg	NO			%
PCBs **	14.31	5.93	kg				%
gamma-HC	14.07	8.80	kg	YES			%
NH4-N	343.26	423.19	tonnes	YES			%
NO3-N	3532	1542	tonnes	YES			%
PO4-P	62.1	61.7	tonnes	YES			%
Total N	7348	3941	tonnes	YES			%
Total P	150	127	tonnes	YES			%
SiO2	34065	37750	tonnes	YES			%
S.P.M.	50150	132118	tonnes	YES			%
TOC	42478	5826	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 1995 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 *	0.13	tonnes	NO	%
Cd **	0.24	tonnes		%
Hg *	11.94	kg	NO	%
Hg **	25.06	kg		%
Cu	15.8	tonnes	YES	%
Zn	22.9	tonnes	YES	%
Pb *	2.22	tonnes	YES	%
Pb **	2.27	tonnes		%
Arsenic *	3.45	tonnes	YES	%
Arsenic **	3.60	tonnes		%
Cr-T *	4.08	tonnes	NO	%
Cr-T **	9.78	tonnes		%
Ni *	35.58	tonnes	NO	%
Ni **	38.52	tonnes		%
PCBs *	0.00	kg	NO	%
PCBs **	3.69	kg		%
gamma-HC	3.51	kg	YES	%
NH4-N	123.71	tonnes		%
NO3-N	403	tonnes	YES	%
PO4-P	19.6	tonnes	YES	%
Total N	2392	tonnes	YES	%
Total P	71	tonnes	YES	%
SiO2	78178	tonnes	YES	%
S.P.M.	12433	tonnes	YES	%
TOC	39497	tonnes	YES	%

Measurements below detection limits are treated in two ways :

***) Detection limit = Zero**

****) Detection limit = Limit**