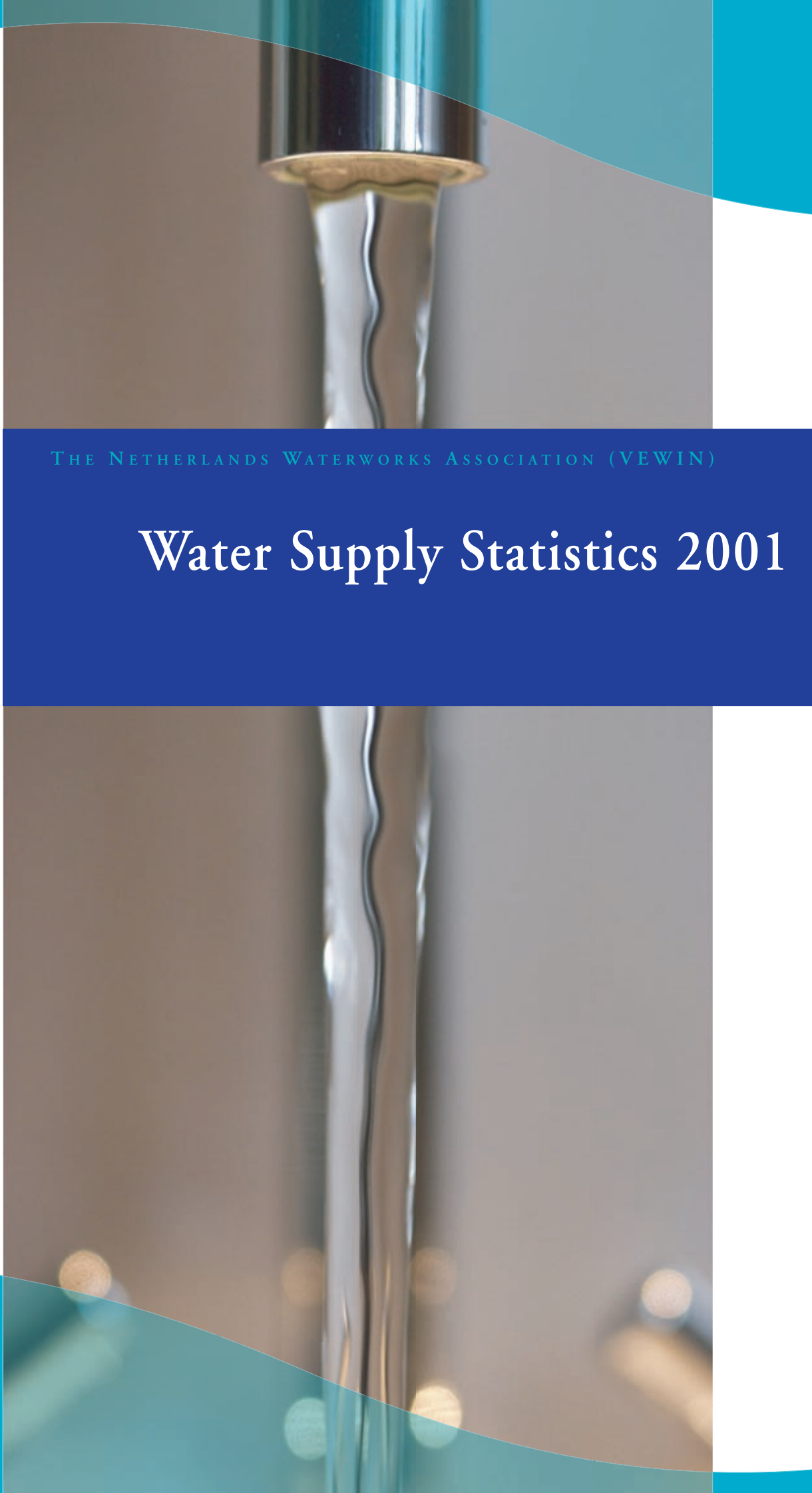




THE NETHERLANDS WATERWORKS ASSOCIATION (VEWIN)

Water Supply Statistics 2001



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Water Supply Statistics
2001

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Introduction

Objective

Water Supply Statistics is an annual VEWIN publication. It presents data used by the sector as basic information for policy purposes and for the provision of information to third parties such as ministries, the European Union, companies, institutions and consumers.

Collecting the data

Since 1997, most water supply companies have been taking part voluntarily in the VEWIN benchmark report that is used to clearly report the performance of the companies concerned in terms of water quality, level of service, their environmental performance, finance and efficiency.

Since 2000, to relieve water companies of some of the administrative load, data for the water supply statistics were gathered together with the data for the benchmark report using the benchmark module *Finance & Efficiency*. A separate questionnaire was drawn up for the companies not taking part in the voluntary benchmark report.

The publication also contains tables whose data have been derived from other sources. The rates overview (table 7) for instance comes from the VEWIN publication *Overview of water charges on 1 January 2001* (Tarievenoverzicht leidingwater per 1 januari 2001) and the overview of the breakdown of domestic water consumption (table 8) comes from the VEWIN/NIPO report *A different pattern of consumption* (Een ander consumptiepatroon) of December 2001.

Structure of the publication

Readers who want to review the most significant sector data at a glance should find enough in the summary overview on the next page. After the summary overview a breakdown follows according to theme:

- *chapter 1*: the water companies, the supply areas and employment;
- *chapter 2*: water production and raw water sources;
- *chapter 3*: water sales;
- *chapter 4*: financial data (balance sheets, investments and taxes);
- *chapter 5*: infrastructure.

Water supply statistics available on internet

The water supply statistics are available on www.vewin.nl.

Other VEWIN reports

Besides the *Water Supply Statistics 2001* VEWIN produces other publications with information about water companies. A list of these can be found in appendix 1.

Summary overview

	1991	1996	2000	2001
General				
number of water companies	52	32	24	22 ¹⁾
employment as full-time equivalents ²⁾	8,449	7,682	6,803	6,114
drinking water connections (x 1,000) ³⁾	5,749	6,082	7,042	7,166
% metered	93	94	96	96
Production(million m³)				
<i>drinking water</i>				
own production	1,224	1,208	1,183	1,175
import balance and purchase from third parties	8	5	4	3
<i>other water</i>				
own production ⁴⁾	53	61	78	62
import balance and acquisition from third parties	6	6	7	7
Supply (million m³)				
<i>drinking water</i>				
small scale users	704	733	724	714
medium scale users	249	248	226	226
large scale users	211	181	178	179
water not charged	68	52	54	58
<i>other water</i>				
domestic water	.	.	0.08	0.18
other applications ⁴⁾	59	67	85	70
Income from deliveries (mln euro)				
<i>drinking water</i>				
small scale users	582	881	971	997
medium scale users	111	205	268	267
large scale users	101	160	179	171
<i>other water</i>				
domestic water	.	.	0.05	0.11
other applications ⁴⁾	9	19	39	29
Financial Data				
investments	304	396	419	426
taxes ⁵⁾	.	.	350	355

¹⁾ Exclusive of Nutsbedrijven Maastricht and Nutsbedrijf Amstelland, including Bronwaterleiding Doorn (see table 1).
²⁾ Number of employees on payroll calculated as people working full time.
³⁾ Since 2000 *administrative connections*, before 2000 technical connections. Definitions of technical and administrative connections are shown in table 1.
⁴⁾ Excluding production and supply by subsidiary and associate companies (approximately 55 million m³ in 2001). The drop in 2001 is due to the fact that of the figures of the Delta Nutsbedrijven group from 2001 only the activities of subsidiary Delta Drinkwater BV are taken into account, whereas prior to 2001 the water activities of the whole group were included. The production and deliveries of *other water* in 2001 by associate company Delta Water BV amounted to 21 million m³.
⁵⁾ A specification is given in table 11.

Chapter 1 The water companies

The water companies operating at the end of 2001 are shown in table 1. Figure 1 shows the relevant supply areas.

Almost all companies are limited liability companies with municipalities and provinces as shareholders. Exceptions to this are Gemeentewaterleidingen Amsterdam, a municipal company, and the private limited company BV Waterwinningsmaatschappij Oost-Veluwezoom, with the water companies NUON Water Gelderland and Waterbedrijf Gelderland as shareholders.

Watertransportmaatschappij Rijn-Kennemerland, Waterwinningsbedrijf Brabantse Biesbosch and Waterwinningsbedrijf Oost-Veluwezoom do not distribute drinking water and therefore have been shown in the table as production companies. NV Nutsbedrijf Amstelland, on the other hand, is a pure distribution company without having its own production facilities. All other companies both produce and distribute drinking water.

Figure 2 shows the development of employment in the drinking water sector in terms of full-time equivalents (ftes). This shows that the water companies are undertaking their work with steadily fewer people. The number of employees on the pay-roll of water companies dropped from 8,449 ftes in 1991 to 6,114 ftes in 2001 (-28%). Since 1999 the number of temporary personnel (-14% to 514 ftes in 2001) and the purchase of external services (calculated as ftes -21%, to 4,163 ftes in 2001) also decline.

Figure 1 Supply areas ¹⁾

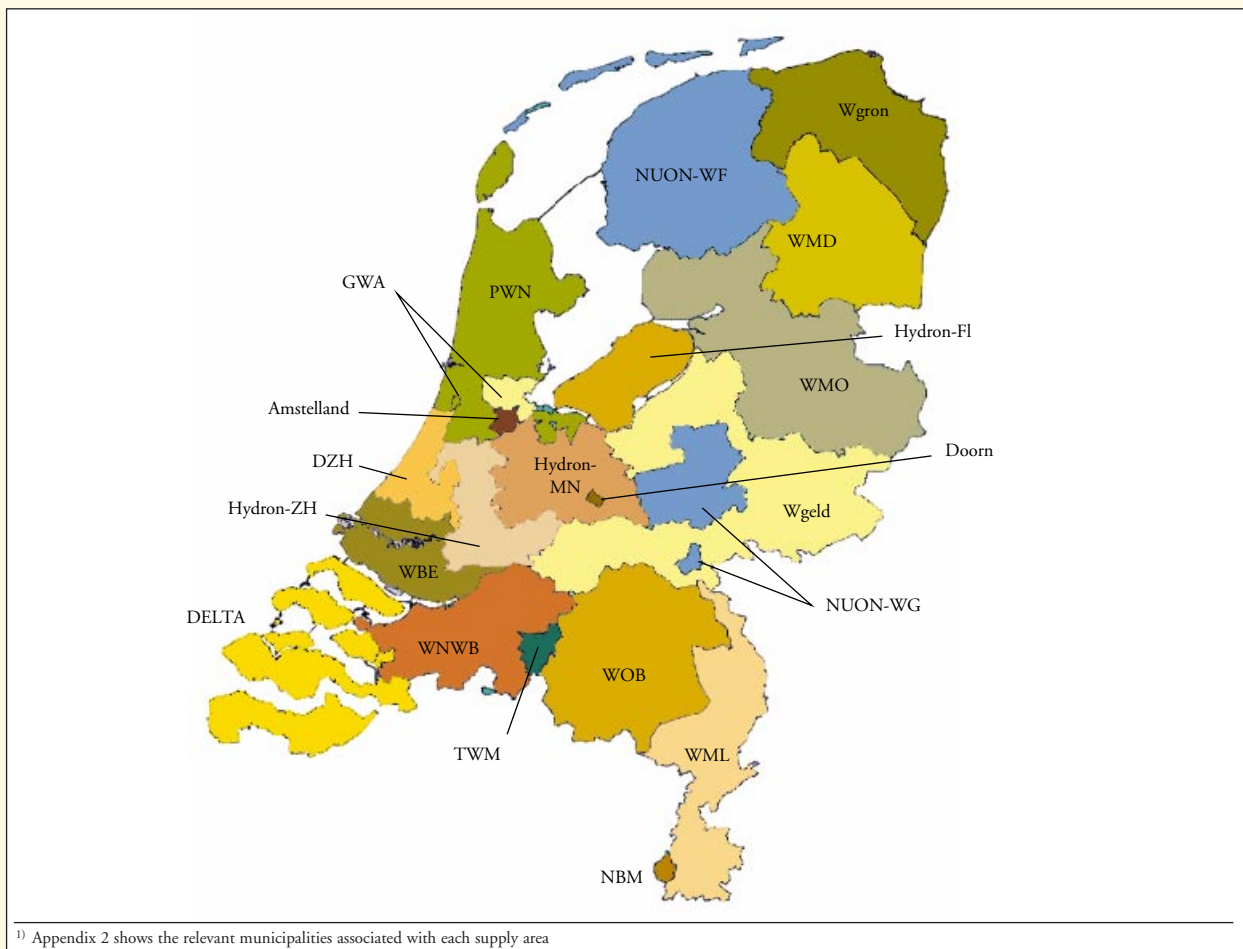
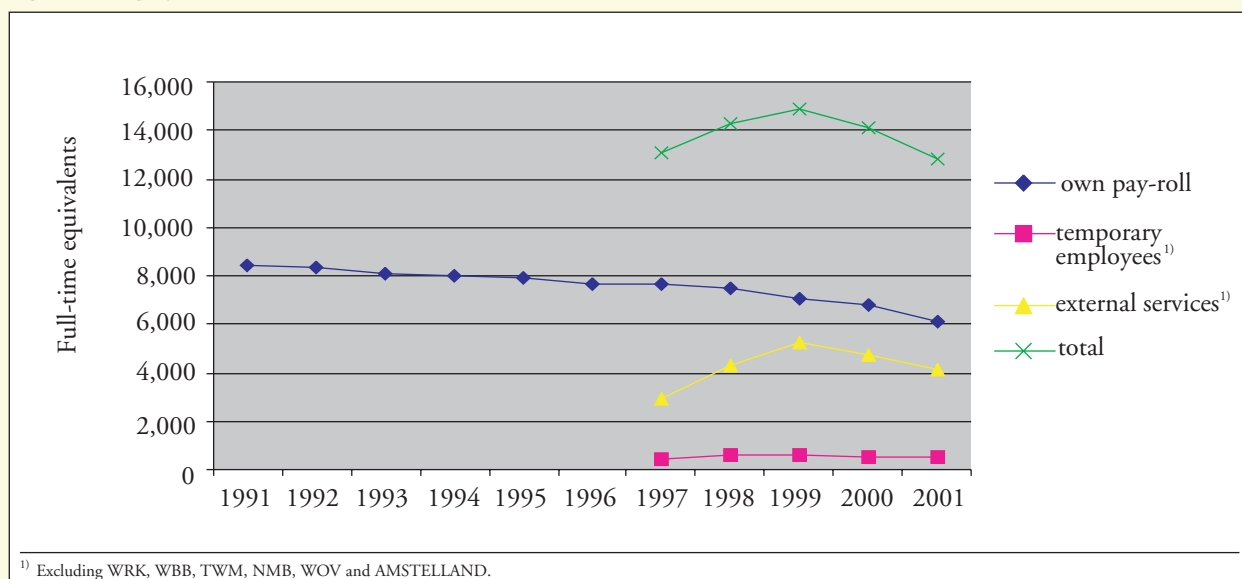


Table 1 Overview water companies 2001

company	code name	legal form ¹⁾	nature ²⁾	em- ployees (fte) ³⁾	technical connec- tions ⁴⁾	administra- tive connec- tions ⁵⁾	inhabitans in supply area
<i>x1000</i>							
Water companies on 31-12-2001⁶⁾							
Waterbedrijf Groningen	Wgron	LLC	PD	240	261	268	581
Waterleidingmaatschappij Drenthe	WMD	LLC	PD	179	180	187	425
NUON Water Fryslân ⁷⁾	NUON-WF	LLC	PD	229	280	282	630
Waterleiding Maatschappij Overijssel ⁷⁾	WMO	LLC	PD	446	491	495	1,171
Waterbedrijf Gelderland ⁷⁾	Wgeld	LLC	PD	418	517	513	1,288
NUON Water Gelderland ⁷⁾	NUON-WG	LLC	PD	73	260	294	656
Waterwinningsmaatschappij Oost-Veluwezoom ⁷⁾	WOV	PLC	P	-	-	-	-
PWN Waterleidingbedrijf Noord-Holland	PWN	LLC	PD	662	639	696	1,588
Gemeentewaterleidingen Amsterdam	GWA	M	PD	616	151	420	774
Watertransportmaatschappij Rijn Kennemerland	WRK	LLC	P	105	-	-	-
Duinwaterbedrijf Zuid-Holland	DZH	LLC	PD	555	347	566	1,147
Waterbedrijf Europoort	WBE	LLC	PD	452	478	732	1,482
Hydron Zuid-Holland	Hydron-ZH	LLC	PD	227	294	311	731
Hydron Flevoland	Hydron-Fl	LLC	PD	85	115	112	281
Hydron Midden-Nederland	Hydron-MN	LLC	PD	410	466	520	1,221
Delta Drinkwater	DELTA	PLC	PD	-	203	216	440
Waterleiding Maatschappij Noord-West-Brabant ⁸⁾	WNWB	LLC	PD	253	290	326	775
Waterleidingmaatschappij Oost-Brabant ⁸⁾	WOB	LLC	PD	509	537	591	1,400
Tilburgsche Waterleiding-Maatschappij	TWM	LLC	PD	96	71	90	198
Waterwinningsbedrijf Brabantse Biesbosch	WBB	LLC	P	54	-	-	-
Waterleidingmaatschappij Limburg	WML	LLC	PD	452	424	460	1,021
Separate statistical data							
Nutsbedrijf Amstelland ⁹⁾	AMSTELLAND	LLC	D	27	27	42	90
Nutsbedrijven Maastricht ¹⁰⁾	NBM	LLC	PD	28	34	44	97
The Netherlands				6,114	6,066	7,166	15,996
¹⁾ M = municipal company; LLC = limited liability company; PLC = private limited company. ²⁾ P = production company; D = distribution company; PD = production and distribution company. ³⁾ Full-time equivalents on own pay-roll. Delta Drinkwater employs external personnel only (200 fte). ⁴⁾ A technical connection consists of the distribution pipe between the mains network and the end user, including water meter (if present). ⁵⁾ An administrative connection is taken to mean a premises related to the technical connection (e.g. an apartment). ⁶⁾ The NV Bronwaterleiding Doorn was also in operation. This publication does not include data on this company which has an annual drinking water production touching 2.5 million m ³ . ⁷⁾ In may 2002 NUON Water Frylân, Waterleiding Maatschappij Overijssel, Waterbedrijf Gelderland, NUON Water Gelderland en Waterwinningsmaatschappij Oost-Veluwezoom merged to form Vitens NV. ⁸⁾ On 1 january 2002 Waterleidingmaatschappij Noord-West-Brabant and Waterleidingmaatschappij Oost-Brabant merged to form Brabant Water NV. ⁹⁾ This concerns municipalities Amstelveen and Ouder-Amstel whose water distribution was outsourced to Nutsbedrijf Amstelland. At the beginning of 2002 these municipalities became part of the water supply area of Gemeentewaterleidingen Amsterdam (with retroactive effect from 1 january 2002. On behalf of Gemeentewaterleidingen Amsterdam water distribution continues to be handled by Nutsbedrijf Amstelland. ¹⁰⁾ In november 2001 the water supply of Maastricht was taken over by Waterleidingmaatschappij Limburg.							

Figure 2 Employment



Chapter 2 Water production

~ *Water balance*

Figure 3 shows the water balance for the year 2001. It shows the amounts of water collected, produced and supplied for all companies together. Purchases from third parties (non-water companies) as well as imports and exports have also been included. Water extraction has been indicated per type of raw water source and according to processing method (*direct processing* and *infiltration*). Supply has been divided into supplies to differentiated sectors of final users and supplies between companies themselves (*wholesale supply*).

Chapter 3 discusses the water supply in greater detail. This chapter sheds greater light on water extraction and water production.

~ *Water extraction*

At the top of the water balance the quantities of water extracted are indicated per type of raw water source. In table 2 these figures are specified per company and figure 4 shows water extraction as of the year 1991. The use of surface water increased by 4.2 percentage points over the past ten years to reach 38.6% in 2001. At the same time the use of river groundwater and groundwater dropped by 2.4 percentage points (to a share of 60.2%) and the use of natural dune water dropped by 1.7 percentage points (to a share of 1.2%).

~ *Water production*

Table 3 shows the produced amounts of drinking water and *other water* by company. In 2001 water companies together produced 1,175 million m³ of drinking water; compared to 1,183 million m³ in 2000. Since 1991 drinking water production decreased by nearly 49 million m³ (-4.0%). This development has been indicated in figure 5.

Instead of drinking water ever more *other water* is being produced. This type of water is suitable for applications that require either a less rigorous quality than drinking water or indeed a higher quality (e.g. demi-water). Figure 6 shows that the production of *other water* rose from 53 million m³ in 1991 to 62 million m³ in 2001. Adding the production of subsidiaries and associate companies focusing on the production of *other water*, production in 2001 rose to 117 million m³ (+129%).

Figure 3 Water balance 2001 (in millions m³)

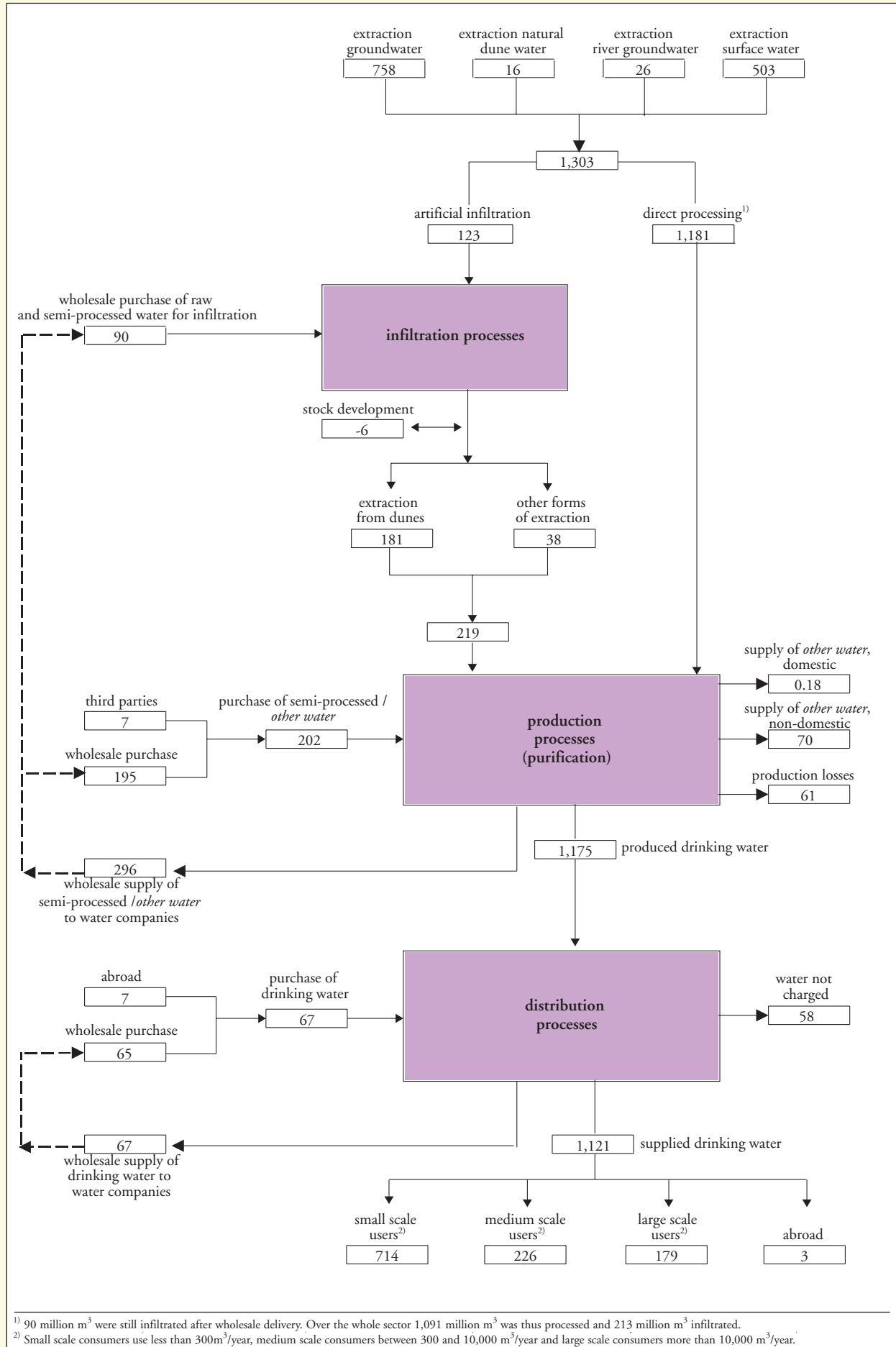


Table 2 Water extraction 2001

company	groundwater	river groundwater	natural dune water	surface water	total
	<i>million m³</i>				
Wgron	46	-	-	17	63
WMD	31	-	-	-	31
NUON-WF	49	-	-	-	49
WMO	67	6	-	6	79
Wgeld	81	-	-	1	82
NUON-WG	51	-	-	-	51
WOV	5	-	-	-	5
PWN	5	-	1	27	33
GWA	-	-	14	28	42
AMSTELLAND	-	-	-	-	-
WRK	1	-	-	153	154
DZH	-	-	-	74	74
WBE	4	-	-	-	4
Hydron-ZH	35	13	-	-	48
Hydron-Fl	24	-	-	-	24
Hydron-MN	78	-	-	-	78
DELTA	17	-	1	6	24
WNWB	66	-	-	-	66
WOB	110	-	-	-	110
TWM	13	-	-	-	13
WBB	-	-	-	190	190
WML	67	7	-	-	74
NBM	6	-	-	-	6
The Netherlands	758	26	16	503	1,303

Table 3 Water production 2001

company	drinking water	other water ¹⁾	total
	<i>million m³</i>		
Wgron	48	13	61
WMD	30	-	30
NUON-WF	46	-	46
WMO	76	0	76
Wgeld	80	2	82
NUON-WG	51	-	51
WOV	5	-	5
PWN	86	-	86
GWA	92	2	94
AMSTELLAND	-	-	-
WRK	-	150	150
DZH	80	0	81
WBE	144	-	144
Hydron-ZH	46	-	46
Hydron-Fl	18	5	23
Hydron-MN	79	0	79
DELTA	36	-	36
WNWB	65	9	73
WOB	104	1	106
TWM	13	-	13
WBB	-	174	174
WML	68	-	68
NBM	6	-	6
The Netherlands total	1,175	358	1,534
<i>wholesale delivery or other water</i>		296	296
net production	1,175	62	1,238

¹⁾ Excluding production by subsidiaries and associate companies (approximately 55 million m³), among which Delta Water BV (21 million m³).

Figure 4 Water extraction

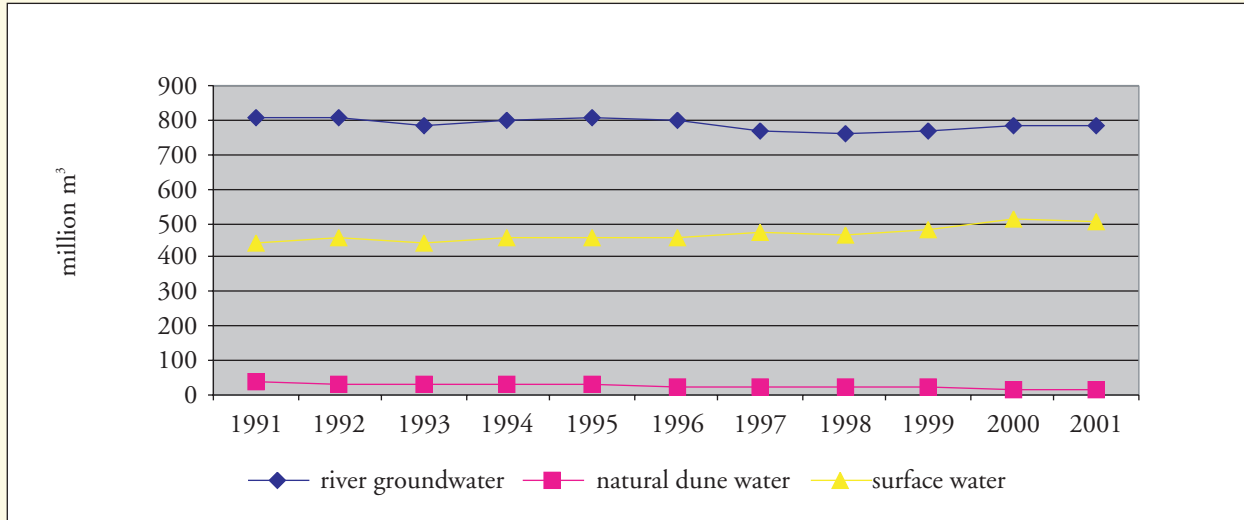


Figure 5 Production of drinking water

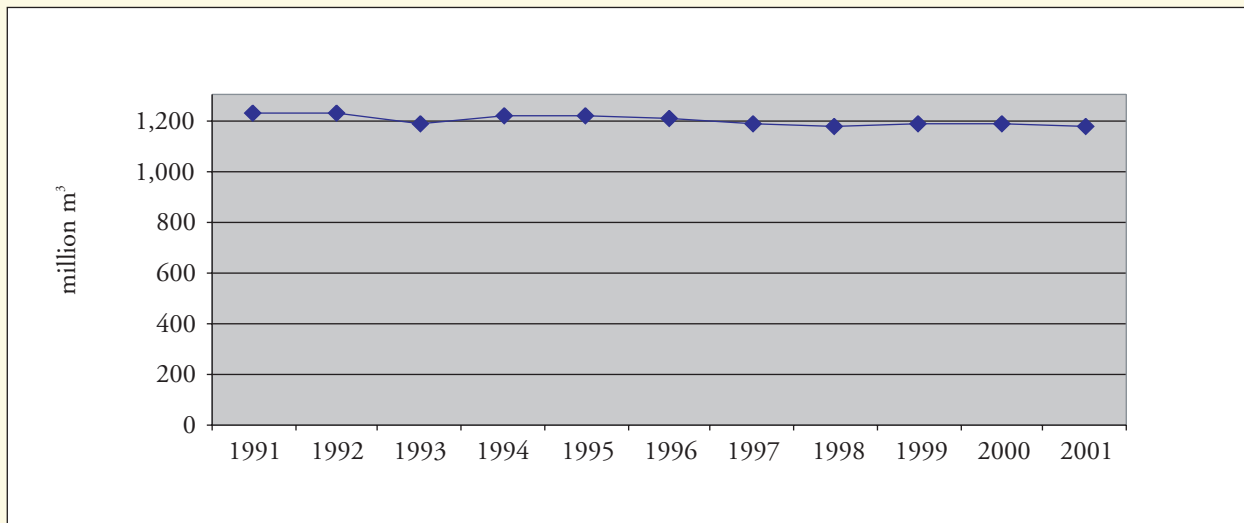
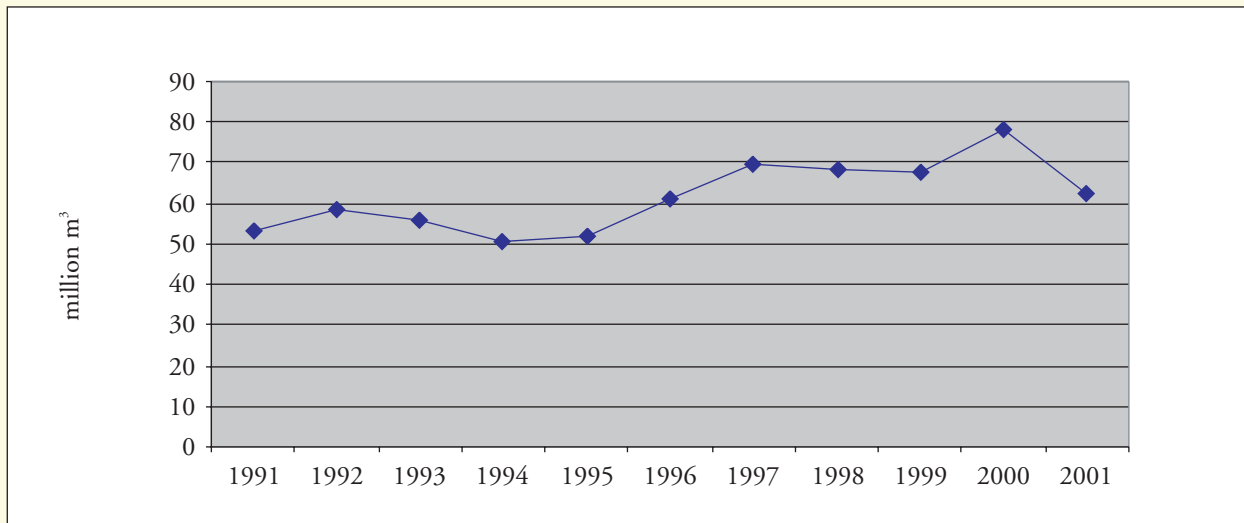


Figure 6 Production of other water ¹⁾



¹⁾ Excluding production by subsidiaries and associate companies (in 2001 approximately 55 million m³), which include as from 2001 other water from Delta Water BV (2001 production of other water was 21 million m³).

Chapter 3 Water sales

~ Water sales 2001

The Water balance 2001 (figure 3) shows the deliveries of drinking water and other water at national level. This chapter indicates the turnover and the number of connections related to the deliveries. For *Netherlands total* these details have been summarised in table 4. Some derived indices for the various consumer groups have also been indicated, such as the average consumption per connection and the average price per m³.

Table 4 Summary of water sales 2001

	connections ¹⁾	supply	average supply per connection	supply income ²⁾	average price ²⁾
		million m ³	m ³ /connection	million €	€/m ³
Drinking water					
<i>Final users</i>	7,165,593	1,118	156	1,435	1.28
of which small scale users	6,881,837	714	104	997	1.40
medium scale users	279,462	226	808	267	1.18
large scale users	4,294	179	41,751	171	0.96
<i>Wholesale sales</i>	.	67	.	33	0.50
<i>Exports</i>	.	3	.	.	.
Other water					
<i>Final users</i>	8,810	70	7,924	29	0.41
of which domestic users	8,500	0.18	21	0.18	1.01
other ³⁾	310	70	224,613	29	0.41
<i>Wholesale sales</i>	.	296	.	43	0.14
<i>Exports</i>	-	-	.	-	.
Total					
<i>Final users</i>	7,174,403	1,188	166	1,464	1.23
<i>Wholesale sales</i>	.	363	.	76	0.21
<i>Exports</i>	.	3	.	.	.

¹⁾ Administrative connections for drinking water, technical connections for other water.

²⁾ Consists of standing charges and the variable rate.

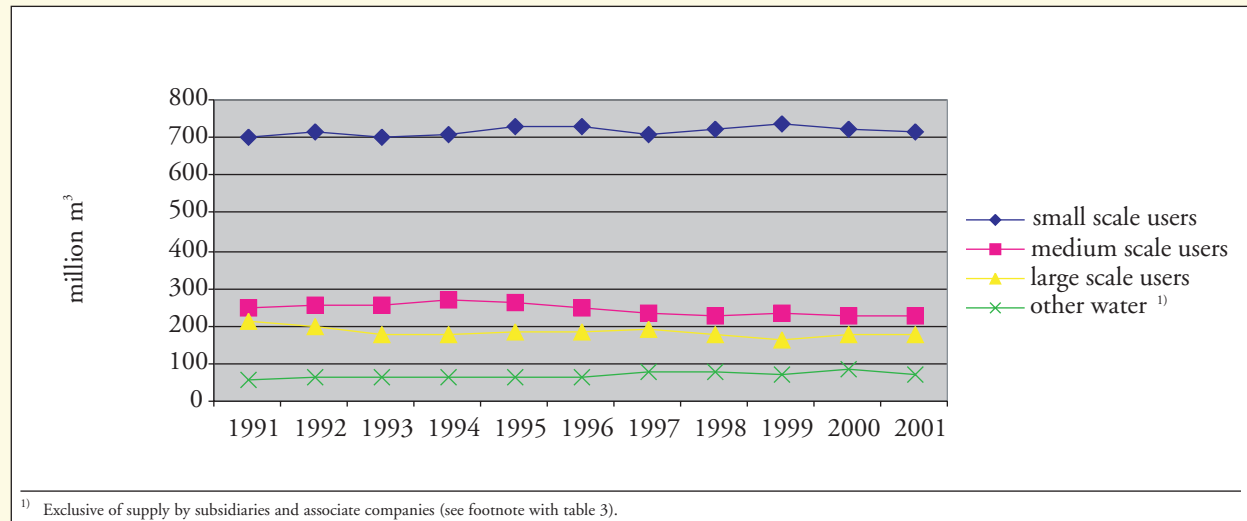
³⁾ Exclusive of sales by subsidiaries and associate companies (approximately 55 million m³).

Tables 5 and 6 show the connections, the supply and supply turnover respectively per consumer group. The figures for the large scale market in table 6 include exports and wholesale supplies. Only for total Netherlands (at the bottom of the table) is a distinction made between large scale final users, *wholesale* market and exports.

~ Sales development

Figure 7 shows the development of water supply to final users. It demonstrates that the total supplied amount is almost the same as ten years ago. There has been a slight shift between the various water sectors. Drinking water sales decreased by 45 million m³ (-3.9%) while the supply of other water, including the 55 million m³ by the subsidiaries as referred to in the footnote for table 3, increased by 66 million m³ (+112%). Within the drinking water sector, small scale consumption went up by 10 million m³ in the past ten years (+1.4%) with a simultaneous drop of sales to medium scale and large scale consumers by 54 million m³ (-11.9%).

Figure 7 Delivery to final users



~ Development of prices and income

Figure 8 shows the income development resulting from water supply, exclusive of indirect taxes (VAT and tap water taxation on the first 300 m³). Income rose from € 803 million in 1991 to € 1464 million in 2001.

The weighted average prices per consumer group calculated from the income and quantities supplied have been indicated in figure 9. The average price per m³ for all consumer groups increased from € 0.68 in 1991 to € 1.28 in 2001; the price of other water went up from € 0.15 to € 0.41.

Table 5 Connections on 31-12-2001¹⁾

company	technical connections ²⁾					administrative connections ³⁾			
	small scale users	medium scale users	large scale users	total	% metered	small scale users	medium scale users	large scale users	total
Wgron	251,409	9,097	198	260,704	97	258,845	9,097	198	268,140
WMD	172,067	8,110	99	180,276	99	179,234	8,110	99	187,443
NUON-WF	268,575	11,200	142	279,917	100	270,375	11,200	142	281,717
WMO	470,099	21,016	275	491,390	100	473,889	21,016	275	495,180
Wgeld	492,574	23,803	226	516,603	100	488,534	23,803	226	512,563
NUON-WG	241,362	18,898	163	260,423	100	275,017	18,898	163	294,078
WOV	-	-	-	-	-	-	-	-	-
PWN	619,676	19,164	112	638,952	100	676,942	19,164	112	696,218
GWA	132,601	18,353	427	151,381	14	401,313	17,714	614	419,641
AMSTELLAND	25,497	1,226	33	26,756	97	40,801	1,226	33	42,060
WRK	-	-	-	-	-	-	-	-	-
DZH	331,366	15,784	130	347,280	100	540,899	25,340	214	566,453
WBE	456,634	20,426	575	477,635	83	710,979	20,265	573	731,817
Hydron-ZH	283,698	9,901	122	293,721	100	301,449	9,901	122	311,472
Hydron-Fl	108,373	6,626	188	115,187	100	105,740	6,241	188	112,169
Hydron-MN	441,743	24,046	334	466,123	99	495,788	24,139	344	520,271
DELTA	202,063	783	152	202,998	99	215,191	613	125	215,929
WNWB	275,114	14,839	205	290,158	100	310,811	14,839	205	325,855
WOB	509,455	27,300	353	537,108	100	563,436	27,300	353	591,089
TWM	68,990	2,408	59	71,457	100	87,261	2,408	59	89,728
WBB	-	-	-	-	-	-	-	-	-
WML	405,742	17,825	218	423,785	100	441,608	18,032	218	459,858
NBM	34,000	156	31	34,187	100	43,725	156	31	43,912
The Netherlands	5,791,038	270,961	4,042	6,066,041	96	6,881,837	279,462	4,294	7,165,593

¹⁾ Small scale consumers use less than 300 m³/year, medium scale consumers between 300 and 10,000 m³/year and large scale consumers more than 10,000 m³/year.

²⁾ A technical connection consists of the distribution pipe between the mains network and the end user, including water metre (if present).

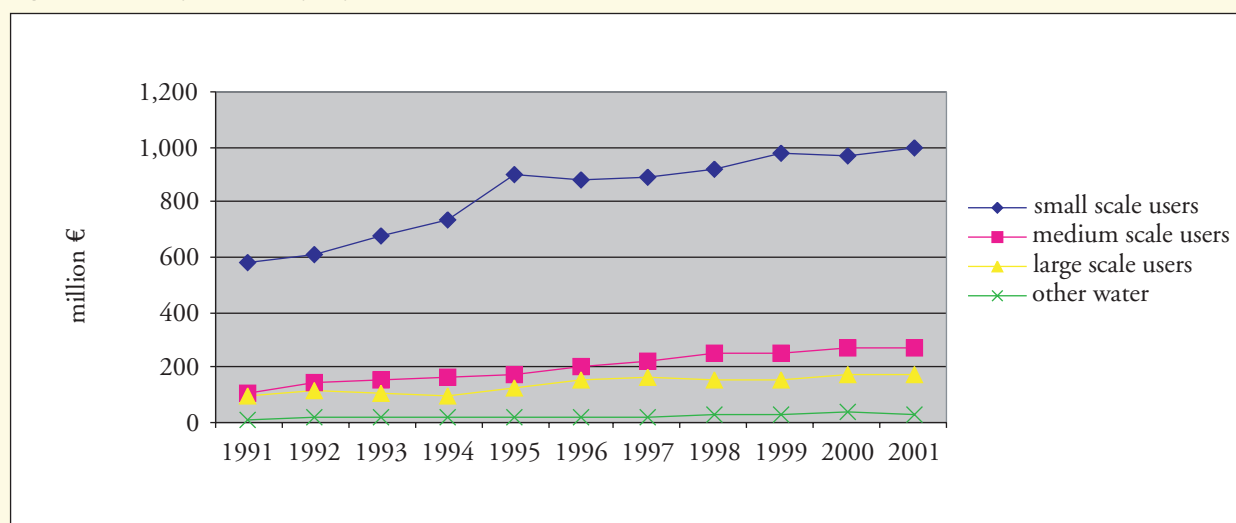
³⁾ An administrative connection is taken to mean a premises related to the technical connection (e.g. an apartment). A collective (technical) connection includes several administrative connections.

Table 6 Sales of drinking water 2001 ¹⁾

company	supply				income			
	small scale market	medium scale market	large scale market ²⁾	total	small scale market	medium scale market	large scale market ²⁾	total
	1000 m ³				1000 €			
Wgron	24,617	8,751	12,874	46,242	22,194	8,075	8,853	39,121
WMD	19,431	6,366	4,847	30,643	26,305	2,895	2,452	31,652
NUON-WF	25,571	12,527	5,984	44,082	34,175	15,537	5,248	54,959
WMO	48,836	17,962	9,356	76,154	63,664	22,206	12,034	97,904
Wgeld	52,479	24,403	10,157	87,040	68,774	25,544	6,408	100,725
NUON-WG	23,444	13,760	14,576	51,780	27,626	12,384	10,467	50,476
WOV	-	-	5,348	5,348	-	-	1,487	1,487
PWN	70,957	20,831	9,371	101,159	123,861	34,487	12,617	170,966
GWA	43,251	9,694	36,930	89,875	57,152	12,096	25,435	94,684
AMSTELLAND	3,236	1,456	740	5,432	9,114	3,340	1,608	14,062
WRK	-	-	-	-	-	-	-	-
DZH	48,058	14,772	16,274	79,103	88,685	18,891	15,950	123,526
WBE	84,320	8,332	46,673	139,325	119,606	9,124	36,945	165,675
Hydron-ZH	32,700	5,600	9,197	47,497	62,961	8,900	8,282	80,142
Hydron-Fl	10,856	3,128	3,570	17,555	15,096	2,592	2,488	20,176
Hydron-MN	46,451	21,124	8,358	75,933	48,968	21,108	8,439	78,515
DELTA	24,059	2,532	14,627	41,218	35,992	2,411	6,855	45,258
WNWB	34,199	11,570	16,910	62,679	43,439	12,826	11,874	68,139
WOB	63,095	24,375	14,127	101,597	70,620	29,029	13,626	113,276
TWM	9,051	1,966	2,032	13,049	7,107	1,544	1,772	10,423
WBB	-	-	-	-	-	-	-	-
WML	45,673	14,497	7,546	67,716	67,326	21,371	11,173	99,870
NBM	3,216	2,033	631	5,880	3,897	2,463	764	7,125
The Netherlands	713,501	225,679	250,127	1,189,307	996,561	266,823	204,776	1,468,160
of which								
wholesale			67,411	67,411			33,410	33,410
export			3,439	3,439			.	.
final sale	713,501	225,679	179,277	1,118,457	996,561	266,823	171,365	1,434,749

¹⁾ Small scale consumers use less than 300m³/year, medium scale consumers between 300 and 10,000 m³/year and large scale consumers more than 10,000 m³/year.
²⁾ The individual details shown in this table include *wholesale* and exports. For Netherlands at the bottom of the table a distinction is made between the final large scale market, *wholesale* sale and exports.

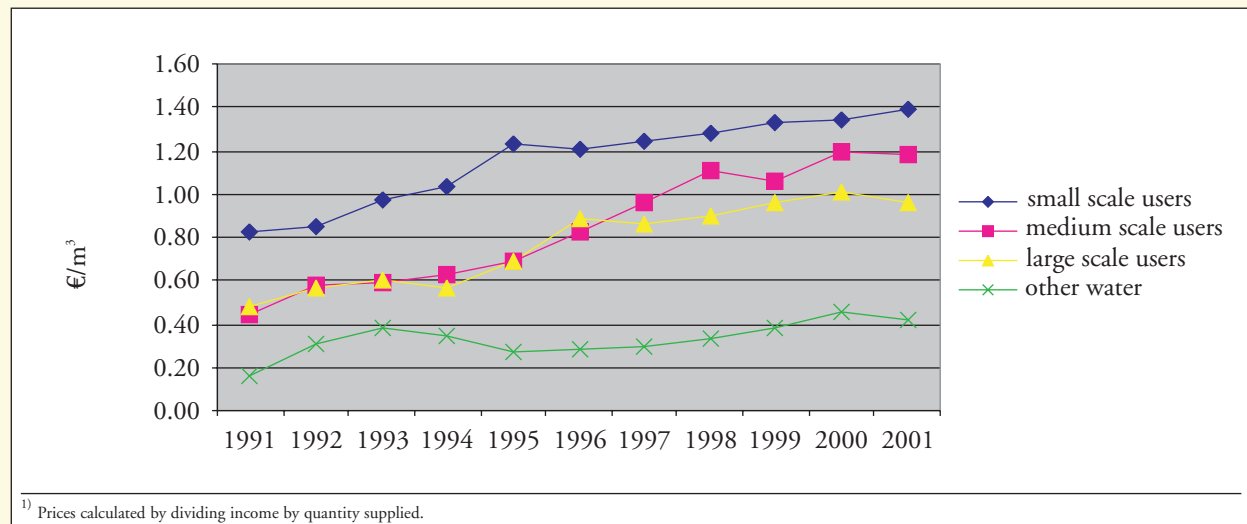
Figure 8 Income from delivery to final users



Some 29% of the increase of drinking water price is due to general depreciation (€ 0.18/m³); 20% is caused by the introduction of groundwater tax (€ 0.12/m³). Insufficient details are available to calculate the contribution of the other cost components.

More information on the costs of water production and supply activities is available in the report *Reflections on Performance 2000* (see appendix 4).

Figure 9 Price development ¹⁾



~ Rates

Table 7 shows the drinking water rates in 2001 for domestic use. The rates have been copied from the VEWIN publication *Overview of water charges on 1 January 2001* (Tarievenoverzicht leidingwater per 1 januari 2001). The outcome in the 'integral rate' column has been calculated using the standing charges and the variable rate, indicating the average drinking water price per m³ for a standard family (2.29 individuals) at average consumption (46 m³/individual/year). The formula used for calculation can be found in the table footnote.

~ Breakdown domestic drinking water consumption

Every three years VEWIN carries out research among the Dutch population on the breakdown of domestic water consumption. Table 8 shows the most important outcomes of the latest research.

The main uses of domestic drinking water are the shower (33%), the toilet (28%) and the washing machine (18%). The domestic water consumption per head per day between 1992 and 2001 dropped from 135.0 to 126.2 litres. This drop is expected to continue, inter alia because of the further sale of low water use toilets and washing machines. Despite the decline of domestic consumption per head, sales to small scale users did not decrease. This is due to growth of the population.

Table 7 Rates of drinking water to households 2001 ¹⁾

company	standing charge	variable per m ³	integral ²⁾
	€		
Wgron			
Province	24.64	0.82 ³⁾	0.82
City	37.30	1.38 ⁴⁾	1.39
WMD	30.75	0.84	1.14
NUON-WF	28.59	1.09	1.36
WMO	14.16	1.16	1.30
Wgeld	15.34	1.10	1.24
NUON-WG	28.59	0.88	1.15
PWN			
Algemeen	41.40	1.37	1.77
Haarlem, Bloemendaal, Zandvoort en Velsen	43.56	1.57	1.98
GWA			
General	39.48	1.28	1.65
Heemstede	39.48	1.28	1.65
AMSTELLAND			
Amstelveen	-	1.29	1.29
Ouder-Amstel	62.79	1.00	1.60
DZH			
General	45.20	1.36	1.79
Den Haag	60.26	1.36	1.93
Leiden	60.04	1.36	1.93
Warmond	52.37	1.36	1.85
Rijnwoude	49.46	1.36	1.83
Voorburg	49.64	1.36	1.83
WBE			
General	62.19	0.97	1.56
Delft	49.23	1.12	1.59
Westland	48.84	0.95	1.42
Hydron-ZH	45.47	1.29	1.72
Hydron-Fl	-	1.18	1.18
Hydron-MN	16.34	0.94	1.09
DELTA			
General	40.19	1.00	1.38
Putte, Ossedrecht en Woensdrecht	43.56	0.87	1.28
WNWB	43.56	0.87	1.28
WOB			
General	29.95	0.98	1.26
Helmond en Mierlo	29.95	1.04	1.33
TWM			
Tilburg	28.37	0.81	1.08
Goirle	28.37	0.79	1.06
WML	15.90	1.31	1.46
NBM	19.06	1.40	1.58

¹⁾ Metered houses. Exclusive 6% VAT and water tax (0.132 €/m³), including groundwater tax. Standing charges include distribution and concession reimbursements.

²⁾ The integral cost price per m³ calculated from the standing charges and variable rate for an average family of 2.29 individuals (CBS, 2001) and average consumption per individual of 46 m³ a year (VEWIN/NIPO, 2001).
Calculation: (standing charge + 2.29 x 46 x variable rate) / (2.29 x 46).

³⁾ Up to 30 m³ nil, more than 30 m³ € 0.82.

⁴⁾ Up to 26 m³ nil, more than 26 m³ € 1.38.

Table 8 Breakdown of domestic water consumption

	1992	1995	1998	2001
	<i>litres/person, day</i>			
bath	8.0	9.0	6.7	3.7
shower	39.5	38.3	39.7	42.0
washbasin	3.7	4.2	5.1	5.2
toilet flush	42.7	39.0	36.2	34.8
washing, by hand	2.5	2.1	2.1	1.8
washing, by machine	23.2	25.5	23.2	22.8
washing up, by hand	8.8	4.9	3.8	3.6
washing up, by machine	0.7	0.9	1.9	2.4
food preparation	2.6	2.0	1.7	1.6
drinking coffee, thea and water	.	1.5	1.5	1.5
other	3.3	6.7	6.1	6.7
total	135.0	134.1	127.9	126.2

Source: report on domestic water consumption by VEWIN/NIPO 2001.

Chapter 4 Financial data

Chapter 3 deals at length with water sales. This chapter discusses the financial balance sheet, investments and taxes.

~ Financial balance sheet

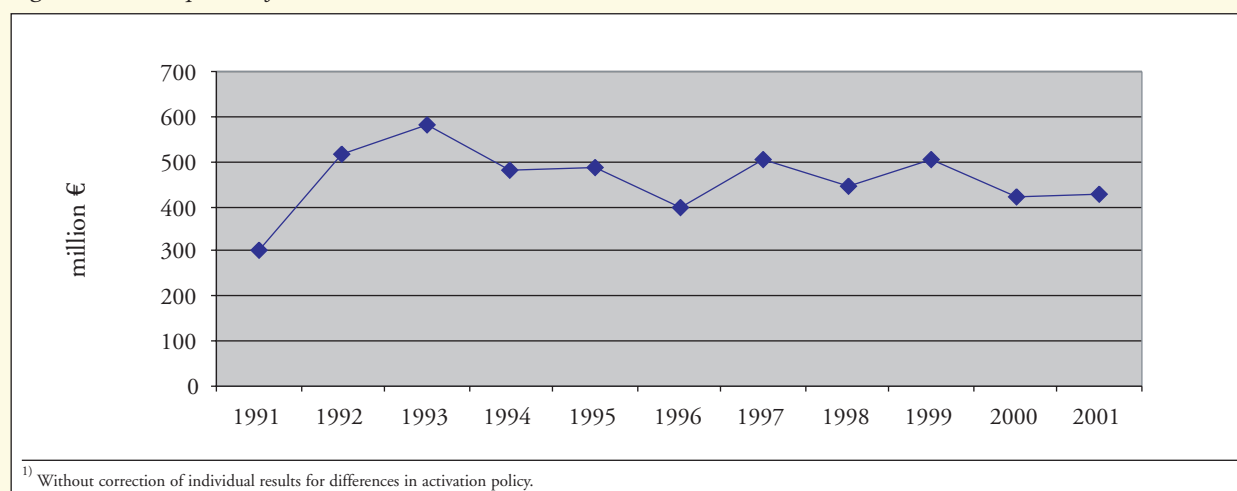
Table 9 shows the financial balance sheet of the water sector. The balance was created by aggregating the individual figures of the companies, most of which was valued at historical cost price. One single deviation to this system has not been corrected.

The total balance sheet assets at the end of 2001 were € 5.6 billion, of which € 1.2 billion (22.2%) was financed with own capital, € 3.8 billion (67.9%) with loan capital and € 0.6 billion (9.9%) with other capital (contributions from third parties and contingencies).

Table 9 Financial balance sheet on 31-12-2001 (million €)

Assets		Liabilities	
<i>fixed assets</i>		<i>shareholders' equity</i>	
- tangible fixed assets	4,975	- share capital	125
- intangible fixed assets	99	- reserves	1,113
- financial fixed assets	190	<i>other capital</i>	
- total	5,264	- contributions from third parties	399
<i>current assets</i>		- contingencies	153
- stocks	22	<i>long-term loan capital</i>	
- account receivables/debtors	272	<i>short-term loan capital</i>	2,890
- liquid assets/cash	23	- loans	491
- total	317	- creditors	188
		- advances	17
		- other	203
		- total	900
Total	5,580	Total	5,580

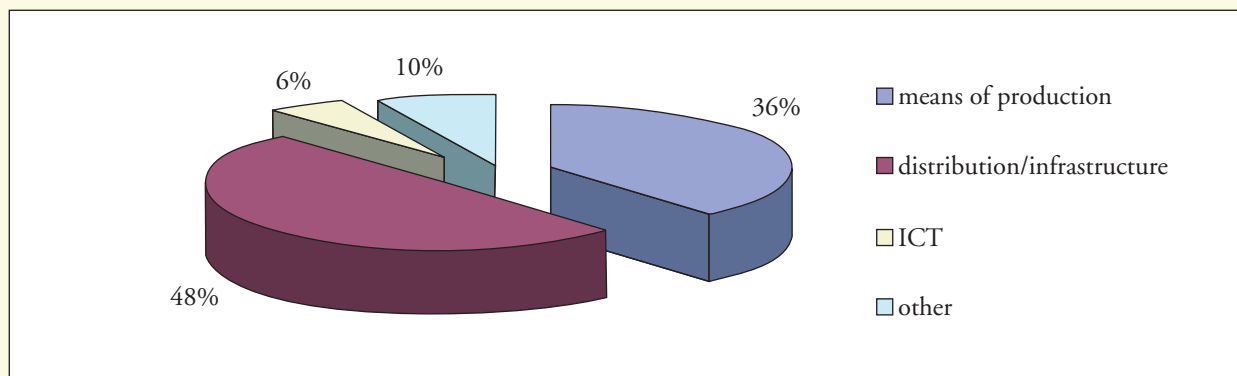
Figure 10 Development of investments ¹⁾



~ *Investments*

The development of investments by the water companies is shown in figure 10. Since 1992 investment levels have fluctuated around € 0.5 billion a year. In 2001 investments amounted to € 426 millions, of which 49% was invested in distribution processes, 36% in production processes and 6% in information and communication technology.

Figure 11 Investments by process 2001



~ *Taxes*

Table 10 shows the development in rates of the national ground water tax and the tap water tax. Both taxes are based on the Environmental Resource Tax Act (Wet Belastingen op Milieugrondslag). The table does not include the provincial groundwater levies on the basis of the Ground Water Act (Grondwaterwet) and the distribution and concession reimbursements. The provincial groundwater levies vary per province whereas distribution and concession reimbursements vary per municipality. The latter are only levied in a limited number of municipalities.

Table 10 Water tax rates under the water Resource Tax Act

	1995 - 1998	1999	2000	2001
	<i>euro-cent/m³</i>			
<i>groundwater tax</i>				
normal rate	15.4	15.8	16.0	16.3
infiltration discount ¹⁾	12.7	13.2	13.4	13.7
rate for OEDI's ²⁾			5.2	5.3
<i>tap water tax</i> ³⁾			12.9	13.2

¹⁾ Discount on normal rate with prior infiltration (Water Resource Tax Act, article 6).
²⁾ Groundwater extraction preceded by river water infiltration and depth infiltration. The rate applies insofar the amount of groundwater extracted in one year does not exceed the amount infiltrated in that year.
³⁾ Tax on drinking water and *other water* that is supplied by a water company. The tax only applies to the delivery of the first 300 m³.

The average tax load resulting from the provincial groundwater levies and the distribution and concession reimbursements is determined by dividing the paid tax amounts by the total drinking water supplied to final users (1,118 million m³, see table 4). Table 11 shows the outcomes of this, along with other taxes. Allocated over the total drinking water supply the provincial groundwater levy amounts to 1.0 euro-cent/m³; distribution and concession reimbursements to 0.6 euro-cent/m³. Allocated over drinking water from groundwater or infiltrated water (together almost 70% of total drinking water supply) average tax load of the provincial groundwater levy amounts to 1.4 euro-cent/m³.

In 2001, the total tax load was € 355 million, of which € 345 million was allocated to drinking water supplied to final users, that is € 0.31 per m³ of drinking water.

The drinking water taxes include € 147 million (€ 0.13/m³) from direct taxes (cost-price increasing) and € 198 million (€ 0.18/m³) from indirect taxes. The indirect taxes are collected from consumers by the drinking water companies on behalf of the government. Though consumers must pay these taxes to the water company (on top of the price charged by the water company), they are not part of companies' turnover.

Table 11 Taxes 2001

	total	drinking water share ¹⁾	
	levy	levy	levy per m ³ ²⁾
	million €		€/m ³
direct taxes (cost-price increasing)			
national groundwater tax	137	129	0.12
provincial groundwater levy	12	11	0.01
distribution and concession reimbursements	7	7	0.01
total	156	147	0.13
indirect taxes			
tap water tax ³⁾	105	105	0.09
VAT on water sales ⁴⁾	88	86	0.08
VAT on tap water tax ⁵⁾	6	6	0.01
total	200	198	0.18
total	355	345	0.31

¹⁾ The drinking water share has been calculated. On calculation of the direct taxes the outcomes of the 2001 benchmark were used, which differentiates drinking water activities and non-drinking water activities. The share of the drinking water activities in taxes amounts to 94.5% for the national groundwater tax, 94.4% for provincial groundwater levy and 99.6% for piping and concession reimbursements. The calculation of the indirect taxes is shown in footnotes 3 to 5.

²⁾ The drinking water levy calculated in the previous column divided by the drinking water supplied to final users (1,118 million m³).

³⁾ Levy estimated as follows: supply of small scale drinking water x rate for tap water tax (€ 0.132/m³) + medium scale and large scale administrative connections for drinking water x 300 m³ x rate for tap water tax + (in the total column) supply of other water for domestic use x rate for tap water tax +(in the total column) non-domestic connections for other water x 300 m³ x rate for tap water tax.

⁴⁾ Calculated as follows: income from water delivered to final users x 6%, respectively income from drinking water delivered to final users x 6%.

⁵⁾ Calculated as follows: previously calculated tax on tap water x 6% (VAT is also levied over tax on tap water).

Table 12 Average drinking water price 2001

	€/m ³	%
reimbursement for the water company	1.15	78.8
cost-price increasing taxes	0.13	8.9
<i>average tariff</i>	<i>1.28</i>	
tap water tax and VAT	0.18	12.3
<i>total amount due per average consumer</i>	<i>1.46</i>	

Table 12 shows the build-up of the average drinking water price in 2001 of all consumer groups together. In the case of small scale consumers (< 300 m³) tap water tax applies to the whole consumption, as a result of which tax load for this consumer group exceeds the above average tax load of all final users together. Tax load for small scale consumers is € 0.35 per m³. Table 13 shows the build-up of the average drinking water price for small scale consumers.

Table 13 Average drinking water price 2001 for small scale consumers

	<u>€/m³</u>	<u>%</u>
reimbursement for the water company	1.27	78.4
cost-price increasing taxes	<u>0.13</u>	8.0
<i>average tariff</i>	<i>1.40</i>	
tap water tax and VAT ¹⁾	<u>0.22</u>	13.6
<i>total amount due per average small-scale consumer</i>	<u>1.62</u>	

¹⁾ € 0.132 + 6% VAT x (€ 1.40 + € 0.132)

Chapter 5 Infrastructure

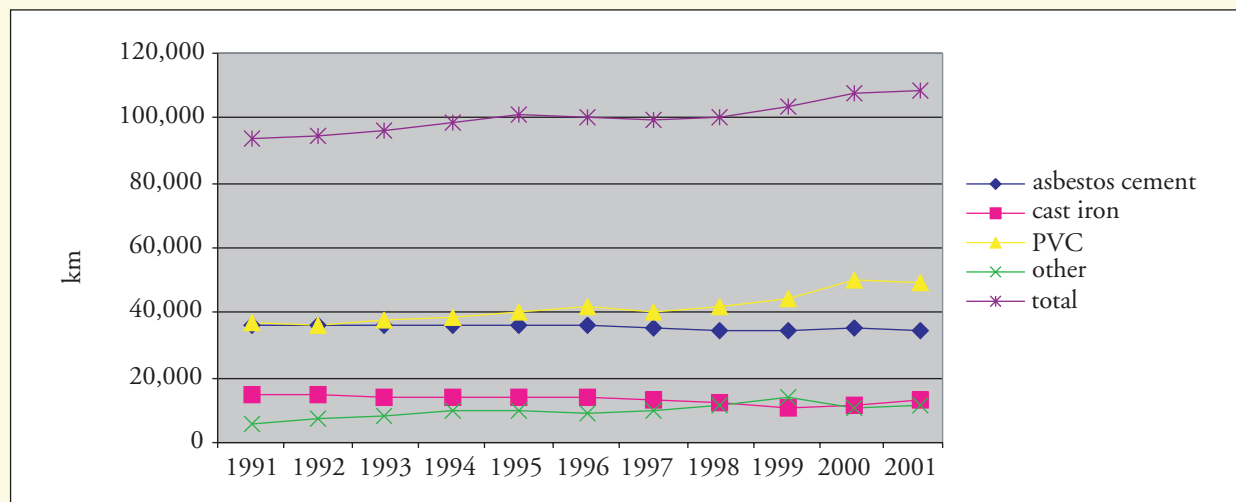
Table 14 gives an overview of the length and structure of the transport and mains supply network as on 31 december 2001. The development of the network length and the most applicable materials asbestos cement, PVC and cast iron are shown in figure 12. In this figure all other materials are referred to under 'other'.

Table 14 Length and structure of the transport and mains supply network on 31-12-2001 ¹⁾

company	total	asbestos cement	cast iron	nodular cast iron	steel	concrete	PVC	poly- ethene (PE)	glass fibre reinforced synthetics	other
<i>kilometre</i>										
Wgron	4,625	1,463	776	-	106	17	-	2,263	-	-
WMD	4,085	1,538	252	-	-	-	2,271	-	-	24
NUON-WF	6,788	2,382	681	-	25	22	3,594	84	-	-
WMO	11,854	1,857	1,079	4	2	26	8,632	252	-	2
Wgeld	12,917	3,731	926	-	97	-	8,069	94	-	-
NUON-WG	3,319	647	804	27	5	-	1,680	71	-	85
WOV	-	-	-	-	-	-	-	-	-	-
PWN	9,479	4,707	1,020	434	153	196	1,769	1,176	21	3
GWA	2,266	11	784	388	63	188	538	144	3	147
AMSTELLAND	371	55	11	-	-	-	286	19	-	-
WRK	332	-	-	-	-	332	-	-	-	-
DZH	4,221	781	975	128	23	107	1,617	277	-	313
WBE	6,333	961	344	13	536	33	3,868	497	-	81
Hydron-ZH	3,754	467	235	59	190	2	2,276	519	1	5
Hydron-Fl	2,174	496	-	-	5	-	1,586	83	-	4
Hydron-MN	6,141	1,764	1,150	8	34	39	2,517	601	2	26
DELTA	4,452	2,337	176	-	137	38	1,687	73	1	3
WNWB	6,049	2,027	712	-	38	5	3,197	47	-	23
WOB	10,423	5,169	699	-	43	35	4,432	29	-	16
TWM	810	125	297	59	3	<1	319	1	6	<1
WBB	25	-	-	-	18	7	-	-	-	-
WML	7,583	4,134	1,709	1,200	-	-	540	-	-	-
NBM	420	37	252	-	-	-	131	-	-	-
The Netherlands	108,421	34,689	12,882	2,320	1,478	1,047	49,009	6,230	34	732

¹⁾ Diameter > 50 mm external, PVC and PE > 63 mm external.

Figure 12 Development of length and structure of the transport and mains supply network



Appendix 1

LIST OF VEWIN PUBLICATIONS

	price non-members	price members
Statistics		
Water in Zicht, Bedrijfsvergelijking in de Drinkwatersector 2000 (benchmark report) ¹⁾	€ 27.20	€ –
Reflections on Performance 2000; Benchmarking in the Dutch Drinking Water Industry (www.vewin.nl) ¹⁾	€ 6.80	€ 2.30
CD-ROM Statistiek Waterkwaliteit (water quality statistics) ²⁾	€ 135.60	€ 36.80
Tarievenoverzicht leidingwater (overview of water charges) ¹⁾	€ 12.00	€ –
Other		
Jaarboek voor de Waterleiding in Nederland (water supply yearbook) ¹⁾	€ 18.15	€ 12.50
Wegwijzer Waterkwaliteit (guide to water quality) ¹⁾	€ 56.70	€ 38.60
140 jaar Drinkwaterleiding in Nederland (1853-1993) (140 years of drinking water in the Netherlands) ¹⁾	€ 13.60	€ 11.35
All about Dutch drinking water ¹⁾	€ 6.80	€ 3.40

¹⁾ Including 6% VAT

²⁾ Including 19% VAT

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Appendix 2

SUPPLY AREAS AND RELATED MUNICIPALITIES 2001

- ~ *Waterbedrijf Groningen*
All Groningen gemeenten and the municipality of Tynaarlo (Eelde-Paterswolde).
- ~ *Waterleidingmaatschappij Drenthe*
Aa and Hunze, Assen, Borger-Odoorn, Coevorden, De Wolden, Emmen, Hoogeveen, Midden-Drenthe, Noorderveld, Westerveld (partly) and Tynaarlo (partly).
Supplies to a number of areas in Hoogezand-Sappemeer, Leek, Meppel, Onstwedde and Ooststellingwerf.
- ~ *NUON Water Fryslân*
All Friesland municipalities.
- ~ *Waterleiding Maatschappij Overijssel*
Almelo, Bathmen, Borne, Dalfsen, Denekamp, Deventer, Diepenveen, Enschede, Hardenberg, Havelte, Hellendoorn, Hengelo (O), Hof van Twente, Kampen, Losser, Meppel, Noordoostpolder, Oldenzaal, Olst, Ommen, Raalte, Rijssen, Staphorst, Steenwijk, Tubbergen, Urk, Vriezenveen, Wierden, Zwartewaterland and Zwolle.
- ~ *Waterbedrijf Gelderland*
Aalten, Angerlo, Barneveld, Bemmelen, Bergh, Beuningen, Borculo, Buren, Culemborg, Didam, Dinxperlo, Dodewaard, Doesburg, Doetinchem, Druten, Duiven, Echteld, Eibergen, Elburg, Epe, Ermelo, Geldermalsen, Gendringen, Gorssel, Groenlo, Groesbeek, Haaksbergen, Harderwijk, Hattem, Heerde, Hengelo (Gld), Heumen, Hummelo and Keppel, Kesteren, Lichtenvoorde, Lingewaal, Lochem, Maasdriel, Millingen aan de Rijn, Neede, Nierjnen, Nijkerk, Nunspeet, Oldebroek, Overbetuwe, Putten, Rijnwaarden, Ruurlo, Steenderen, Tiel, Ubbergen, Voorst, Vorden, Warnsveld, Wehl, West-Maas and Waal, Westervoort, Wijchen, Winterswijk, Wisch, Zaltbommel, Zelhem, Zevenaar and Zutphen.
- ~ *NUON Water Gelderland*
Apeldoorn, Arnhem, Ede, Nijmegen, Renkum, Rheden, Rozendaal and Wageningen.
- ~ *PWN Waterleidingbedrijf Noord-Holland*
Aalsmeer, Akersloot, Alkmaar, Amstelveen (partly), Andijk, Anna Palowna, Beemster, Bennebroek, Bergen NH), Beverwijk, Blaricum, Bloemendaal, Bussum, Castricum, Drechterland, Edam-Volendam, Enkhuizen, Graft-de Rijp, 's-Graveland, Haarlem, Haarlemmerliede c.a., Haarlemmermeer, Harenkarspel, Heemskerk, Heerhugowaard, Heiloo, Den Helder, Hoorn, Huizen, Landsmeer, Langedijk, Laren, Limmen, Medemblik, Naarden, Nederhorst den Berg, Niedorp, Noorder-Koggenland, Obdam, Oostzaan, Opmeer, Purmerend, Schagen, Schermer, Stede Broec, Texel, Uitgeest, Uithoorn, Velsen, Venhuizen, Waterland, Weesp, Wervershoof, Wester-Koggenland, Wieringen, Wieringermeer, Wognum, Wormerland, Zaanstad, Zandvoort, Zeevang, Zijpe. Supplies to a number of areas in the municipalities of Alkemade, Amsterdam, Eemnes, Heemstede, Hillegom, Hilversum, Leimuiden, Loos-drecht, Muiden and Warmond.
- ~ *Gemeentewaterleidingen Amsterdam*
Amsterdam, Diemen, Heemstede and Muiden. Supplies to areas in a number of surrounding municipalities.
- ~ *Nutsbedrijf Amstelland*
Amstelveen and Ouder-Amstel.

~ *Duinwaterbedrijf Zuid-Holland*

Bergschenhoek, Berkel en Rodenrijs, Bleiswijk, 's-Gravenhage, Hillegom, Katwijk, Leiden, Leidschendam, Lisse, Nieuwerkerk a/d IJssel, Noordwijk, Noordwijkerhout, Nootdorp, Oegstgeest, Pijnacker, Rijnsburg, Rijnwoude, Rijswijk, Sassenheim, Valkenburg, Voorburg, Voorhout, Voorschoten, Warmond, Wassenaar, Zevenhuizen-Moerkapelle and Zoetermeer.

~ *Waterbedrijf Europoort*

Albrandswaard, Barendrecht, Bernisse, Binnenmaas, Brielle, Capelle a/d IJssel, Cromstrijen, De Lier, Delft, Dordrecht, 's-Gravendeel, 's-Graven-zande, Heerjansdam, Hellevoetsluis, Korendijk, Maasland, Maassluis, Monster, Naaldwijk, Oud-Beijerland, Rotterdam, Rozenburg, Schiedam, Schipluiden, Spijkenisse, Strijen, Vlaardingen, Wateringen and Westvoorne.

~ *Hydron Zuid-Holland*

Alblasserdam, Alkemade, Alphen a.d. Rijn, Bergambacht, Bodegraven, Boskoop, Giessenlanden, Gorinchem, Gouda, Hardinxveld-Giessendam, Graafstroom, Hendrik Ido Ambacht, Jacobswoude, Krimpen a.d. IJssel, Leerdam, Leiderdorp, Liemeer, Liesveld, Moordrecht, Nederlek, Nieuw-Lekkerland, Nieuwkoop, Ouderkerk, Papendrecht, Reeuwijk, Ridderkerk, Rijnwoude, Schoonhoven, Sliedrecht, Ter Aar, Vianen, Vlist, Waddinxveen, Zederik, Zoeterwoude and Zwijndrecht.

~ *Hydron Flevoland*

Almere, Dronten, Lelystad and Zeewolde.

~ *Hydron Midden-Nederland*

Abcoude, Amerongen, Amersfoort, Baarn, De Bilt, Breukelen, Bunnik, Bunschoten, De Ronde Venen, Driebergen-Rijsenburg, Eemnes, Hilversum, Houten, Leersum, Leusden, Loenen, Loosdrecht, Lopik, Maarn, Maarssen, Montfoort, Nieuwegein, Oudewater, Renswoude, Rhenen, Scherpenzeel, Soest, Utrecht, Veenendaal, Woerden, Woudenberg, Wijk bij Duurstede, IJsselstein and Zeist. Supplies to a number of areas in Kortenhoef.

~ *Bronwaterleiding Doorn*

Doorn.

~ *Delta Drinkwater*

Axel, Bergen op Zoom (Halsteren), Borsele, Dirksland, Goedereede, Goes, Hontenisse, Hulst, Kapelle, Middelburg, Middelharnis, Noord-Beveland, Oostburg, Oostflakkee, Reimerswaal, Sas van Gent, Schouwen-Duiveland, Sluis-Aardenburg, Terneuzen, Tholen, Veere, Vlissingen and Woensdrecht.

~ *Waterleiding Maatschappij Noord-West-Brabant*

Aalburg, Alphen-Chaam, Baarle-Hertog, Baarle-Nassau, Bergen op Zoom, Breda, Dongen, Drimmelen, Etten-Leur, Geertruidenberg, Gilze and Rijen, Goirle (partly), Halderberge, Heusden (partly), Loon op Zand, Moerdijk, Oosterhout, Roosendaal, Rucphen, Steenbergen, Tholen (partly), Tilburg (partly), Waalwijk, Werkendam, Woensdrecht (partly), Woudrichem and Zundert.

~ *Waterleiding Maatschappij Oost-Brabant*

Asten, Bergeyk, Bernheze, Best, Bladel, Boekel, Boxmeer, Boxtel, Cranendonck, Cuyk, Deurne, Eersel, Eindhoven, Geldrop, Gemert-Bakel, Grave, Haaren, Heeze-Leende, Helmond, 's-Hertogenbosch, Heusden (partly), Hilvarenbeek, Laarbeek, Landerd, Lith, Maasdonk, Mierlo, Mill en Sint Hubert, Nuenen, St. Michielsgestel, St. Oedenrode, Oirschot, Oisterwijk, Oss, Ravenstein, Reusel-de Mierden, Schijndel, Someren, Son and Breugel, St. Antonis, Tilburg (partly), Uden, Valkenswaard, Veghel, Veldhoven, Vught and Waalre. Supplies to a number of areas in Nederweert.

~ *Tilburgsche Waterleiding-Maatschappij*

Tilburg and Goirle. Supplies to a number of areas in Hilvarenbeek.

~ *Waterleidingmaatschappij Limburg*

Ambt Montfort, Arcen and Velden, Beek, Beesel, Bergen (L), Brunssum, Echt, Eijsden, Gennep, Gulpen/Wittem, Haelen, Heel, Heerlen, Helden, Heythuysen, Horst aan de Maas, Hunsel, Kerkrade, Kessel, Landgraaf, Maasbracht, Maasbree, Maastricht (partly), Margraten, Meerlo-Wanssum, Meerssen, Meijel, Mook and Middelaar, Nederweert, Nuth, Onderbanken, Roerdalen, Roermond, Roggel en Neer, Schinnen, Sevenum, Simpelveld, Sittard-Geleen, Stein, Stramproy/Weert, Susteren, Swalmen, Thorn, Vaals, Valkenburg a.d. Geul, Venlo, Venray and Voerendaal.

~ *Nutsbedrijven Maastricht*

Maastricht.

Appendix 3

EXPLANATION OF SIGNS AND DEFINITIONS

Tekens

- . = data are missing
- 0 = the figure is less than half the chosen unit
- = nil
- nothing (blank) = data not available for logical reasons

Definitions

~ *water company:*

- a. a company (partially) destined for public drinking water facilities by providing drinking water for consumers;
- b. a company (partially) destined to deliver wholesale drinking water on large scale to companies as referred to under a;
- c. a company, destined for public drinking water facilities by providing drinking water for consumers, and for delivery of wholesale drinking water to companies as referred to under a.

~ *drinking water*

Water (partially) destined for human use.

~ *other water*

Water not having the quality of drinking water. For instance, non-filtered and semi-filtered water as well as distilled and demineralised.

~ *supply area*

The municipality(ies) and/or part(s) of the municipality(ies), where a water company delivers water.

~ *production/produced*

The amount of water pumped by one or more purification stations into the pipeline.

~ *wholesale delivery*

Mutual delivery between water companies, or inter-company deliveries.

~ *third parties*

Company or institution not being a water company.

~ *natural dune water*

This is groundwater naturally present in the dunes. Water supplied by man from external sources (artificial infiltration) is not considered natural dune water.

~ *artificial infiltration:*

Feeding water into a so-called infiltration area where the water sinks through the soil. After a certain period the water, partially purified by its passage through the soil, is pumped up to be processed into drinking water. A special form of artificial infiltration is depth infiltration, whereby the water does not sink through the soil, but is simply pumped directly deep underground.

- ~ *direct processing*
Production of water without previous artificial infiltration.
- ~ *river groundwater*
Water that is extracted from ground that is physically close to open water or a river and besides groundwater, consists of at least 10% infiltrated surface water.
- ~ *technical connection*
A technical connection consists of the pipe between the mains network and the consumer, including water metre (if present).
- ~ *administrative connection*
An administrative connection is taken to mean a premises related to a technical connection (e.g. an apartment). A collective (technical) connection includes several administrative connections.
- ~ *mains supply network*
The water network to which the connection pipes of consumers are connected.
- ~ *transport network*
The water network through which drinking water or *other water* flows, except the mains supply network and consumer connection pipes. This concerns pipelines for bringing water into the purification stations, pipelines between water companies (wholesale deliveries) and those between purification stations and the mains supply network.
- ~ *small scale users*
Consumers who use less than 300 m³ a year.
- ~ *medium scale users*
Consumers who use between 300 m³ and 10,000 m³ a year.
- ~ *large scale users*
Consumers who use more than 10,000 m³ a year.

Appendix 4

LITERATURE

1. VEWIN, Water Supply Statistics 1991-2000 (1992-2002).
2. VEWIN/Accenture, Reflections on Performance 2000, Benchmarking in the Dutch Drinking Water Industry (2001).
3. VEWIN, Overview of water charges on 1 January 2001 (2001).
4. VEWIN/NIPO, A different pattern of consumption (2001).

