

Table B.1.5 Monthly Mean Flow Rate (1/4)

VARBIL AU Station (111805)														(Unit m ³ /s)	
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min	Mean		
1997	0.382	0.26	0.181	1.14	0.585	0.324	0.187	1.69	0.168	0.171	0.344	3.41	0.168	0.574	
1996	1.062	0.293	1.152	0.867	0.216	0.168	0.147	0.119	0.235	0.12	0.188	0.308	0.119	0.408	
1995	0.258	0.23	0.155	0.193	0.262	0.249	0.074	0.071	0.113	0.103	0.253	0.413	0.011	0.198	
1994	0.212	0.118	0.105	0.099	0.095	0.118	0.508	0.083	0.074	0.143	0.099	0.103	0.074	0.147	
1993	0.052	0.039	0.172	0.311	0.632	0.332	0.289	0.085	0.073	0.12	0.121	0.478	0.039	0.227	
1992	0.085	0.112	0.104	0.127	0.12	0.469	0.108	0.085	0.045	0.051	0.052	0.069	0.045	0.118	
1991	0.129	0.266	0.194	0.215	0.942	0.992	0.946	0.873	0.064	0.067	0.214	0.114	0.064	0.420	
1990	0.062	0.07	0.061	0.096	0.128	0.073	0.061	0.039	0.039	0.056	0.039	0.438	0.039	0.097	
1989	0.053	0.066	0.099	0.066	0.09	0.13	0.048	0.056	0.037	0.061	0.073	0.047	0.037	0.069	
1988	0.134	0.626	0.833	0.459	0.182	0.53	0.164	0.056	0.091	0.046	0.052	0.109	0.046	0.270	
1987	0.079	0.36	0.144	0.198	0.122	0.114	0.085	0.01	0.026	0.052	0.089	0.191	0.026	0.123	
1986	0.101	1.055	0.799	0.108	0.060	0.104	0.074	0.095	0.050	0.055	0.043	0.137	0.043	0.218	
1985	0.267	0.289	2.104	0.140	0.452	0.330	0.112	0.087	0.035	0.033	0.063	0.047	0.033	0.332	
1984	0.121	0.764	1.297	0.268	0.949	1.113	0.252	0.130	0.074	0.060	0.184	0.108	0.060	0.411	
1983	0.133	0.120	0.115	0.104	0.097	2.150	0.351	0.771	0.073	0.040	0.070	0.073	0.040	0.340	
1982	0.160	0.092	0.281	0.371	0.324	0.654	0.325	0.450	0.196	0.067	0.084	0.198	0.067	0.268	
1981	0.296	0.684	0.660	0.557	0.384	0.088	0.051	0.118	0.055	0.082	0.073	0.836	0.051	0.322	
1980	0.695	0.532	0.552	1.153	1.572	0.425	0.214	0.623	0.064	0.097	0.445	1.253	0.064	0.638	
1979	0.256	0.619	0.200	0.586	0.136	0.586	1.416	0.702	0.095	0.058	0.128	0.114	0.058	0.417	
1978	0.067	1.130	0.424	0.491	0.598	0.309	0.501	0.080	0.103	0.038	0.169	0.173	0.038	0.335	
														0.026	

TESILA Station (111605)														(Unit m ³ /s)	
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min	Mean		
1997	2.51	2.36	2.46	7.3	10.1	5.08	3.93	10.7	4.68	2.85	2.24	5.72	2.240	5.018	
1996	4.236	2.531	2.401	11.979	7.736	3.432	2.593	2.004	3.018	2.047	2.331	5.632	2.004	4.164	
1995	1.52	2.06	3.167	5.594	8.127	6.672	3.766	2.492	3.499	1.798	3.135	3.945	1.520	3.819	
1994	2.532	1.318	1.729	2.863	2.958	3.762	4.375	2.548	1.411	2.113	1.411	1.441	1.318	2.383	
1993	0.941	0.789	2.941	6.658	8.143	5.127	3.284	1.872	1.656	1.701	1.58	3.125	0.789	3.164	
1992	1.57	1.343	2.689	5.29	3.006	5.122	2.498	1.747	1.343	1.292	1.429	0.998	0.998	2.369	
1991	1.847	1.265	4.046	6.346	13.042	11.004	9.581	5.763	2.99	2.694	3.311	2.631	1.265	5.405	
1990	1.531	2.414	2.559	2.951	4.218	3.955	2.854	1.457	1.338	1.072	1.132	3.815	1.072	2.443	
1989	1.041	1.812	3.734	3.255	4.223	3.541	2.107	1.763	2.167	1.818	4.149	2.382	1.041	2.666	
1988	1.696	1.878	4.377	11.795	7.629	7.726	3.855	2.543	2.332	1.482	1.31	1.403	1.310	4.000	
1987	0.532	1.569	1.528	5.94	5.178	3.544	3.024	2.022	1.25	1.192	2.065	3.112	0.532	2.581	
1986	1.676	1.674	4.045	6.867	3.689	4.152	4.000	3.035	2.136	1.873	2.413	1.225	1.225	3.068	
1985	1.338	1.208	4.191	11.454	6.479	8.470	4.402	3.317	2.255	1.292	1.841	2.861	1.208	4.095	
1984	1.534	1.613	3.682	12.109	14.768	10.393	6.555	3.481	2.468	1.999	2.286	1.544	1.534	5.215	
1983	2.726	2.841	4.278	5.670	3.355	9.856	7.928	8.891	3.358	2.068	1.558	1.396	1.396	4.503	
1982	5.433	2.993	3.382	8.213	7.269	4.778	4.512	4.894	3.929	2.423	2.166	3.344	2.166	4.453	
1981	3.127	2.705	9.770	8.497	11.238	5.689	3.595	2.630	3.113	3.488	4.693	8.792	2.630	5.587	
1980	2.011	2.391	4.378	10.808	16.432	8.539	5.201	5.876	2.690	4.103	5.861	5.629	2.011	6.182	
1979	3.378	4.542	5.293	8.642	6.276	10.574	11.074	7.400	3.733	2.638	2.451	2.235	2.235	5.688	
1978	1.343	3.444	4.900	6.184	9.033	8.354	5.600	3.269	4.289	2.783	3.033	3.518	1.343	4.647	
														0.532	

FRAHOVA Station (111215)														(Unit m ³ /s)	
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min	Mean		
1997	5.68	5.66	5.97	25.5	31.4	13.2	11.6	46.2	16.8	9.56	8.04	17.4	5.660	16.512	
1996	22.468	7.297	7.569	33.863	22.226	8.115	5.29	4.859	8.832	6.046	6.913	14.431	4.860	12.345	
1995	5.137	5.592	8.375	11.417	19.733	14.157	10.405	7.681	10.532	6.496	11.061	16.006	5.137	10.526	
1994	6.005	4.871	5.239	5.784	5.788	13.119	11.146	5.475	4.065	5.526	4.778	5.158	4.065	6.420	
1993	3.535	3.53	6.768	10.859	15.479	7.323	6.014	3.753	3.88	4.922	4.059	7.735	3.530	6.512	
1992	5.99	5.76	7.116	13.288	7.878	14.457	6.411	3.964	3.541	3.847	3.948	4.222	3.541	6.689	
1991	3.94	3.395	6.726	10.715	26.605	39.337	27.948	17.55	7.866	9.782	10.371	7.573	3.395	14.377	
1990	5.139	6.126	6.337	5.239	7.319	6.512	4.533	3.357	3.552	3.607	3.566	8.908	3.367	5.353	
1989	4.777	5.251	7.7	5.782	6.073	5.342	3.457	3.454	6.302	4.61	10.61	6.128	3.454	5.782	
1988	5.351	6.904	10.563	21.31	20.203	22.962	14.874	5.643	6.5	4.954	5.401	5.778	4.954	10.868	
1987	4.46	6.464	5.758	12.17	10.713	5.759	5.677	3.404	3.32	3.393	4.742	7.28	3.320	6.688	
1986	7.140	7.371	10.634	11.599	6.382	8.475	8.636	6.470	4.747	5.302	5.129	4.625	4.625	7.205	
1985	5.202	4.823	12.045	18.937	13.107	18.124	9.646	6.784	6.192	4.571	6.145	7.577	4.571	9.435	
1984	6.040	7.420	14.263	24.620	40.403	25.810	15.502	8.508	7.004	6.175	7.917	7.107	6.040	14.264	
1983	6.988	7.059	8.470	11.957	5.478	29.060	22.623	20.022	6.552	5.800	5.543	5.301	5.301	11.257	
1982	12.452	7.657	9.461	17.560	16.819	11.667	14.748	17.371	9.977	6.936	7.138	8.512	6.936	11.726	
1981	10.581	10.921	24.184	22.087	27.510	13.644	8.705	7.159	8.558	8.111	8.955	21.683	7.159	14.381	
1980	5.522	8.043	14.485	27.063	45.884	21.123	13.726	20.652	7.482	10.228	14.840	18.019	5.522	17.330	
1979	7.570	12.193	10.363	21.677	13.665	31.563	28.342	20.253	8.413	6.942	7.156	6.349	6.349	14.480	
1978	3.844	11.216	14.343	17.204	21.645	18.313	12.074	4.357	10.048	6.310	6.791	8.526	3.844	11.292	
														3.320	

Table B.1.5 Monthly Mean Flow Rate (2/4)

MOARA Station (111715)													(Unit m ³ /s)	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min	Mean
1997	8.11	8.74	7.42	24.8	14.7	11.2	8.46	24.4	12.9	11.8	13.5	26.9	7.420	14.441
1996	17.039	8.26	9.637	20.327	13.129	9.04	6.799	5.607	7.769	5.558	7.7	15.625	5.558	10.629
1995	6.059	6.303	6.316	6.758	8.38	8.78	6.174	5.121	7.663	5.301	9.076	9.383	5.121	7.109
1994	7.564	6.506	5.873	5.221	4.571	7.321	8.406	4.434	4.457	5.155	5.22	5.62	4.434	5.860
1993	4.401	4.621	6.091	9.225	13.353	9.453	6.432	4.891	5.186	4.815	5.07	8.855	4.401	6.881
1992	6.417	6.095	6.187	8.29	6.311	14.268	6.03	5.02	4.172	4.343	4.614	4.873	4.172	6.371
1991	5.932	4.845	6.665	9.668	22.502	26.823	26.048	15.021	6.088	5.585	9.571	6.849	4.845	12.183
1990	4.711	4.346	4.493	5.347	6.398	6.406	3.966	3.065	3.079	3.467	3.519	10.681	3.065	4.966
1989	4.877	4.709	5.892	4.318	5.455	5.181	3.884	3.798	3.927	4.178	6.714	4.781	3.798	4.868
1988	5.261	9.317	18.629	23.06	12.906	18.354	9.134	5.447	5.308	4.963	5.052	5.251	4.963	10.201
1987	4.468	6.553	4.725	9.431	7.699	4.449	5.017	3.193	2.79	3.353	5.314	8.73	2.790	5.468
1986	5.838	9.356	15.259	10.877	4.939	5.706	5.045	4.556	4.232	4.315	4.332	4.327	4.232	6.545
1985	7.231	7.234	18.452	18.273	11.177	13.173	7.511	6.982	4.893	4.161	5.483	5.926	4.161	9.211
1984	6.509	10.318	21.296	20.500	26.116	22.083	12.066	7.562	6.405	5.703	8.549	6.546	5.703	12.808
1983	6.015	6.215	7.041	7.479	4.612	28.067	14.417	16.357	5.581	4.938	4.869	4.863	4.612	9.204
1982	10.421	7.748	9.661	12.827	11.065	8.874	13.994	12.141	7.078	5.384	5.143	8.540	5.143	9.430
1981	10.645	14.709	21.095	19.523	17.955	9.658	6.414	5.475	6.599	8.072	8.968	22.454	5.475	12.629
1980	9.845	11.889	15.375	26.080	40.532	15.521	11.883	12.424	6.306	6.618	11.149	21.919	6.306	15.841
1979	7.016	11.648	8.784	12.903	8.251	19.795	22.927	18.692	8.497	6.910	7.036	7.508	6.910	11.666
1978	4.807	14.031	13.887	15.980	16.542	15.673	11.405	5.079	6.557	4.796	6.868	8.805	4.796	10.329
														2.790

GURA VIIHARFI Station (111710)													(Unit m ³ /s)	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min	Mean
1997	2.77	2.17	0.997	1.3	9.48	4.87	2.13	7.65	4.01	3.99	3.9	12.5	0.997	5.644
1996	7.698	2.96	2.713	11.168	8.245	3.236	1.561	1.256	5.159	1.288	1.893	9.317	1.256	4.715
1995	0.763	0.902	0.846	1.102	3.279	5.53	1.79	1.319	2.995	1.03	3.89	4.022	0.763	2.288
1994	1.277	1.356	1.371	1.022	1.171	3.859	2.365	0.691	0.785	0.735	0.301	0.352	0.301	1.271
1993	0.255	0.251	0.923	7.936	6.413	5.935	2.343	1.165	0.862	0.807	0.706	2.432	0.251	2.506
1992	2.389	1.546	1.263	4.802	1.643	10.67	2.221	1.145	0.483	0.372	0.273	0.616	0.273	2.272
1991	1.92	2.631	3.331	6.097	15.502	19.512	14.24	8.078	2.063	1.862	4.4	2.987	1.862	6.863
1990	0.663	0.962	1.095	2.23	3.43	2.08	1.323	0.505	0.371	0.407	0.278	5.172	0.278	1.551
1989	0.468	0.726	2.697	0.872	3.226	2.952	1.029	0.955	0.801	0.531	2.439	0.892	0.468	1.468
1988	1.154	2.753	8.025	15.363	7.282	9.84	5.68	2.076	1.817	0.954	0.695	0.776	0.695	4.693
1987	0.294	1.988	1.109	4.569	3.042	0.935	1.032	0.462	0.364	0.566	1.409	3.69	0.294	1.616
1986	0.696	2.334	6.255	7.086	1.763	2.733	2.208	1.603	0.444	0.432	0.242	0.291	0.242	2.117
1985	1.084	1.462	8.072	12.527	5.061	7.850	3.403	2.718	0.770	0.435	0.616	1.111	0.435	3.762
1984	1.243	1.665	6.269	12.736	17.251	9.955	6.461	3.096	1.619	0.699	2.199	0.850	0.699	5.353
1983	2.096	1.946	3.792	4.561	2.411	15.490	8.985	8.358	1.965	1.136	0.615	0.655	0.655	4.356
1982	5.626	2.488	3.606	7.665	6.064	3.792	4.704	4.781	3.172	1.416	1.098	4.359	1.098	4.079
1981	3.254	4.357	13.501	9.699	12.893	5.488	2.180	1.265	1.789	4.177	3.908	11.943	1.265	6.230
1980	2.258	3.434	5.782	13.500	24.677	8.948	6.939	6.326	2.729	3.264	6.114	10.339	2.258	7.896
1979	4.052	6.331	4.749	7.950	3.740	8.505	10.540	10.628	3.481	2.077	2.149	1.596	1.596	5.477
1978	2.022	7.120	7.368	10.239	12.089	10.104	6.189	3.079	4.564	2.834	4.620	4.687	2.022	6.223
														0.242

CIORANI Station (112105)													(Unit m ³ /s)	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min	Mean
1997	0.682	1.64	1.01	5.74	1.47	1.97	1.5	6.14	1.49	1.79	2.28	5.25	0.682	2.585
1996	3.359	1.421	1.577	2.594	0.795	0.697	0.461	0.504	0.633	0.62	0.854	1.323	0.461	1.235
1995	0.675	1.156	0.696	0.857	0.74	0.863	0.506	0.198	0.545	0.302	0.943	1.613	0.198	0.703
1994	0.556	0.46	0.423	0.413	0.312	0.741	0.773	0.235	0.252	0.593	0.405	0.395	0.235	0.463
1993	1.173	1.129	1.376	0.945	1.397	1.332	0.74	0.241	0.354	0.311	0.374	0.82	0.241	0.851
1992	1.221	1.402	1.274	1.763	0.884	2.152	0.52	0.365	0.258	0.335	0.373	0.826	0.258	0.942
1991	0.488	0.525	0.991	0.858	2.912	4.023	4.742	1.183	0.712	0.878	1.576	1.047	0.488	1.672
1990	0.654	0.702	0.434	0.526	0.806	0.945	0.344	0.331	0.257	0.328	0.422	1.048	0.257	0.566
1989	0.553	0.592	0.598	0.455	0.508	0.461	0.363	0.455	0.406	0.423	0.416	0.532	0.363	0.480
1988	0.668	2.649	4.719	6.1	3.127	9.538	0.971	0.474	0.508	0.42	0.585	0.855	0.420	2.533
1987	0.552	1.523	0.936	0.836	0.616	0.449	0.536	0.133	0.108	0.39	0.938	1.11	0.108	0.673
1986	1.011	2.808	2.389	1.319	0.634	0.739	0.652	0.387	0.304	0.627	0.609	0.894	0.304	1.019
1985	1.736	1.325	4.650	1.929	1.049	1.987	0.991	0.447	0.440	0.360	0.813	0.635	0.360	1.365
1984	1.077	2.130	2.852	1.877	4.684	4.853	3.385	1.070	0.616	0.685	1.179	1.065	0.616	2.123
1983	0.938	0.825	0.607	0.595	0.553	3.722	1.412	2.400	0.619	0.537	0.874	0.945	0.537	1.169
1982	1.010	0.835	1.439	1.523	1.725	1.512	1.141	1.181	0.975	0.829	0.895	1.175	0.829	1.189
1981	2.097	3.047	2.924	2.522	2.570	1.731	1.437	1.946	1.232	1.426	1.551	2.606	1.232	2.087
1980	0.950	1.510	2.187	4.066	12.202	1.676	1.674	1.720	0.711	1.099	2.042	5.140	0.711	2.922
1979	0.731	1.413	0.736	1.193	0.783	1.288	3.411	1.882	0.668	0.519	0.592	0.588	0.519	1.151
1978	0.411	1.961	2.259	2.248	2.178	1.971	1.245	0.558	0.688	0.630	0.726	1.477	0.411	1.360
														0.168

Table B.1.5 Monthly Mean Flow Rate (3-4)

CHIENA Station (111705)													(Unit m ³ /s)	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min	Mean
1997	0.479	0.391	0.445	1.6	1.54	0.59	0.935	1.44	1.23	0.825	0.699	1.12	0.374	0.978
1996	0.537	0.428	0.414	1.571	1.61	0.503	0.438	0.415	0.875	0.51	0.579	1.117	0.414	0.700
1995	0.268	0.508	0.687	0.836	1.26	1.289	0.788	0.569	0.636	0.424	0.644	0.701	0.268	0.713
1994	0.562	0.324	0.557	0.461	0.458	1.575	0.554	0.431	0.31	0.344	0.289	0.289	0.289	0.514
1993	0.304	0.28	0.805	1.32	1.075	0.609	0.435	0.346	0.315	0.384	0.344	0.585	0.240	0.568
1992	0.667	0.429	0.961	1.751	0.965	1.392	0.742	0.517	0.376	0.305	0.303	0.268	0.268	0.723
1991	0.406	0.301	0.999	1.174	2.411	3.09	2.408	1.64	1.138	1.169	1.356	0.977	0.301	1.424
1990	0.319	0.444	0.541	0.556	0.953	0.889	0.473	0.285	0.239	0.239	0.234	0.686	0.234	0.489
1989	0.259	0.423	0.975	0.521	0.571	0.459	0.308	0.255	0.489	0.329	0.633	0.395	0.255	0.468
1988	0.36	0.35	0.813	1.913	1.191	1.863	1.114	0.647	0.727	0.486	0.29	0.35	0.290	0.842
1987	0.183	0.237	0.282	1.011	0.807	0.396	0.321	0.151	0.158	0.179	0.261	0.473	0.151	0.372
1986	0.158	0.145	0.432	0.482	0.223	0.243	0.230	0.195	0.173	0.172	0.148	0.164	0.145	0.231
1985	0.133	0.142	0.289	0.817	0.273	1.304	0.475	0.399	0.262	0.219	0.210	0.309	0.133	0.402
1984	0.189	0.170	0.283	0.908	1.204	0.733	0.448	0.303	0.225	0.169	0.205	0.133	0.133	0.415
1983	0.545	0.314	0.377	0.694	0.517	0.420	0.551	0.491	0.417	0.311	0.265	0.314	0.265	0.436
1982	0.545	0.314	0.377	0.694	0.517	0.420	0.551	0.491	0.417	0.311	0.265	0.314	0.265	0.436
1981	0.326	0.329	0.939	0.551	1.023	0.545	0.371	0.272	0.411	0.391	0.511	0.777	0.272	0.539
1980	0.206	0.224	0.373	0.874	1.072	0.654	0.595	0.420	0.294	0.397	0.516	0.504	0.206	0.512
1979	0.405	0.396	0.423	0.636	0.379	0.467	0.622	0.521	0.296	0.240	0.275	0.257	0.240	0.410
1978	0.197	0.357	0.521	0.548	0.535	0.603	0.547	0.358	0.580	0.365	0.367	0.396	0.197	0.448
														0.133

CIMBENA Station (111210)													(Unit m ³ /s)	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min	Mean
1997	4.69	3.38	4.01	15.9	21	13.7	10.8	21.7	11	6.82	5.15	9.84	3.380	10.723
1996	11.51	5.596	5.049	17.813	13.695	6.968	4.788	4.586	7.571	4.958	5.422	10.704	4.586	8.230
1995	2.838	3.605	5.555	9.867	20.803	14.983	8.295	7.405	9.062	5.191	7.941	10.184	2.838	8.835
1994	4.47	3.174	3.573	4.688	5.703	12.065	9.854	5.183	3.712	5.11	4.129	2.965	2.965	5.397
1993	1.731	1.67	4.661	10.496	16.755	7.976	6.02	3.825	3.687	3.812	3.14	6.051	1.670	5.847
1992	3.94	3.645	5.041	11.766	6.886	12.386	5.92	3.744	3.028	3.086	2.569	2.746	2.569	5.388
1991	2.544	1.935	5.186	9.24	19.585	23.84	17.935	12.773	6.043	6.165	6.759	5.659	1.935	9.801
1990	3.469	3.79	4.515	4.401	7.958	5.78	4.357	2.945	2.467	2.013	1.8	6.817	1.800	4.202
1989	2.165	2.703	5.76	5.812	7.084	6.874	4.555	4.378	8.62	4.891	9.273	4.273	2.165	5.532
1988	2.888	3.055	6.438	15.06	13.506	17.609	15.995	5.973	5.817	3.692	3.099	3.226	2.888	8.045
1987	1.931	3.795	2.882	11.214	9.659	6.027	5.41	3.372	2.641	2.344	2.917	5.508	1.931	4.869
1986	2.795	4.012	6.885	7.911	4.725	6.805	5.833	4.954	3.695	3.167	2.839	1.890	1.890	4.624
1985	2.985	2.490	7.265	16.490	10.918	13.967	8.191	6.151	5.492	3.791	4.093	3.360	2.490	7.106
1984	2.737	4.231	6.822	11.429	24.135	15.837	11.653	6.878	5.680	3.820	4.241	2.777	2.737	8.377
1983	3.502	4.210	6.307	8.413	5.079	24.166	15.234	13.579	5.516	3.595	2.785	2.529	2.529	7.915
1982	8.335	3.959	5.066	11.610	11.639	10.625	12.850	14.129	7.166	4.770	4.428	6.189	3.959	8.433
1981	5.349	5.071	11.485	12.184	17.965	15.472	8.752	6.610	6.613	6.475	5.671	15.171	5.071	9.770
1980	3.306	4.646	7.120	16.333	26.477	15.757	13.477	13.871	5.195	7.379	9.514	9.445	3.306	11.089
1979	6.834	7.943	6.312	12.568	9.846	19.557	15.500	12.821	6.653	4.088	3.804	3.203	3.203	9.087
1978	2.444	5.615	7.649	8.445	12.955	13.935	13.035	6.527	9.766	5.615	4.883	6.102	2.444	8.688
														1.670

ADENCATA Station (111220)													(Unit m ³ /s)	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min	Mean
1997	20.3	18.6	17.4	61.2	46.7	34.6	25.2	83.5	32.6	24.1	23.6	55.5	17.400	37.081
1996	46.497	20.107	19.761	60.827	41.781	20.9	16.781	12.813	20.1	15.268	17.407	36.429	12.813	27.423
1995	13.306	13.829	15.325	19.873	29.594	22.463	19.848	12.577	19.51	14.645	18.683	27.59	12.577	18.966
1994	16.965	14.407	12.913	13.25	12.765	22.92	18.894	10.898	9.945	12.044	11.463	12.606	9.945	14.083
1993	10.652	10.027	15.397	26.797	37.235	22.617	14.065	10.126	9.974	12.021	10.812	18.629	9.974	16.521
1992	15.7	14.21	15.487	25.44	18.642	37.45	16.503	11.392	8.952	10.762	11.123	11.295	8.952	16.384
1991	13.19	12.293	17.519	24.443	51.239	79.46	74.371	41.055	18.96	19.377	25.63	18.613	12.293	33.138
1990	12.004	14.207	13.961	13.5	15.568	16.667	10.173	7.881	7.848	8.706	9.096	21.819	7.818	12.615
1989	12.01	12.143	17.242	13.573	14.813	13.697	9.903	8.776	13.273	11.587	18.947	13.248	8.776	13.259
1988	13.09	21.217	34.429	53.31	38.694	52.527	27.423	13.571	14.377	12.565	13.377	13.835	12.565	25.651
1987	10.737	14.921	12.452	25.297	20.987	13.267	13.571	7.971	7.376	9.257	12.66	18.732	7.376	13.920
1986	16.252	21.400	27.984	25.050	13.775	17.071	15.119	13.300	10.101	12.132	11.273	11.173	10.101	16.188
1985	15.403	16.982	41.677	44.492	30.432	35.194	23.048	14.616	14.247	11.142	13.360	16.574	11.142	23.107
1984	16.365	23.586	38.655	54.317	73.719	56.017	35.581	19.958	15.760	13.187	18.150	15.861	13.187	31.732
1983	15.835	15.675	18.161	23.867	12.053	59.440	44.710	42.200	15.527	14.003	14.123	12.506	12.053	24.030
1982	30.413	20.629	23.029	36.930	33.774	25.123	30.413	30.242	23.513	16.674	18.010	21.881	16.674	26.184
1981	34.713	45.743	55.700	53.020	57.006	32.483	21.599	19.300	21.273	20.987	23.703	46.432	19.300	35.953
1980	19.671	28.207	35.084	66.737	98.387	46.353	32.339	43.565	19.953	20.529	37.840	45.081	19.671	41.218
1979	17.693	29.350	20.861	40.717	25.706	59.827	62.103	48.090	22.380	17.381	19.350	19.671	17.381	31.964
1978	10.977	26.393	33.719	38.923	42.615	39.233	28.516	12.290	18.980	15.900	16.443	20.268	10.977	25.315
														7.376

Table B.1.5 Monthly Mean Flow Rate (4/4)

AZUGA Station (111405)													(Unit m ³ /s)	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min	Mean
1997	0.576	0.292	0.445	1.5	5.72	2.26	1.81	4.32	1.97	1.16	0.685	1.56	0.292	1.874
1996	1.386	0.382	0.402	1.611	2.617	1.043	1.075	1.067	1.459	1.110	0.858	1.377	0.382	1.205
1995	0.140	0.172	0.466	3.313	4.161	2.019	1.818	0.918	1.384	0.875	0.919	0.950	0.140	1.429
1994	0.300	0.244	0.318	0.716	1.137	2.163	1.203	0.299	0.301	0.299	0.155	0.178	0.155	0.610
1993	0.187	0.144	0.546	1.191	3.114	1.502	0.690	0.416	0.326	0.307	0.264	0.359	0.144	0.758
1992	0.407	0.302	0.513	3.099	1.349	2.490	1.121	0.466	0.276	0.291	0.226	0.213	0.213	0.891
1991	0.206	0.160	0.513	1.920	3.838	6.348	3.838	2.151	1.166	1.319	1.420	0.690	0.160	1.971
1990	0.642	0.580	1.361	1.118	1.619	1.338	0.780	0.463	0.406	0.295	0.229	1.668	0.229	0.828
1989	0.180	0.372	1.497	1.741	1.821	1.324	0.819	0.639	2.562	1.690	2.257	0.983	0.180	1.274
1988	0.376	0.332	0.414	4.071	5.235	4.656	3.29	0.834	1.184	0.478	0.372	0.312	0.312	1.802
1987	0.303	0.364	0.597	3.152	2.915	1.183	0.962	0.438	0.327	0.372	0.656	0.686	0.303	0.998
1986	0.358	0.315	0.968	2.973	1.229	2.011	2.507	1.550	0.746	0.511	0.479	0.322	0.315	1.167
1985	0.082	0.154	0.335	5.593	2.488	5.224	2.666	2.279	1.720	0.704	0.566	0.746	0.082	1.874
1984	0.095	0.103	0.311	3.035	9.326	3.940	3.060	1.161	0.785	0.589	0.377	0.127	0.095	1.923
1983	0.449	0.528	2.069	3.010	1.172	3.115	3.299	4.795	1.247	0.657	0.284	0.156	0.156	1.740
1982	1.908	0.739	0.591	3.695	4.258	2.673	3.344	2.875	1.620	0.920	0.632	0.881	0.591	2.020
1981	0.831	0.406	3.418	3.991	6.395	3.434	1.813	2.188	3.194	2.106	2.042	3.351	0.406	2.783
1980	0.241	0.208	0.537	3.387	6.833	3.964	2.948	3.171	1.273	2.323	2.093	1.493	0.208	2.387
1979	1.195	1.503	1.812	3.843	3.265	3.023	3.465	3.513	1.465	0.769	0.637	0.525	0.525	2.088
1978	0.491	0.955	1.874	3.142	3.609	3.782	3.383	1.649	3.552	1.755	1.068	1.066	0.491	2.196
														0.082

BUSTENI Station (111505)													(Unit m ³ /s)	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Min	Mean
1997	0.228	0.184	0.257	0.795	1.21	0.825	1.2	1.77	1.25	0.632	0.415	0.521	0.184	0.778
1996	0.484	0.229	0.133	0.686	0.689	0.378	0.396	0.329	0.481	0.359	0.393	0.633	0.133	0.434
1995	0.067	0.126	0.306	0.479	0.658	0.732	0.912	0.527	0.533	0.376	0.36	0.407	0.067	0.459
1994	0.209	0.154	0.236	0.288	0.339	0.92	0.701	0.469	0.258	0.226	0.158	0.084	0.084	0.338
1993	0.082	0.078	0.344	0.653	0.658	0.326	0.327	0.258	0.214	0.258	0.192	0.284	0.078	0.308
1992	0.181	0.127	0.224	0.559	0.307	0.649	0.355	0.254	0.156	0.169	0.15	0.166	0.127	0.275
1991	0.095	0.066	0.17	0.517	1.093	2.086	1.621	0.837	0.436	0.528	0.444	0.289	0.066	0.685
1990	0.195	0.27	0.319	0.274	0.494	0.302	0.226	0.152	0.118	0.096	0.077	0.242	0.077	0.231
1989	0.112	0.202	0.306	0.314	0.422	0.398	0.267	0.285	0.604	0.403	0.523	0.294	0.112	0.344
1988	0.144	0.122	0.226	0.892	0.734	1.564	2.228	0.764	0.49	0.231	0.171	0.156	0.122	0.646
1987	0.075	0.111	0.132	0.524	0.496	0.281	0.444	0.26	0.133	0.093	0.126	0.231	0.075	0.243
1986	0.152	0.115	0.212	0.418	0.253	0.344	0.385	0.376	0.246	0.178	0.140	0.079	0.079	0.242
1985	0.145	0.131	0.182	0.985	0.595	0.806	1.006	0.673	0.380	0.173	0.192	0.208	0.131	0.458
1984	0.086	0.068	0.113	0.839	1.420	1.282	1.177	0.630	0.296	0.181	0.241	0.158	0.068	0.543
1983	0.169	0.222	0.353	0.414	0.240	0.526	0.698	0.917	0.479	0.219	0.114	0.097	0.097	0.372
1982	0.473	0.221	0.232	0.621	0.615	0.501	0.858	0.894	0.436	0.237	0.223	0.251	0.221	0.466
1981	0.246	0.154	0.590	0.562	0.797	1.059	1.238	0.711	0.553	0.553	0.539	0.662	0.154	0.642
1980	0.110	0.084	0.193	0.665	0.909	0.694	0.677	0.559	0.328	0.538	0.505	0.425	0.084	0.476
1979	0.258	0.284	0.302	0.625	0.596	0.937	1.124	0.889	0.524	0.254	0.169	0.141	0.141	0.510
1978	0.125	0.265	0.419	0.463	0.635	0.876	1.394	0.515	0.745	0.409	0.267	0.235	0.125	0.531
														0.066

Table B.2.1 Feature of Dam and Reservoir

Dam Name	Platinu	Maneciu
Catchment Area (Km ²)	334	247
Completed Year	1971	1994 *1
Location	Sotriile	Maneciu
River Name	Doftana	Teleajen
Dam Type	Arch	Rockfill
Height (m)	108	75
Crest Length (m)	460	750
Spillway Type	Morning Glory	Morning Glory
Installed Capacity (kWh)	10,200	12,000
Reservoir Area (km ²)	1.975	1.92
Total Storage Volume (m ³)	60,640,000	60,000,000
Active Storage Volume (m ³)	53,670,000	50,000,000
Domestic (m ³)		
Irrigation (m ³)		
Power Generation (m ³)		
Dead Water Volume (m ³)		3,000,000
Flood Control Volume (m ³)	6,970,000	5,000,000
Maximum High Water Level (El.m)	652.5	609.0
High Water Level (El.m)	649.0	606.0
Low Water Level (El.m)	570.0	554.0
Spillway Maximum Discharge (m ³ /s)	760	12,000
Flood Prevention Area		
Maximum Discharge for Water Use (m ³ /s)		1.97(97%)
Domestic Water Supply District		
Irrigation Water Supply District		
Industry Water Supply District		
Power Supply District		
Annual Inflow Discharge (m ³ /s) , 1997	5.48	4.07
Annual Outflow Discharge (m ³ /s) , 1997	5.31	3.94
Annual Overflow from Spillway (m ³) , 1997	-	-
Annual Power Generation (kWh) , 1997	*2	*3

*1 : water supply started in 1990

*2 : managed by C.H.E Platinu

*3 : managed by C.H.E Izvoarele

Table.B.2.2 Intakes in the Prabhova River Basin (1/3)

Code	1	2	3	4	5	6	7
Name of structures	Nedelea	Calimesti	Voila	Valeni de Munte	Pantazi	Magurele	Mehedinta
Location	Antesti Rahivani	Floresti	Brebu	Valeni de Munte	Valca		Mehedinta
River	Prabhova	Prabhova	Doftana	Teleajen	Teleajen	Teleajen	Lopama
Structure Condition					Destroyed		Unexploited
Objective	H=12m L=110m		H=14m L=41m	H=14m L=	H=6m L=60m		H=7m L=450m x
Irrigation	5.6	(0.23) Max(2.8)					
Industry	3		1.6		0.6		
Domestic			1.85	1.2			
Total	8.6		3.45	1.2	0.6		

* Consumers of water supplied by the intake below :

No.1	No.3	No.4
PETROBRAZI	APOSCO	SC VALDEN VALENI
	RAGCL CIMPINA	UTT 440 GURA VITTOAREI
	SGCL FLORESTI	SPS VALENI
	AGCL MORENI	CONS. LOCAL MAGURELE
	SGCL BAICOI	RATMIL VALENI
	FEHS BAICOI	SGCL BOLDESTI LIPANESTI
	POMCOOLA BAICOI	PRODPOM MAGURELI GENERAL PETRO SERVICE BAICOI
	RAACFL FLORESTI	RATMIL FLOPENI
	RENEL BRAZI	SGCL BOLDESTI BLEJOI
		RAACFL FLORESTI
		SC ATLAS GIP
		SC POLISERV FLORESTI
		SC SHELL/TROLOP SKL

Table.B.2.2 Intakes in the Prahova River Basin (2/3)

Code	8	9	10	11	12	13	14
Name of structures	Gornet Cricov	Bucov	Balta Doamnei	Plavia I	Plavia II	Tomsani I	Tomsani II
Location	Gornet Cricov	Bucov	Balta Doamnei	Iordacheanu	Iordacheanu	Tomsani	Tomsani
River	Cricovul Sarat	Bucovel	Ialomita		Varbila	Valea Razboitului	Valea Razboitului
Structure Condition	Unexploited	Unexploited				Unexploited	Unexploited
Objective	H=4m L=90m					H=8m L=80m	H=4m L=120m
Irrigation	x	x				x	x
Industry				0.07	0.07		
Domestic							
Total				0.07	0.07		

No.5

ROMFOSFOCHIM

No.11

S.C. VEDELMAR URLATI

No.13

S.C. VEDELMAR URLATI

Table.B.2.2 Intakes in the Prahova River Basin (3/3)

Code	15	16	17	18	19	20
Name of structures	Dumbravesti	I.C.V.V.-Valea Calugareasca I	I.C.V.V.-Valea Calugareasca II	I.C.V.V.-Valea Calugareasca III	I.C.V.V.-Valea Calugareasca IV	I.C.V.V.-Valea Calugareasca V
Location	Malatesti	Valea Calugareasca	Valea Calugareasca	Valea Calugareasca	Valea Calugareasca	Valea Calugareasca
River	Varbilau	Iazul Morilor Telesjen	Iazul Morilor Telesjen	Iazul Morilor Telesjen	Iazul Morilor Telesjen	Iazul Morilor Telesjen
Structure Condition		Unexploited	Unexploited	Unexploited	Unexploited	Unexploited
Objective		H=1.25m L=172m	H=2m L=220m	H=1.5m L=205m	H=1.2m L=150m	H=1.8m L=385m
Irrigation		x	x	x	x	x
Industry						
Domestic						
Total						
Discharge (m ³ /s)						

Table B.2.3 Purification Plants in the Prabhova River Basin

District	Station	Year of Service	Capacity (l/s)	Supplied District	Served Population	Length of Trunk (km)	Supply Volume (1000m ³)	Delivery Volume (1000m ³)	Lost Water %	Delivery Cost		Annual Cost (10 ⁴ lei)	Labour Cost (10 ⁴ lei)	Electricity Cost (10 ⁴ lei)	Chemical Cost (10 ⁴ lei)		
										Raw W. (10 ⁴ lei)	Treated (10 ⁴ lei)						
Voila	Voila	1971	3,000	Cimpina	208,000	2.4	66,184	60,899	8%								
				Baicoi, Moreni													
				Floresti													
Valeni	Valeni	1980	1,200	Banești, Telega	102,000	0.5	39,185	34,419	12%								
				Ploiesti													
				Valeni													
				Magurole													
				Dumbravesti													
Maneciu	Maneciu	1982	100	Boidești	17,500	0.1	1,625	1,464	10%								
				Lipănești													
				Panlești, Blejoi													
Azuga	Azuga	1977	250	Ploiești	15,000	3	3,984	3,622	9.10%								
				Maneciu													
Busteni	Busteni			Izvoarele	28,000		3,278										
				Valeni													
Voila	Cimpina	1952	450	Sinaia	25,600	1.2	7,881	6,700	15%								
				Busteni													
				Poiana Busteni													
Prodeal	Prodeal	1978	100	Cimpina	6,500	1.1	770	700	9%								
				Comarnic													
Breaza	Breaza	1996	60	Cornu	4,700	2.1	201	180	11%								
				Poiana Cimpina													
Sinaia	Valca Donub	1973	70	Prodeal	19,900	0.8	757	631	16.60%								
				Sinaia													
Stefesti	Stefesti	1958	42	Comarnic	3,600	4	901	751	17%								
				Sinaia													
Schitulesti	Schitulesti	1996	42	Sianic	3,000	6.8	200	140	30%								
				Stefesti													
Schitulesti	Schitulesti	1996	42	Stefesti	3200	8.4	220	172	22%								
				Izvoarele													

Data Source : Romanian Waters Authority, Ploiesti

Table B.2.4 Water Use Volume of Establishmet in Prahovar River Basin (1/7)

Code	Name of Establishment	Activity Code	Network Water (Drinking)	Ground-Water	Surface Water	Network Water (Industry)	Reuse	Total	Water Supply to Others (Drinking)	Supplier Code (Industry)	Model Block	(Water/Volume Unit: 1000m ³ /Year)
												Water Supply to Others (Drinking)
4036	AR.RA. FIJALA PLOIESTI S.H. PALTINU	41A1	0.0	0.0	71423.0	0	0.0	71423.0	72188.0		B	217
4045	AR.RA. FIJALA PLOIESTI S.H. NEDELEA	41A2	0.0	0.0	16861.0	0	0.0	16861.3	16859.0		E	240
4050	AR.RA. FIJALA PLOIESTI S.H. TINOSU	41A1	0.0	2579.0	0.0	0	0.0	2578.7	1992.0		J	195
4212	AR.RA. FIJALA PLOIESTI S.H. VALENI	41A1	0.0	0.0	3249.0	0	0.0	3249.0	3664.0		195	195
4275	AR.RA. FIJALA PLOIESTI S.H. MANECIU	41A1	0.0	0.0	1102.0	0	0.0	1102.3	533.0		A	200
4008	AD.P.P. AZUGA	41A1	0.0	12.0	3622.0	0	0.0	3634.0	3665.0	4014	200	200
4011	AD.P.P. BUSTENI	41A1	795.0	1188.0	0.0	0	0.0	1983.0	38.0	4008	200	217
4018	AD.P.P.SINAI	41A1	2450.0	905.0	1382.0	0	0.0	4737.0	247.0	4099	200	240
4022	S.G.C.L. BOLDESTI	41A1	318.0	621.0	0.0	0	0.0	938.7	190.0		200	200
4026	AD.P.P. COMARNIC	41A1	0.0	351.0	316.0	0	0.0	667.0	41.0	4034	200	217
4028	CIVITAS BREAZA	41A1	903.0	629.0	0.0	0	0.0	1532.0	821.0	4036	200	250
4032	RA.G.C. POIANA CIMPINA	41A1	103.0	11.0	0.0	0	0.0	113.5	0.0	4034	200	250
4034	RA.G.C. L. CIMPINA	41A3	5395.0	161.0	8675.0	0	0.0	14230.7	5146.0	4036	200	250
4041	S.G.C.L. BAICOI	41A1	2438.0	221.0	0.0	0	0.0	2659.0	789.0	4275	200	250
4088	NERGA MANECIU SECTOR MANECIU	41A1	533.0	0.0	58.0	0	0.0	591.0	0.0		J	K
4127	GOSCOM SLANIC	41A1	0.0	0.0	352.0	0	0.0	352.0	38.0		M	250
4129	PRIMARIA BANESTI	41A1	321.0	32.0	0.0	0	0.0	353.0	0.0	4036	250	250
4162	RA.G.C. PLOIESTI	41A1	26516.0	20859.0	0.0	0	0.0	47375.0	2205.0	4212	250	250
4172	PRIMARIA BLEJOI	41A1	46.0	270.0	0.0	0	0.0	315.5	0.0		K	280
4191	PRIMARIA COCORASTII MISLIJ	41A1	0.0	57.0	0.0	0	0.0	57.3	0.0		250	250
4214	PRIMARIA ALBESTI	41A1	0.0	34.0	0.0	0	0.0	34.0	0.0	4212	L	H
4229	PRIMARIA PAULESTI	41A1	304.0	0.0	0.0	0	0.0	303.5	0.0		E	L
4248	RA.G.C.L. VALEA CALUGAREASCA	41A1	0.0	288.0	0.0	0	0.0	288.0	0.0	4050	217	180
4255	CONSILIUL LOCAL BRAZI	41A1	423.0	0.0	0.0	0	0.0	423.0	0.0		280	280
4259	PRIMARIA PUCHENI	41A1	0.0	70.0	0.0	0	0.0	69.5	0.0		B	217
4294	CONSILIUL LOCAL BORDENI	41A1	0.0	153.0	0.0	0	0.0	153.0	0.0		240	240
4301	S.G.C.L. FLORESTI	41A1	174.0	0.0	0.0	0	0.0	173.5	0.0	4036	180	180
4317	APEVITA PREDEAL	41A3	0.0	0.0	871.0	0	0.0	871.0	0.0		280	280
4374	S.G.C.L. URLATI	41A1	966.0	48.0	0.0	0	0.0	1014.0	76.0	4177	B	217
4375	PRIMARIA VALEA DOFTANEI	41A1	0.0	18.0	40.0	0	0.0	58.0	0.0		240	240
4397	PRIMARIA SECARIA	41A1	0.0	6.0	0.0	0	0.0	6.0	0.0		K	K
4506	RA.G.C.L. VALENI	41A1	1167.0	0.0	417.0	0	0.0	1584.0	730.0	4212	240	240
4509	PRIMARIA MAGURELE	41A1	288.0	0.0	0.0	0	0.0	288.0	0.0	4212	K	K
4578	S.G.C.L. PLOPENI	41A1	1350.0	0.0	0.0	0	0.0	1349.7	0.0	4100	K	K

Table B.2.4 Water Use Volume of Establishmet in Prahovar River Basin (2/7)

Code	Name of Establishment	Activity Code	(Water Volume Unit: 1000m ³ /Year)										Model Block
			Network Water (Drinking)	Ground-Water	Surface Water	Network Water (Industry)	Reuse	Total	Water Supply to Others	Supplier Code (Drinking)	Supplier Code (Industry)		
4003	SPITALUL FILIP.TG.	85	0.0	12.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	217	
4004	SINTERREF AZUGA	26	28.0	0.0	83.0	0	0	118.7	229.7	0.0	4008	195	
4005	SCOALA AJUTATOARE FILIPESTII DE TIRG	80	0.0	10.0	0.0	0	0	0.0	9.7	0.0	0.0	217	
4006	BERE AZUGA	15	0.0	0.0	674.0	0	0	70.7	745.0	0.0	0.0	195	
4007	POSTAV AZUGA	17	33.0	0.0	485.0	0	0	0.0	498.7	0.0	4008	195	
4009	STIAZ AZUGA	26	0.0	60.0	119.0	0	0	85.0	264.3	0.0	4008	195	
4010	SPITALUL AZUGA	85	28.0	49.0	0.0	0	0	0.0	77.3	0.0	4008	195	
4012	SANATORIUL T.B.C. BUSTENI	75	37.0	95.0	0.0	0	0	131.8	131.8	0.0	4018	195	
4014	HARTIA BUSTENI	21	0.0	1348.0	4221.0	0	0	5020.0	10588.7	795.0	0.0	195	
4016	CERBUL SINAJA	55	38.0	0.0	0.0	0	0	0.0	38.0	0.0	4011	A	
4017	S.E.P.P.L CIMPINA	20	100.0	0.0	0.0	0	0	0.0	100.3	0.0	4034	217	
4019	S.C.ALPIN S.A. COTA 1400	55	0.0	42.0	0.0	0	0	0.0	41.7	0.0	0.0	A	
4020	SALSI SINAJA	15	145.0	0.0	0.0	0	0	83.7	228.3	0.0	4008	A	
4021	MEFIN SINAJA	29	328.0	39.0	275.0	0	0	1065.0	1706.7	0.0	4008	A	
4025	SEPL PLOIESTI SEC. COMARNIC	20	0.0	31.0	0.0	0	0	18.3	49.7	0.0	0.0	A	
4027	PRESCON COMARNIC	14	4.0	0.0	36.0	0	0	0.0	39.3	0.0	4008	200	
4029	HIDROJET BREAZA	29	780.0	0.0	0.0	0	0	2056.7	2836.7	0.0	4028	200	
4030	U.M.02525 BREAZA	75	10.0	70.0	0.0	0	0	0.0	80.0	0.0	4028	200	
4033	S.C. CONCORDIA S.A.	31	72.0	0.0	0.0	0	0	0.0	72.0	0.0	4034	217	
4035	S.C.STEAUA ROMANA SA	23	2278.0	0.0	218.0	0	0	3282.0	5778.0	0.0	4036	C	
4037	S.P. BAICOI	11	259.0	2968.0	0.0	0	0	1194.0	4421.0	256.0	4212	250	
4039	VICTORIA FLORESTI	23	2142.0	3787.0	0.0	0	0	13418.3	19348.0	0.0	4036	217	
4042	AVICOLA PLOIESTI-Blejoi Farm	012A	111.0	45.0	0.0	0	0	0.0	155.7	0.0	4162	L	
4046	GRUP SCOLAR NEDELEA	80	0.0	62.0	0.0	0	0	0.0	62.0	0.0	0.0	217	
4047	F.E. PLOIESTI	40A	8655.0	5878.0	0.0	6507	272000.7	293041.7	0.0	4036	4045	220	
4051	S.C. PETROBRAZI S.A.	23	5111.0	5521.0	0.0	8638	21211.7	231381.3	0.0	4036	4045	220	
4053	S.C. SERPLO S.A. PLOIESTI	0143B	0.0	241.0	0.0	392	0.0	632.3	0.0	0.0	4051	280	
4056	S.C. SEBRA S.A.	0143B	1357.0	266.0	0.0	0	0.0	1623.3	0.0	0.0	4050	276	
4059	IAS PUCHENI	012B	0.0	35.0	0.0	0	0	0.0	34.7	0.0	0.0	E	
4070	SOCIETATEA AGRICOLA INFRAIREA	012A	0.0	9.0	0.0	0	0	0.0	8.7	0.0	0.0	280	
4071	S.C. AGRAMEC CIORANI S.A.	0141	0.0	13.0	0.0	0	0	0.0	12.7	0.0	0.0	280	
4075	PENITENCIARUL TG.NOU	75	0.0	37.0	0.0	5	0.0	42.3	0.0	0.0	4190	276	
4076	U.M. 01991 TG. NOU	75	0.0	25.0	0.0	0	0	0.0	24.7	0.0	0.0	276	
4082	COMPORSA STANCESTI	012A	0.0	488.0	0.0	0	0	0.0	488.3	0.0	0.0	220	

Table B.2.4 Water Use Volume of Establishment in Prahovar River Basin (3/7)

Code	Name of Establishment	Activity Code	(Water Volume Unit: 1000m ³ /Year)										Model Block					
			Network Water (Drinking)	Ground-Water	Surface Water	Network Water (Industry)	Reuse	Total	Water Supply to Others	Supplier Code (Drinking)	Supplier Code (Industry)							
4087	U.M. 01035 CHEIA	75	0.0	10.0	0.0	0.0	0.0	10.3	0.0	0.0	0.0	0.0	0.0	0.0	4088	0.0	4088	Dam2
4089	S.E.P.L. MANECIU	20	30.0	0.0	40.0	0.0	0.0	117.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	J
4091	S.C. CHIMFOREX BUCOV	23	0.0	34.0	0.0	0.0	0.0	34.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	L
4092	S.P.T. T.B.C. DRAJNA	85	0.0	12.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	J
4094	PROLA-PLOIESTI	15	108.0	137.0	0.0	0.0	0.0	284.0	0.0	0.0	0.0	0.0	0.0	0.0	4162	0.0	4162	260
4095	STICLOVAL, VALENI	14	19.0	0.0	1764.0	0.0	0.0	11164.7	0.0	0.0	0.0	0.0	0.0	0.0	4506	0.0	4506	240
4098	AGROMEC MAGJURELE	0141	0.0	11.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	K
4099	SCHELA BOLDESTI	11	0.0	3208.0	0.0	0.0	0.0	3363.7	0.0	0.0	0.0	0.0	0.0	0.0	4212	0.0	4212	K
4100	U.M. PLOPENI	29	1181.0	1879.0	0.0	0.0	0.0	10641.0	0.0	0.0	0.0	0.0	0.0	0.0	4022	0.0	4022	K
4101	GES SCAIENI	20	190.0	239.0	0.0	0.0	0.0	2652.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	K
4102	S.C. CAHIRO SA.	21	0.0	676.0	0.0	0.0	0.0	1028.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	K
4103	SOGERAM BUCOV	45	10.0	241.0	0.0	0.0	0.0	343.7	0.0	0.0	0.0	0.0	0.0	0.0	4162	0.0	4162	L
4105	OFICIUL DE REPRODUCTIE SI SELECTIE A ANIMALEL	012B	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	250
4106	REAL PLEASA	27	0.0	832.0	0.0	0.0	0.0	1023.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	L
4112	APPACOR	24	0.0	174.0	0.0	0.0	0.0	260.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	L
4115	I.C.V.V.VALEA CALUGAREASCA	15	0.0	127.0	0.0	0.0	0.0	187.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	L
4117	S.C.ROMFOSFOCHIM SA	24	0.0	1687.0	0.0	0.0	0.0	5438.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	L
4124	S.C. DERO LEVER PLOIESTI	24	197.0	389.0	0.0	0.0	0.0	858.7	0.0	0.0	0.0	0.0	0.0	0.0	4162	0.0	4162	260
4132	INTEX	17	0.0	537.0	0.0	0.0	0.0	537.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	250
4133	STATIA PECO 2 KM.6	23	142.0	0.0	0.0	0.0	0.0	142.0	0.0	0.0	0.0	0.0	0.0	0.0	4162	0.0	4162	250
4136	S.C. VINALCOOL S.A. PRAHOVA	15	82.0	130.0	0.0	0.0	0.0	212.3	0.0	0.0	0.0	0.0	0.0	0.0	4162	0.0	4162	250
4137	S.C. VEGA SA.	23	0.0	2216.0	0.0	0.0	0.0	6637.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	250
4138	PROGRESUL PLOIESTI	25	76.0	519.0	0.0	0.0	0.0	754.0	0.0	0.0	0.0	0.0	0.0	0.0	4162	0.0	4162	250
4139	EXTRAPAN SEDIU	15	149.0	22.0	0.0	0.0	0.0	171.0	0.0	0.0	0.0	0.0	0.0	0.0	4162	0.0	4162	250
4140	SECTIA L6 PLOIESTI	60	0.0	7.0	0.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	250
4141	24 IANUARIE	29	32.0	124.0	0.0	0.0	0.0	176.3	0.0	0.0	0.0	0.0	0.0	0.0	4162	0.0	4162	250
4142	PROGRESUL SECTIA PIGMENTI	25	0.0	54.0	0.0	0.0	0.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	250
4143	I.N.C.A.F. PLOIESTI	15	193.0	112.0	0.0	0.0	0.0	354.0	0.0	0.0	0.0	0.0	0.0	0.0	4506	0.0	4506	250
4144	S.C. CIPROM MECTA	45	0.0	98.0	0.0	0.0	0.0	98.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	250
4146	FEROEMAIL PLOIESTI	28	0.0	389.0	0.0	0.0	0.0	526.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	250
4147	DACIA PLOIESTI	28	0.0	159.0	0.0	0.0	0.0	158.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	250
4148	S.C. PETROTEL SA PL.	23	18929.0	5384.0	0.0	0.0	0.0	134622.3	0.0	0.0	0.0	0.0	0.0	0.0	4036	225.0	4036	L
4149	PETROTRANS PLOIESTI	23	0.0	205.0	0.0	0.0	0.0	213.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	250
4150	MATIZOL	45	0.0	493.0	0.0	0.0	0.0	975.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	L

Table B.2.4 Water Use Volume of Establishment in Prahovar River Basin (4/7)

Code	Name of Establishment	Activity Code	(Water Volume Unit: 1000m ³ /Year)										Model Block		
			Network Water (Drinking)	Ground-Water	Surface Water	Network Water (Industry)	Reuse	Total	Water Supply to Others	Supplier Code (Drinking)	Supplier Code (Industry)				
4151	U.M. 01959 BERCENI	75	0.0	14.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	L
4153	DOROBANTUL PLOIESTI	17	0.0	1373.0	0.0	0	0	95.7	1469.0	0.0	0.0	0.0	0.0	0.0	250
4155	DEPOULC.F.R.-SEDIU	60	14.0	316.0	0.0	0	0	0.0	330.3	0.0	4127	0.0	0.0	0.0	250
4156	UZUC PLOIESTI	29	0.0	303.0	0.0	0	0	285.3	588.7	0.0	0.0	0.0	0.0	0.0	260
4158	S.C. ASTRA ROMANA SA	23	40.0	2487.0	0.0	0	0	22143.3	24670.3	32.0	4162	0.0	0.0	0.0	250
4159	FORADEX PLOIESTI	36	0.0	27.0	0.0	0	0	0.0	26.7	0.0	0.0	0.0	0.0	0.0	250
4160	UPETROM PLOIESTI	29	258.0	1363.0	0.0	0	0	4233.3	5854.3	60.0	4162	0.0	0.0	0.0	250
4161	REVIZIA GHIGHIU	63	0.0	90.0	0.0	0	0	0.0	90.0	0.0	4162	0.0	0.0	0.0	250
4166	MANASTIREA SUZANA	80	0.0	6.0	0.0	0	0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	Dam2
4168	AUTOBAZA 1 PLOIESTI	60	18.0	12.0	0.0	0	0	6.0	35.7	3.0	4162	0.0	0.0	0.0	250
4170	HIPODROM PLOIESTI	92	19.0	4.0	0.0	0	0	0.0	23.3	0.0	4162	0.0	0.0	0.0	250
4171	S.C. BOVING S.A.BARCANESTI	012A	0.0	13.0	0.0	0	0	0.0	13.3	0.0	0.0	0.0	0.0	0.0	276
4190	S.C. EXPLOATARE LUCRARI IMBUNATATIRI FUNCJAR	0143A	0.0	3.0	1121.0	1714	0.0	0.0	2838.3	2489.0	0.0	4045	0.0	0.0	217
4194	UNITATEA MILITARA 0235 CIORANI	75	0.0	17.0	0.0	0	0	0.0	17.3	0.0	0.0	0.0	0.0	0.0	280
4195	PROGRESUL SECTIA OXIGEN	25	60.0	16.0	0.0	0	0	60.0	136.0	0.0	4160	0.0	0.0	0.0	250
4206	S.C.P.P. MAGURELE	0143C	48.0	28.0	248.0	21	0.0	0.0	345.3	0.0	4212	0.0	0.0	0.0	K
4209	PREFABRICATE BLEJOI	45	0.0	27.0	44.0	0	0	0.0	71.0	0.0	0.0	0.0	0.0	0.0	L
4211	U.M. VALENI DE MUNTE-SECTIA IZVOARE	29	246.0	5.0	0.0	0	0	4.0	255.0	0.0	4212	0.0	0.0	0.0	240
4213	VULTURUL COMARNIC	26	41.0	48.0	47.0	0	0	41.0	176.2	0.0	4026	0.0	0.0	0.0	200
4216	POMICOLA BAICOI	012B	7.0	44.0	201.0	0	0	0.0	252.3	0.0	4036	0.0	0.0	0.0	250
4217	VIDELMAR SEDIU	15	20.0	3.0	80.0	0	0	0.0	103.3	0.0	4374	0.0	0.0	0.0	280
4218	CABANA C.DORULUI	55	0.0	12.0	0.0	0	0	0.0	11.7	0.0	0.0	0.0	0.0	0.0	A
4221	CIPROM VEST	45	0.0	21.0	0.0	0	0	0.0	20.7	0.0	0.0	0.0	0.0	0.0	250
4223	CONSERVE MAGURELE	15	446.0	0.0	0.0	813	0.0	0.0	1259.0	12.0	4506	0.0	0.0	0.0	K
4225	TABERE SUZANA	80	67.0	12.0	0.0	0	0	0.0	79.3	0.0	4018	0.0	0.0	0.0	A
4228	BAZA DE PRODUCTIE PLOIESTI		2.0	0.0	0.0	0	0	0.0	2.0	0.0	4162	0.0	0.0	0.0	250
4230	PRIMARIA STOENESTI		0.0	160.0	0.0	0	0	0.0	159.5	0.0	0.0	0.0	0.0	0.0	250
4231	AGROZOOOTEHNICA DRAGNESTI	0143A	0.0	12.0	0.0	207	0.0	0.0	219.0	0.0	4190	0.0	0.0	0.0	H
4239	SECTIA EXTERIOARA CIORANI	85	0.0	6.0	0.0	0	0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	280
4257	U.M.01532	75	0.0	3.0	0.0	0	0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	250
4258	SOCIETATEA COMERCIALA AGROMEC DRAGANESTI	0141	0.0	7.0	0.0	0	0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	H
4260	PRIMARIA POTIGRAFU		0.0	63.0	0.0	0	0	0.0	63.0	0.0	0.0	0.0	0.0	0.0	E
4261	PRIMARIA DUMBRAVESTI		130.0	0.0	0.0	0	0	0.0	130.0	0.0	4212	0.0	0.0	0.0	K
4270	S.C. AGROINDUSTRIALA CERES S.A.	012A	0.0	81.0	0.0	1141	0.0	0.0	1221.7	0.0	4190	0.0	0.0	0.0	J

Table B.2.4 Water Use Volume of Establishmet in Prahovar River Basin (5/7) (WaterVolume Unit: 1000m3/Year)

Code	Name of Establishment	Activity Code	Network Water (Drinking)	Ground-Water	Surface Water	Network Water (Industry)	Reuse	Total	Water Supply to Others	Supplier Code (Drinking)	Supplier Code (Industry):	Model Block
4273	COPIMEX BRAZI	012B	0.0	122.0	1.0	0	0.0	123.0	0.0	0.0		E
4287	POMICOLA MEHEDINTA		0.0	181.0	176.0	0	0.0	367.0	0.0	0.0		O
4292	S.C. PETROUTILAJ S.A.	29	216.0	0.0	189.0	0	140.0	545.0	0.0	4037		217
4298	UNIT. TERIT. 440	75	15.0	1.0	0.0	0	0.0	16.7	0.0	4212		K
4305	INDUSTRIE MICA MOARA DE MOZAIC	14	0.0	0.0	0.0	0	0.0	0.0	0.0	4034		275
4307	TRANSPORT VALENII DE MUNTE	60	24.0	1.0	0.0	0	0.0	25.0	0.0	4506		240
4308	SOCIETATEA COMERCIALA ANTECO S.A.	36	24.0	5.0	0.0	0	17.0	46.0	0.0	4162		250
4310	U.M.01562	75	0.0	6.0	0.0	0	0.0	5.7	0.0	0.0		K
4311	COCA COLA PLOIESTI	15	0.0	285.0	0.0	0	0.0	285.0	0.0	0.0		260
4314	TROMET	28	34.0	12.0	0.0	0	23.7	70.3	0.0	4162		260
4315	ATLAS GIP PLOIESTI	23	14.0	75.0	0.0	0	0.0	89.3	0.0	4036		250
4316	U.M.01819	75	0.0	90.0	0.0	0	16.7	106.3	0.0	0.0		276
4318	PRAHOVEANA PLOIESTI	18	68.0	4.0	0.0	0	0.0	71.7	0.0	4162		250
4319	BASTI PLOIESTI	26	24.0	0.0	0.0	0	16.3	40.3	0.0	4162		250
4320	FORADEX SOAIENI	36	0.0	66.0	0.0	0	0.0	66.3	0.0	0.0		L
4321	S.C. VALDEN S.A.	24	12.0	3.0	0.0	0	13.0	28.0	0.0	4223		240
4322	T.C.I. PLOIESTI	45	212.0	5.0	0.0	0	0.0	217.3	0.0	4050		220
4324	S.C. UMERVA S.A.	63	0.0	240.0	0.0	0	167.3	407.0	0.0	0.0		260
4325	U.M.01899 PLOIESTI	75	0.0	86.0	0.0	0	0.0	86.3	0.0	0.0		276
4326	DELTA DESIGN S.A. COMPLEX DE AGREMENT DACI	92	0.0	11.0	11.0	0	0.0	22.0	0.0	0.0		L
4327	S.C. ROVIT S.A.	0143C	0.0	57.0	0.0	0	0.0	57.0	0.0	0.0		L
4328	EDILCONST	14	23.0	0.0	0.0	0	0.0	23.3	0.0	4034		217
4329	AUTOBAZA-TELEAJEN	60	8.0	0.0	0.0	0	0.0	8.0	0.0	4162		250
4330	AUTOBAZA 6 CALATORI	60	34.0	15.0	0.0	0	10.7	59.7	0.0	4162		250
4331	INTERNATIONAL SINAIA	55	248.0	0.0	0.0	0	0.0	248.0	0.0	4008		A
4332	U.M.01907	75	8.0	0.0	0.0	0	0.0	8.0	0.0	4162		250
4341	ASOCIATIA VINATORILOR SI PESCARILOR SPORTIVI	05A	0.0	0.0	57.0	0	0.0	57.3	0.0	0.0		250
4342	COMPLEX MUZEAL POSADA	55	0.0	32.0	0.0	0	0.0	31.7	0.0	4162		A
4343	CONPET SECTIA SIRT	60	10.0	29.0	0.0	0	0.0	38.3	0.0	0.0		250
4344	ANCOSTAR PLOIESTI	36	2.0	21.0	0.0	0	15.7	39.0	0.0	4162		250
4345	S.C. TRANSAGROSERV S.R.L PLOIESTI	012B	0.0	10.0	0.0	0	0.0	10.0	0.0	0.0		250
4348	ROMSILVA RA- OCOL SILVIC AZUGA	05B	0.0	0.0	7540.0	0	0.0	7540.0	0.0	0.0		195
4350	AGROCOM PLOIESTI	15	0.0	46.0	0.0	0	38.0	84.0	0.0	0.0		250
4358	R.A.T.C.PLOIESTI	60	0.0	121.0	0.0	0	0.0	121.3	0.0	0.0		260

Table B.2.4 Water Use Volume of Establishmet in Prahovar River Basin (6/7)

Code	Name of Establishment	Activity Code	(Water Volume Unit: 1000m ³ /Year)										Model Block
			Network Water (Drinking)	Ground-Water	Surface Water	Network Water (Industry)	Reuse	Total	Water Supply to Others	Supplier Code (Drinking)	Supplier Code (Industry)		
4358	AGRICOM	012A	0.0	5.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	276	
4361	ARTA METALULUI BOLDESTI	28	0.0	12.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	L	
4507	CAMINUL DE BATRINI MISLEA	85	123.0	0.0	0.0	0.0	0.0	0.0	123.3	0.0	4041	217	
4512	UBEMAR	45	211.0	0.0	0.0	0.0	0.0	0.0	210.7	44.0	4148	250	
4515	SPITAL HEPATITA BAICOI	85	14.0	0.0	0.0	0.0	0.0	0.0	13.7	0.0	4148	250	
4517	POLIGON P.S.I.BOLDESTI UM 0443	75	48.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	4099	L	
4524	LICEUL BARCANESTI	80	29.0	0.0	0.0	0.0	0.0	0.0	28.7	0.0	4162	276	
4530	RULMENTI GREI	29	320.0	437.0	0.0	0.0	0.0	1311.3	2068.3	0.0	4162	260	
4531	UZTEL	28	0.0	329.0	0.0	0.0	0.0	293.3	622.7	0.0	0.0	250	
4532	SALINA SLANIC	14	24.0	0.0	0.0	0.0	0.0	0.0	24.3	0.0	4127	K	
4533	S.C. FLAGARA S.A.	28	260.0	0.0	0.0	0.0	0.0	160.3	420.7	0.0	4162	250	
4535	STATIA SOL CHEIA	64	4.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	4506	Dam2	
4536	S.C.V.PRAHOVEI CIMPINA	60	68.0	0.0	0.0	0.0	0.0	21.0	89.0	0.0	4034	217	
4538	TURNATORIA CAMPINA	28	1270.0	0.0	0.0	0.0	0.0	4958.0	6228.0	0.0	4034	217	
4539	FILATURA URLATI	17	56.0	0.0	0.0	0.0	0.0	0.0	56.0	0.0	4374	280	
4540	S.C. INTRETINERE SI REPARATII AUTO PLOIESTI	60	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	4168	250	
4541	MONTANA	55	208.0	0.0	0.0	0.0	0.0	0.0	208.0	0.0	4008	A	
4543	S.C.BREAZAS.A. CIMPINA	55	77.0	0.0	0.0	0.0	0.0	0.0	76.7	0.0	4034	217	
4544	CARAIMAN	55	143.0	0.0	0.0	0.0	0.0	0.0	143.3	0.0	4018	195	
4545	PALACE	55	193.0	0.0	0.0	0.0	0.0	0.0	193.3	0.0	4008	A	
4546	AMPLO	29	32.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0	4158	250	
4547	CABLUL ROM.PLOIESTI	27	13.0	0.0	0.0	0.0	0.0	0.0	13.3	0.0	4162	250	
4548	ERMAT	45	44.0	0.0	0.0	0.0	0.0	0.0	44.0	0.0	4512	250	
4549	BAZAPROV.FLORESTI	51	40.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	4037	217	
4550	PETROS PLOIESTI	23	60.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	4162	250	
4551	SOCIETATEA COMERCIALA APASCO S.A.MANECIU	45	44.0	0.0	24.0	0.0	0.0	0.0	68.3	0.0	4506	J	
4552	F.S.H.BAICOI	29	263.0	0.0	0.0	0.0	0.0	521.7	784.3	0.0	4041	250	
4554	ELECTROUTILAJ	31	245.0	0.0	0.0	0.0	0.0	26.0	270.7	0.0	4034	217	
4555	S.C. PETROS S.A.	29	27.0	0.0	0.0	0.0	0.0	12.0	39.0	0.0	4034	217	
4556	AGROMEC BARCANESTI	0141	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	4162	276	
4557	FORAJ SONDE PLOIESTI	11	24.0	5.0	0.0	0.0	0.0	0.0	28.7	0.0	4041	250	
4558	STEROM CAMPINA	29	476.0	0.0	0.0	0.0	0.0	1962.7	2439.0	0.0	4034	217	
4559	NEPTUN CAMPINA	29	589.0	0.0	0.0	0.0	0.0	757.3	1346.0	0.0	4034	217	
4560	CAMEXIP	29	71.0	0.0	0.0	0.0	0.0	0.0	71.3	0.0	4041	250	

Table B.2.4 Water Use Volume of Establishmet in Prahovar River Basin (7/7) (Water Volume Unit: 1000m³/Year)

Code	Name of Establishment	Activity Code	Network Water (Drinking)	Ground-Water	Surface Water	Network Water (Industry)	Reuse	Total	Water Supply to Others	Supplier Code (Drinking)	Supplier Code (Industry)	Model Block
4561	CITRICIM CAMPINA	17	237.0	0.0	0.0	0.0	0	273.3	0.0	4034	4034	217
4563	S.C. PALTINU S.A. CIMPINA	51	90.0	0.0	0.0	0	0.0	90.0	0.0	4034	4034	217
4564	SPITAL BAICOI	85	49.0	0.0	0.0	0	14.7	63.7	0.0	4041	4041	250
4566	GR.SC.CIMPINA	80	48.0	0.0	0.0	0	0.0	48.3	0.0	4034	4034	217
4568	U.M.1065	75	65.0	0.0	0.0	0	0.0	65.3	0.0	4162	4162	220
4575	S.C. COSERTRANS S.A.CIMPINA	60	367.0	0.0	0.0	0	243.0	610.3	0.0	4034	4034	217
4577	S.C. AGROS SCAIENI	012A	43.0	0.0	0.0	302	0.0	345.0	0.0	4099	4190	L
4583	S.C.ELECTROMONTAJ S.A.	29	21.0	0.0	0.0	18	0.0	38.7	0.0	4034	4035	217
4585	U.M. 01958 CIUPERCEASCA	75	40.0	0.0	0.0	0	0.0	40.3	0.0	4041	4041	250
4591	SPITAL BREAZA	85	31.0	0.0	0.0	0	0.0	31.3	0.0	4028	4028	200
4593	SPITAL VOILA	85	119.0	0.0	0.0	0	0.0	118.7	0.0	4034	4034	217
4594	SPITAL ORAS CIMPINA	85	244.0	0.0	0.0	0	0.0	244.3	0.0	4034	4034	217
4598	U.M.0865 SCOALA DE JANDARMI	75	67.0	0.0	0.0	0	0.0	67.0	0.0	4034	4034	217

Table B.2.5 Surface Water Intake Volume

Model Block	Name of Establishment	Municipality	Activity Code	Activity	River	Volume (1000m3)	Remarks
195	AD.P.P. AZUGA	Azuga	41A1	Water Supply (Drinking)	Prahova	3622	
195	SINTERREF AZUGA	Azuga	26	Non-Metallic Mineral Products	Azuga	83	
195	BERE AZUGA	Azuga	15	Food/Beverage	Azuga	674	
195	POSTAV AZUGA	Azuga	17	Textiles	Azuga	465	
195	ROMSILVA RA.- OCOL SILVIC AZUGA	Azuga	05B	Fish Farming (Clean water)	Azuga	7540	
195	STIAZ AZUGA	Azuga	26	Non-Metallic Mineral Products	Prahova	119	
195	HARTIA BUSTENI	Busteni	21	Paper/Paper Products	Prahova	4221	
195	APEVITA PREDEAL	Predeal	41A3	Water Supply (Industry/Drinking)	Azuga	871	
				Sub-total		17595	
A	AD.P.P.SINAIA	Sinaia	41A1	Water Supply (Drinking)	Prahova	1382	
A	MEFIN SINAIA	Sinaia	29	Machinery/Equipment	Prahova	275	
				Sub-total		1657	
200	AD.P.P. COMARNIC	Comarnic	41A1	Water Supply (Drinking)	Prahova	316	
200	PRESCON COMARNIC	Comarnic	14	Mining/Quarrying	Prahova	36	
200	VULTURUL COMARNIC	Comarnic	26	Non-Metallic Mineral Products	Prahova	47	
				Sub-total		399	
Dam1	PRIMARIA VALEA DOFTANEI	Valea Doftanei	41A1	Water Supply (Drinking)	Doftana	40	
B	A.R.R.A. FILIALA PLOIESTI S.H. PALTINU	Cimpina	41A1	Water Supply (Drinking)	Doftana	68424	
C	RA.G.C.L. CIMPINA	Cimpina	41A3	Water Supply (Industry/Drinking)	Doftana	8675	
C	S.C.STEAUA ROMANA SA	Cimpina	23	Petroleum Refinery	Doftana	218	
C	ASOCIATIA VINATORILOR SI PESCARILOR SPORTIVI	Ploiesti	05A	Fish Farming	Doftana	57	
C	SOCIETATEA COMERCIALA APASCO S.A.MANECIU	Maneciu	45	Construction	Doftana	24	
				Sub-total		8974	Voila Intake
217	S.C. PETROUTILAU SA	Cimpina	29	Machinery/Equipment	Prahova	185	
217	S.C. EXPLOATARE LUCRARI IMBUNATATIRI	Ploiesti	0143A	Irrigation (Crops)	Prahova	1121	
217	POMICOLA BAICOI	Baicoi	012B	Livestock Farm (small)	Prahova	201	
217	A.R.R.A. FILIALA PLOIESTI S.H. NEDELEA	Arcestii	41A2	Water Distribution (Industry)	Prahova	16861	Nodelea Intake
217	SCHELA DE PRODUCTIE PETROLIERA MORENI	Moreni	11	Crude Oil Extraction	Prahova	343	
				Sub-total		18715	
E	COPIMEX BRAZI	Brazi	012B	Livestock Farm (small)	Prahova	1	
J	A.R.R.A. FILIALA PLOIESTI S.H. MANECIU	Maneciu	41A1	Water Supply (Drinking)	Teleajen	1102	
J	NERGA MANECIU SECTOR MANECIU	Maneciu	41A1	Water Supply (Drinking)	Teleajen	58	
J	S.E.P.P.L. MANECIU	Maneciu	20	Wood	Teleajen	40	
J	A.R.R.A. FILIALA PLOIESTI S.H. VALENI	Valenii de	41A1	Water Supply (Drinking)	Teleajen	38157	Valenii de Munte Intake
				Sub-total		39357	
240	RA.G.C.L. VALENI	Valenii de	41A1	Water Supply (Drinking)	Teleajen	417	
240	STICLOVAL VALENI	Valenii de	14	Mining/Quarrying	Teleajen	1764	
				Sub-total		2181	
K	GOSCOM SLANIC	Slanic	41A1	Water Supply (Drinking)	Varbilau	352	
K	S.C.P.P. MAGURELE	Magurele	0143C	Irrigation (Wine)	Varbilau	248	
				Sub-total		600	
L	PREFABRICATE BLEJOI	Blejoii	45	Construction	Teleajen	44	
L	DELTA DESIGN S.A. COMPLEX DE AGREMENT	Bucov	92	Recreational/Cultural/Sporting Activity	Teleajen	11	
L	S.C.ROMFOSFOCHIM SA	Valea	24	Chemicals/Chemical Products	Teleajen	1694	Pantazi Intake
				Sub-total		1749	
O	VIDELMAR SEDIU	Albesti-	15	Food/Beverage	Cricovul	80	
O	POMICOLA MEHEDINTA	Podenii Noi			Cricovul	176	
				Sub-total		256	
				Total		159948	

Tabel B.2.6 Network Water Supplier and Water Source (1/2)

Network Water Supplier				Surface Water Supplier No.1				Surface Water Supplier No.2				
Code	Name	Water Type *	Water Source **	No of Supplier	Code	Name	Model Block	Ratio	Code	Name	Model Block	Ratio
4008	AD.P.P. AZUGA	D	S	1	4008	AD.P.P. AZUGA	195	1.00			195	
4011	AD.P.P. BUSTENI	D	S	1	4014	HARTIA BUSTENI	195	1.00				
4018	AD.P.P. SINAJA	D	S	2	4018	AD.P.P. SINAJA	A	0.36	4008	AD.P.P. AZUGA		0.64
4022	S.G.C.L. BOLDESTI	D	U	1	4026	AD.P.P. COMARNIC	200	1.00				
4026	AD.P.P. COMARNIC	D	S	1	4034	R.A.G.C.L. CAMPINA	C	0.62	4036	ARRA. FILIALA PLOIESTI	B	0.38
4028	CIVITAS BREAZA	D	S	2	4034	R.A.G.C.L. CAMPINA	C	0.62	4036	ARRA. FILIALA PLOIESTI	B	0.38
4034	R.A.G.C.L. CAMPINA	D	S	2	4034	ARRA. FILIALA PLOIESTI						
4036	ARRA. FILIALA PLOIESTI	D	S	1	4036	S.H. PALTINU	B	1.00				
	S.H. PALTINU					ARRA. FILIALA PLOIESTI						
4037	S.P. BAICOI	D	S	1	4212	S.H. VALENI	240	1.00				
4041	S.G.C.L. BAICOI	D	S	1	4036	ARRA. FILIALA PLOIESTI	B	1.00				
4050	ARRA. FILIALA PLOIESTI	D	S	1	4036	ARRA. FILIALA PLOIESTI						
4088	NERGA MANECIU SECTOR	D	U	2	4088	NERGA MANECIU SECTOR	J	0.10	4275	ARRA. FILIALA PLOIESTI	J	0.90
4099	MANECIU	D	S	2	4088	MANECIU						
4127	SCHELA BOLDESTI	D	U	1	4127	GOSCOM SLANIC	K	1.00				
	GOSCOM SLANIC	D	S	1	4127	ARRA. FILIALA PLOIESTI	B	1.00				
4148	S.C. PETROTEL SA PL	D	S	1	4036	S.H. PALTINU	B	1.00				
4158	S.C. ASTRA ROMANA SA	D	S	1	4036	ARRA. FILIALA PLOIESTI	B	1.00				
4160	UPETROM PLOIESTI	D	S	1	4036	S.H. PALTINU	B	1.00				
4162	R.A.G.C. PLOIESTI	D	S	1	4036	ARRA. FILIALA PLOIESTI	B	1.00				
4168	AUTOBAZA 1 PLOIESTI	D	S	1	4036	ARRA. FILIALA PLOIESTI	B	1.00				
	ARRA. FILIALA PLOIESTI					S.H. PALTINU						
4212	S.H. VALENI	D	S	1	4212	S.H. VALENI	240	1.00				
4223	CONSERVE MAGURELE	D	S	2	4506	R.A.G.C.L. VALENI	240	0.26	4212	ARRA. FILIALA PLOIESTI	240	0.74
4374	S.G.C.L. URLATI	D	S	1	4117	S.C. ROMFOSFOCHIM SA	L	1.00				
4506	R.A.G.C.L. VALENI	D	S	2	4506	R.A.G.C.L. VALENI	240	0.26	4212	ARRA. FILIALA PLOIESTI	240	0.74
4512	UBEMAR	D	S	1	4036	ARRA. FILIALA PLOIESTI	B	1.00				

Note : * D: Drinking Water, ND: Non-drinking Water

** S: Surface Water, U: Groundwater

Tabel B.2.6 Network Water Supplier and Water Source (2/2)

Network Water Supplier			Surface Water Supplier No.1			Surface Water Supplier No.2					
Code	Name	Water Source Type **	No of Supplier	Code	Name	Model Block	Ratio	Code	Name	Model Block	Ratio
4035	S.C.STEAUA ROMANA SA	ND	1	4035	S.C.STEAUA ROMANA SA	C	1.00				
4045	A.R.R.A. FILIALA PLOIESTI S.H. NEDELEA	ND	1	4045	A.R.R.A. FILIALA PLOIESTI S.H. NEDELEA	217	1.00				
4051	S.C. PETROBRAZI SA	ND	1	4045	A.R.R.A. FILIALA PLOIESTI S.H. NEDELEA	217	1.00				
4190	S.C. EXPLOATARE LUCRARI IMBUNATATIRI FUNCiare S	ND	2	4190	S.C. EXPLOATARE LUCRARI IMBUNATATIRI FUNCiare S	217	0.40	4045	A.R.R.A. FILIALA PLOIESTI S.H. NEDELEA	217	0.60

Note : * D: Drinking Water, ND: Non-drinking Water
 ** S: Surface Water, U: Groundwater

Table B.2.7 Existing Domestic Water Use (1/2)

(Water Volume Unit: 1000 m3/Year)

Model Point	Code	Municipality	Total Population	Population in Basin	Source **	Served Population	Unserved Population	Water from S	Water from U	Water from N	Water from N/S/U	Water from Well	Loss Percent
180	2211	Predeal	7182	5890	S	6500	559	409.3	0.0	0.0	409.3	10.2	0.05
195	2188	Azuga	6256	6256	N/S	5630	626	634.1	5.3	0.0	639.3	11.4	0.1
195	2185	Busteni	12053	12053	N/U	11450	603	0.0	690.2	702.9	1393.1	11.0	0.16
		Sub-total	18309	18309		17080	1229	634.1	695.4	702.9	2032.4	22	
A	2160	Sinaia	15063	15063	N/U	14310	753	943.1	560.9	1344.5	2848.6	13.7	0.35
200	2165	Breaza	19035	15908	N/U	13325	4772	0.0	677.6	734.4	1462.0	87.1	0.3
200	2190	Comarnic	13576	13576	S/U	10861	2715	820.3	567.2	0.0	1387.5	49.5	0.2
200	2157	Cornu	4413	4413	N	3530	883	0.0	0.0	257.7	257.7	16.1	0.1*
200	2196	Talea	1260	875	U	890*	257	0.0	65.0	0.0	65.0	4.7	0.1
		Sub-total	38284	34772		28606	8627	820.3	1309.8	1042.0	3172.2	157.4	
Dam1	2194	Secaria	1394	1394	U	82*	1312	0.0	6.0	0.0	6.0	23.9	0.1
Dam1	2171	Valea Doftanei	7051	7051	S/U	3526	3525	40.0	18.0	0.0	58.0	64.3	0.1
		Sub-total	8445	8445		3608	4837	40.0	24.0	0.0	64.0	88.3	
C	2169	Brebu	7884	7884	W	0	7884	0.0	0.0	0.0	0.0	143.9	
217	2150	Cimpina	40904	40904	N/S	36814	4090	3942.4	0.0	2933.7	6876.1	74.6	0.25
217	2065	Floresti	7633	3272	N	5343	981	0.0	0.0	173.5	173.5	17.9	0.12
217	2161	Magureni	6677	1998	U	1607*	1517	0.0	120.0	0.0	120.0	27.7	0.12
217	2158	Poiana Campina	5315	5315	N/U	1555*	3760	0.0	9.5	104.0	113.5	68.6	0.1*
217	2156	Sotrile	3505	3505	W		3505				0.0	64.0	
		Sub-total	64034	54993		45319	13854	3942.4	129.5	3211.2	7283.1	252.8	
E	2034	Gorgota	5637	5306	U	1084*	4286	0.0	80.0	0.0	80.0	78.2	0.11
E	2019	Manesti	7489	1432	W		1432				0.0	26.1	
E	2022	Poenarii Burchii	6339	1839	W		1839				0.0	33.6	
E	2033	Puchenii Mari	9115	9115	U	808*	8307	0.0	59.0	0.0	59.0	151.6	0.1
E	2017	Sirna	5599	4912	W		4912				0.0	89.6	
E	2018	Tinosu	2536	2536	W		2536				0.0	46.3	
		Sub-total	36715	25139.95		1892	23312	0.0	139.0	0.0	139.0	425.4	
M	2173	Banesti	5761	5761	N/U	4173*	1588	0.0	26.6	278.0	304.6	29.0	0.1
250	2000	Ploiesti	253414	253414	N/U	253414	0	0.0	21974.8	25825.2	47800.0	0.0	0.3
250	2064	Baicoi	20292	20292	N/U	18263	2029	0.0	61.3	2162.1	2223.3	37.0	0.2
250	2047	Blejoii	7594	7594	N/U	4017*	3577	0.0	226.0	67.3	293.2	65.3	0.1
250	2048	Paulesti	5073	5073	W		5073				0.0	92.6	0.1
		Sub-total	286373	286373		275694	10679	0.0	22262.1	28054.5	50316.6	194.9	
J	2122	Cerasu	5266	5266	W		5266				0.0	96.1	
J	2119	Drajna	5856	5856	W		5856				0.0	106.9	
J	2102	Izvoarele	6908	6908	N/U	3862	3046	0.0*	126.9*	126.9*	253.8*	55.6	
J	2104	Maneciu	11453	11453	N/U	7245*	4208	0.0	0.0	587.7	587.7	76.8	0.19
J	2126	Posesti	4482	1732	W		1732				0.0	31.6	
		Sub-total	33965	31215		11107	20107	0.0	126.9	714.5	841.4	367.0	
240	2100	Valenii de Munte	14005	14005	N	13305	700	0.0	0.0	803.0	803.0	12.8	0.25
240	2107	Teisani	4072	4072	U	2822*	1250	0.0	206.0	0.0	206.0	22.8	0.1
		Sub-total	18077	18077		16127	1950	0.0	206.0	803.0	1009.0	35.6	0.4
K	2079	Plopieni	10315	10315	N	10315*	0	0.0	0.0	1349.7	1349.7	0.0	0.2
K	2101	Slanic	7382	7382	S	2672	4710	175.1	0.0	0.0	175.1	86.0	0.1
K	2117	Alunis	3917	3917	U	781*	3136	0.0	57.0	0.0	57.0	57.2	0.1
K	2117B	Bertea	3491	3491	U	685*	2806	0.0	50.0	0.0	50.0	51.2	0.1
K	2179	Cocorastii Mislii	3650	3650	U	785*	2865	0.0	57.3	0.0	57.3	52.3	0.1
K	2083	Cosminele	1308	1308	W		1308				0.0	23.9	
K	2081	Dumbravesti	3667	3667	N	1648*	2019	0.0	0.0	127.4	127.4	36.8	0.15
K	2112	Gura Vitoarei	6024	6024	W		6024				0.0	109.9	
K	2129	Magurele	4824	4824	N	3125*	1699	0.0	0.0	270.2	270.2	31.0	0.24
K	2177	Scorteni	6015	6015	U	2096*	3919	0.0	153.0	0.0	153.0	71.5	0.1
K	2116	Stefesti	2510	2510	W		2510				0.0	45.8	
K	2167	Telega	6720	6720	U	6164*	556	0.0	450.0	0.0	450.0*	10.1	0.1*
K	2115	Varbilau	7145	7145	W		7145				0.0	130.4	
K	2082	Valcanesti	4104	4104	W		4104				0.0	74.9	
		Sub-total	71072	71072		28271	42801	175.1	767.3	1747.2	2689.6	781.1	
L	2085	Boldesti-Scaileni	11583	11583	N/U	9266	2317	0.0	632.1	228.2	860.3	42.3	0.1
L	2028	Berceni	5871	5871	N/U	3047*	2824	0.0*	110.0*	110.0*	220.0	51.5	0.09
L	2038	Bucov	10282	10282	W		10282				0.0	187.6	0.1
L	2088	Lipanesti	4875	4875	N	4110*	765	0.0	0.0	300.0	300.0	14.0	0.1
L	2039	Plopu	2219	2219	W		2219				0.0	40.5	
L	2040	Calugareasca	10655	10655	U	3535*	7120	0.0	273.3	0.0	273.3	129.9	0.15
		Sub-total	45485	45485		19958	25527	0.0	1015.4	838.2	1853.6	465.9	

Note: Figures with * are estimated by the Study Team

Source ** S: Surface Water, U: Deep Well, N: Network Water, W: Shallow Well

Table B.2.7 Existing Domestic Water Use (2/2)

(Water Volume Unit: 1000 m³/Year)

Model Point	Code	Municipality	Total Population	Population in Basin	Source **	Served Population	Unserved Population	Water from S	Water from U	Water from N	Water from N/S/U	Water from Well	Loss Percent
270	2071	Rahtivani	8007	8007	U	2329*	5678	0.0	170.0	0.0	170.0	103.6	0.1
270	2026	Barcanesti	9134	9134	N/U	2740	6394	0.0	177.5*	177.5*	355.0	116.7	0.11
270	2011	Brazi	8133	8133	N	5528*	2605	0.0	0.0	403.5	403.5	47.5	0.1
270	2029	Rafov	5514	5514	W		5514				0.0	100.6	
270	2016	Targoru Vechi	8260	8260	U	1507*	6753	0.0	110.0	0.0	110.0	123.2	0.1*
		Sub-total	39048	39048		12104	26944	0.0	457.5	581.0	1038.5	491.7	
275	2148	Lapos	1561	1416	W		1416				0.0	25.8	
275	2149	Salcia	1350	1350	W		1350				0.0	24.6	
275	2146	Singeru	5444	5444	W		5444				0.0	99.4	
275	5191	Cislau	5076	1269	W		1269				0.0	23.2	
		Sub-total	13431	9479		0	9479	0.0	0.0	0.0	0.0	173.0	
O	2141	Apostolache	2429	2429	W		2429				0.0	44.3	
O	2140B	Aricestii Zeletin	1474	1474	U	210*	1264	0.0	15.0	0.0	15.0	23.1	0.08
O	2131	Baltesti	3547	3547	U	2466*	1081	0.0	180.0	0.0	180.0	19.7	0.1
O	2139	Carbunesti	1964	1964	U	548*	1416	0.0	40.0	0.0	40.0	25.8	0.1
O	2142	Chiojdeanca	1919	1919	W		1919				0.0	35.0	
O	2143	Gornet Cricov	2760	2760	W		2760				0.0	50.4	
O	2130	Gornet	3254	3254	N	548*	2706	0.0	0.0	40.0	40.0	49.4	0.1*
O	2041B	Iordacheanu	5175	5175	W		5175				0.0	94.4	
O	2135	Pacureti	2278	2278	U	822*	1456	0.0	60.0	0.0	60.0	26.6	0.1
O	2133	Podenii Noi	4787	4787	U	1521*	3266	0.0	111.0	0.0	111.0	59.6	0.1*
O	2109	Predeal Sarari	2681	2681	W		2681				0.0	48.9	
O	2140	Surani	1879	1879	U	342*	1537	0.0	25.0	0.0	25.0	28.0	0.1*
O	2137	Soimari	3159	3159	W		3159				0.0	57.7	
O	2144	Tataru	1314	863	W		863				0.0	15.8	
		Sub-total	38620	38169		6457	31713	0.0	431.0	40.0	471.0	578.8	
280	2041C	Urlati	11893	10114	N	10114	1513	0.0	0.0	683.0	683.0	27.6	0.25
280	2041	Paleologu	5960	5960	U	414*	5546	0.0	34.0	0.0	34.0	101.2	0.2
280	2053	Giorani	7206	6762	U	6849*	335	0.0	500.0	0.0	500.0*	6.1	0.1*
		Sub-total	25059	22836		17377	7394	0.0	534.0	683.0	1217.0	134.9	
H	2036	Balta Doamnei	2719	1107	W		1107				0.0	20.2	
H	2055	Draganesti	5065	5065	W		5065				0.0	92.4	
H	2056	Dumbrava	4163	4163	W		4163				0.0	76.0	
H	2059	Gherghita	3964	3964	W		3964				0.0	72.3	
H	8216	Adincata	3184	366	W		366				0.0	6.7	
		Sub-total	19095	14665		0	14665	0.0	0.0	0.0	0.0	267.6	
		Total	791902	752676		508583	253901	6964.3	28685.3	39840.3	75490.0	4633.7	

Note: Figures with * are estimated by the Study Team

Source **: S: Surface Water, U: Deep Well, N: Network Water, W: Shallow Well

Two (2) communes, Nuci (population in the Prahova River Basin: 787) and Brazii (1532) are located downstream of Model Point H.

Table B.2.8 Existing Industrial Water Use

(Water Volume Unit: 1000 m³/Year)

Model Block	Intake				Reuse	Supply to Others	Water Use
	Network Water (Drinking)	Ground-water	Surface Water	Network Water (Non-Drinking)			
195	269.0	1552.0	5562.0	0.0	5294.3	795.0	11882.3
A	1227.0	168.0	275.0	0.0	1167.0	0.0	2837.0
200	866.0	118.0	83.0	0.0	2097.7	0.0	3164.7
C	2278.0	0.0	218.0	0.0	3282.0	0.0	5778.0
217	6681.0	3871.0	189.0	18.0	21574.3	0.0	32313.3
220	14043.0	11404.0	0.0	15145.0	484112.3	0.0	524704.3
250	2618.0	13782.0	0.0	0.0	33615.2	395.0	49620.2
Dam2	4.0	16.0	0.0	0.0	0.0	0.0	20.0
J	74.0	12.0	64.0	0.0	47.0	0.0	197.0
240	301.0	9.0	1764.0	0.0	9398.3	0.0	11472.3
K	1856.0	6009.0	0.0	813.0	10312.0	1771.0	17219.0
L	16987.0	9102.0	1749.0	0.0	137592.0	374.0	165056.0
260	659.0	1924.0	0.0	0.0	2099.0	0.0	4682.0
270	29.0	238.0	0.0	5.0	16.7	0.0	288.7
280	76.0	26.0	80.0	0.0	0.0	0.0	182.0
Total	47948.0	48231.0	9984.0	15981.0	710607.8	3335.0	829416.8

Table B.2.9 Existing Industrial Water Use by Municipality
(Unit :1000m3/year)

Code	Name	Intake			Reuse	Supply to Others	Water Use	Area*	
		Network Water (Drinking)	Ground-water	Surface Water					Network Water (Non-Drinking)
2150	Cimpina	6634	0	407	18	11438	0	18497	2
2000	Ploiesti	24549	18391	0	8638	354153	332	405399	1
2188	Azuga	89	109	1341	0	274	0	1813	3
2064	Baicoi	680	2973	0	0	1730	256	5127	5
2085	Boldesti-Scaieni	238	4201	0	0	2731	409	6761	5
2165	Breaza	821	70	0	0	2057	0	2948	3
2185	Busteni	180	1443	4221	0	5020	795	10069	3
2190	Comarnic	45	48	83	0	41	0	217	3
2079	Plopeni	1181	1879	0	0	7581	1350	9291	5
2180	Sinaia	1227	105	275	0	1149	0	2756	3
2101	Slanic	24	0	0	0	0	0	24	5
2100	Valenii de Munte	301	9	1764	0	9398	0	11472	5
2041	Albesti-Paleologu	76	3	80	0	0	0	159	5
2071	Aricescii Rahtivani	0	62	0	0	0	0	62	1
2026	Barcanesti	29	0	0	0	0	0	29	1
2028	Berceni	0	507	0	0	483	0	990	1
2047	Blejoii	0	27	44	0	0	0	71	1
2011	Brazi	212	5	0	0	0	0	217	1
2038	Bucov	10	460	11	0	180	0	661	1
2053	Giorani	0	23	0	0	0	0	23	5
2119	Drajna	0	12	0	0	0	0	12	5
2076	Filipestii de Targ	0	22	0	0	0	0	22	5
2065	Floresti	2182	3787	0	0	13418	0	19387	4
2112	Gura Vitioarei	15	1	0	0	0	0	16	5
2129	Magurele	446	6	0	813	0	12	1253	5
2104	Maneciu	44	0	24	0	0	0	68	5
2048	Paulesti	48	540	0	0	0	0	588	1
2177	Scorteni	123	0	0	0	0	0	123	5
2040	Valea Galugareasca	0	1814	1694	0	2117	149	5476	5
2106	Maneciu (Cheia)	4	16	0	0	0	0	20	5
2026B	Berceni (Corlatesti)	40	4793	0	0	26565	32	31366	1
2000B	Targisorul Vechi (Crangul)	0	90	0	0	17	0	107	1
2105	Maneciu (Maneciu)	30	0	40	0	47	0	117	5
2013	Brazi (Negoiesti)	65	0	0	0	0	0	65	1
2018B	Brazi (Pisculesti)	8655	5878	0	6507	272001	0	293041	1
2038B	Bucov (Pleasa)	0	832	0	0	191	0	1023	1
2192	Comarnic (Posada)	0	63	0	0	18	0	81	3
2074	Aricescii Rahtivani (T.G.)	0	62	0	5	0	0	67	5
Total		47948	48231	9984	15981	710608	3335	829417	5

Note: Area 1: Proiesti Surroundings, 2: Cimpina, 3: Prahova Valey, 4: Floresti, 5: Others

Table B.2.10 Existing Industrial Water Use by Activity

Activity Code	Activity	Volume (1000/m ³ /Year)										Percentage (%)				
		Network Water (Drinking)					Network Water (Non-drinking)					Network Water (No-drinking)				
		Ground-water	Surface Water	Water (Non-drinking)	Reuse	Supply to Others	Water Use	Network Water (Drinking)	Ground-water	Surface Water	Water (No-drinking)	Reuse	Supply to Others	Surface Water	Water (No-drinking)	Reuse
11	Crude Oil Extraction	283.0	6181.0	0.0	1350.0	665.0	7149.0	3.96	86.46	0.00	0.00	0.00	0.00	0.00	18.88	
14	Mining/Quarrying	70.0	0.0	1800.0	0.0	9381.3	0.0	11251.3	0.62	0.00	0.00	0.00	16.00	83.38		
15	Food/Beverage	1143.0	862.0	754.0	813.0	340.3	12.0	3900.3	29.31	22.10	19.33	20.84	8.73	32		
17	Textiles	326.0	1910.0	465.0	0.0	131.7	0.0	2832.7	11.51	67.43	16.42	0.00	4.65	7		
19	Tanning/Dressing Leather	68.0	4.0	0.0	0.0	0.0	0.0	72.0	94.44	5.56	0.00	0.00	0.00	0.00		
20	Wood	320.0	270.0	40.0	0.0	2288.7	0.0	2918.7	10.96	9.25	1.37	0.00	78.41	14		
21	Paper/Paper Products	0.0	2024.0	4221.0	0.0	5371.7	795.0	10821.7	0.00	18.70	39.01	0.00	49.64	43		
23	Petroleum Refinery	26716.0	19709.0	218.0	8638.0	390007.0	257.0	445031.0	6.00	4.43	0.05	1.94	87.64	90		
24	Chemicals/Chemical Products	209.0	2253.0	1694.0	0.0	2429.0	149.0	6436.0	3.25	35.01	26.32	0.00	37.74	82		
25	Rubber/Plastic Products	136.0	589.0	0.0	0.0	219.5	0.0	944.5	14.40	62.36	0.00	0.00	23.24	75		
26	Non-Metallic Mineral Products	93.0	108.0	249.0	0.0	261.0	0.0	711.0	13.08	15.19	35.02	0.00	36.71	73		
27	Basic Metals	13.0	832.0	0.0	0.0	190.7	0.0	1035.7	1.26	80.33	0.00	0.00	18.41	90		
28	Metal Products Fabricated	1564.0	901.0	0.0	0.0	5572.7	0.0	8037.7	19.46	11.21	0.00	0.00	69.33	51		
29	Machinery/Equipment	4840.0	4150.0	464.0	18.0	19950.3	1410.0	28012.3	17.28	14.81	1.66	0.06	71.22	66		
31	Electrical Machinery/Apparatus	317.0	0.0	0.0	0.0	26.0	0.0	343.0	92.42	0.00	0.00	0.00	7.58	71		
36	Furniture	26.0	119.0	0.0	0.0	32.7	0.0	177.7	14.63	66.98	0.00	0.00	18.39	15		
40A	Electricity/Gas/Water Supply	8655.0	5878.0	0.0	6507.0	272000.7	0.0	293040.7	2.95	2.01	0.00	2.22	92.82	65		
45	Construction	521.0	886.0	68.0	0.0	575.3	44.0	2006.3	25.97	44.16	3.39	0.00	28.68	90		
51	Wholesale Trade/Commission Trade	130.0	0.0	0.0	0.0	0.0	0.0	130.0	100.00	0.00	0.00	0.00	0.00	0.00		
55	Hotel/Restaurant	907.0	86.0	0.0	0.0	0.0	0.0	993.0	91.34	8.66	0.00	0.00	0.00	0.00		
60	Land Transport	546.0	501.0	0.0	0.0	280.7	3.0	1324.7	41.22	37.82	0.00	0.00	21.19	0.00		
63	Transport Activities	0.0	330.0	0.0	0.0	167.3	0.0	497.3	0.00	66.35	0.00	0.00	33.65	0.00		
64	Post/Telecommunication	4.0	0.0	0.0	0.0	0.0	0.0	4.0	100.00	0.00	0.00	0.00	0.00	0.00		
75	Public Administration/Defense	290.0	454.0	0.0	5.0	18.7	0.0	765.7	37.88	59.29	0.00	0.65	2.18	0.00		
80	Education	144.0	90.0	0.0	0.0	0.0	0.0	234.0	61.54	38.46	0.00	0.00	0.00	0.00		
85	Health/Social Work	608.0	79.0	0.0	0.0	14.7	0.0	701.7	86.65	11.26	0.00	0.00	2.09	0.00		
92	Recreational/Cultural/Sporting	19.0	15.0	11.0	0.0	0.0	0.0	45.0	42.22	33.33	24.44	0.00	0.00	0.00		
		47948.0	48231.0	9984.0	15981.0	710607.8	3335.0	829416.8	5.78	5.82	1.20	1.93	85.68			

Table B.2.11 Existing Agricultural Water Use

(Unit : 1000m³/year)

Model Block	Activity	Intake				Supply to Others	Water Use
		Network Water (Drinking)	Ground-water	Surface Water	Water (Non-drinking)		
195	Inland Fishery	0	0	7540	0	0	7540
217	Irrigation	0	3	1121	1714	2489	349
220	Livestock Farm	0	488	0	0	0	488
E	Livestock Farm	0	157	1	0	0	158
250	Livestock Farm	7	57	201	0	0	265
250	Inland Fishery	0	0	57	0	0	57
	Sub-total	7	57	258	0	0	322
J	Livestock Farm	0	81	0	1141	0	1222
K	Agricultural Activities	0	11	0	0	0	11
K	Irrigation	48	28	248	21	0	345
	Sub-total	48	39	248	21	0	356
L	Livestock Farm	154	45	0	302	0	501
L	Irrigation	0	57	0	0	0	57
		154	102	0	302	0	558
260	Irrigation	0	241	0	392	0	633
270	Livestock Farm	0	18	0	0	0	18
270	Agricultural Activities	2	0	0	0	0	2
270	Irrigation	1357	266	0	0	0	1623
		1359	284	0	0	0	1643
280	Livestock Farm	0	9	0	0	0	9
280	Agricultural Activities	0	13	0	0	0	13
		0	22	0	0	0	22
H	Agricultural Activities	0	7	0	0	0	7
H	Irrigation	0	12	0	207	0	219
	Sub-total	0	19	0	207	0	226
	Total	1568	1493	9168	3777	2489	13517

Table B.2.12 Domestic Water Demand in 2015 (1/3)

(Water Volume Unit: 1000 m³/Year)

Model Point	Code	Municipality	Code Name	Pupile Service Company		Total Population	Population in Basin	Source	Served Population	Water from S	Water from U	Water from N	Water from N/S/U	Per Capita (l/day)	Loss Per-cent	Increase of S	Increase of N	Total Increase	Supplier of Network	Remarks
				Population	Source															
180	2111	Predeal	4317	Apevite Predeal	7757	6361	S	7757	953.6	0.0	0.0	953.6	320	0.05	544.3	0.0	504.1			
195	2188	Azuga	4008	A.D.P.P. Azuga	6756	6756	S/U	6756	876.8	5.3	0.0	876.8	320	0.10	237.5	0.0	226.1			
195	2185	Busteni	4011	A.D.P.P. Busteni	13017	13017	N/U	13017	690.2	1119.9	1810.0	320	0.16	0.0	416.9	405.9	4014			
		Sub-total			19774	19774		19774	871.6	695.4	1119.9	2686.9			237.5	416.9	632.0			
A	2180	Sinaia	4018	A.D.P.P. Sinaia	16268	16268	N/U	16268	973.9	580.9	1388.4	2923.2	320	0.35	30.8	43.9	60.9	4008		
200	2165	Brezoa	4028	Civitas Brezoa	20558	17180	N/U	20558	0.0	3430.2	5430.2	320	0.30	0.0	3430.2	3493.1	4036			
200	2190	Comarnic	4026	A.D.P.P. Comarnic	14662	14662	N/U	14662	1573.5	567.2	0.0	2140.7	320	0.20	753.2	0.0	703.6			
200	2157	Cornu	4766	4766	N	4766	N	4766	0.0	0.0	405.9	405.9	210	0.10	0.0	148.2	132.1	4036		
200	2196	Talea	1361	945	U	945	U	945	80.5	0.0	80.5	210	0.10	0.0	0.0	0.0	10.8			
		Sub-total			41347	37554		40931	1573.5	647.7	3836.1	6057.3			753.2	3578.4	4189.7			
Dam1	2194	Secara	1506	1506	U	1506	U	1506	0.0	128.2	0.0	128.2	210	0.10	0.0	0.0	98.3			
Dam1	2171	Valea Doftanei	4375	Doftanei	7615	7615	S/U	7615	630.6	18.0	0.0	648.6	210	0.10	590.6	0.0	526.2			
		Sub-total			9121	9121		9121	630.6	146.2	0.0	776.8			590.6	0.0	624.5			
C	2169	Brebu	8515	8515	N	8515	N	8515	0.0	548.4	548.4	150	0.15	0.0	548.4	404.6	4036			
217	2150	Cimpina	44176	44176	N/S	44176	N/S	44176	5300.4	0.0	3944.2	9244.6	430	0.25	1358.0	1010.5	2293.9	4036		
217	2065	Floresti	8244	3533	N	8244	N	8244	0.0	0.0	718.0	718.0	210	0.12	0.0	544.5	526.6	4036		
217	2161	Magureni	7211	2158	U	2158	U	2158	0.0	187.9	0.0	187.9	210	0.12	0.0	0.0	40.2			
217	2158	Poliana Campina	5740	5740	N	5740	N	5740	0.0	488.9	488.9	210	0.10	0.0	384.8	306.7	4036			
217	2156	Sotile	3785	3785	U(W)	3785	U(W)	3785	0.0	243.8	0.0	243.8	150	0.15	0.0	0.0	179.9			
		Sub-total			69157	59393		64103	5300.4	431.8	5151.1	10883.3			1358.0	1939.9	3347.4			
E	2034	Gorgota	6088	5731	U	5731	U	5731	0.0	493.5	0.0	493.5	210	0.11	0.0	0.0	335.3			
E	2019	Manesti	8088	1546	U(W)	1546	U(W)	1546	0.0	99.6	0.0	99.6	150	0.15	0.0	0.0	73.5			
E	2022	Poenarii Burchii	6846	1986	U(W)	1986	U(W)	1986	0.0	127.9	0.0	127.9	150	0.15	0.0	0.0	94.4			
E	2033	Puchenii Mari	9844	9844	U	9844	U	9844	0.0	838.4	0.0	838.4	210	0.10	0.0	0.0	627.8			
E	2017	Sima	6047	5305	U(W)	5305	U(W)	5305	0.0	341.7	0.0	341.7	150	0.15	0.0	0.0	252.1			
E	2018	Tinosu	2739	2739	U(W)	2739	U(W)	2739	0.0	176.4	0.0	176.4	150	0.15	0.0	0.0	130.1			
		Sub-total			39632	27151		27151	0.0	2077.6	0.0	2077.6			0.0	0.0	1513.2			
M	2173	Banesti	4129	Primaria Banasta	6222	6222	N/U	6222	0.0	26.6	503.3	529.9	210	0.10	0.0	225.3	196.3	4036		
250	2000	Ploiesti	4162	R.A.G.C.L. Ploiesti	273687	273687	N/U	273687	0.0	21974.8	39389.7	61364.6	430	0.30	0.0	13564.6	13564.6	4036		
250	2064	Baicoi	4041	S.G.C.L. Baicoi	21915	21915	N/U	21915	0.0	61.3	3138.4	3199.6	320	0.20	0.0	976.3	939.3	4036		
250	2047	Bleji	4172	Primaria Bleji	8202	8202	N/U	8202	0.0	2260.0	472.5	698.5	210	0.10	0.0	405.3	340.0	4212		
250	2048	Paulesti	4229	Primaria Paulesti	5479	5479	U(W)	5479	0.0	333.3	0.0	333.3	150	0.10	0.0	0.0	240.7			
		Sub-total			309283	309283		309283	0.0	22556.4	43000.6	65596.0			0.0	14946.1	15084.5			
J	2122	Cerasu	5687	5687	U(W)	5687	U(W)	5687	0.0	366.3	0.0	366.3	150	0.15	0.0	0.0	270.2			
J	2119	Drajna	6324	6324	N	6324	N	6324	0.0	407.4	407.4	150	0.15	0.0	407.4	300.5	4275			
J	2102	Izvoarele	7461	7461	N/U	7461	N/U	7461	0.0	126.9	545.9	672.8	210	0.15	0.0	419.0	363.4	4088		
J	2104	Maneciu	12369	12369	S	12369	S	12369	0.0	0.0	1170.5	1170.5	210	0.19	0.0	582.8	506.0	4083		
J	2126	Posesti	4841	1870	U(W)	1870	U(W)	1870	0.0	120.5	0.0	120.5	150	0.15	0.0	0.0	88.9			
		Sub-total			36682	33712		33712	0.0	613.7	2123.8	2737.4			0.0	1409.2	1529.1			

Table B.2.12 Domestic Water Demand in 2015 (2/3)

Public Service Company

(Water Volume Unit: 1000 m³/Year)

Model Point	Code	Municipality	Code Name	Total Population	Population in Basin	Source	Served Population	Water from S	Water from U	Water from N	Water from N/S/U	Per Capita (l/day)	Loss Percent	Increase of S	Increase of N	Total Increase	Supplier	Remarks
240	2100	Valeni de Munte	4506	15125	15125	N	15125	0.0	0.0	2355.5	2355.5	320	0.25	0.0	1532.5	1532.5	4212	
240	2107	Teisani	4398	4398	U	4398	0.0	374.5	0.0	374.5	374.5	210	0.10	0.0	0.0	145.7		
		Sub-total		19523	19523		19523	0.0	374.5	2355.5	2730.1			0.0	1532.5	1685.4		
K	2079	Plopieni	4578	11140	11140	N	11140	0.0	1626.5	1626.5	1626.5	320	0.20	0.0	276.8	276.8	4212	
K	2101	Slanic	4127	7973	7973	S	7973	1034.7	0.0	1034.7	1034.7	320	0.10	859.5	0.0	773.6		
K	2117	Alunis	4230	4230	4230	U	4230	0.0	360.3	0.0	360.3	210	0.10	0.0	0.0	246.1		
K	2117B	Bertea	3770	3770	U	3770	0.0	321.1	0.0	321.1	321.1	210	0.10	0.0	0.0	219.9		
K	2179	Cocorasii Misii	4191	3942	3942	U	3942	0.0	335.7	0.0	335.7	210	0.10	0.0	0.0	226.1		
K	2083	Cosminale	1413	1413	U(W)	1413	0.0	91.0	0.0	91.0	91.0	150	0.15	0.0	0.0	67.1		
K	2081	Dumbravesti	4261	3960	3960	N	3960	0.0	357.1	0.0	357.1	210	0.15	0.0	229.8	192.9	4212	
K	2112	Gura Vitoarei	6506	6506	U(W)	6506	0.0	419.1	0.0	419.1	419.1	150	0.15	0.0	0.0	309.1		
K	2129	Magurele	5210	5210	N	5210	0.0	525.4	0.0	525.4	525.4	210	0.24	0.0	255.3	224.3	4212	
K	2177	Scorteni	6496	6496	U	6496	0.0	553.3	0.0	553.3	553.3	210	0.10	0.0	0.0	328.7		
K	2116	Stefesti	2711	2711	U(W)	2711	0.0	174.6	0.0	174.6	174.6	150	0.15	0.0	0.0	128.8		
K	2167	Telega	7258	7258	N	7258	0.0	618.1	0.0	618.1	618.1	210	0.10	0.0	618.1	158.0	4036	New
K	2115	Varbilau	7717	7717	N	7717	0.0	497.0	0.0	497.0	497.0	150	0.15	0.0	497.0	366.6	4212	New
K	2082	Valcanesti	4432	4432	N	4432	0.0	285.5	0.0	285.5	285.5	150	0.15	0.0	285.5	210.6	4212	New
		Sub-total		76758	76758		76758	1034.7	2255.0	3909.7	7199.4			859.5	2162.5	3728.6		
L	2085	Boldesti-Soareni	4022	12510	N/U	12510	0.0	632.1	991.3	1623.5	1623.5	320	0.10	0.0	763.1	720.9	4099(U)	
L	2028	Berceni	4137	6341	N/U	6341	0.0	110.0	424.1	534.1	534.1	210	0.09	0.0	314.1	262.5	4137(U)	
L	2038	Bucov	11105	11105	U(W)	11105	0.0	675.5	0.0	675.5	675.5	150	0.10	0.0	0.0	487.9		
L	2088	Lipanesti	5265	5265	N	5265	0.0	448.4	0.0	448.4	448.4	210	0.10	0.0	148.4	134.4	4212	
L	2039	Plopu	2397	2397	N	2397	0.0	154.4	0.0	154.4	154.4	150	0.15	0.0	154.4	113.9	4212	
L	2040	Calugareasca	4248	11507	U	11507	0.0	1037.7	0.0	1037.7	1037.7	210	0.15	0.0	0.0	634.5		
		Sub-total		49124	49124		49124	0.0	2435.4	2018.2	4473.5			0.0	1380.0	2354.1		
270	2071	Anoesti Rantivani	8648	8648	U	8648	0.0	736.5	0.0	736.5	736.5	210	0.10	0.0	0.0	462.9		
270	2026	Barcanesti	9865	9865	N/U	9865	0.0	177.5	672.1	849.6	849.6	210	0.11	0.0	494.9	377.9	4051(U)	
270	2011	Brazi	8784	8784	N	8784	0.0	748.1	0.0	748.1	748.1	210	0.10	0.0	344.5	297.0	4050(U)	
270	2029	Rafov	5955	5955	N	5955	0.0	383.6	0.0	383.6	383.6	150	0.15	0.0	383.6	282.9	4212	New
270	2016	Targoru Veohti	8921	8921	U	8921	0.0	759.8	0.0	759.8	759.8	210	0.10	0.0	0.0	526.5		
		Sub-total		42172	42172		42172	0.0	1803.7	3477.5	5281.2			0.0	1222.7	1947.2		
275	2148	Lepos	1686	1529	N	1529	0.0	98.5	0.0	98.5	98.5	150	0.15	0.0	98.5	72.7	4212	New
275	2149	Salcia	1458	1458	N	1458	0.0	93.9	0.0	93.9	93.9	150	0.15	0.0	93.9	69.3	4212	New
275	2146	Singaru	5880	5880	N	5880	0.0	378.7	0.0	378.7	378.7	150	0.15	0.0	378.7	279.4	4212	New
275	5191	Ciatau	5482	1371	U(W)	1371	0.0	88.3	0.0	88.3	88.3	150	0.15	0.0	0.0	65.1		
		Sub-total		14505	10237		10237	0.0	88.3	571.1	659.4			0.0	571.1	486.4		

Table B.2.12 Domestic Water Demand in 2015 (3/3)

(Water Volume Unit: 1000 m³/Year)

Model Point	Public Service Company										Supplier of								
	Code	Municipality	Code	Name	Total Population	Population in Basin	Source	Population Served	Water from S.	Water from U.	Water from N.	Water from N/S/U	Per Capita (l/day)	Loss Per cent	Increase of S.	Increase of N.	Total Increase	Network Water	Remarks
O	2141	Apostolache			2623	2623	N	2623	0.0	163.0	0.0	163.0	150	0.15	0.0	0.0	124.6	4212	New
O	2140B	Ancestii Zelatin			1592	1592	N	1592	0.0	143.6	143.6	143.6	210	0.15	0.0	143.6	105.5	4212	New
O	2131	Baltesti			3831	3831	U	3831	0.0	326.3	0.0	326.3	210	0.10	0.0	0.0	126.5		
O	2139	Carbunesti			2121	2121	N	2121	0.0	180.6	180.6	180.6	210	0.10	0.0	180.6	114.8	4212	New
O	2142	Chiojdeanca			2073	2073	N	2073	0.0	133.5	133.5	133.5	150	0.15	0.0	133.5	96.5	4212	New
O	2143	Gornet, Oricov			2981	2981	N	2981	0.0	192.0	192.0	192.0	150	0.15	0.0	192.0	141.6	4212	New
O	2130	Gornet			3514	3514	N	3514	0.0	299.3	299.3	299.3	210	0.10	0.0	259.3	209.9	Balote(2131)	
O	2041B	Iordacheanu			5589	5589	N	5589	0.0	360.0	360.0	360.0	150	0.15	0.0	360.0	265.6	4212	New
O	2135	Pacureti			2460	2460	U	2460	0.0	209.5	0.0	209.5	210	0.10	0.0	0.0	123.0		
O	2133	Podenii Noi			5170	5170	U	5170	0.0	440.3	0.0	440.3	210	0.10	0.0	0.0	269.7		
O	2109	Predeal Saran			2895	2895	U(W)	2895	0.0	186.5	0.0	186.5	150	0.15	0.0	0.0	137.6		
O	2140	Surani			2029	2029	U	2029	0.0	172.8	0.0	172.8	210	0.10	0.0	0.0	119.8	4212	
O	2137	Soimari			3412	3412	N	3412	0.0	219.8	219.8	219.8	150	0.15	0.0	219.8	162.1	4212	New
O	2144	Tataru			1419	932	N	932	0.0	60.1	60.1	60.1	150	0.15	0.0	60.1	44.3	4212	New
		Sub-total			41710	41223		41223	0.0	1504.4	1588.8	3093.2			0.0	0.0	1548.8	2043.4	
280	2041C	Urlati	4374	S.G.C.L. Urlati	12844	10923	N	12844	0.0	2000.3	2000.3	2000.3	320	0.25	0.0	1317.3	1289.7	4212	
280	2041	Albetti-Paleologu	4214	Primaria Albetti	6437	6437	N	6437	0.0	616.7	616.7	616.7	210	0.20	0.0	616.7	481.5	4036	New
280	2053	Ciurani			7782	7303	U	7782	0.0	662.8	0.0	662.8	210	0.10	0.0	0.0	156.7		
		Sub-total			27064	24663		27064	0.0	662.8	2617.0	3279.8			0.0	0.0	1934.0	1927.9	
H	2036	Balta Doamnei			2937	1195	U(W)	1195	0.0	77.0	0.0	77.0	150	0.15	0.0	0.0	56.8		
H	2055	Draganesti			5470	5470	U(W)	5470	0.0	352.3	0.0	352.3	150	0.15	0.0	0.0	259.9		
H	2056	Dumbrava			4496	4496	U(W)	4496	0.0	289.6	0.0	289.6	150	0.15	0.0	0.0	213.6		
H	2059	Gherghita			4281	4281	U(W)	4281	0.0	275.8	0.0	275.8	150	0.15	0.0	0.0	203.4		
H	8216	Adinoata			3439	395	U(W)	395	0.0	25.4	0.0	25.4	150	0.15	0.0	0.0	18.8		
		Sub-total			20623	15838		15838	0.0	1020.1	0.0	1020.1			0.0	0.0	0.0	752.5	
OB	2163	Provită de Jos			2898	0	N	2898	0.0	186.6	186.6	186.6	150.0	0.15	0.0	186.6		4036	New
	2164	Provită de Sus			2645	0	N	2645	0.0	170.4	170.4	170.4	150.0	0.15	0.0	170.4		4036	New
	2166	Adunati			2678	0	N	2678	0.0	172.5	172.5	172.5	150.0	0.15	0.0	172.5		4036	New
	2044	Fulga			4295	0	N	4295	0.0	276.7	276.7	276.7	150.0	0.15	0.0	276.7		4212	New
	2128	Starhojod			7514	0	N	7514	0.0	484.0	484.0	484.0	150.0	0.15	0.0	484.0		4212	New
	5025	Mizil			18549	0	N	18549	0.0	2548.9	2548.9	2548.9	320.0	0.15	0.0	2548.9		4212	New
	5026	Gura Vadului			2731	0	N	2731	0.0	175.9	175.9	175.9	150.0	0.15	0.0	175.9		4212	New
	5028	Calugareni			1551	0	N	1551	0.0	99.9	99.9	99.9	150.0	0.15	0.0	99.9		4212	New
	5029	Jugureni			855	0	N	855	0.0	55.1	55.1	55.1	150.0	0.15	0.0	55.1		4212	New
	5036	Fantanele			4479	0	N	4479	0.0	288.5	288.5	288.5	150.0	0.15	0.0	288.5		4212	New
		Sub-total			48195	0		48195	0.0	4458.4	4458.4	4458.4			0.0	0.0	4458.4		
		Total			900449	812890		812969	11338.2	37829.5	76994.2	126162.0			4373.9	37938.3	43041.9		(95762.6)

Note: Figures with * are estimated by the Study Team
 Two (2) communes, Nuoi (population in the Prahova River Basin; 787) and Brazii (1532) are located downstream of Model Point H.
 Figure in parentheses in total number of "Increase of N" indicates network water from surface water.

Table B.2.13 Industrial Water Demand in 2015

(Water Volume Unit: 1000 m³/Year)

Model Block	Water Demand (1000m ³ /Year)						Increased Water Demand (1000m ³ /Year)					
	Network Water			Network			Network Water			Network		
	(Drinking)	Ground-water	Surface Water	Water (No-Drinking)	Reuse	Total	(Drinking)	Ground-water	Surface Water	Water (No-Drinking)	Reuse	Total
195	607.0	1552.0	9761.0	0.0	8894.5	20814.5	338.0	0.0	4199.0	0.0	3600.1	8137.2
A	2356.7	282.0	474.1	0.0	1960.6	5075.4	1131.7	114.0	199.1	0.0	793.6	2288.4
200	1517.7	118.0	156.9	0.0	3524.1	5316.6	651.7	0.0	73.9	0.0	1426.4	2152.0
C	3827.0	0.0	366.2	0.0	5513.8	9707.0	1549.0	0.0	148.2	0.0	2231.8	3929.0
217	13796.4	3928.1	317.5	30.2	36244.9	54317.2	7135.4	57.1	122.5	12.2	14670.5	22003.9
220	27125.3	11551.6	0.0	29517.7	813308.7	881503.3	13082.3	147.6	0.0	14372.7	329196.4	356798.9
250	9724.0	17559.4	0.0	0.0	56473.5	83756.9	7106.0	3777.4	0.0	0.0	22858.3	33741.7
Dam2	6.7	26.9	0.0	0.0	0.0	33.6	2.7	10.9	0.0	0.0	0.0	13.6
J	124.3	20.2	107.5	0.0	79.0	331.0	50.3	8.2	43.5	0.0	32.0	134.0
240	511.8	9.0	2963.5	0.0	15789.2	19273.5	210.8	0.0	1199.5	0.0	9398.3	10808.7
K	3346.4	8667.8	0.0	1360.6	17324.2	30698.9	1490.4	2658.8	0.0	547.6	7012.2	11708.9
L	32177.5	8639.0	118.2	0.0	227699.4	268634.1	15190.5	-463.0	-1630.8	0.0	93562.6	106659.3
260	1770.1	2569.3	0.0	0.0	3526.3	7865.8	1111.1	645.3	0.0	0.0	1427.3	3183.8
270	48.7	374.7	0.0	33.6	28.0	485.0	19.7	136.7	0.0	28.6	11.3	196.3
280	128.1	41.6	136.0	0.0	0.0	305.8	52.1	15.6	56.0	0.0	0.0	123.8
Total	97070.0	55339.5	14401.0	30942.0	1190366.0	1388118.5	49122.0	7108.5	4417.0	14961.0	486220.2	561829.4

Table B.2.14 Existing Intake from and Return Flow to Prahova River

Model Block	Surface Water Intake (1000m ³ /year)	Return Flow			Flow into River from Block	
		Industrial Use (1000m ³ /year)	Domenstic Use (1000m ³ /year)	Total	Total (1000m ³ /year)	Total (m ³ /s)
195	17595.0	5929.2	1643.9	7573.1	-10021.9	-0.32
A	1657.0	1503.0	2289.9	3792.9	2135.9	0.07
200	399.0	960.3	2663.7	3624.0	3225.0	0.10
B	68424.0	0.0	0.0	0.0	-68424.0	-2.17
C	8974.0	2246.4	115.1	2361.5	-6612.5	-0.21
217	18715.0	9665.1	6028.7	15693.8	-3021.2	-0.10
220		36532.8	0.0	36532.8	36532.8	1.16
E	1.0	0.0	451.5	451.5	450.5	0.01
M		0.0	266.9	266.9	266.9	0.01
250		14404.5	40409.2	54813.7	54813.7	1.74
J	39357.0	135.0	966.7	1101.7	-38255.3	-1.21
240	2181.0	1866.6	835.7	2702.3	521.3	0.02
K	600.0	6216.3	2776.6	8992.9	8392.9	0.27
L	1749.0	24717.6	1695.6	26413.2	24664.2	0.78
260		2324.7	0.0	2324.7	2324.7	0.07
270		244.8	1224.2	1469.0	1469.0	0.05
275		0.0	138.4	138.4	138.4	0.00
O	256.0	0.0	839.8	839.8	583.8	0.02
280		163.8	1081.5	1245.3	1245.3	0.04
H			214.1	214.1	214.1	0.01
Total	159908.0	106910.1	63641.5	170551.6	10643.6	

Table B.2.15 Existing Probable Flow Rate at Model Point

Model Point	Hydrological Station			Catchment Area (Km ²)	Discharge (m ³ /sec)			
	Code	Name	River Name		50 % (182nd Day)	75 % (274th Day)	95 % (347th Day)	95% (NTPA-001)
	111505	Busteni, V.C	V. Cerbului	26.0	0.336	0.195	0.102	0.066
	111405	Azuga	Azuga	83.0	1.009	0.503	0.222	0.082
190			Prahova	101.9	1.316	0.766	0.399	0.154
	111204	Busteni, PH	Prahova	130.0	2.087	1.265	0.434	0.196
195			Prahova	206.2	2.911	1.678	0.572	0.229
A			Prahova	330.0	4.669	2.768	1.216	0.498
200			Prahova	442.4	5.262	3.646	2.547	1.535
	111210	Cimpina	Prahova	476.0	5.746	3.948	2.728	1.670
217			Prahova	933.0	7.105	4.654	2.910	1.686
220	111215	Prahova	Prahova	984.0	7.282	5.416	4.261	3.320
E			Prahova	1132.7	8.177	6.009	4.656	3.492
270			Prahova	2809.0	16.033	12.706	10.636	6.575
H	111210	Adincata	Prahova	3682.0	18.455	14.305	11.674	7.376
	111605	Tesila	Doftana	288.0	2.902	1.911	1.262	0.532
Dam1		Paltinu Dam	Doftana	333.0	2.611	2.378	2.139	2.275*
B			Doftana	366.0	0.679	0.364	0.072	0.149
C			Doftana	414.3	0.827	0.390	0.007	0.000
	111705	Cheia	Teleajen	39.0	0.591	0.440	0.315	0.133
	111805	Valbifau	Slanic	42.0	0.130	0.073	0.048	0.026
Dam2		Maneciu Dam	Teleajen	243.0	3.338	2.359	1.846	1.406
J			Teleajen	470.0	2.193	1.186	0.660	0.209
240	111710	G. Vitioarei	Teleajen	491.0	2.278	1.242	0.704	0.242
K			Teleajen	971.3	3.835	2.234	1.446	0.770
L			Teleajen	1178.0	4.731	3.382	2.612	0.957
260	111715	Moara	Teleajen	1434.0	6.934	5.382	4.522	2.790
M			Dimbu	35.3	0.097	0.059	0.042	0.027
250			Dimbu	152.0	2.203	2.000	1.910	1.833
275			Cricovul Sarat	112.9	0.161	0.106	0.066	0.020
O			Cricovul Sarat	483.5	0.688	0.454	0.282	0.088
280	112105	Ciorani	Cricovul Sarat	596.0	0.849	0.560	0.348	0.108

Note: Paltinu Dam is assumed to release 2.275 m³/s to meet the intake volume in B and C reaches.

Maneciu Dam is assume to equal to Point J.

Table B.2.16 Increase of Network Water by Supplier in 2015

(a) Drinking Network Water

Code	Supplier	Increased Network Water
4008	A.D.P.P. AZUGA	1133.5
4011	A.D.P.P. BUSTENI	41.0
4018	A.D.P.P.SINAIA	297.9
4026	A.D.P.P.. COMARNIC	43.1
4028	CIVITAS BREAZA	605.9
4034	R.A.G.C. L. CIMPINA	2846.0
4036	ARRA FILIALA PLOIESTI S.H. PALTINU	33699.3
4037	S.P. BAICOI	174.1
4041	S.G.C.L. BAICOI	391.0
4088	NERGA MANECIU SECTOR MANECIU	20.4
4127	GOSCOM SLANIC	240.7
4148	S.C.PETROTEL SA PL.	123.1
4158	S.C. ASTRA ROMANA SA	21.8
4160	UPETROM PLOIESTI	51.7
4162	R.A.G.C. PLOIESTI	5403.3
4168	AUTOBAZA 1 PLOIESTI	2.0
4212	ARRA FILIALA PLOIESTI S.H. VALENI	3364.6
4223	CONSERVE MAGURELE	10.2
4374	S.G.C.LURLATI	52.1
4506	R.A.G.C.L. VALENI	570.3
4512	UBEMAR	29.9
Total		49122.0

(b) Non-drinking Network Water

Code	Supplier	Increase of Network Water
4035	S.C.STEAUA ROMANA SA	12.2
4045	ARRA FILIALA PLOIESTI S.H. NEDELEA	14372.7
4051	S.C. PETROBRAZI S.A.	0.0
4190	FUNCIARE S	576.1
Total		14961.0

Table B.2.17 Surface Water Volume To Be Newly Developed (Unit : 1000 m3/year)

Model Point	Code	Name of Establishment	Activity Code	River	Present Volume	Reduce of Loss	(A) Domestic Use			(B) Industrial Use			(C) Agricultural Use			Total	Remarks
							Direct Surface Intake	Network Water Supply	Surface Intake	Network Water Supply	Direct Surface Intake	Network Water Supply	Direct Surface Intake	Network Water Supply			
195	4008	AD.P.P. AZUGA	41A1	Prahova	3622.0		235.8	323.9	1324.2					1637.7			
195	4004	SINTERREF AZUGA	26	Azuga	83.0			56.4						56.4			
195	4006	BERE AZUGA	15	Azuga	674.0			458.3						458.3			
195	4007	POSTAV AZUGA	17	Azuga	465.0			316.2						316.2			
195	4348	ROMSILVA RA.- OCOL SILVIC	05B	Azuga	7540.0									0.0			
195	4009	STIAZ AZUGA	28	Prahova	119.0			121.7						121.7			
195	4014	HARTIA BUSTENI	21	Prahova	4221.0			3246.3						3497.7			
195	4317	APEVITA PREDEAL	41A3	Azuga	871.0			544.3						544.3			
		Sub-total			17595.0	0.0	779.9	254.3	4199.0	1365.3				6598.4			
A	4018	AD.P.P. SINAI	41A1	Prahova	1382.0		30.8							138.0			
A	4021	MEFIN SINAI	29	Prahova	275.0			199.1						199.1			
		Sub-total			1657.0	0.0	30.8	0.0	199.1	107.3				337.1			
200	4026	AD.P.P. COMARNIC	41A1	Prahova	316.0									796.3			
200	4027	PRESCON COMARNIC	14	Prahova	36.0			24.5						24.5			
200	4213	VULTURUL COMARNIC	26	Prahova	47.0			49.4						49.4			
		Sub-total			399.0	0.0	75.2	0.0	73.9	43.1				870.1			
Dam1	4375	PRIMARIA VALEA DOFTANEI	41A1	Doftana	40.0	0.0	407.3							407.3			
B	4036	ARRA. FILIALA PLOIESTI S.H.	41A1	Doftana	6842.0	20527.2		22597.3						43103.8	10286.5*		
C	4034	RAGOL CAMPINA	41A3	Doftana	8675.0		1358.0							3498.2			
C	4035	S.C. STEAUA ROMANA SA	23	Doftana	218.0			148.2						160.5			
C	4341	ASOCIATIA VINATORILOR SI SOCIETATEA COMERCIALA	05A	Doftana	57.0			16.3						0.0			
C	4551	SOCIETATEA COMERCIALA	45	Doftana	24.0			16.3						16.3			
		Sub-total			8574.0	0.0	1356.0	0.0	164.6	2152.4				3675.0			
217	4292	S.C. PETROUTILAJ SA	29	Prahova	189.0			128.5						128.5			
217	4190	S.C. EXPLOATARE LUORARI	0143A	Prahova	1121.0									230.5			
217	4216	POMICOLA BAICOI	012B	Prahova	201.0									0.0			
217	4045	ARRA. FILIALA PLOIESTI S.H.	41A2	Prahova	16861.0									14718.3			
217	4235	SCELA DE PRODUCTIE	11	Prahova	343.0									0.0			
		Sub-total			18715.0	0.0	0.0	128.5	14948.8	2577.8				17654.9			
E	4273	COPILEX BRAZI	012B	Prahova	1.0	0.0		0.0						0.0			
J	4275	ARRA. FILIALA PLOIESTI S.H.	41A1	Teleajen	1102.0			407.4						18.4			
J	4088	NERGA MANECIU SECTOR	41A1	Teleajen	58.0			1001.9						2.0			
J	4089	S.E.P.P.L. MANECIU	20	Teleajen	40.0			27.2						27.2			
J	4212	ARRA. FILIALA PLOIESTI S.H.	41A1	Teleajen	38157.0	11447.1		11295.3						4020.4			
		Sub-total			39357.0	11447.1		12704.5	27.2	4040.8				5325.4			
240	4506	RAG.C.L. VALENI	41A1	Teleajen	417.0			1199.5						150.9			
240	4095	STICLOVAL VALENI	14	Teleajen	1764.0			1199.5						1199.5			
		Sub-total			2181.0	0.0	0.0	1199.5						1350.5			
K	4127	GOSCOM SLANIC	41A1	Varbilau	352.0		859.5							240.7			
K	4206	S.C.P.P. MAGURELE	0143C	Varbilau	248.0									0.0			
		Sub-total			600.0	0.0	859.5	0.0	0.0	240.7				1100.3			
L	4209	PREFABRICATE BLEJOI	45	Teleajen	440.0			40.3						48.3			
L	4326	DELTA DESIGN S.A. COMPLEX	92	Teleajen	11.0			15.0						15.0			
L	4117	S.C. ROMFOSFOCHIM SA	24	Teleajen	1694.0			-1694.0						-1694.0			
		Sub-total			1749.0	0.0	0.0	0.0	-1630.8	0.0				553.6			
O	4217	VIDELMAR SEDIU	15	Crisovul	80.0			96.0						56.0			
O	4287	POMICOLA MEHEDINTA		Crisovul	176.0			56.0						56.0			
		Sub-total			15948.0	31974.3	4188.7	35956.1	4417.0	64083.0	3171.2			0.0	79443.7		

Note: Figures with * are volumes to be developed after adjustment of allocation of flow rate between 4036 and 4212

Table B.2.18 Probable Flow Rate in 2015

Model Block	River*	(A) Increased Return Flow		Increased Flow into River from Block		Probable Flow Rate					95% (NTPA-001) w/ Dam Release	
		Surface Water Intake (10 ³ m ³ /yr.)	Industrial Use (10 ³ m ³ /yr.)	Domenstic Use (10 ³ m ³ /yr.)	(B) Total (10 ³ m ³ /yr.)	(B)-(A) (m ³ /s)	Accumu-lated (m ³ /s)	50 % (182nd Day)	75 % (274th Day)	95 % (347th Day)		95 % (347th Day) w/ Dam Release
190	Pr	6806.9	4798.8	505.6	5304.5	-1502.4	0.000	1.316	0.766	0.399	0.399	0.154
195	Pr	337.1	1300.3	48.7	1349.1	1011.9	-0.048	2.863	1.630	0.525	0.525	0.182
A	Pr	870.1	653.0	3351.8	4004.8	3134.6	0.099	5.346	3.729	2.630	2.630	0.482
200	Pr	870.1	653.0	3351.8	4004.8	3134.6	0.099	5.346	3.729	2.630	2.630	1.619
Dam1	Df	10286.5	0.0	0.0	0.0	-10286.5	-0.326	2.611	2.378	2.139	2.516	2.659
B	Df	3675.0	1527.6	323.7	1851.2	-1823.8	-0.599	0.443	0.038	-0.254	0.123	0.206
C	Df	17694.9	6600.0	2677.9	9277.9	-8377.0	-0.566	6.540	4.088	-0.377	0.000	0.000
217	Pr	0.0	24842.3	0.0	24842.3	24842.3	0.788	7.504	5.638	4.483	4.860	3.926
E	Pr	0.0	0.0	1210.5	1210.5	1210.5	0.038	8.437	6.269	4.916	5.293	4.137
M	Dm	0.0	0.0	157.0	157.0	157.0	0.005	0.102	0.064	0.047	0.047	0.032
250	Dm	0.0	10150.6	12067.6	22218.2	22218.2	0.705	2.913	2.709	2.620	2.620	2.542
Dam2	Ti	38142.7	91.8	1223.3	1315.1	-36827.7	-1.168	3.338	2.359	1.846	2.354	2.365
J	Ti	1350.5	1269.3	1348.4	2617.6	1267.2	0.040	1.025	0.018	-0.508	0.000	0.000
240	Ti	1100.3	5821.0	2982.9	8803.9	7703.6	0.244	2.951	1.351	-0.423	0.084	0.073
K	Ti	-1037.2	12123.7	1883.3	14006.9	15044.1	0.477	4.325	2.976	0.563	1.071	0.845
L	Ti	0.0	1580.8	0.0	1580.8	1580.8	0.050	7.287	5.735	2.206	2.713	1.510
260	Ti	0.0	166.5	1557.8	1724.2	1724.2	0.055	16.702	13.375	4.875	5.383	4.102
270	Pr	0.0	0.0	389.1	389.1	389.1	0.012	0.173	0.118	0.078	0.078	8.586
275	Cs	56.0	0.0	1634.8	1634.8	1578.7	0.050	0.751	0.516	0.345	0.345	0.150
O	Cs	0.0	111.4	1542.3	1653.7	1653.7	0.052	0.963	0.674	0.463	0.463	0.223
280	Cs	0.0	0.0	602.0	602.0	602.0	0.019	19.257	15.107	12.476	13.361	8.178
H	Pr	79242.9	71037.0	33506.6	104543.6	25300.7	0.802					9.521
Total												

Note: Pr: Prahova River, Df: Doftana River, Dm: Dimbu River, Ti: Teleajen River, Cs: Crivouil Sarat River

Table B.2.19 Flow Rate in 2005

Model Block	River*	(A) Increased Return Flow				Increased Flow into River from Block			Flow Rate 50 % (182nd Day)
		Increased Intake of Surface Water (10 ³ m ³ /Yr.)	Industrial Use (10 ³ m ³ /Yr.)	Domestic Use (10 ³ m ³ /Yr.)	(B) Total	(B)-(A) (10 ³ m ³ /Yr.)	(B)-(A) (m ³ /s)	Accumulated (m ³ /s)	
190	Pr							0.000	1.316
195	Pr	2078.4	1853.6	224.0	2077.7	-0.8	0.000	0.000	2.911
A	Pr	112.4	348.2	-257.6	905	-21.9	-0.001	-0.001	4.668
200	Pr	505.4	182.5	2712.9	2895.4	2390.0	0.076	0.075	5.337
Dam1	Df							0.000	2.611
B	Df	749.4	0.0	0.0	0.0	-749.4	-0.024	-0.024	0.655
C	Df	1266.5	426.8	115.3	542.1	-724.4	-0.023	-0.047	0.781
217	Pr	6790.4	1842.6	1398.0	3240.7	-3549.7	-0.113	-0.084	7.021
220	Pr	0.0	6941.2	0.0	6941.2	6941.2	0.220	0.136	7.418
E	Pr	0.0	0.0	776.7	776.7	776.7	0.025	0.161	8.337
M	Dm	0.0	0.0	97.1	97.1	97.1	0.003	0.003	0.100
250	Dm	0.0	3092.4	4692.6	7784.9	7784.9	0.247	0.250	2.453
Dam2	Ti							0.000	3.338
J	Ti	1815.8	25.7	675.2	700.8	-1114.9	-0.035	-0.035	2.158
240	Ti	377.3	354.7	1059.1	1413.8	1036.5	0.033	-0.002	2.276
K	Ti	791.3	2775.0	1799.5	4574.5	3783.2	0.120	0.117	3.952
L	Ti	-1082.7	1437.4	1169.5	2606.9	3689.6	0.117	0.234	4.965
260	Ti	0.0	441.7	0.0	441.7	441.7	0.014	0.498	7.432
270	Pr	0.0	46.5	1062.3	1108.8	1108.8	0.035	0.694	16.727
275	Cs	0.0	0.0	138.6	138.6	138.6	0.004	0.004	0.165
O	Cs	15.7	0.0	932.7	932.7	917.0	0.029	0.033	0.722
280	Cs	0.0	31.1	1188.0	1219.2	1219.2	0.039	0.072	0.921
H	Pr	0.0	0.0	214.5	214.5	214.5	0.007	0.773	19.228
Total		13419.8	19799.3	17998.4	37797.7	24378.0			

Note: Pr: Prahova River, Df: Doftana River, Dm: Dimbu River, Ti: Teleajen River, Cs: Cricovul Sarat River

Table B.2.20 Flow Rate in 2010

Model Block	River*	(A)		Increased Return Flow		Increased Flow into River from Block			Flow Rate 50 % (182nd Day)
		Increased Intake of Surface Water (10 ³ m ³ /Yr.)	Industrial Use (10 ³ m ³ /Yr.)	Domestic Use (10 ³ m ³ /Yr.)	(B) Total	(B)-(A) (10 ³ m ³ /Yr.)	(B)-(A) (m ³ /s)	Accumulated (m ³ /s)	
190	Pr							0.000	1.316
195	Pr	4225.3	3174.8	362.9	3537.7	-687.6	-0.022	-0.022	2.889
A	Pr	224.7	769.3	-106.5	662.8	438.1	0.014	-0.008	4.661
200	Pr	681.6	393.7	3027.4	3421.1	2739.6	0.087	0.079	5.341
Dam1	Df							0.000	2.811
B	Df	5131.0	0.0	0.0	0.0	-5131.0	-0.163	-0.163	0.516
C	Df	2371.8	921.0	217.9	1139.0	-1232.8	-0.039	-0.202	0.626
217	Pr	11668.3	3977.9	2015.9	5993.9	-5674.5	-0.180	-0.303	6.803
220	Pr	0.0	14978.4	0.0	14978.4	14978.4	0.475	0.172	7.454
E	Pr	0.0	0.0	988.8	988.8	988.8	0.031	0.204	8.380
M	Dm	0.0	0.0	126.0	126.0	126.0	0.004	0.004	0.101
250	Dm	0.0	6261.3	8252.3	14513.7	14513.7	0.460	0.464	2.667
Dam2	Tl							0.000	3.338
J	Tl	18501.8	55.4	943.0	998.3	-17503.4	-0.555	-0.555	1.638
240	Tl	814.2	765.3	1201.3	1966.6	1152.4	0.037	-0.518	1.760
K	Tl	938.0	4142.6	2378.9	6521.5	5585.5	0.177	-0.341	3.493
L	Tl	-1062.3	6235.3	1518.8	7754.1	8816.4	0.280	-0.062	5.435
260	Tl	0.0	953.1	0.0	953.1	953.1	0.030	0.433	8.133
270	Pr	0.0	100.4	1302.7	1403.0	1403.0	0.044	0.681	16.714
275	Cs	0.0	0.0	262.0	262.0	262.0	0.008	0.008	0.169
O	Cs	33.8	0.0	1276.4	1276.4	1242.6	0.039	0.048	0.736
280	Cs	0.0	67.2	1361.2	1428.3	1428.3	0.045	0.093	0.942
H	Pr	0.0	0.0	405.4	405.4	405.4	0.013	0.787	19.242
Total		43526.3	42795.7	25534.5	68330.2	24803.9			

Note: Pr: Prahova River, Df: Doftana River, Dm: Dimbu River, Tl: Teleajen River, Cs: Cricovul Sarat River

Table B.2.21 Flow Rate in 2015 with Higher Industrial Production Growth Rate

Model Block	River*	(A) Increased Intake of Surface Water		Increased Return Flow		Increased Flow into River from Block		Accumulated (m ³ /s)	Flow Rate 50 % (182nd Day)
		(10 ³ m ³ /Yr.)	Industrial Use (10 ³ m ³ /Yr.)	Domestic Use (10 ³ m ³ /Yr.)	(B) Total	(B)-(A) (10 ³ m ³ /Yr.)	(B)-(A) (m ³ /s)		
190	Pr							0.000	1.316
195	Pr	8196.2	5958.9	505.6	6464.6	-1731.6	-0.055	-0.055	2.856
A	Pr	410.9	1461.8	48.7	1510.5	1099.6	0.035	-0.020	4.649
200	Pr	904.5	845.1	3351.8	4196.8	3292.3	0.104	0.084	5.347
Dam1	Df							0.000	2.611
B	Df	13061.9	0.0	0.0	0.0	-13061.9	-0.414	-0.414	0.265
C	Df	4341.3	1976.8	323.7	2300.5	-2040.8	-0.065	-0.479	0.348
217	Pr	22089.4	8519.1	2677.9	11197.1	-10892.3	-0.345	-0.740	6.366
220	Pr	0.0	32148.9	0.0	32148.9	32148.9	1.019	0.279	7.561
E	Pr	0.0	0.0	1210.5	1210.5	1210.5	0.038	0.318	8.495
M	Dm	0.0	0.0	157.0	157.0	157.0	0.005	0.005	0.102
250	Dm	0.0	13031.5	12067.6	25099.1	25099.1	0.796	0.801	3.004
Dam2	Ti							0.000	3.338
J	Ti	48609.2	118.8	1223.3	1342.1	-47267.2	-1.499	-1.499	0.694
240	Ti	1747.7	1642.6	1348.4	2991.0	1243.3	0.039	-1.459	0.819
K	Ti	1171.1	7064.2	2982.9	10047.2	8876.1	0.281	-1.178	2.657
L	Ti	-1018.6	16485.4	1883.3	18368.7	19387.3	0.615	-0.563	4.934
260	Ti	0.0	2045.7	0.0	2045.7	2045.7	0.065	0.303	8.003
270	Pr	0.0	215.4	1557.8	1773.2	1773.2	0.056	0.677	16.710
275	Cs	0.0	0.0	389.1	389.1	389.1	0.012	0.012	0.173
O	Cs	72.5	0.0	1634.8	1634.8	1562.2	0.050	0.062	0.750
280	Cs	0.0	144.1	1542.3	1686.5	1686.5	0.053	0.115	0.964
H	Pr	0.0	0.0	602.0	602.0	602.0	0.019	0.811	19.266
Total		99586.1	91658.5	33506.6	125165.1	25579.0			

Note: Pr: Prahova River, Df: Doftana River, Dm: Dimbu River, Ti: Teleajen River, Cs: Cricovul Sarat River

Table B.2.22 Flow Rate in 2015 with Lower Industrial Production Growth Rate

Model Block	River*	(A)	Increased Return Flow		Increased Flow into River from Block			Flow Rate 50 % (182nd Day)	
		Increased Intake of Surface Water (10 ³ m ³ /Yr.)	Industrial Use (10 ³ m ³ /Yr.)	Domestic Use (10 ³ m ³ /Yr.)	(B) Total	(B)-(A) (10 ³ m ³ /Yr.)	(B)-(A) (m ³ /s)		Accumulated (m ³ /s)
190	Pr							0.000	1.316
195	Pr	5487.1	3696.7	505.6	4202.4	-1284.8	-0.041	-0.041	2.870
A	Pr	267.1	1146.9	48.7	1195.7	928.6	0.029	-0.011	4.657
200	Pr	837.5	470.5	3351.8	3822.3	2984.8	0.095	0.083	5.346
Dam1	Df							0.000	2.611
B	Df	7649.8	0.0	0.0	0.0	-7649.8	-0.243	-0.243	0.436
C	Df	3042.0	1100.7	323.7	1424.4	-1617.6	-0.051	-0.294	0.533
217	Pr	13442.1	4776.8	2677.9	7454.7	-5987.4	-0.190	-0.400	6.705
220	Pr	0.0	17901.1	0.0	17901.1	17901.1	0.568	0.167	7.449
E	Pr	0.0	0.0	1210.5	1210.5	1210.5	0.038	0.206	8.383
M	Dm	0.0	0.0	157.0	157.0	157.0	0.005	0.005	0.102
250	Dm	0.0	7413.7	12067.6	19481.3	19481.3	0.618	0.623	2.826
Dam2	Ti							0.000	3.338
J	Ti	28199.6	66.2	1223.3	1289.4	-26910.2	-0.853	-0.853	1.340
240	Ti	973.1	914.6	1348.4	2263.0	1289.9	0.041	-0.812	1.466
K	Ti	1033.0	4639.9	2982.9	7622.8	6589.8	0.209	-0.603	3.231
L	Ti	-1054.8	7980.0	1883.3	9863.3	10918.1	0.346	-0.257	5.240
260	Ti	0.0	1139.1	0.0	1139.1	1139.1	0.036	0.402	8.102
270	Pr	0.0	120.0	1557.8	1677.7	1677.7	0.053	0.660	16.694
275	Cs	0.0	0.0	389.1	389.1	389.1	0.012	0.012	0.173
O	Cs	40.4	0.0	1634.8	1634.8	1594.4	0.051	0.063	0.751
280	Cs	0.0	80.3	1542.3	1622.6	1622.6	0.051	0.114	0.963
H	Pr	0.0	0.0	602.0	602.0	602.0	0.019	0.794	19.249
Total		59916.8	51446.5	33506.6	84953.2	25036.3			

Note: Pr: Prahova River, Df: Doftana River, Dm: Dimbu River, Ti: Teleajen River, Cs: Cricovul Sarat River

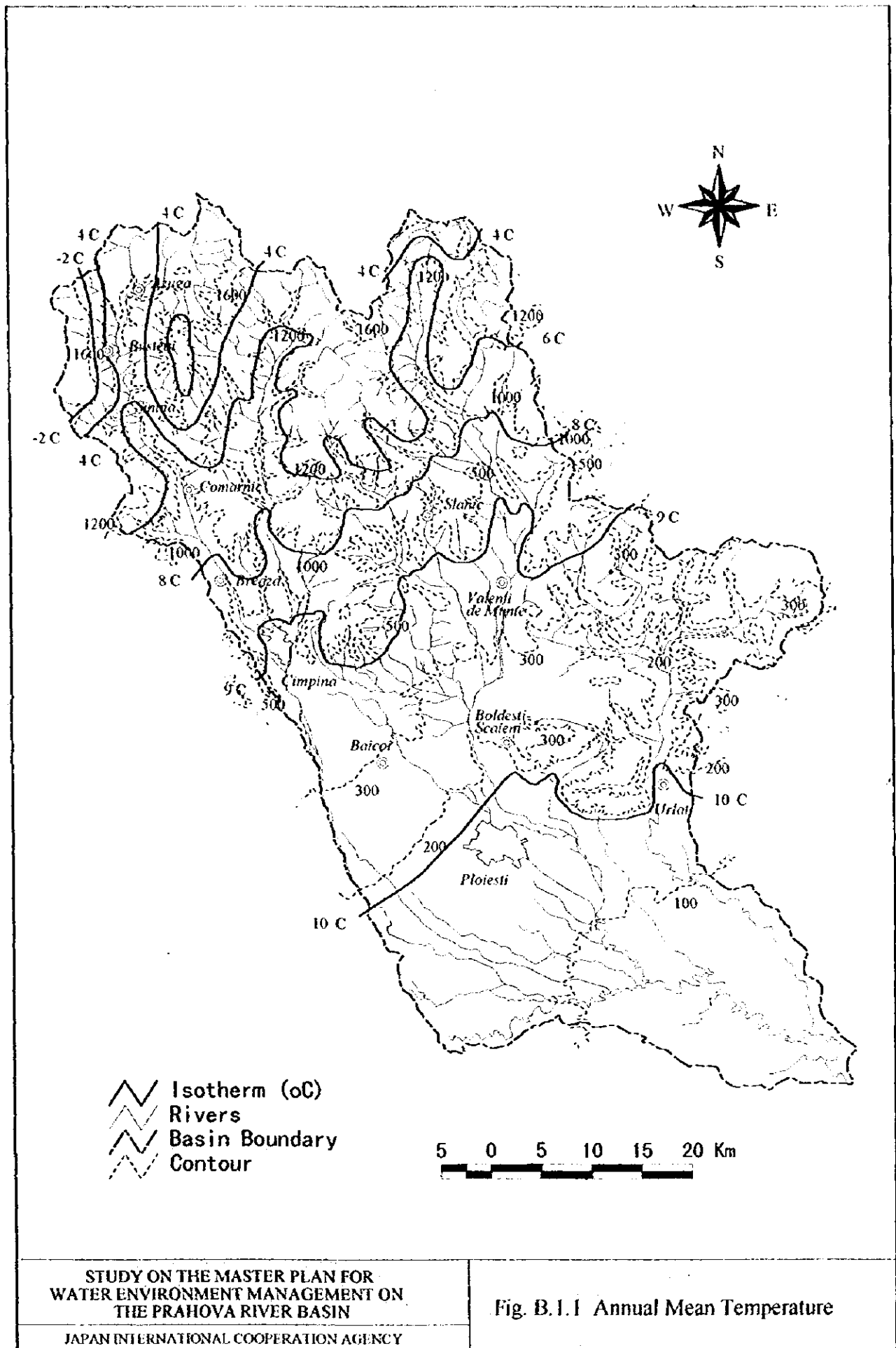
Table B.3.1 Required Maximum Capacity for Various Development Discharge

Dis. : Development Discharge (m³/s)
 V : Required Capacity (Mil. M³)

PALTINU RESERVOIR										
Dis.	0.0 m ³ /s		0.5 m ³ /s		0.7 m ³ /s		0.9 m ³ /s		1.16 m ³ /s	
Year	Date	V	Date	V	Date	V	Date	V	Date	V
1977	12 31	440	12 31	2,269	12 31	3,714	12 31	5,194	12 31	7,019
1978	2 13	3,020	2 13	6,751	2 13	8,956	2 13	11,196	2 13	13,895
1979	12 31	15	12 31	450	12 31	1,419	12 31	2,863	12 31	4,576
1980	1 31	366	2 9	1,712	3 22	4,032	3 22	6,894	3 23	10,241
1981	1 29	29	9 14	364	9 14	703	9 14	1,126	9 14	1,865
1982	12 19	582	12 19	2,486	12 19	3,697	12 19	4,973	12 19	6,461
1983	12 31	3,533	12 31	7,028	12 31	8,534	12 31	10,073	12 31	12,034
1984	3 25	6,490	3 25	13,657	3 25	16,632	3 25	19,640	3 26	23,309
1985	3 13	7,699	3 15	13,729	3 15	16,718	3 15	20,077	3 16	23,983
1986	2 19	3,438	2 19	9,952	3 5	12,904	3 7	16,031	3 7	19,734
1987	3 26	11,836	3 27	19,102	3 27	22,895	3 27	26,697	3 27	31,082
1988	12 31	6,167	3 13	12,057	3 13	15,997	3 14	22,129	3 14	33,529
1989	2 24	11,352	2 24	18,296	2 25	21,195	2 25	24,415	11 7	30,101
1990	12 6	10,291	12 6	16,069	12 6	18,525	12 11	30,264	12 11	47,532
1991	3 12	6,673	3 13	16,572	3 13	20,687	3 13	34,033	3 14	53,122
1992	12 31	10,384	12 31	17,440	12 31	20,445	12 31	23,451	12 31	26,947
1993	3 17	19,508	3 17	29,847	3 17	34,165	3 17	38,485	3 18	43,502
1994	12 31	4,933	3 23	11,648	3 27	15,962	12 31	24,321	12 31	34,972
1995	2 11	6,731	2 26	14,216	3 5	19,962	3 5	30,329	3 6	42,270
1996	11 24	976	11 26	3,066	11 26	4,564	11 26	6,949	11 26	9,743

MANECIU RESERVOIR										
Dis.	0.0 m ³ /s		2.0 m ³ /s		2.75 m ³ /s		2.84 m ³ /s		3.0 m ³ /s	
Year	Date	V	Date	V	Date	V	Date	V	Date	V
1977	12 31	0	12 31	1,025	12 31	5,898	12 31	6,567	12 31	7,776
1978	12 31	0	2 13	5,112	2 13	12,837	2 13	13,848	2 13	15,665
1979	12 31	0	12 31	153	12 31	2,946	12 31	3,609	12 31	4,798
1980	12 31	0	1 31	934	3 22	7,308	3 22	8,609	3 22	10,932
1981	12 31	0	3 1	123	9 14	1,207	9 14	1,401	9 14	1,886
1982	12 31	0	12 19	1,264	12 19	5,536	12 19	6,111	12 19	7,147
1983	12 14	13	12 31	5,984	12 31	11,557	12 31	12,266	12 31	13,617
1984	12 14	0	3 25	11,451	3 25	22,532	3 26	23,902	3 26	26,443
1985	3 11	116	3 14	11,974	3 15	23,077	3 15	24,590	3 16	27,286
1986	3 2	100	2 19	7,590	3 7	18,388	3 7	19,788	3 7	22,285
1987	2 15	1,650	3 26	16,910	3 27	30,723	3 27	32,434	3 27	35,483
1988	12 22	41	3 11	9,926	3 14	26,984	3 14	31,225	3 14	38,787
1989	2 20	40	2 24	17,072	2 25	28,107	2 25	29,771	11 7	33,679
1990	10 21	176	12 6	15,305	12 11	36,304	12 11	42,863	12 11	54,573
1991	2 21	86	3 12	15,840	3 13	42,751	3 13	49,987	3 14	62,904
1992	12 31	251	12 31	16,098	12 31	27,098	12 31	28,451	12 31	30,877
1993	1 3	341	3 17	28,746	3 17	44,670	3 17	46,614	3 18	50,097
1994	11 27	61	12 31	8,795	12 31	29,172	12 31	35,012	12 31	46,517
1995	1 1	53	2 15	11,951	3 5	36,004	3 5	42,342	3 6	54,745
1996	1 1	0	11 24	2,242	11 26	8,588	11 26	9,646	11 26	11,553

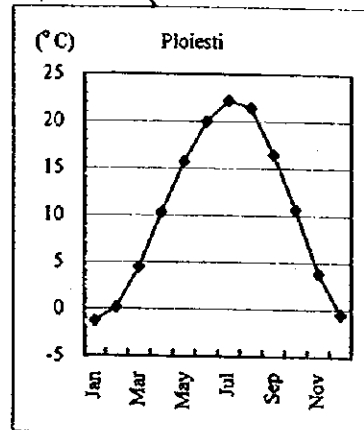
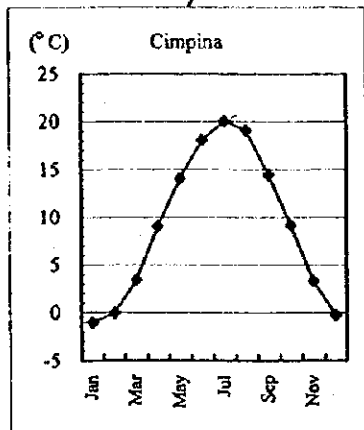
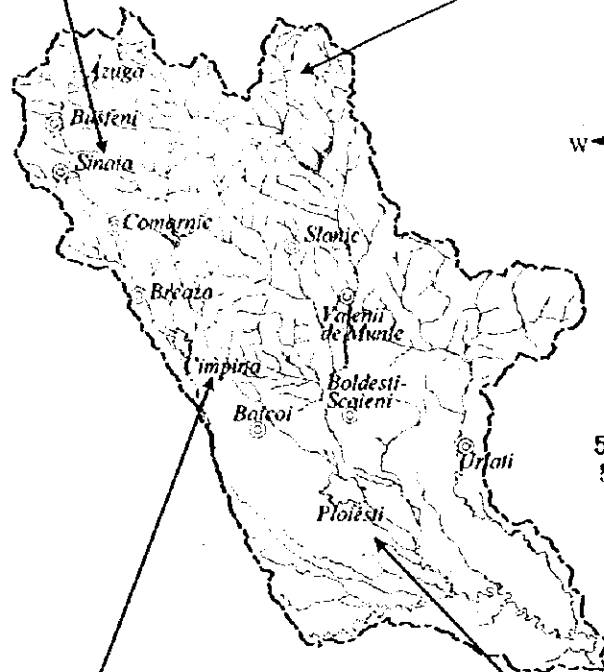
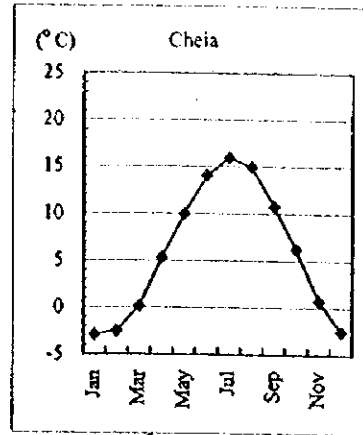
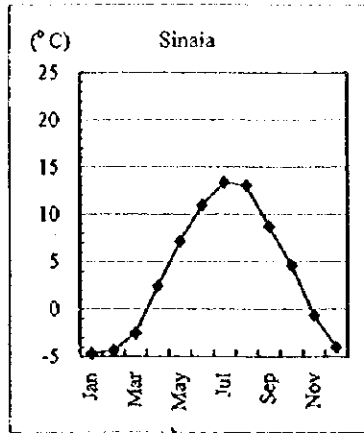
FIGURES



STUDY ON THE MASTER PLAN FOR
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THE PRAHOVA RIVER BASIN

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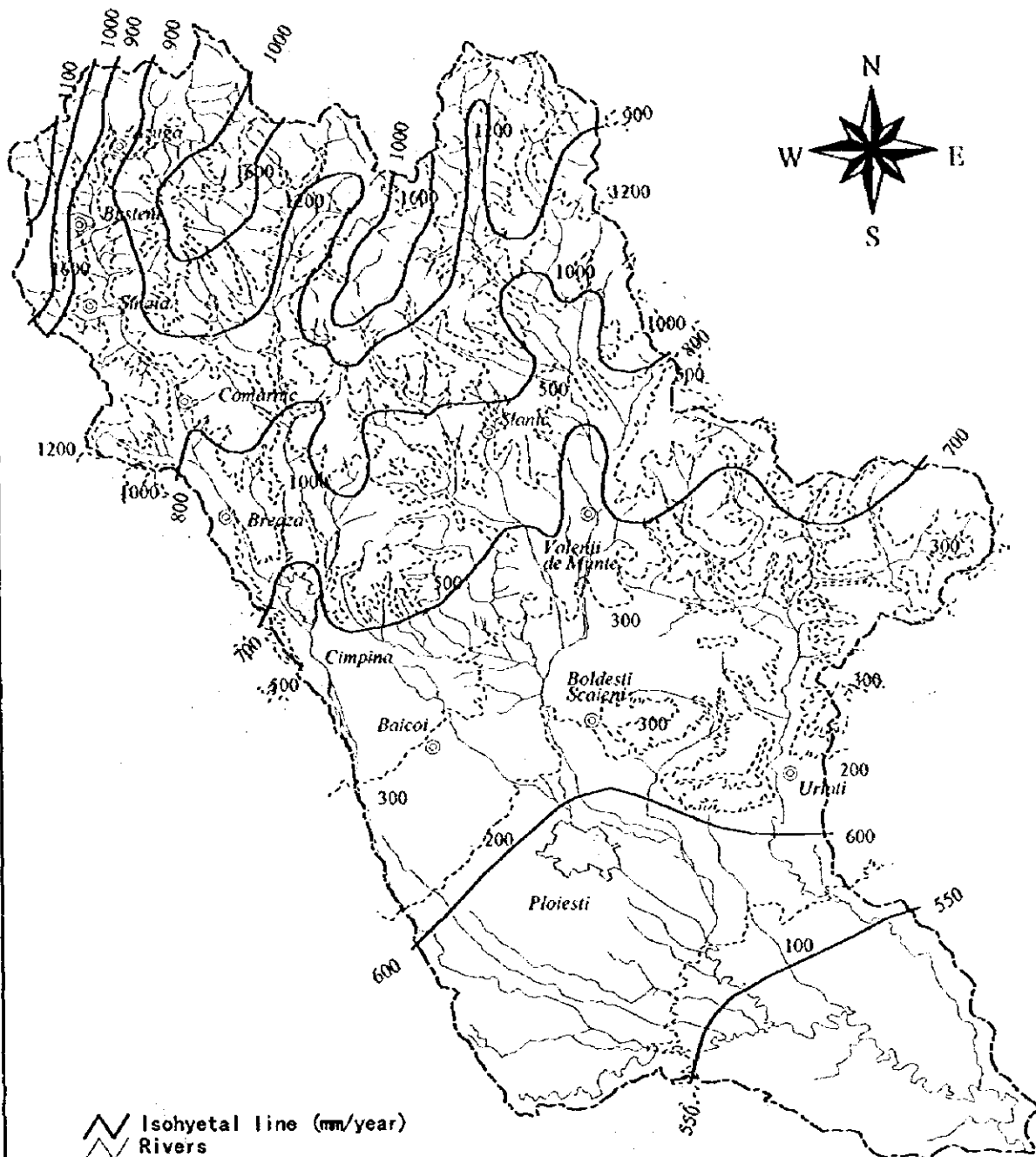
Fig. B.1.1 Annual Mean Temperature







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Fig. B.1.2 Monthly Mean Temperature



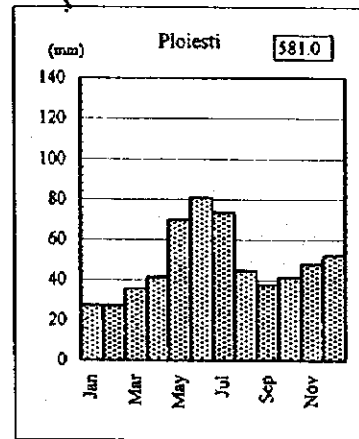
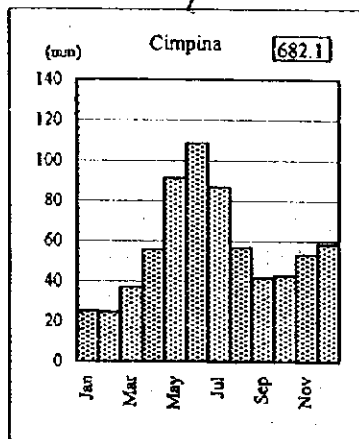
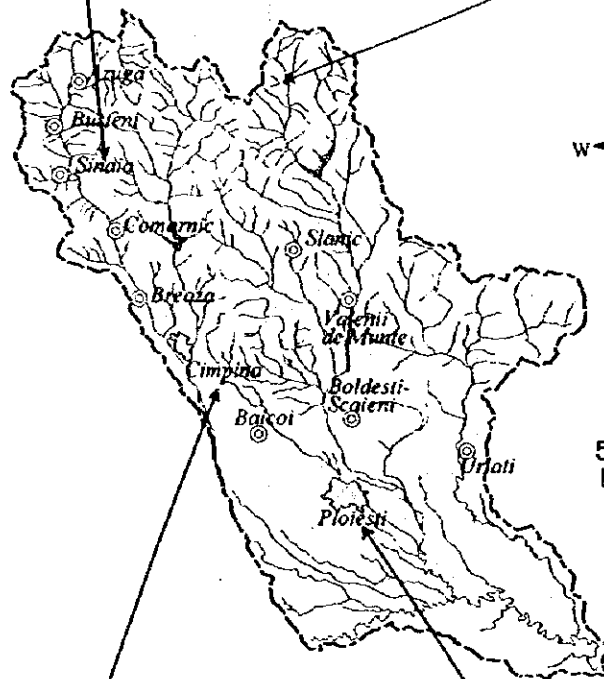
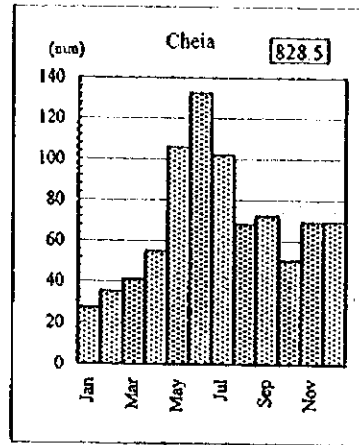
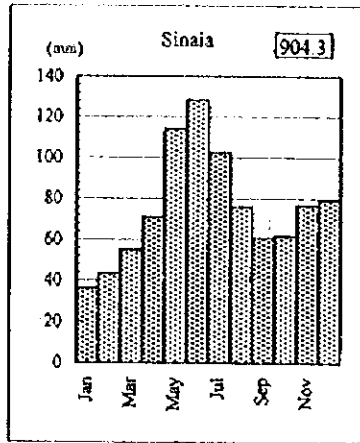
-  Isohyetal line (mm/year)
-  Rivers
-  Basin Boundary
-  Contour

6 0 6 12 18 Km

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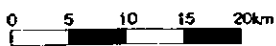
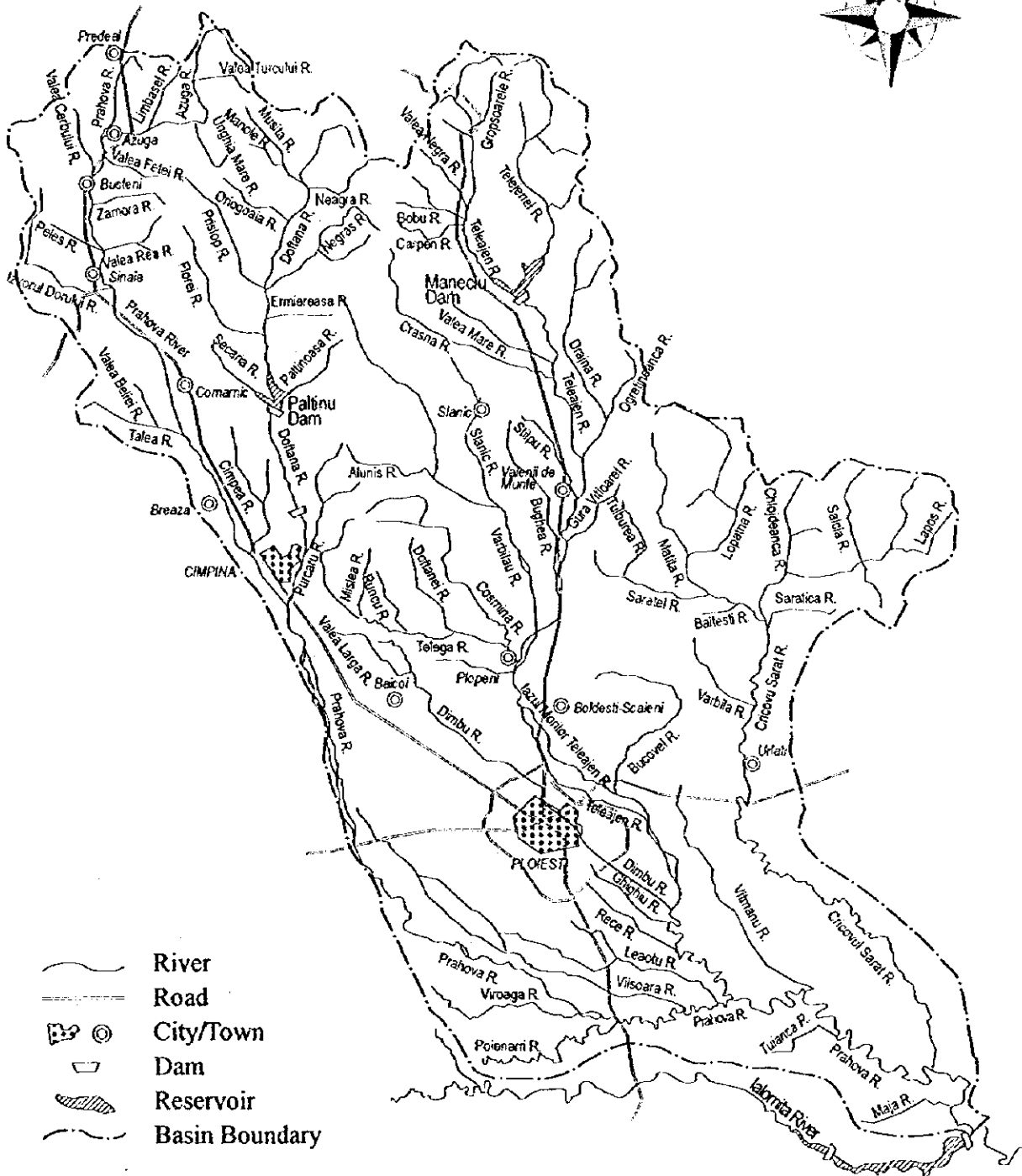
Fig. B.1.3 Annual Precipitation



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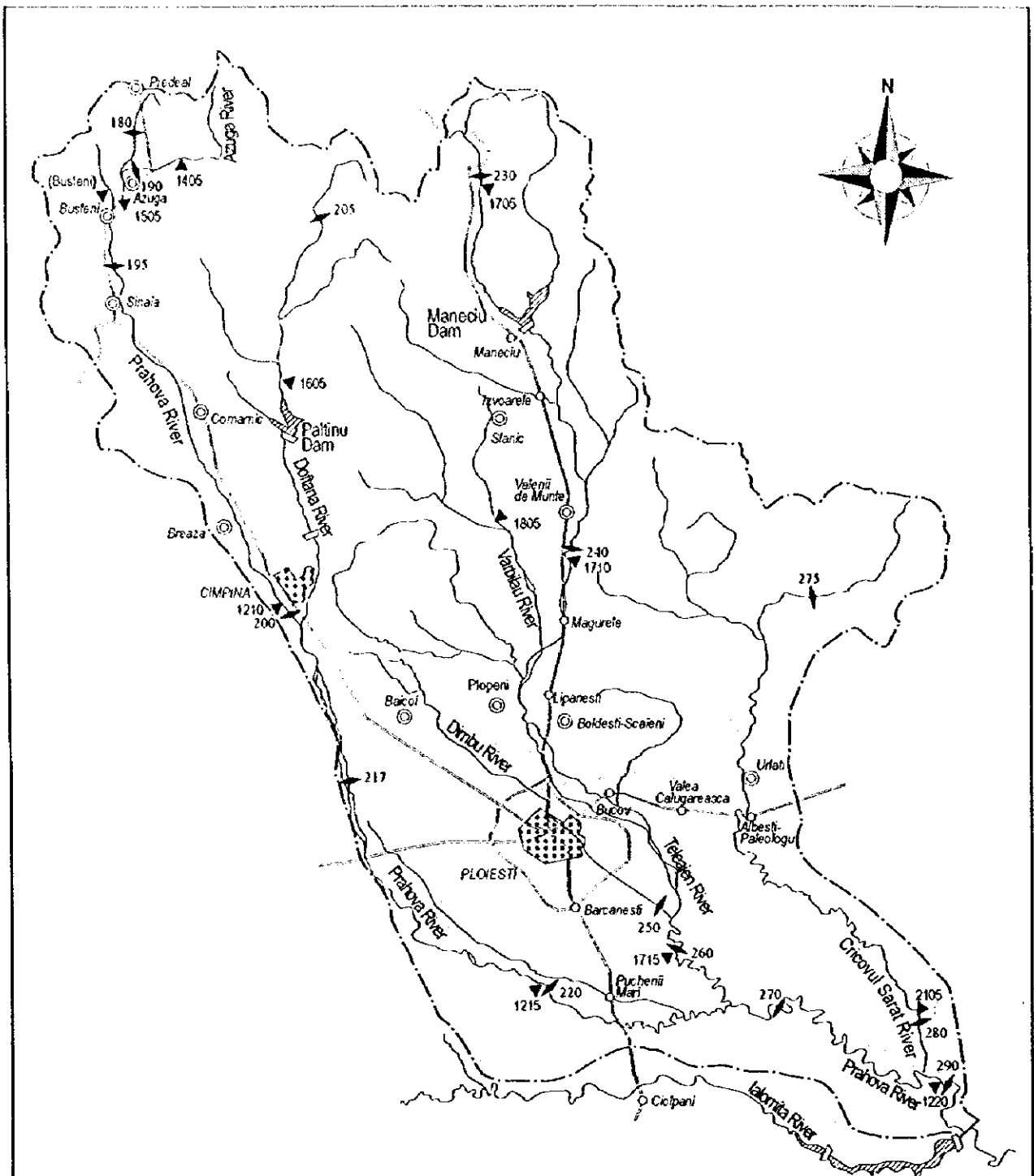
Fig. B.1.4 Monthly Precipitation



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THE PRAHOVA RIVER BASIN**

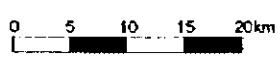
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Fig. B.1.5 Prahova River System



Legend

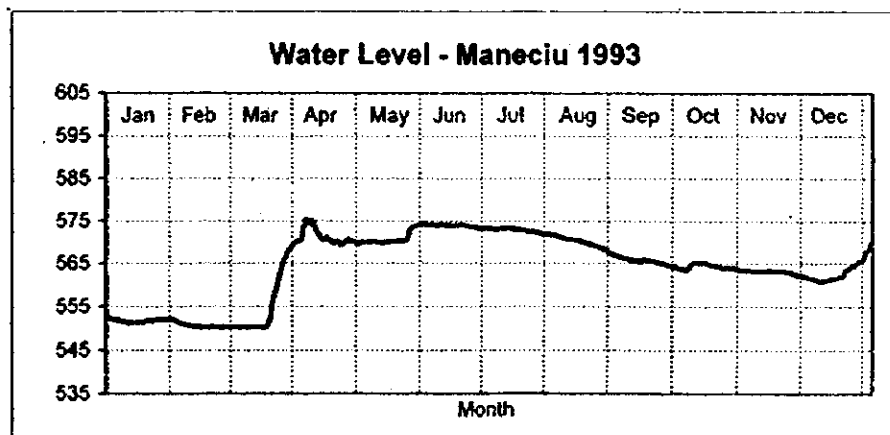
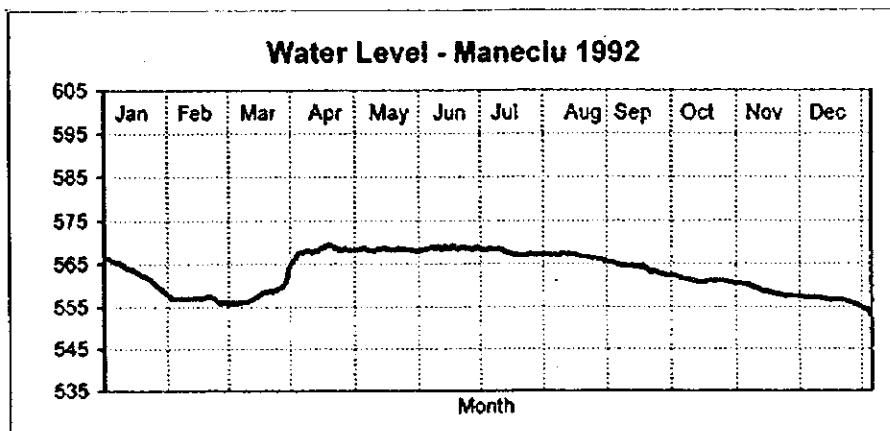
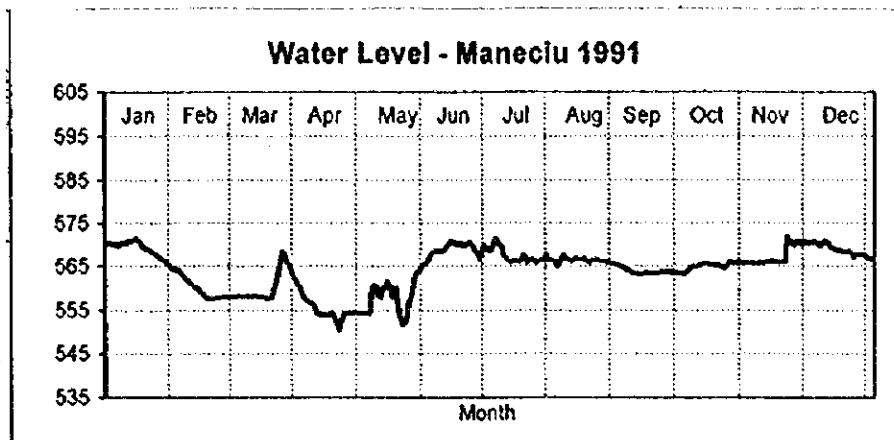
- ▲ : Water Level Gauge Station
- ▼ : Water Quality Monitoring Point

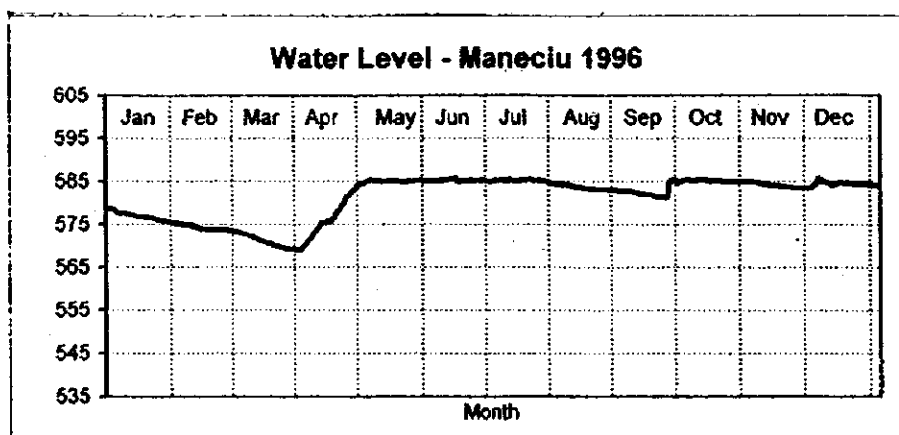
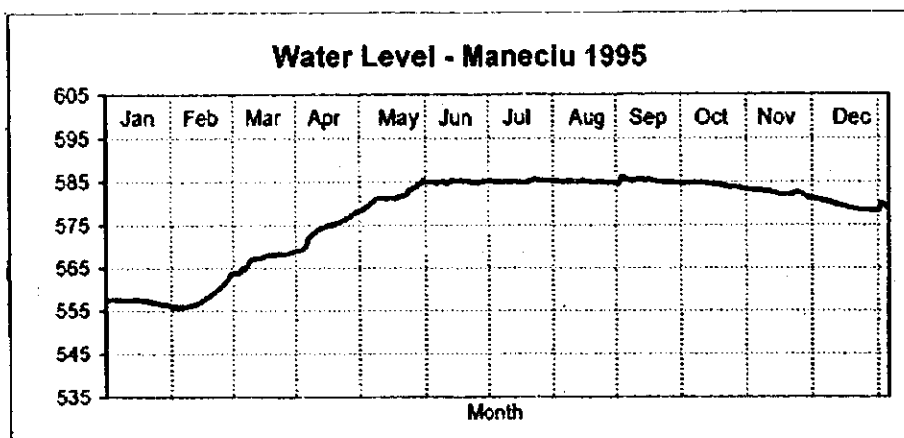
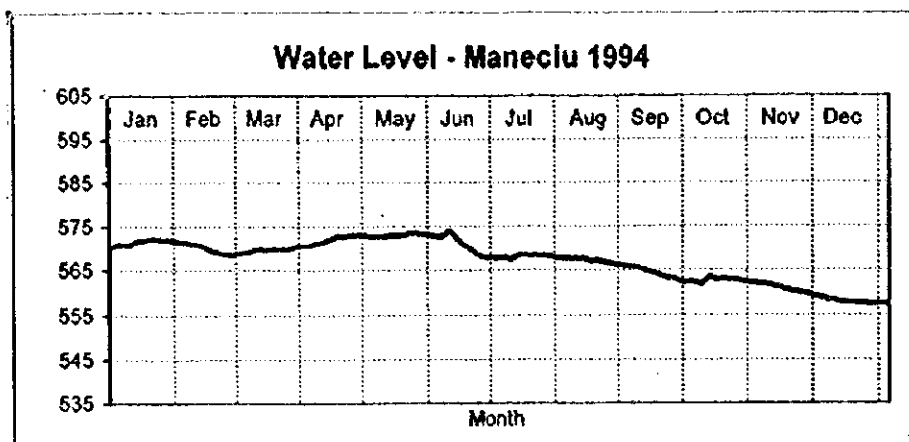


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Fig. B.1.6 Hydrological Stations

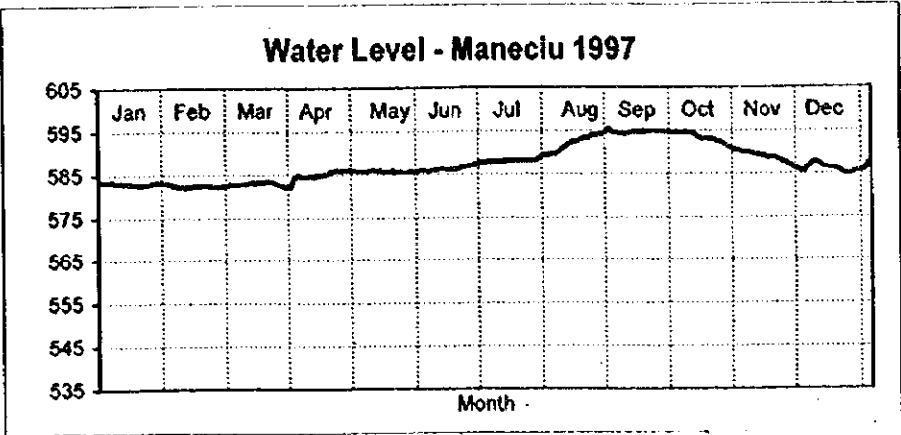


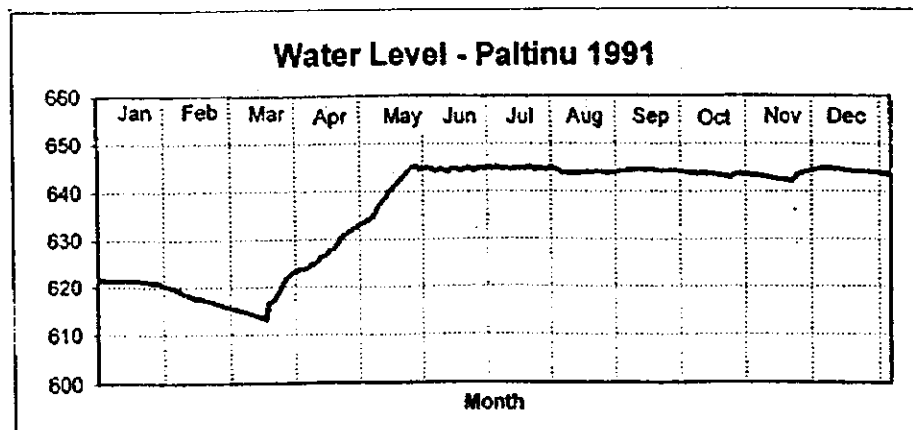
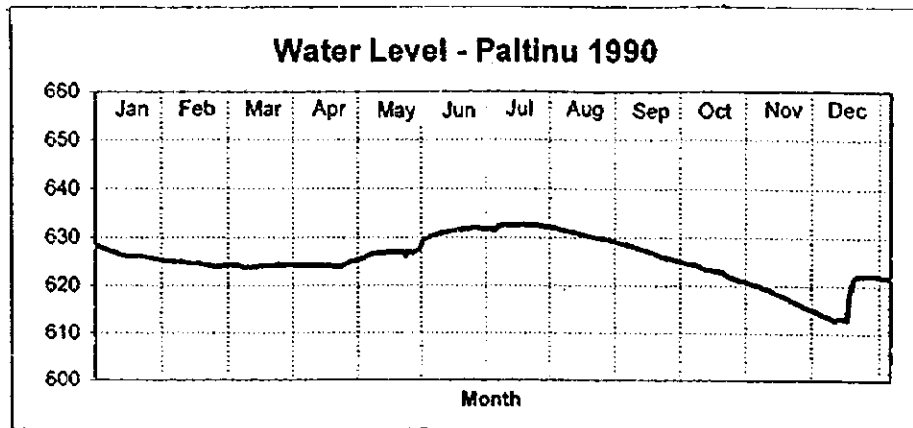
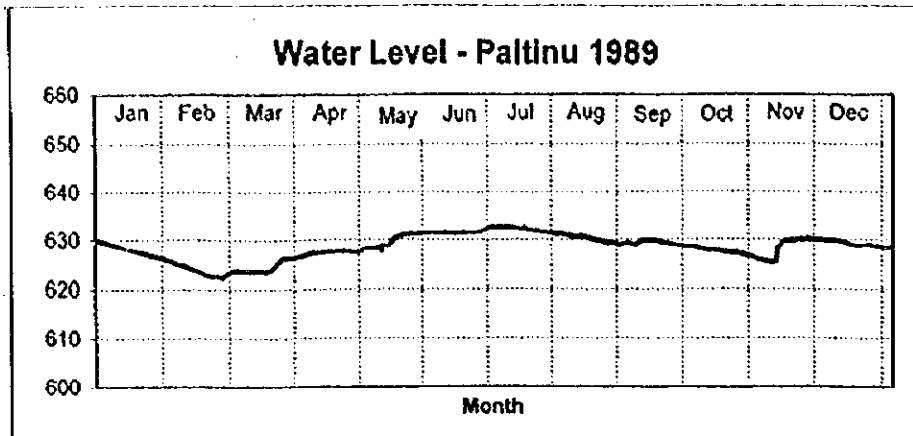


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Fig. B.1.7 Reservoir Water Level Fluctuation (2/6)

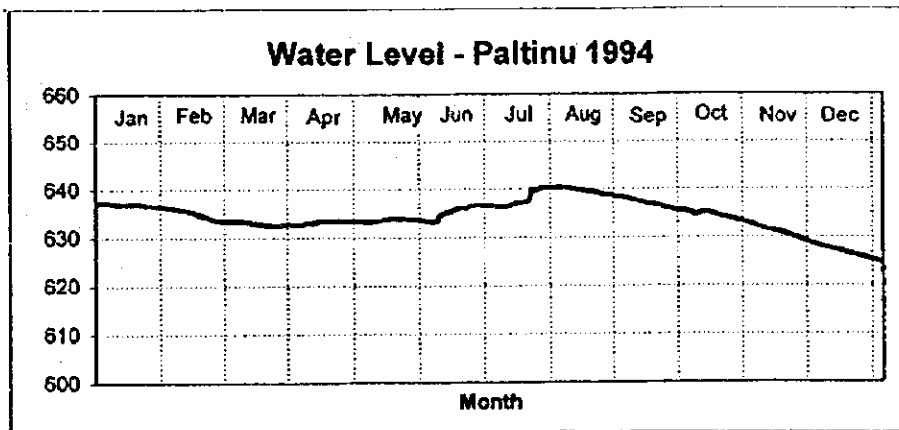
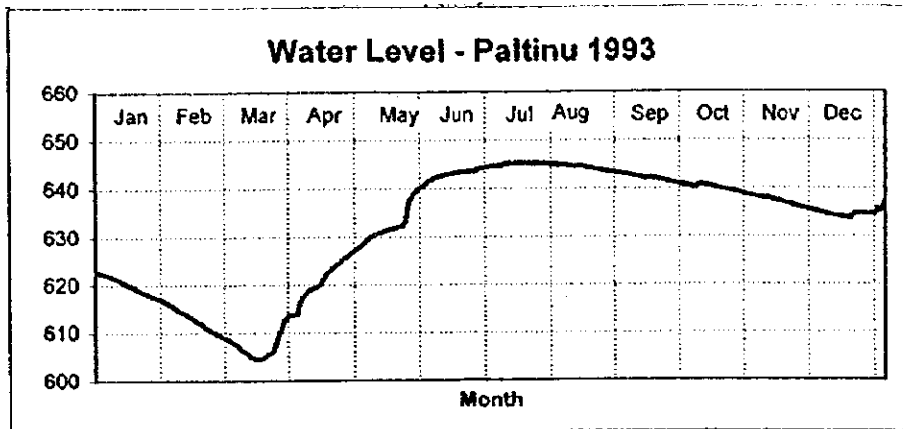
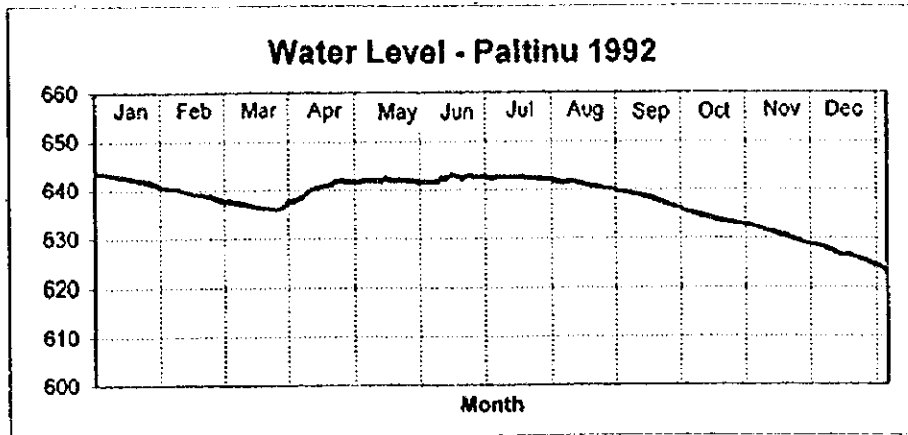




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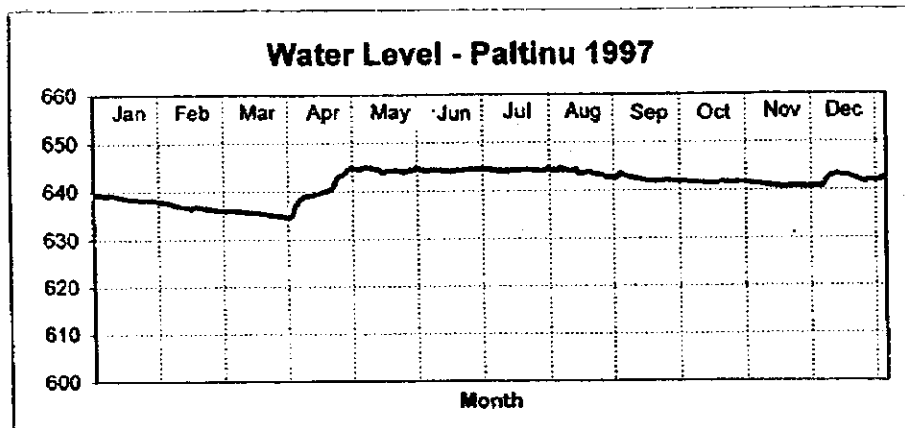
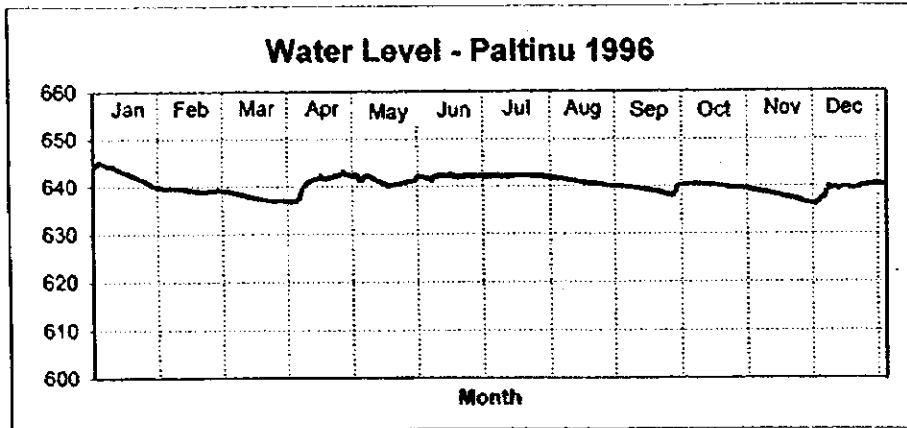
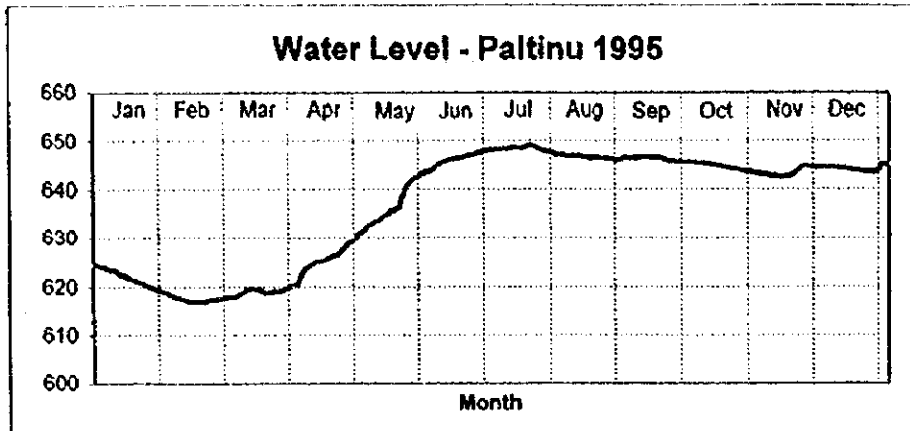
Fig. B.1.7 Reservoir Water Level
Fluctuation (4/6)



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Fig. B.1.7 Reservoir Water Level
Fluctuation (5/6)

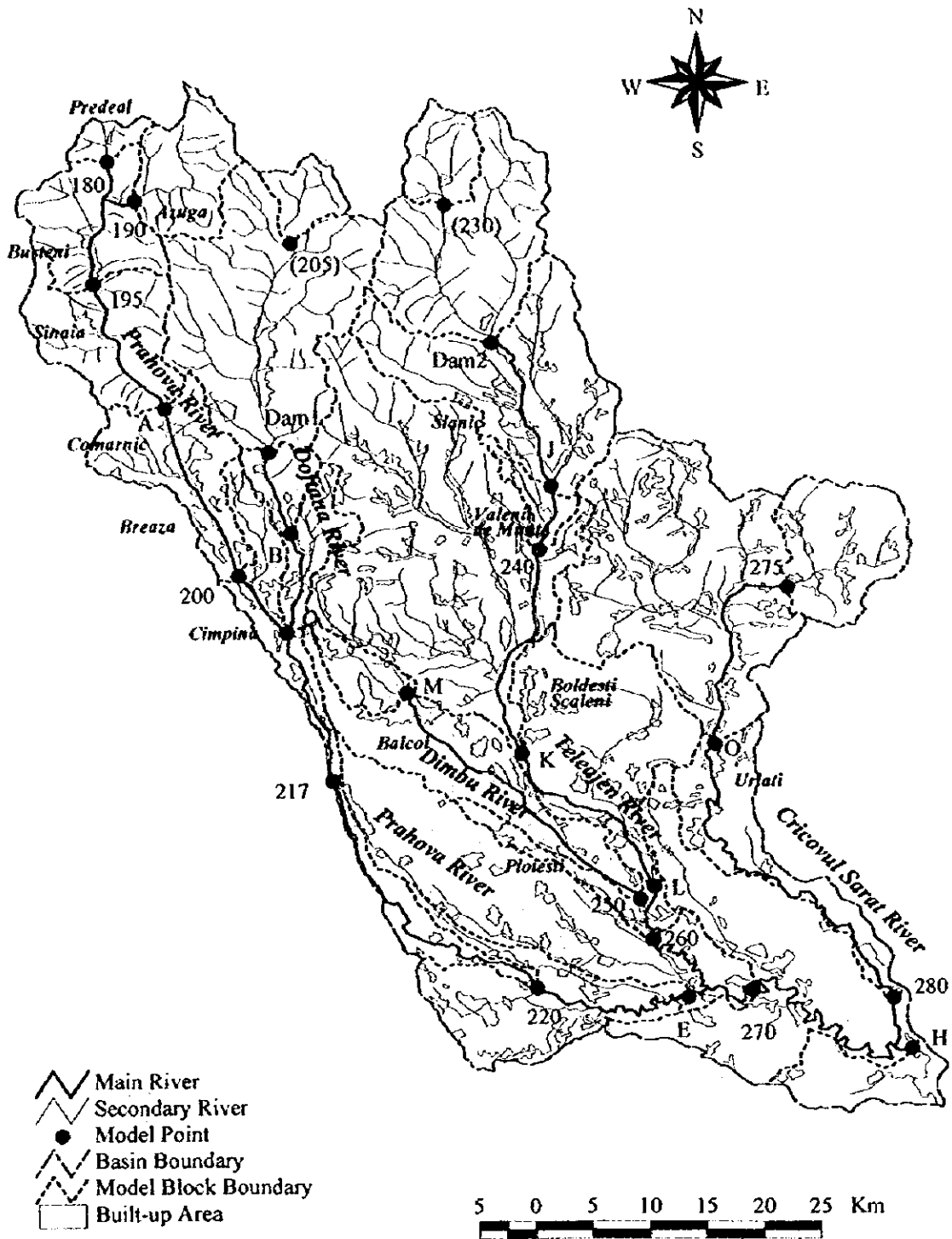


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Fig. B.1.7

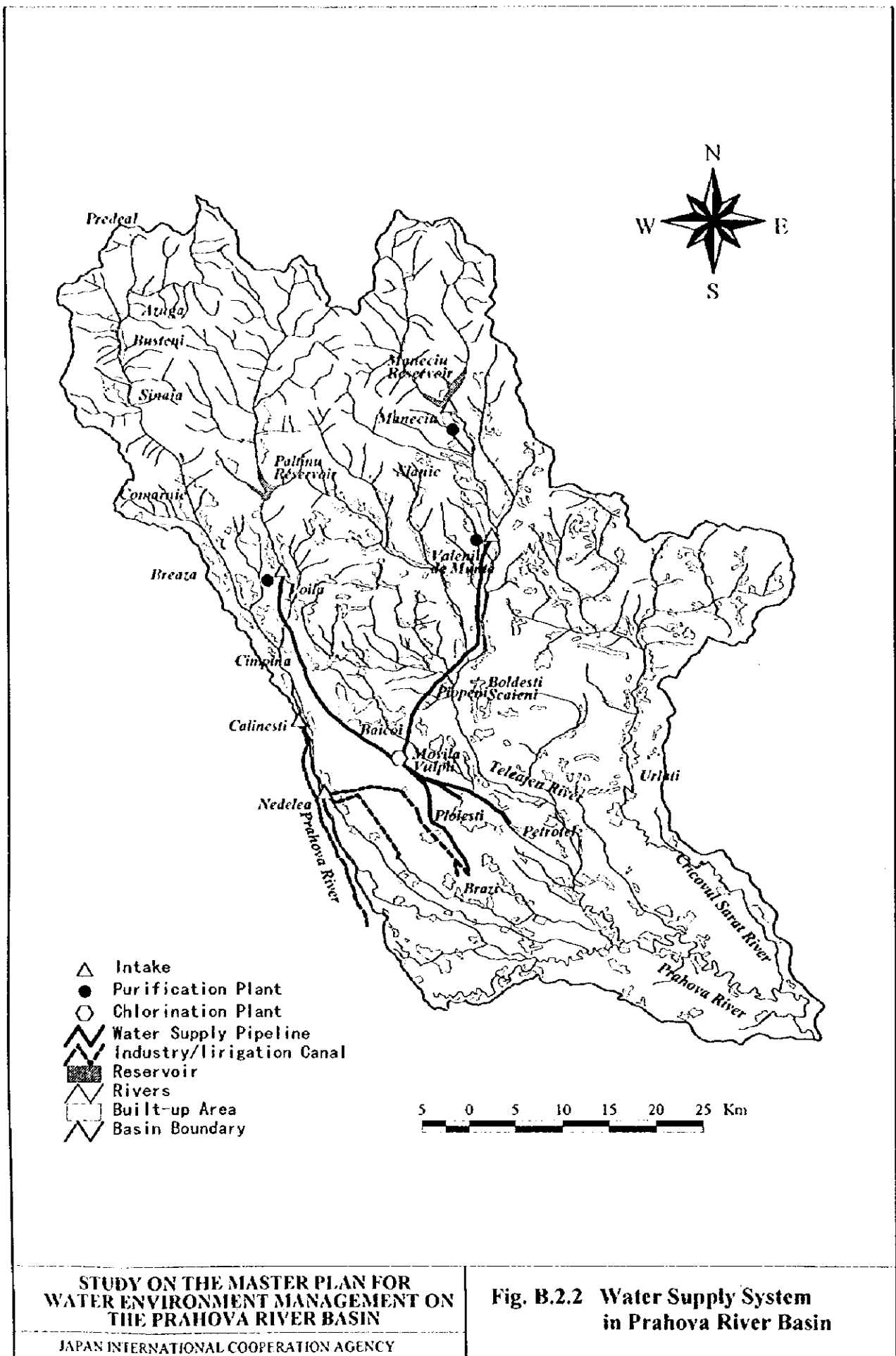
Reservoir Water Level
Fluctuation (6/6)



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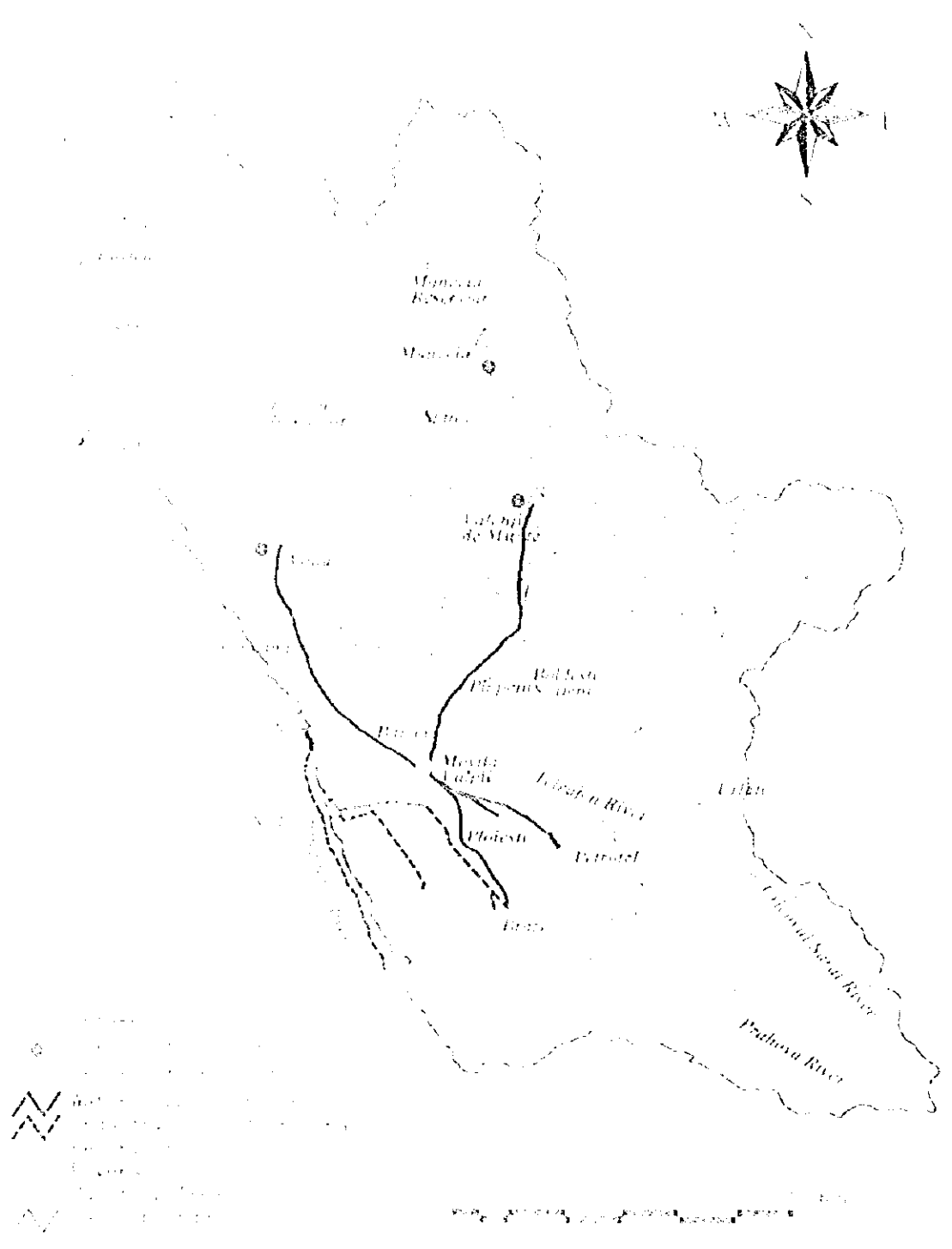
**Fig. B.2.1 Model Points and Model Blocks
for Simulation Model**



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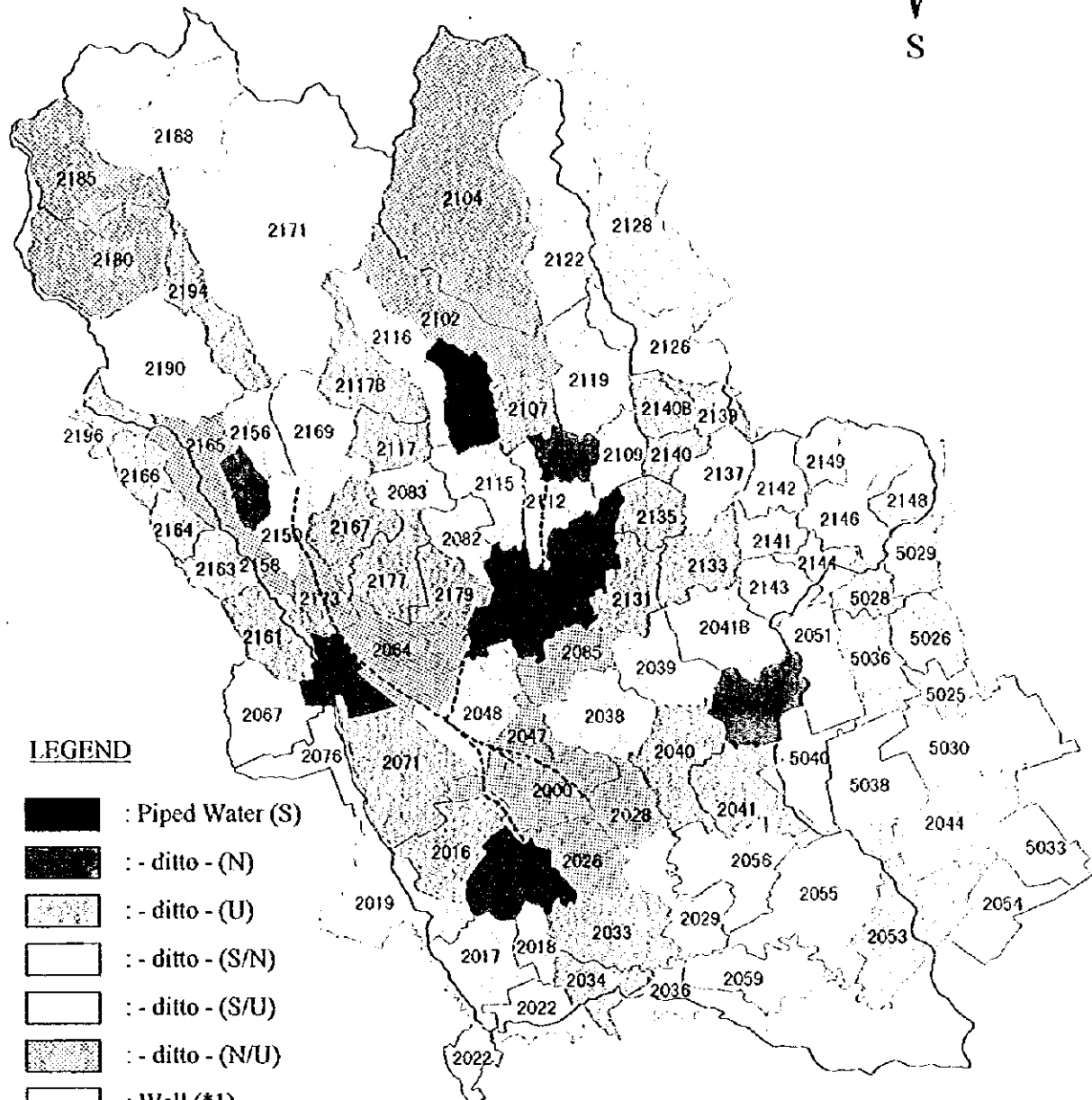
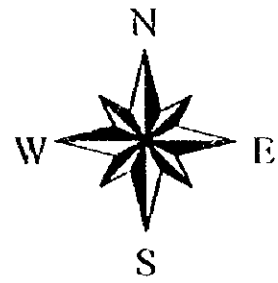
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**Fig. B.2.2 Water Supply System
in Prahova River Basin**













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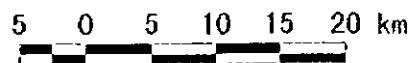
Fig. B.2.2 Water Supply System
 in Prahova River Basin



LEGEND

-  : Piped Water (S)
-  : - ditto - (N)
-  : - ditto - (U)
-  : - ditto - (S/N)
-  : - ditto - (S/U)
-  : - ditto - (N/U)
-  : Well (*1)
-  : Well (*2)
-  : Water Pipeline
-  : Basin Boundary

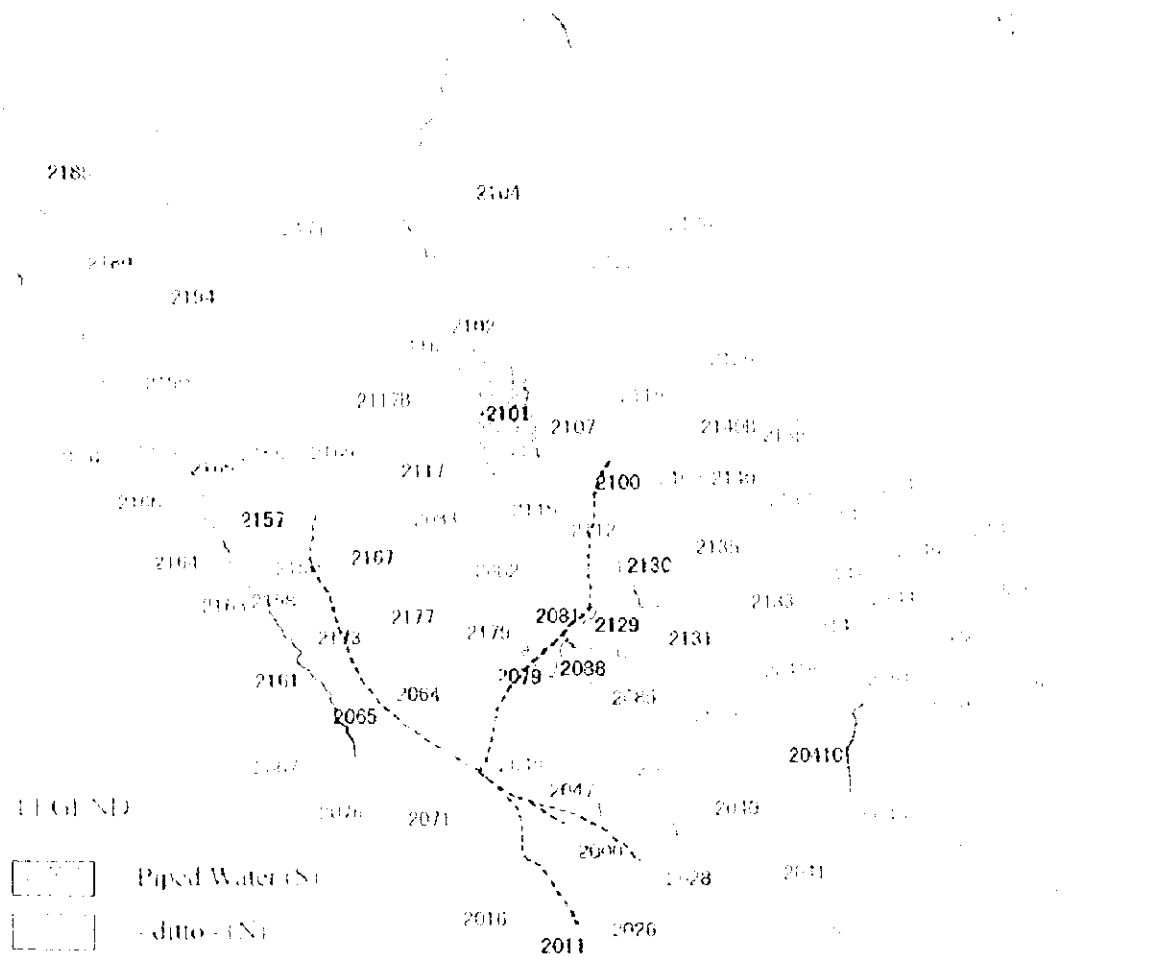
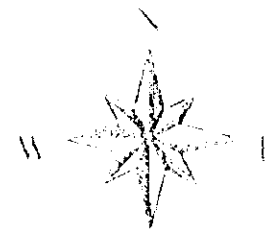
Note : S : Surface water
 N : Network water
 U : Groundwater
 *1 : Water is planned to be supplied by piped water from U.
 *2 : Water is planned to be supplied by piped water from N.













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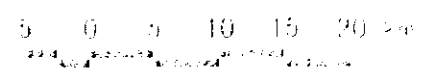
Fig. B.2.3 Domestic Water Supply Source



LEGEND

-  Piped Water (S)
-  -ditto- (N)
-  -ditto- (G)
-  -ditto- (S, N)
-  -ditto- (S, G)
-  -ditto- (N, G)
-  Well (1)
-  Well (2)
-  Water Pipeline
-  Basin Boundary

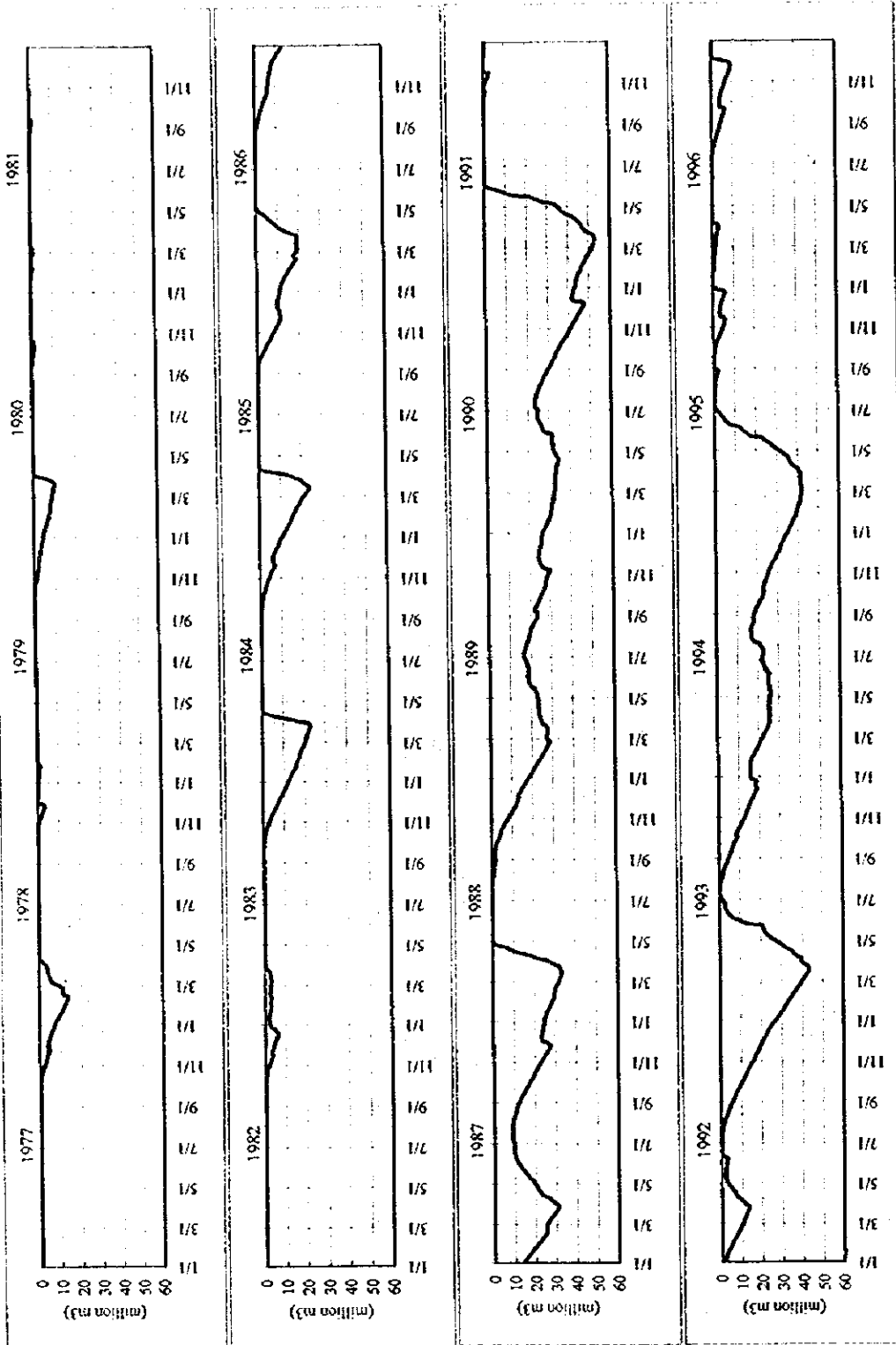
- Note:
- S Surface water
 - N Network water
 - G Groundwater
 - 1 Water is planned to be supplied by piped water from "1"
 - 2 Water is planned to be supplied by piped water from "2"



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Fig. B.2.3 Domestic Water Supply Source

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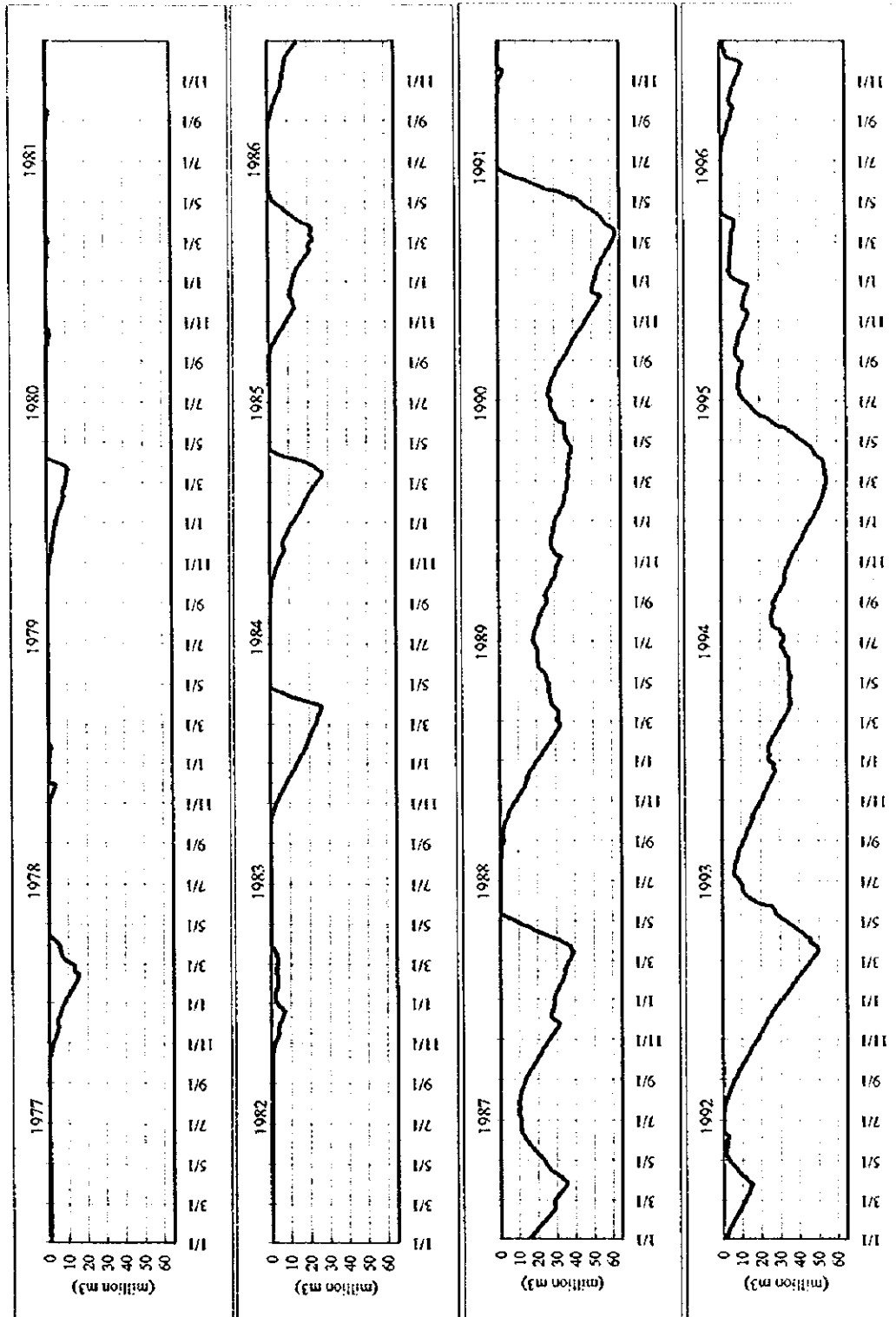
$Q=1.16 \text{ m}^3/\text{s}$

(1) Paltinu Reservoir

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Fig. B.3.1 Fluctuation of
Reservoir Storage Volume (1/2)



(2) Maneciu Reservoir $Q=3.0 \text{ m}^3/\text{s}$

APPENDIX C

RIVER WATER QUALITY AND POLLUTION MECHANISM

APPENDIX C

RIVER WATER QUALITY AND POLLUTION MECHANISM

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CHAPTER I PRESENT RIVER WATER QUALITY

1.1 General

The Romanian Waters has periodically observed the water quality of the Prahova Main River and its tributaries at 14 points and keeps data since 1953. The river system and periodical observation points are shown in Fig. C.1.1 along with water level gauge stations. The name and location of the water quality observation points are listed in Table C.1.1.

The water quality of the Prahova River was analyzed and assessed based on the available data during the recent three (3) years from 1995 to 1997 in this Study. The existing river water quality is summarized below.

1.2 Organic Water Pollution

(1) Prahova Main River

The organic water pollution of the Prahova Main River is characterized by river reach as described below.

(a) Upper Reaches

The monitoring stations of Nos. of 180 (Predeal), 190 (Azuga) and 195 (Amonte Sinaia) represent the water quality in the upper reaches of Sinaia. Water of this reach is comparatively clean although the river receives the wastewater of several small sewerage and factories. The average water quality during 1995-1997 was 3.3-4.3 mg/l in BOD and 77 mg/l in SS.

(b) Middle and Lower Reaches

The water pollution gradually increases while the river runs downward. The river water at the monitoring point No. 200 (Cornu: located immediately before the confluence with the Doftana River) is affected by the additional domestic industrial wastewater effluents of Sinaia Town, Comarnic Town, Breaza Town and Cimpina City. The river water deteriorates to 6.2 mg/l in BOD and approximately 170 mg/l in SS on an average during 1995-1997.

The river water at No.200 point is turbid in blue/gray color. This is considered due to soil (clay mineral) erosion of the riverbanks and mountain slopes between Sinaia and Cimpina. In fact, exposed clay minerals are identified in many locations of the riverbanks and mountain slopes.

Immediately after No. 200 Point, the Doftana River with a comparatively abundant flow rate joins the Main River. In the lower end of the Doftana River (immediately before the confluence), some pollution loads enter to the river from a large petrochemical factory. However, the water pollution of the Main River is rather alleviated until the downstream section of this middle reaches due to the dilution effects of the Doftana river flow. The water quality of the downstream end of the middle reaches is monitored at No. 217 (Nedelea).

There is a large water intake immediately downstream of No. 217, which

supplies industrial and irrigation water to the industrial estate of Ploiesti City and the farmlands in its surrounding areas.

Three (3) major factories discharge a large quantity of wastewater with a high BOD and Oil concentration to the Prahova River at the southern west of Ploiesti City. The monitoring point No. 220 is located immediately downstream of these wastewater effluents. The river water quality suddenly gets worse at this point. The average river water quality during 1995-1997 is estimated to be 18.0 mg/l in BOD and 324 mg/l in SS.

Further, the river water is polluted by oil extending over a long distance of the Prahova Main River due to the above factories' wastewater.

The existing organic pollution of the Prahova Main River is summarized below.

No.	River Name	Location Name	Distance (km)	BOD (mg/l)	COD (mg/l)	SS (mg/l)
180	Prahova Main	Predeal	5.0	3.84	2.09	76
195	Prahova Main	Amonte Sinaia	15.0	4.34	2.41	89
200	Prahova Main	Cornu	53.0	6.21	3.42	169
217	Prahova Main	Nedelea	73.0	6.23	3.50	138
220	Prahova Main	Tinosu	105.0	18.02	11.00	324
190	Azuga	Azuga	21.0	3.32	1.84	67
205	Doflana	Amonte Traisteni	1.0	3.37	1.83	73

*Distance : measured from river head

Details of the river water quality at the above stations are shown in Table C.1.2. The longitudinal variation of water quality in the Prahova Main River is shown in Fig. C.1.2.

(2) Teleajen River

The water quality of the Teleajen River deteriorates gradually downwards until the river reaches Ploiesti City area. The river water quality suddenly becomes worse after the confluence with the Dimbu River. The organic water pollution of the Teleajen River is characterized by river reach as described below.

(a) Upper Reaches

The monitoring station No. 230 at Cheia represents the water quality in the upstream reaches of the Maneciu Dam. The river water is clean and its average water quality during 1995-1997 is estimated to be 3.7 mg/l in BOD.

(b) Middle Reaches

The monitoring station No. 240 represents the water quality in the middle reaches between the Maneciu Dam and Ploiesti/Valea Calugareasca. The average river water quality becomes worse to 6.1 mg/l in BOD due to the domestic wastewater effluents.

Further, the river water is turbid in gray color due to erosion of the exposed clay minerals in the riverbanks and mountain slopes.

(c) Lower Reaches

The river water of the lower reaches is much affected by the effluents of domestic and industrial wastewater from Ploiesti City and Valea Calugareasca area. In particular, the water quality suddenly becomes worse after the confluence of the Dimbu River.

The monitoring station No. 260 at Moara Domneasca represents the river water quality of the lower reaches. The water quality during 1995-1997 is 22.2 mg/l in BOD on average. It reaches 42.2 mg/l at the maximum.

(d) Dimbu River

The river receives the domestic and industrial wastewater of Ploiesti City. The river water quality is observed at the downstream end of the river. The river water is polluted to a large extent and the average BOD concentration during 1995-1997 is estimated at 36 mg/l. The river is also much polluted by oil from the factories.

The existing organic pollution of the Teleajen River is summarized below.

No.	River Name	Location Name	Distance (km)	BOD (mg/l)	COD (mg/l)	SS (mg/l)
230	Teleajen	Cheia	10.0	3.69	2.02	65
240	Teleajen	Gura Vitioarei	58.0	6.08	3.38	201
260	Teleajen	Moara Domneasca	110.0	22.22	13.81	335
250	Dimbu	Goga	37.0	34.70	22.64	305

*Distance : measured from river head

Details of the river water quality at the above points are shown in Table C.1.2. The longitudinal variation of water quality in the Teleajen River is Fig. C.1.2.

(3) Cricovul Sarat River

The river water is highly polluted over the entire river stretches by organic materials. Even the water quality in the upper reaches is estimated to be 15.7 mg/l in BOD on average at Sangeru. The river water quality in the downstream is further polluted due to the wastewater effluents from Urlati Town. The average BOD concentration is 17.6 mg/l at Ciorani.

Further, the river is highly turbid in yellow/brown color due to soil erosion of the riverbanks and watersheds.

The existing organic pollution of the Cricovul Sarat River is summarized below.

No.	River Name	Location Name	Distance (km)	BOD (mg/l)	COD (mg/l)	SS (mg/l)
275	Cricovul Sarat	Sangeru	10.0	15.65	9.21	307
280	Cricovul Sarat	Ciorani	88.0	17.62	10.64	328

*Distance : measured from river head

Details of the river water quality at the above points are shown in Table C.1.2. The longitudinal variation of water quality in the Cricovul Sarat River is shown Fig. C.1.2.

1.3 Toxic Pollution

Available data of the toxic pollution is limited. However, the following toxic pollution has been identified in the Prahova River Basin.

(1) Prahova River

No analysis for toxic pollution has been done at the monitoring points of No. 180 and No. 190 since no toxic pollution sources are identified in their upstream reaches.

Cyanide, Phenol, Oil Products (extracted substance from petroleum ether) and Detergent with a low concentration are observed at Cornu monitoring station (No. 200). This is due to the domestic and industrial wastewater effluents from the towns and city along the Prahova Valley. The toxic pollution at the same level as at Cornu is also observed at Nedelea monitoring station (No. 217).

Cyanide, Phenol, Oil Products and Detergent are also observed at Tinosu monitoring station (No. 220). Their concentrations are much higher than those at Nedelea. Further, cadmium is also observed here. From this fact, toxic pollution sources of the Prahova Main River are considered to concentrate in the lower reaches between Nedelea and Tinosu.

The average concentration of toxic pollution of the river is summarized below.

No.	River Name	Location Name	CN (mg/l)	Phenol (mg/l)	Oil (mg/l)	Cd (mg/l)
180	Prahova Main	Predeal	-	-	0.00	-
195	Prahova Main	Amonte Sinaia	0.01	0.00	0.00	0.00
200	Prahova Main	Cornu	0.01	0.01	0.09	0.00
217	Prahova Main	Nedelea	0.01	0.02	0.61	0.00
220	Prahova Main	Tinosu	0.03	0.09	6.03	0.00
190	Azuga	Azuga	-	-	0.00	-
205	Doftana	Amonte Traisteni	-	-	0.00	-

(2) Teleajen River

The river water is contaminated by no toxic pollution in the upper reaches. Cyanide, Phenol and Oil Products with a low concentration are observed at the monitoring station: Gura Vitioarei (240) in the middle reaches. The concentration of Cyanide, Phenol and Oil Products increase at the monitoring station: Moara Domneasca (260) in the lower reaches due to the sewerage and factory effluents from Ploiesti City and Valea Calugareasca area.

In the downstream of the Dimbu River, Cyanide, Phenol and Oil Products with higher concentration than other river sections are observed at the monitoring station: Goga (250). Further, Cadmium is also observed at this point. This fact shows that the wastewater treatment of the factories in the Dimbu River Basin is not always satisfactory.

The average concentration of toxic matters in the Teleajen River is summarized below.

No.	River Name	Location Name	CN (mg/l)	Phenol (mg/l)	Oil (mg/l)	Cd (mg/l)
230	Teleajen	Cheia	-	-	0.00	-
240	Teleajen	Gura Vitiarcei	0.01	0.01	0.02	0.00
260	Teleajen	Moara Domneasca	0.04	0.05	6.27	-
250	Dimbu	Goga	0.01	0.12	15.08	0.01

(3) Cricovul Sarat River

The river water is contaminated by almost no toxic pollution in the upper reaches. Cyanide, Phenol and Oil Products with a low concentration are observed at the monitoring station: Ciorani (280) in the upper reaches.

The average concentration of toxic matters in the Cricovul Sarat River is summarized below.

No.	River Name	Location Name	CN (mg/l)	Phenol (mg/l)	Oil (mg/l)	Cd (mg/l)
275	Cricovul Sarat	Sangeru	-	0.05	1.04	-
280	Cricovul Sarat	Ciorani	0.03	0.04	3.25	0.00

1.4 Seasonal Variation of River Water Quality

The river water quality usually varies by season, depending on the river flow rate and water temperature. However, no significant seasonal variation is recognized in the Prahova River except the Prahova Main River. The monthly average river water quality in BOD of the Prahova River is shown in Fig. C.1.3, compared with those of river flow rate and water temperature.

- (1) The BOD concentration of the Prahova Main River at the monitoring station: Tinosu (220) is lower in summer season than in winter season. This is considered due to that the river flow rate and self-purification effects are larger in summer season than in winter season.
- (2) However, no regular seasonal variation of BOD is recognized in the Teleajen and Dimbu rivers. This is considered due to that:
 - (a) The river flow rate of both rivers is almost constant through the year.
 - (b) The self-purification capacity of both rivers between the pollution sources and the monitoring stations is small.
- (3) No regular seasonal variation of BOD is also recognized in the Cricovul Sarat River. This is considered due to that the river flow rate is small and almost constant through the year, and as a result, BOD concentration in the river water widely changes by a slight increase or decrease of the wastewater effluents.

1.5 Pollution Load Balance in River

The average daily organic pollution load (BOD) at each monitoring station of the Prahova River is calculated as shown below.

No.	River Name	Location Name	Ave. Discharge (m ³ /s)	Ave. BOD Content (mg/l)	Ave. BOD Load (ton/day)
180	Prahova Main	Predeal	1.61	3.8	0.53
195	Prahova Main	Amonte Sinaia	2.16	4.3	0.81
200	Prahova Main	Cornu	8.96	6.2	4.81
217	Prahova Main	Nedelea	8.33	6.2	4.48
220	Prahova Main	Tinosu	10.98	18.0	17.10
190	Azuga	Azuga	1.21	3.3	0.35
205	Doftana	Amonte Traisteni	4.16	3.4	1.21
230	Teleajen	Cheia	0.80	3.7	0.26
240	Teleajen	Gura Vitioarei	3.80	6.1	2.00
260	Teleajen	Moara Domneasca	8.68	22.2	16.66
250	Dimbu	Goga	2.58	34.7	7.74
275	Cricovul Sarat	Sangeru	0.25	15.6	0.34
280	Cricovul Sarat	Ciorani	0.99	17.6	1.51

As shown in the above table, the BOD load in the Prahova Main River much increases between Nedelea and Tinosu from 4.48 ton/day to 17.1 ton/day. This BOD increase is attributable to the wastewater effluents of the factories located between both monitoring stations.

The Dimbu River receives a large quantity of BOD load (7.74 ton/day) from the sewerage and factories in Ploiesti City. It shares approximately 46 % of the total BOD load (16.66 to/day) of the Teleajen River.

On the other hand, the BOD load in the Cricovul Sarat River is as small as 1.51 ton/day even in the downstream reaches although the river water quality shows a high BOD concentration. This high concentration is due to the small flow rate of the river.

BOD load balance in the Prahova River is also shown in Fig. C.1.4.

1.6 Comparison of Existing River Water Quality with National Standards

The national standards classify river water quality into three (3) categories by water use as shown in Table C.1.3. Applicable water uses by category in the standards are summarized below.

Category	Scope of Water Use
I	<ul style="list-style-type: none"> • Centralized potable water supply • Central water supply to livestock farm • Central water supply for food industry requiring potable water quality • Water supply for vegetable cultivation requiring water of Category I quality • Hatching and rearing of salmonoids/salmonid fisheries • Natural bathing waters (pools) • Basins of water contact sports
II	<ul style="list-style-type: none"> • Water supply for maintenance of natural fish stocks/water supply for fishery purposes, with the exception of salmonoids • Water supply for industrial technological processes/other activities requiring water of Category II quality • For urban and recreational use
III	<ul style="list-style-type: none"> • Water supply for irrigation • Water for hydro-electric power generation • Water supply for cooling system • Water supply to washing stations/other activities requiring water of Category III quality

The water quality (BOD, Oil and CN) of the Prahova River at each monitoring is classified by

the standard water quality category as follows.

No.	River Name	Location Name	BOD	Oil	CN
180	Prahova Main	Predeal	I	I	I
195	Prahova Main	Amonte Sinaja	I	I	I
200	Prahova Main	Cornu	II	D	I
217	Prahova Main	Nedelea	I	D	I
220	Prahova Main	Tinosu	D	D	D
190	Azuga	Azuga	I	I	I
205	Doftana	Amonte Traisteni	I	I	I
230	Teleajen	Cheia	I	I	I
240	Teleajen	Gura Vitioarei	II	I	D
260	Teleajen	Moara Domneasca	D	D	D
250	Dimbu	Goga	D	D	D
275	Cricovul Sarat	Sangeru	D	D	I
280	Cricovul Sarat	Ciorani	D	D	D

Note: D means out of standard category.

The water quality parameters (BOD, Oil and CN) of the Prahova River exceeds the category III in the entire downstream reaches due to the domestic and industrial wastewater effluents from the Ploiesti City and Valea Calugareasca area.

CHAPTER II SUPPLEMENTARY WATER QUALITY OBSERVATION

2.1 General

Simultaneous water quality observation of river water, sewerage, factory and livestock farm wastewater effluents is necessary to analyze the existing water pollution mechanism of the Prahova River and to construct the water quality simulation model of the River.

The JICA Study Team conducted simultaneous water quality observations with cooperation of Romanian Waters during the period of middle February to early March. Sampling and laboratory analysis were carried out for the following 64 locations two (2) times. The first time was during February 9 to February 13 in 1998 and second time was during March 2 to March 6 in 1998.

River	River	Sewerage	Factory	Livestock	Total
Prahova Main	13	7	10	2	32
Teleajen	8	7	12	1	28
Cricovul Sarat	3	1	0	0	4
Total	24	15	22	3	64

Note: Teleajen River includes Dimbu River.

For details of the sampling locations, see Table C.2.1 and Fig. C.2.1.

In addition to the above, simultaneous summer season water quality observation (third time observation) was conducted during July 20 to August 3 in 1998 with cooperation of Romanian Waters Authority. Sampling and laboratory analysis were carried out for the 105 points as tabulated below. In the summer season observation, water quality of influents to wastewater treatment plants of sewerage and factories was added so as to analyze treatment efficiency of treatment plants. Sampling locations are shown in Table C.2.2 and Fig. C.2.1.

River	River	Sewerage	Factory	Livestock	Total
		Influent-Effluent	Influent-Effluent	Influent-Effluent	
Prahova Main	13	11	23	4	51
		4-7	8-15	2-2	
Teleajen	8	16	23	2	49
		8-8	7-16	1-1	
Cricovul Sarat	3	2	0	0	5
		1-1	0-0	0-0	
Total	24	29	46	6	105
		13-16	15-31	3-3	

Note: Teleajen River includes Dimbu River

2.2 Observation Results

(1) First Time Observation

The first time observation included the following water quality parameters.

Discharge, Water temperature, Color, Odor, pH, Electric Conductivity, Turbidity, NH_4^+ , NO_3^- , NO_2^- , Phenol, PO_4^{3-} , Dissolved O_2 , BOD, COD(Mn), SS

The results are shown in Table C.2.3.

(2) Second Time Observation

The second time observation included the following water quality parameters

Discharge, Water temperature, Color, Odor ,pH, Electric Conductivity, Turbidity, NH_4^+ , NO_3^- , NO_2^- , Phenol, PO_4^{3-} , Dissolved O_2 , Petroleum ,BOD, COD(Mn), SS ,Cadmium , Cyanide , Cr^{6+} , Cr^{3+} , Copper, Anionic Detergents, Hg, Ni^{2+} , Lead, Zinc,

The results are shown in Table C.2.4.

(3) Third Time Observation

The third time observation included the following water quality parameters.

Discharge, Water temperature, Color, Odor ,pH, Electric Conductivity, Turbidity, NH_4^+ , NO_3^- , NO_2^- , Phenol, PO_4^{3-} , Dissolved O_2 , Petroleum ,BOD, COD(Mn), SS ,Cadmium , Cyanide , Cr^{6+} , Cr^{3+} , Copper, Anionic Detergents, Hg, Ni^{2+} , Lead, Zinc, Organic Chloride (aldrin, alpha-BHC (alpha-HCH), beta-BHC (beta-HCH), delta-BHC (delta-HCH), gamma-BHC (lindana), 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, endosulfan I, endosulfan II, endosulfan sulfate, endrin, endrin aldehyde, heptachlor, heptachlor epoxide-isomer B)

The results are shown in Table C.2.5.

2.3 Characteristics of Water Pollution

2.3.1 Characteristics of Pollutants in Effluents

Pollutant concentration in effluents of factories and sewers is tabulated in Table C.2.6 (Second Time Observation) and Table C.2.7 (Third Time Observation), in which the effluent concentration is compared with the national water quality standard.

Figs. C.2.10 and C.2.11 indicate average concentration of the toxic substances (phenol, Cd and CN), BOD and oil included in effluents of factories and sewers, respectively, based on the tree time-observation.

Table C.2.8 and Fig. C.2.12 shows water treatment efficiency for factories and sewers, which are ratio of effluent concentration to influent concentration.

2.3.2 Distribution of Water Pollution in River

(1) BOD

BOD concentration balance in winter is shown in Figs. C.2.2 and C.2.3, while that in summer season is indicated in Fig.C.2.4

(2) Toxic Substances

Toxic substance concentration in winter is shown in Fig. C.2.5, while that in summer season is indicated in Fig.C.2.6

(3) Oil

Oil concentration in winter is shown in Fig. C.2.7, and that in summer season is indicated in Fig.C.2.8.

(4) Pesticides

Pesticides were analyzed in third time observation. The parameters observed are: Organic Chloride (aldrin, alpha-BHC (alpha-HCH), beta-BHC (beta-HCH), delta-BHC (delta-HCH), gamma-BHC (lindana), 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, endosulfan I, endosulfan II, endosulfan sulfate, endrin, endrin aldehyde, heptachlor, heptachlor epoxide-isomer B).

Pesticides concentration in summer season is indicated in Fig.C.2.9.