Table E.1 Investment and Operation Cost

1 Elementary cost	1995price (1000forint)	1998price (1000forint)
procuring costs (per vessel)		
dredger (including pipeline and attached small ships,etc)	-	388,500
booster (including pipeline and attached small ships,etc)	-	205,500
annual operating costs (ver vessel.year)		
dredger	50,038	86,554
personal expence (21persons/vessel) (/vessel/year)	18,000	31,136
fuel (/vessel/year)	19,800	34,249
other materials (/vessel/year)	1,600	2,768
others(general expence,cost of disposal sites) (/vessel/year)	10,638	18,401
booster	28,575	49,428
personal expence (3persons/vessel) (/vessel/year)	2,700	4,670
fuel (/vessel/year)	19,800	34,249
others(general expence,cost of disposal sites) (/vessel/year)	6,075	10,508

2 Total dredging costs of proposed case

Kesztely basin	1 existed dredger	1 new booster
Szigliget basin	3 new dredger	2 new boosters

	1998price (1000forint)
procuring costs	1,782,000
Kestzhely basin(1new booster)	205,500
Szigliget basin(3 new dredgers and 2 new boosters)	1,576,500
operating costs (1year)	494,501
Kestzhely basin(1existed dredger and 1new booster)	135,982
Szigliget basin(3 new dredgers and 2 new boosters)	358,519
operating costs (10 years)	4,945,010
Kestzhely basin(1existed dredger and 1new booster)	1,359,823
Szigliget basin(3 new dredgers and 2 new boosters)	3,585,187
total	6,727,010

commen The price of forint in 1998 is accounted to be "price of 1995 ×1.263×1.183×1.18

Table E.2 Investment Cost, Operating Cost, and Dredging Area

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Investment cost										
Kestzhely Basin	206	0	0	0	0	0	0	0	0	0
Szigliget Basin	1577	0	0	0	0	0	0	0	0	0
Operating Cost										
Kestzhely Basin	136	136	136	136	136	136	136	(68)	(68)	(68)
Szigliget Basin	180	359	359	359	359	359	359	427	427	427
Dredging area (km^2)										
Kestzhely Basin	2	2	2	2	2	2	2	(1)	(1)	(1)
Szigliget Basin	3	6	6	6	6	6	6	7	7	7

Cost : million forint , 1998 price

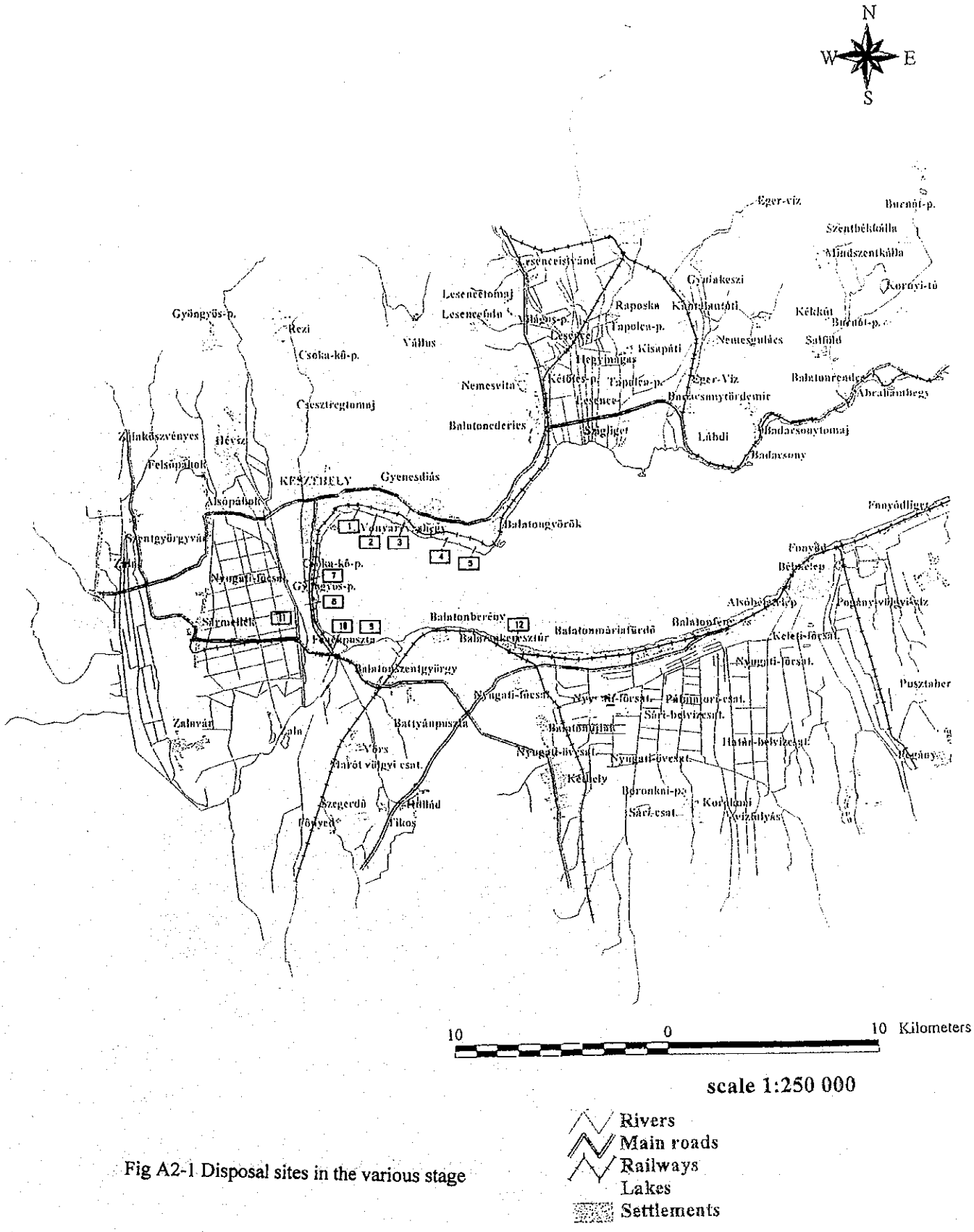


Fig A2-1 Disposal sites in the various stage

Figure E.1 Disposal Sites in the Various Stages

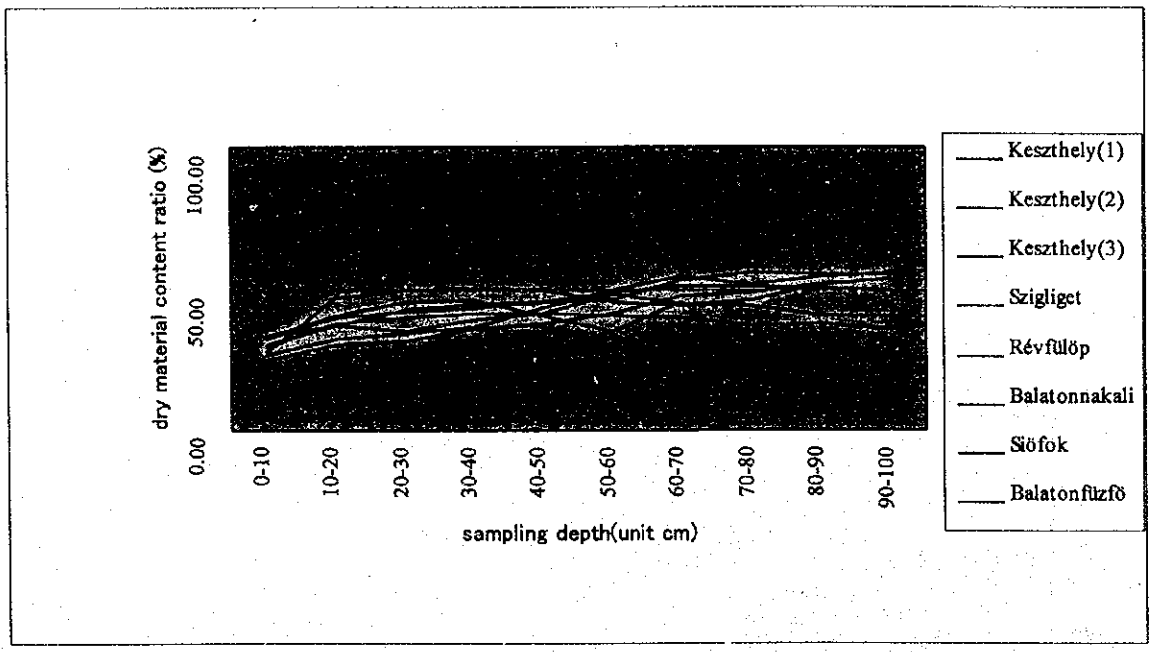


Figure E.2 Dry Material Content Ratio of Sediment of the Representative Points of Each Lake Basin

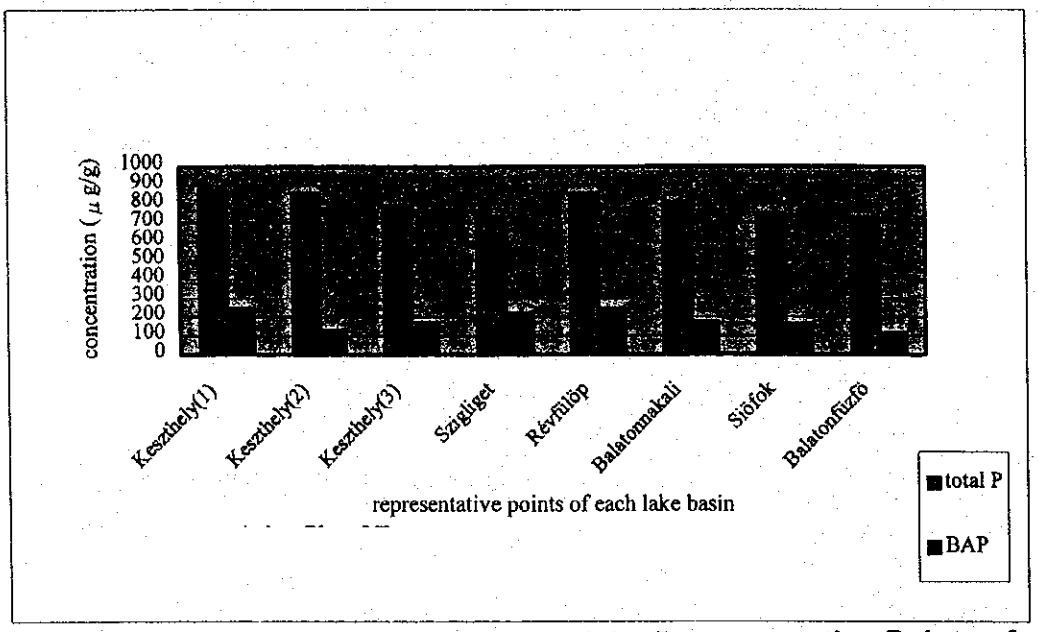


Figure E.3 Profile of TP and BAP of the Representative Points of Each Lake Basin

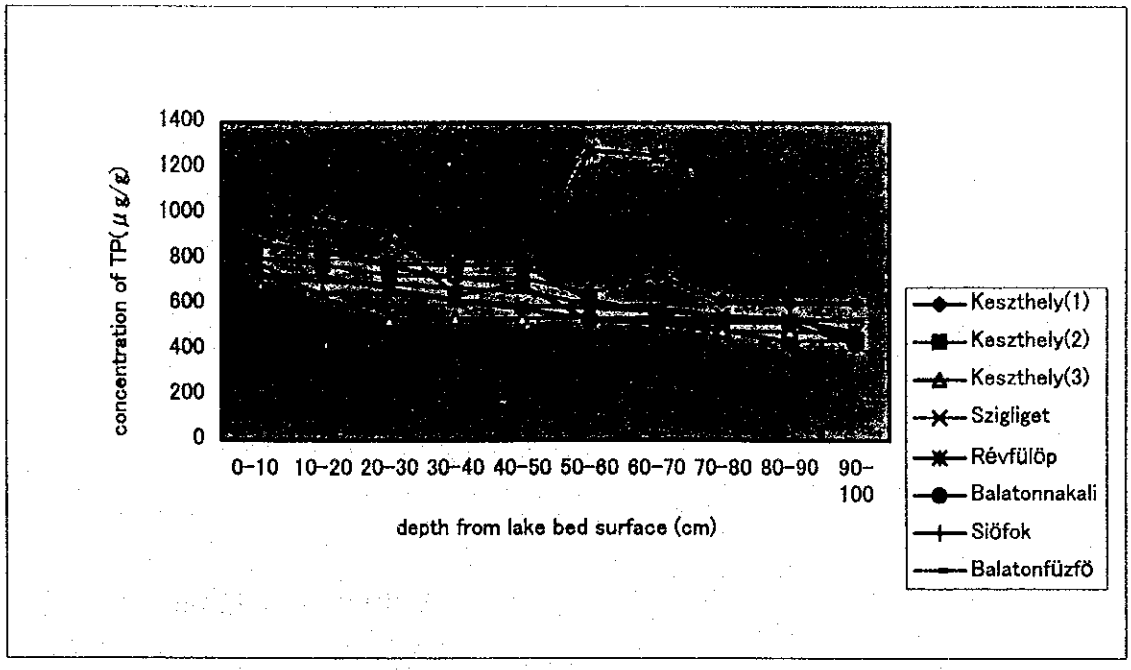


Figure E.4 Profile of TP of the Representative Points of Each Lake Basin

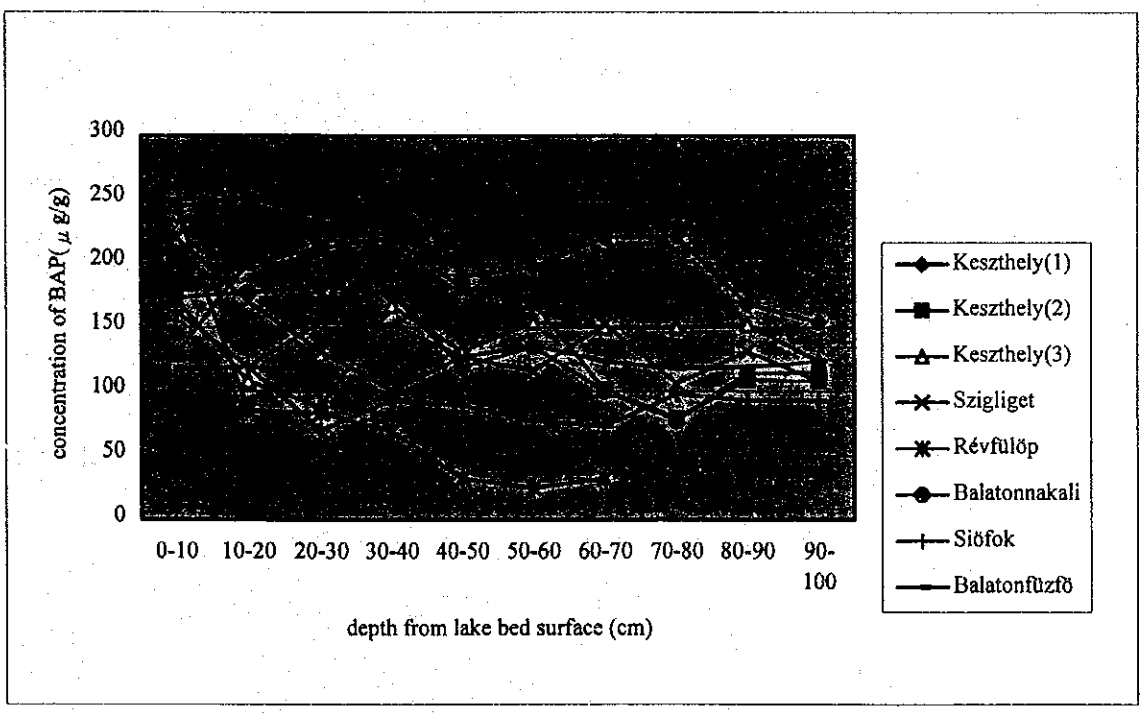


Figure E.5 Profile of BAP of the Representative Points of Each Lake Basin

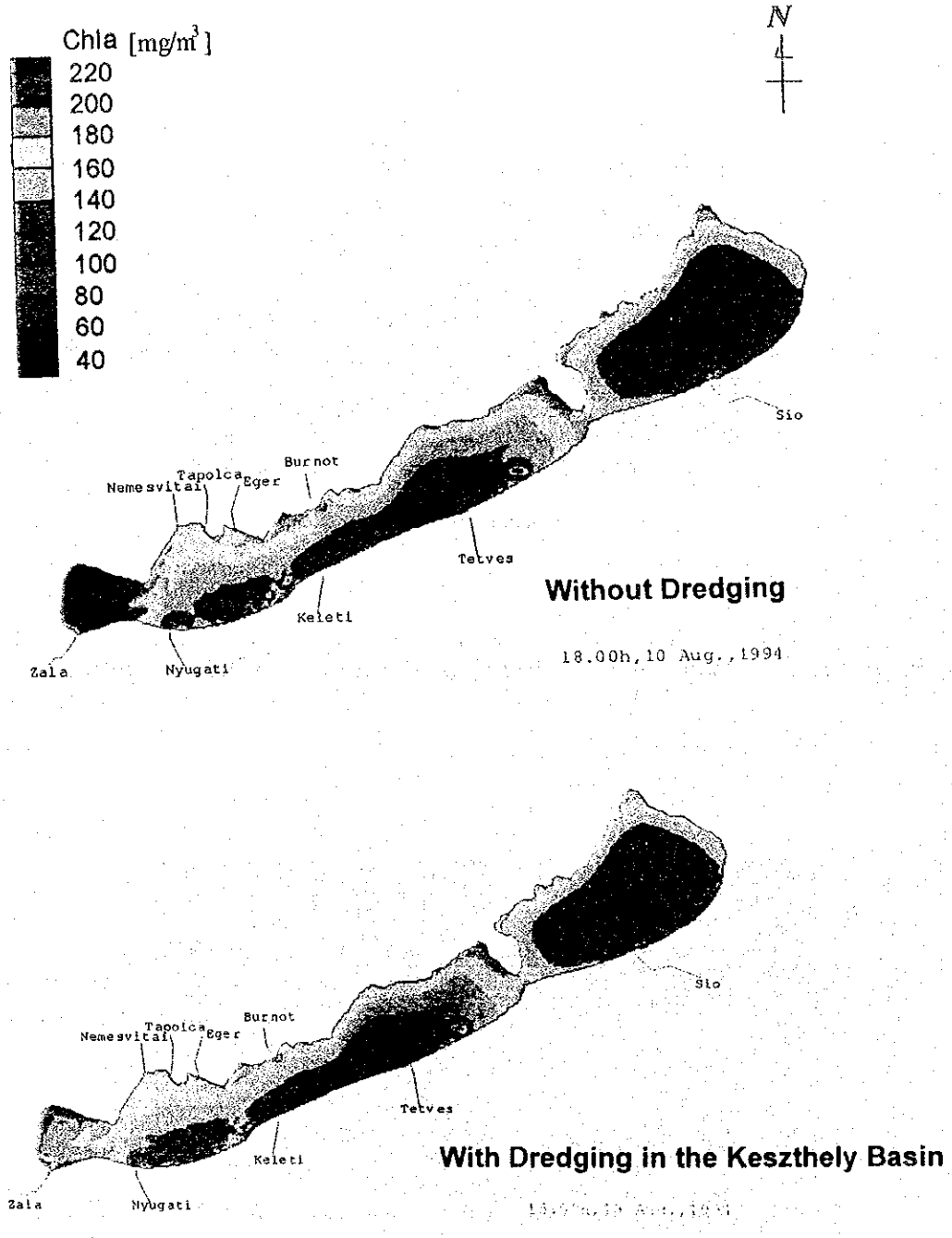


Figure E.6 Hindcast of the Water Quality Distribution in August 10, 1994

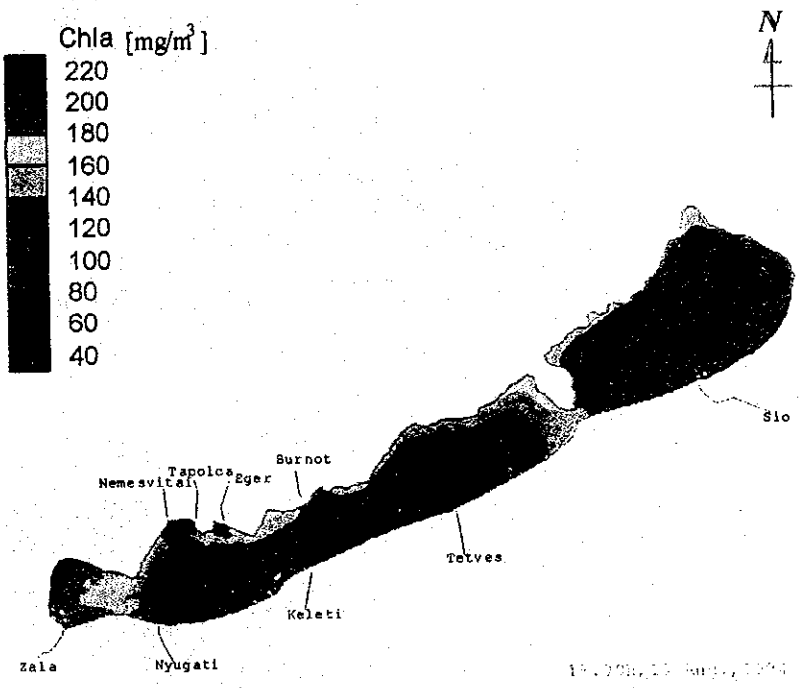


Figure E.7 Hindcast of the Water Quality Distribution in August 10, 1994, with Dredging in All Basins

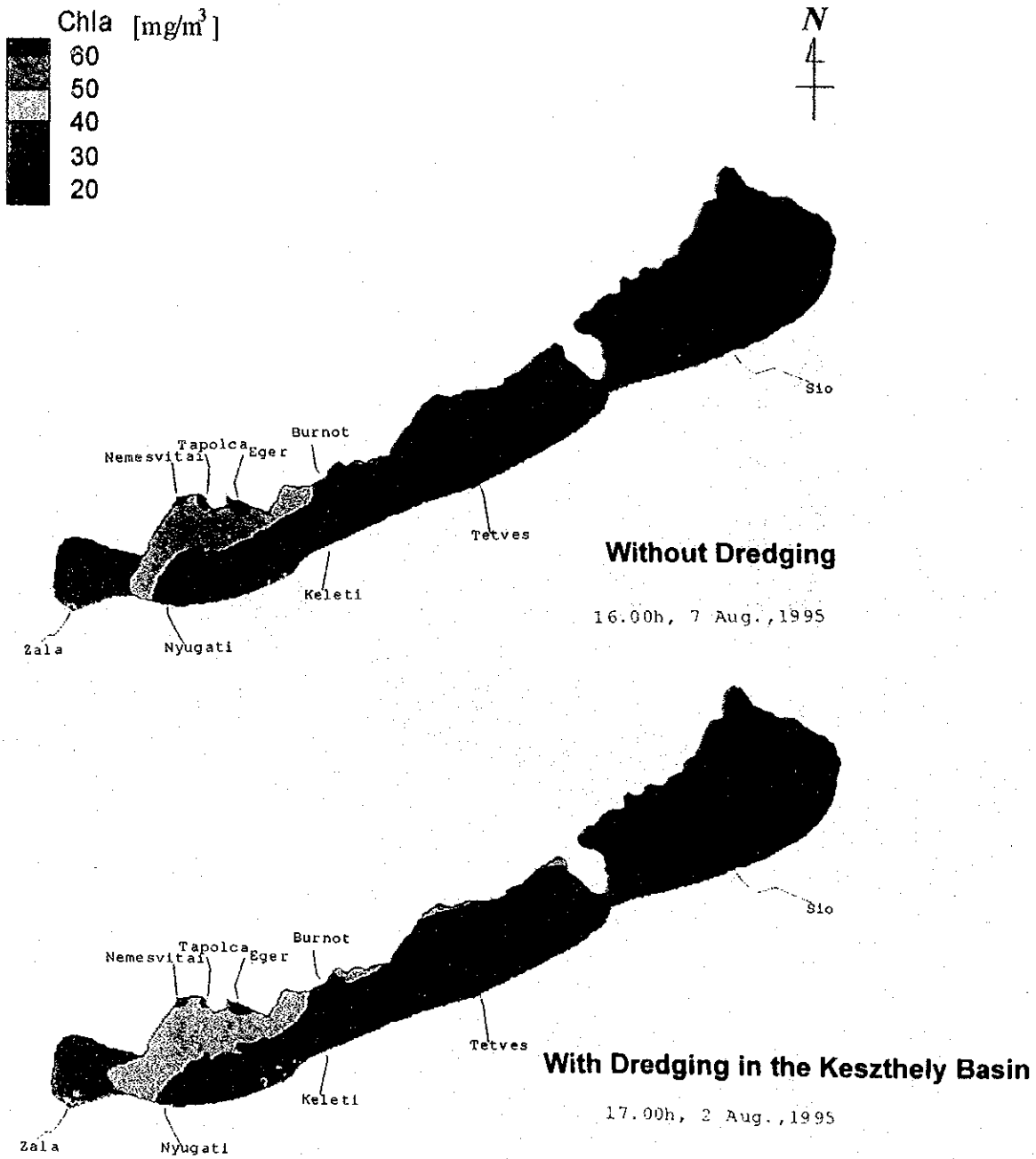


Figure E.8 Hindcast of the Water Quality Distribution in August 7, 1995

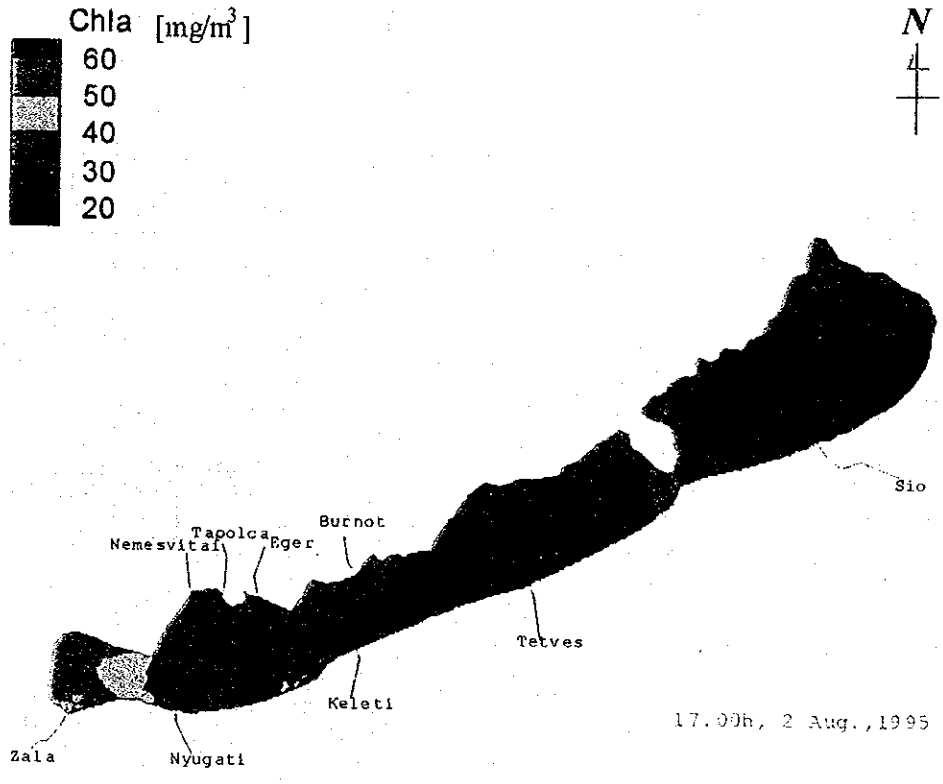
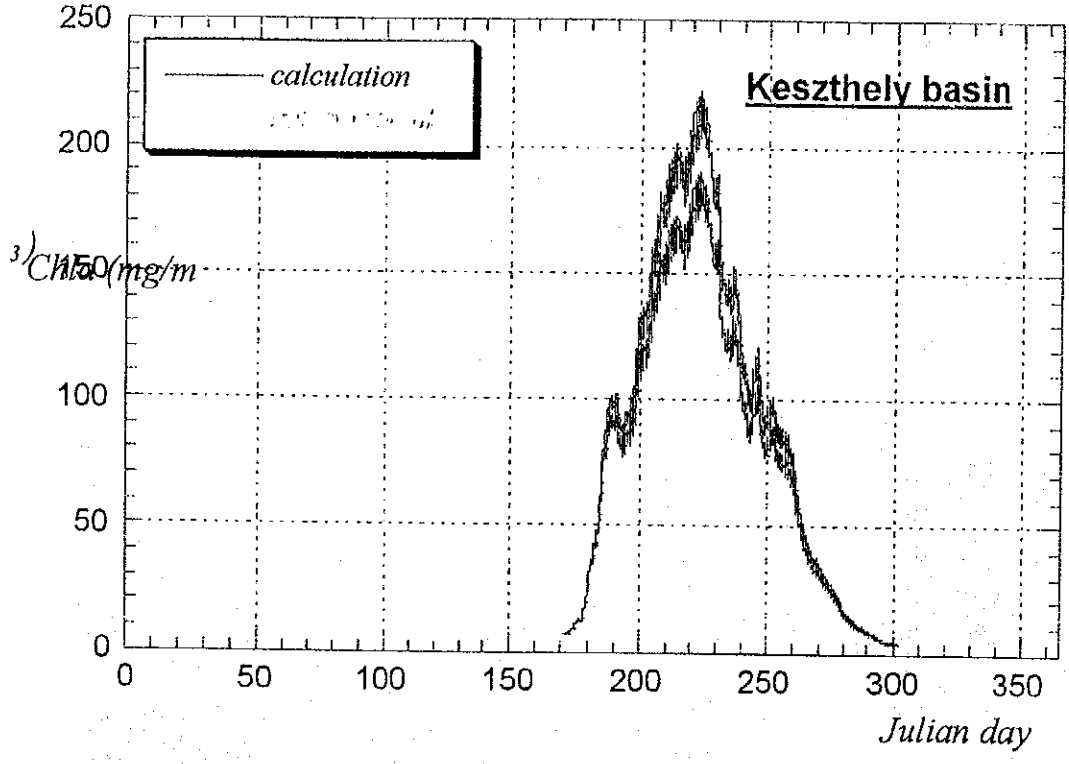


Figure E.9 Hindcast of the Water Quality Distribution in August 7, 1995, with Dredging in All Basins



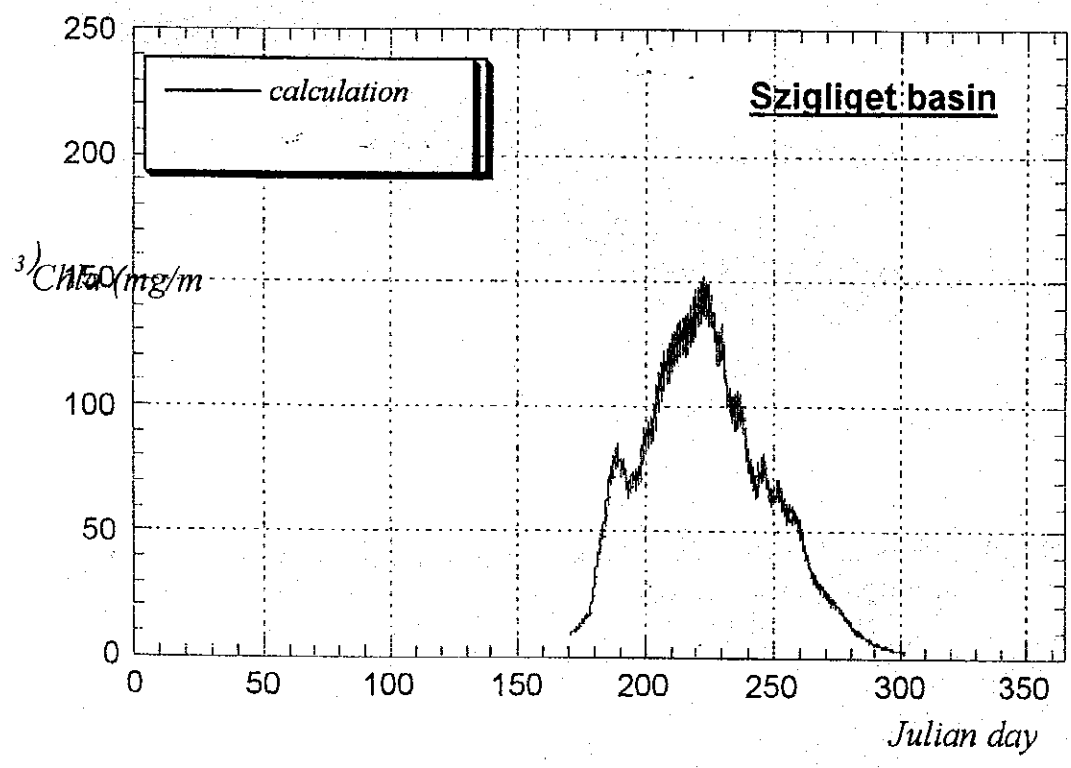
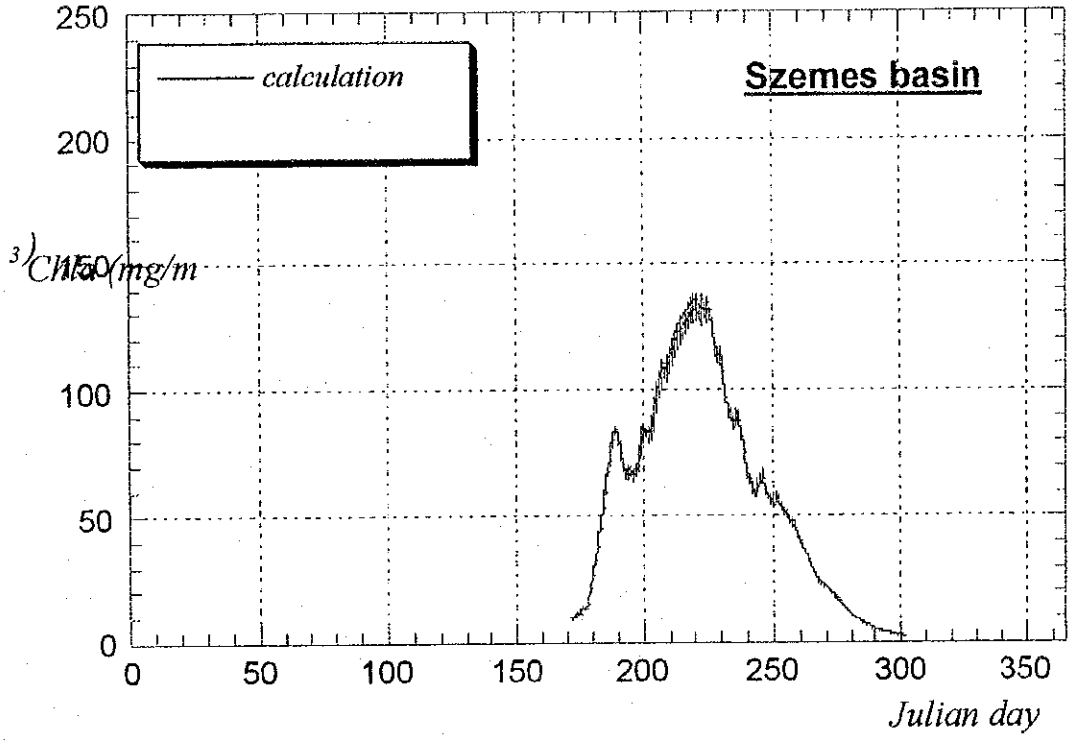


Figure E.10 Hindcast Output of the Water Quality in the Keszthely and the Szigliget Basins in the Case of Internal Loads Reduced 40 % in the Keszthely Basin (1994)



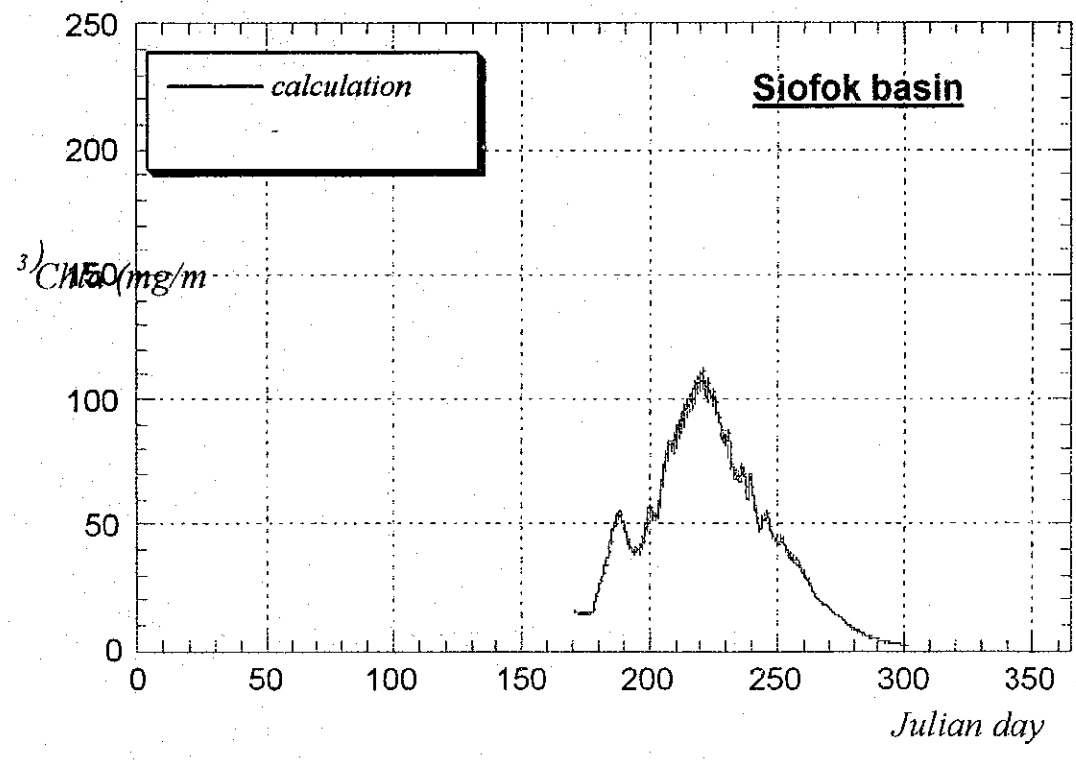
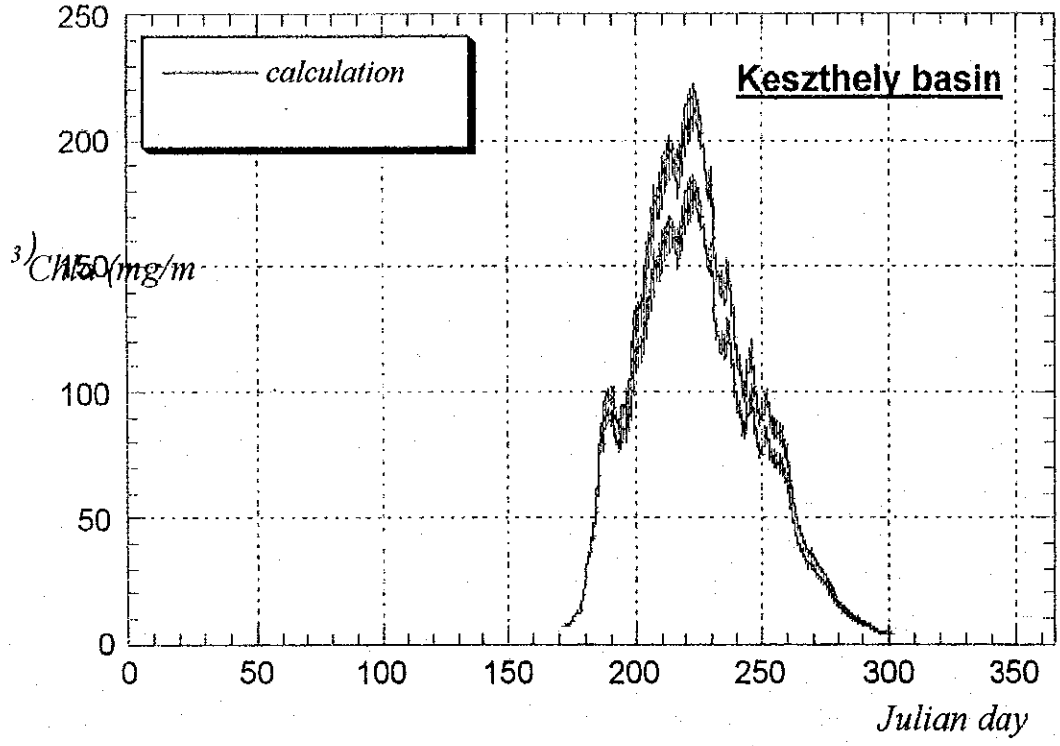


Figure E.11 Hindcast Output of the Water Quality in the Szemes and the Siófok Basins in the Case of Internal Loads Reduced 40 % in the Keszthely Basin (1994)



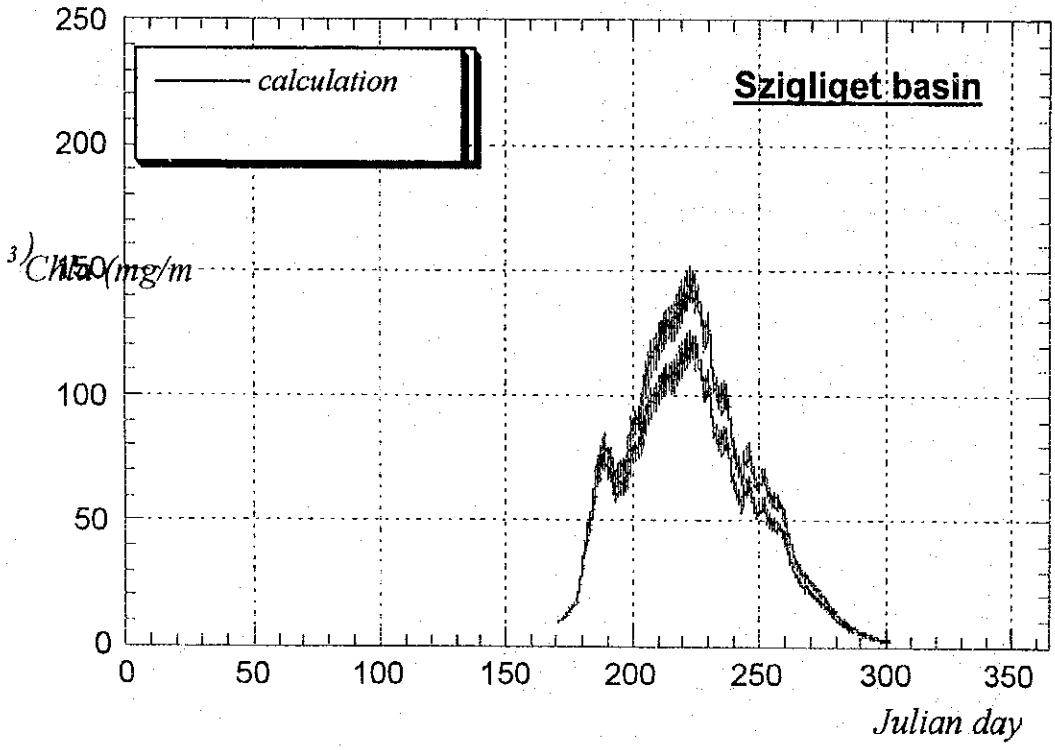
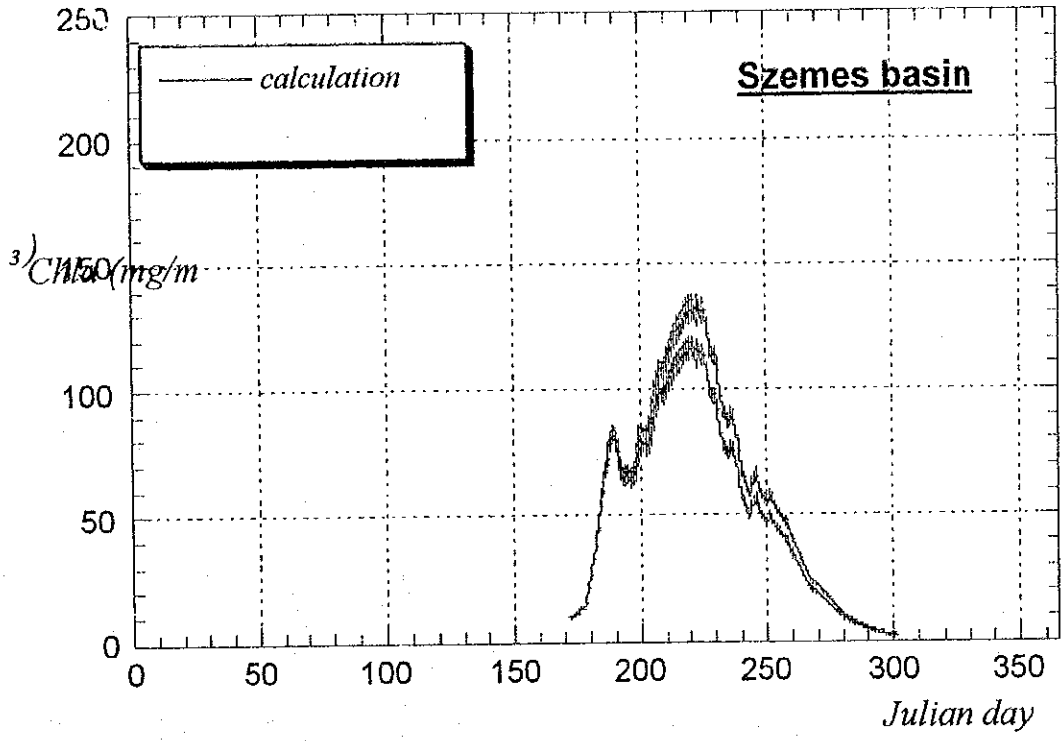


Figure E.12 Hindcast Output of the Water Quality in the Keszthely and the Szigliget Basins in the Case of Internal Loads Reduced 40 % in All Basins (1994)



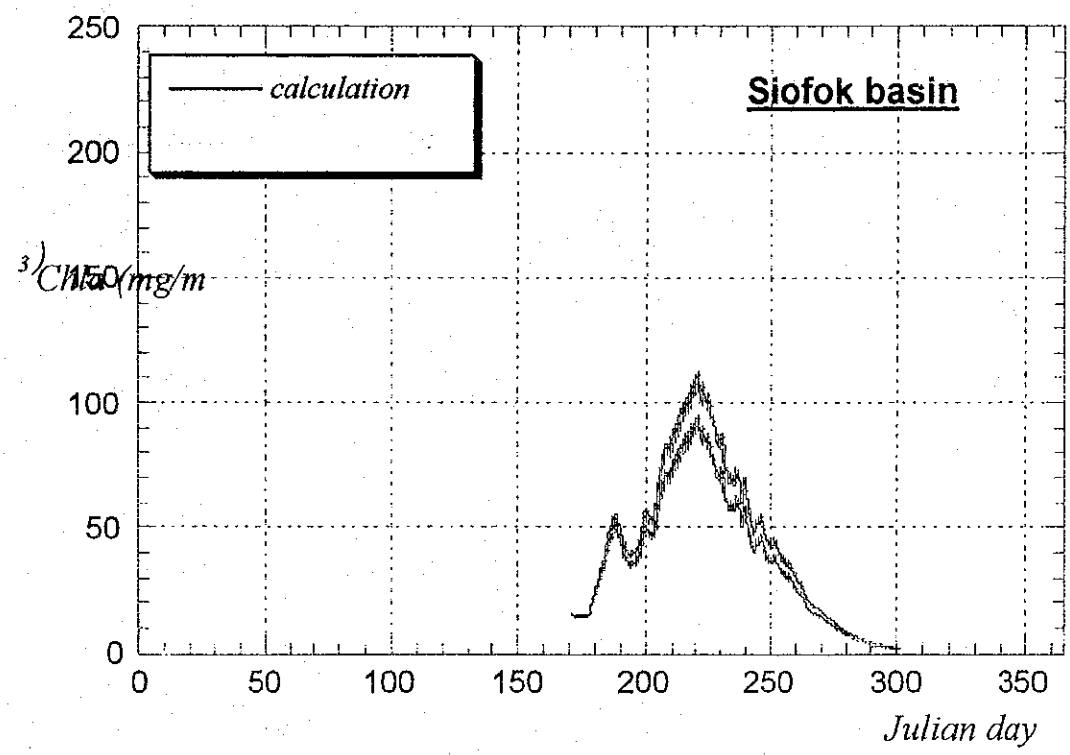


Figure E.13 Hindcast Output of the Water Quality in the Szemes and the Siófok Basins in the Case of Internal Loads Reduced 40 % in All Basins (1994)

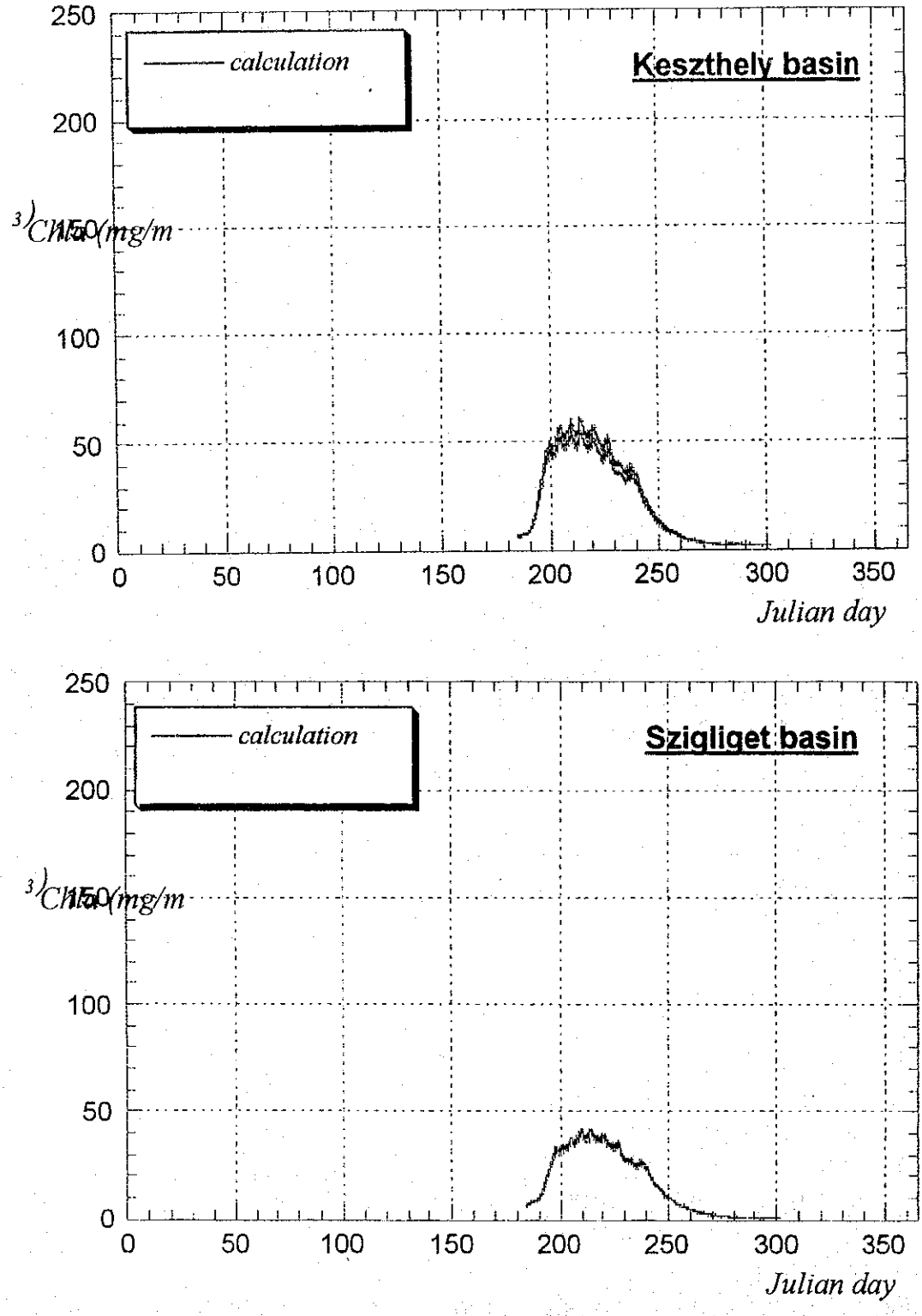
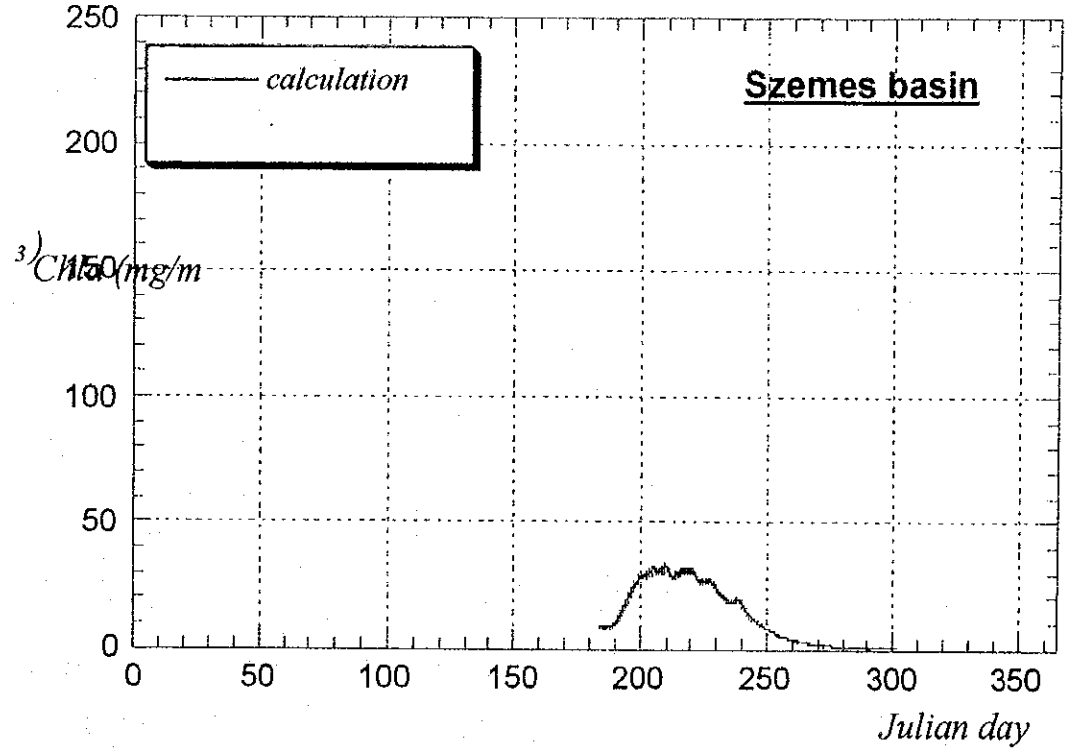


Figure E.14 Hindcast Output of the Water Quality in the Keszthely and the Szigliget Basins in the Case of Internal Loads Reduced 40 % in the Keszthely Basin (1995)



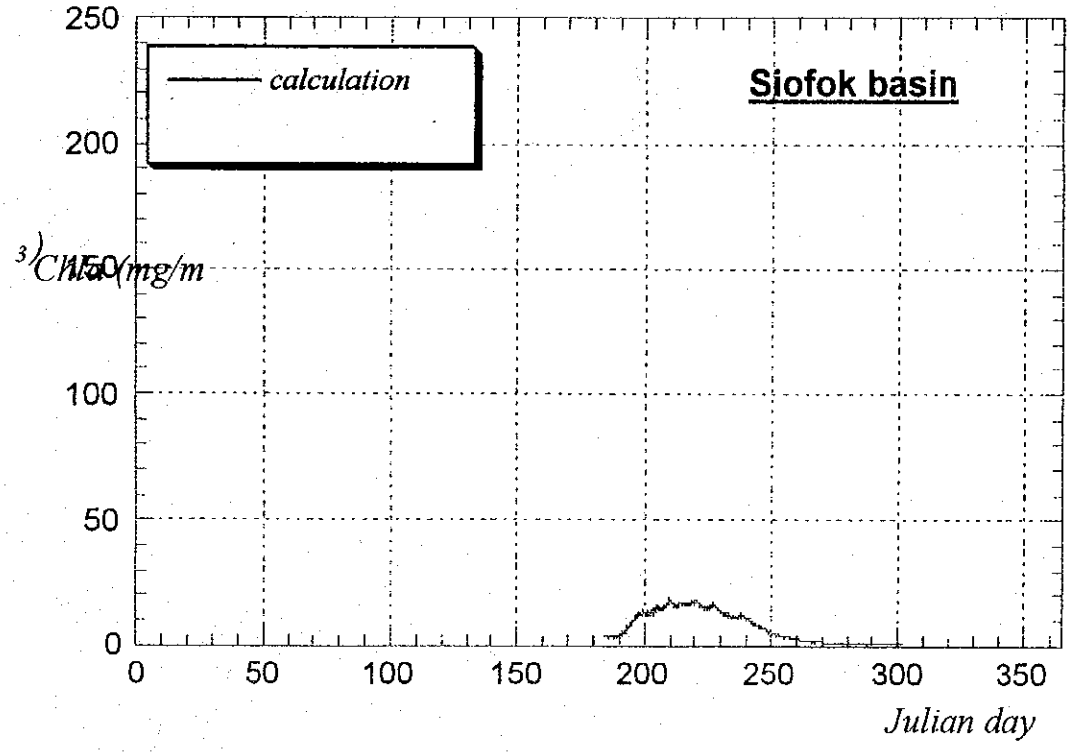
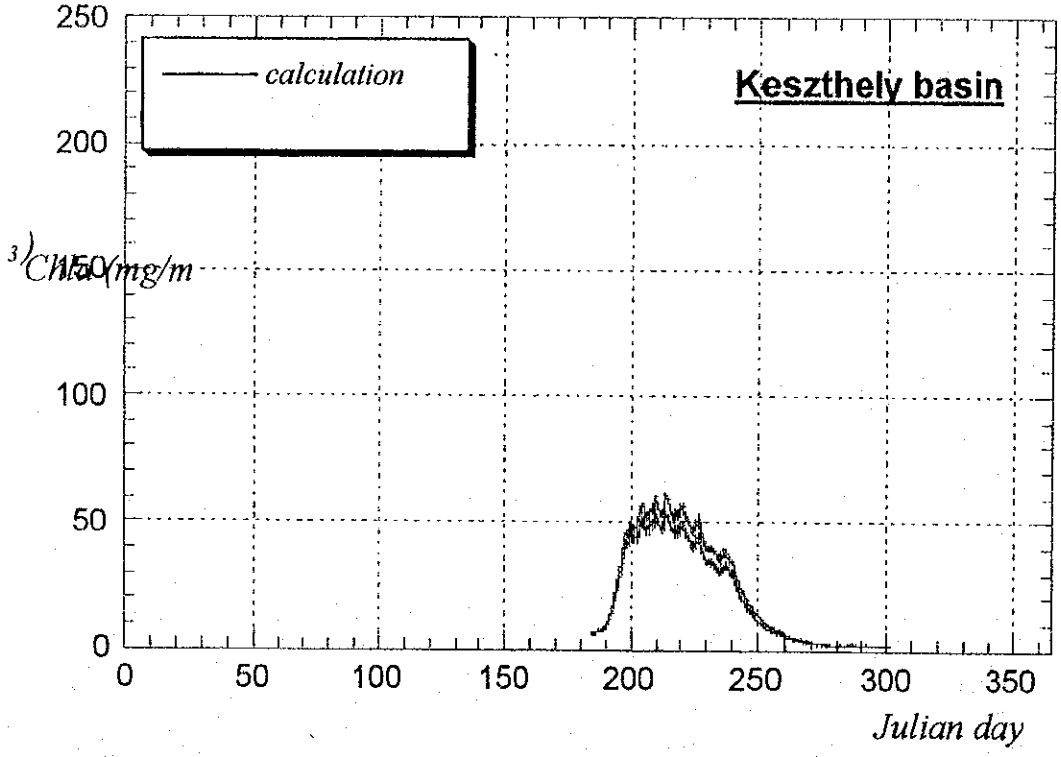


Figure E.15 Hindcast Output of the Water Quality in the Szemes and the Siófok Basins in the Case of Internal Loads Reduced 40 % in the Keszthely Basin (1995)



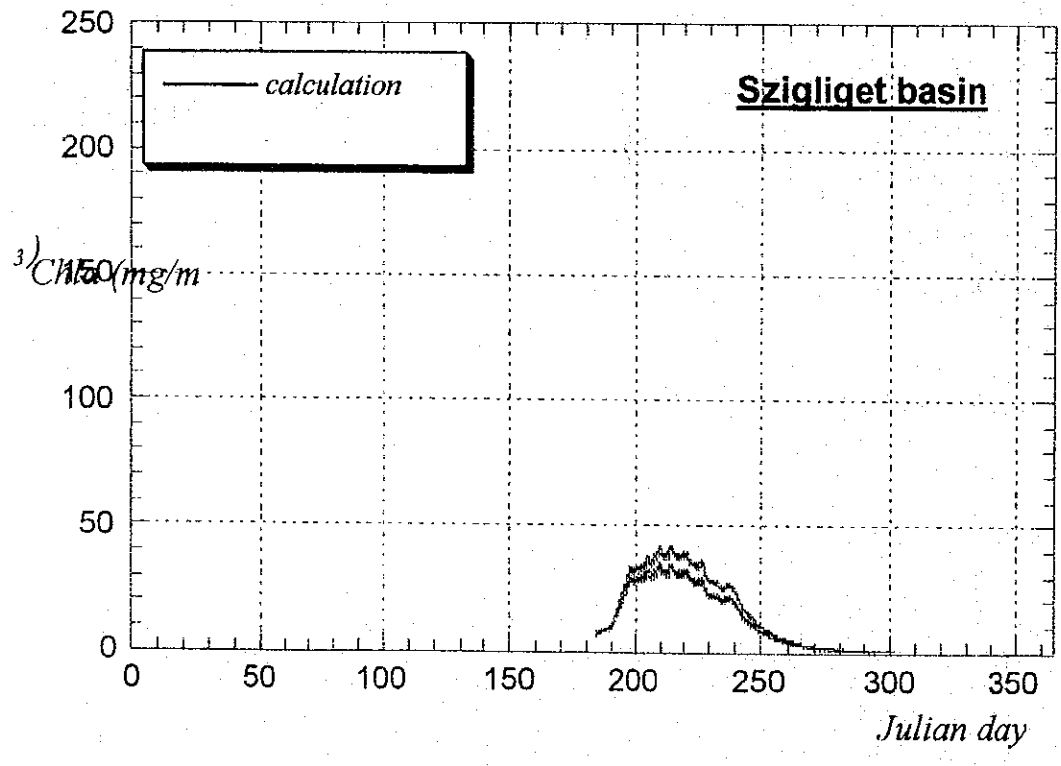
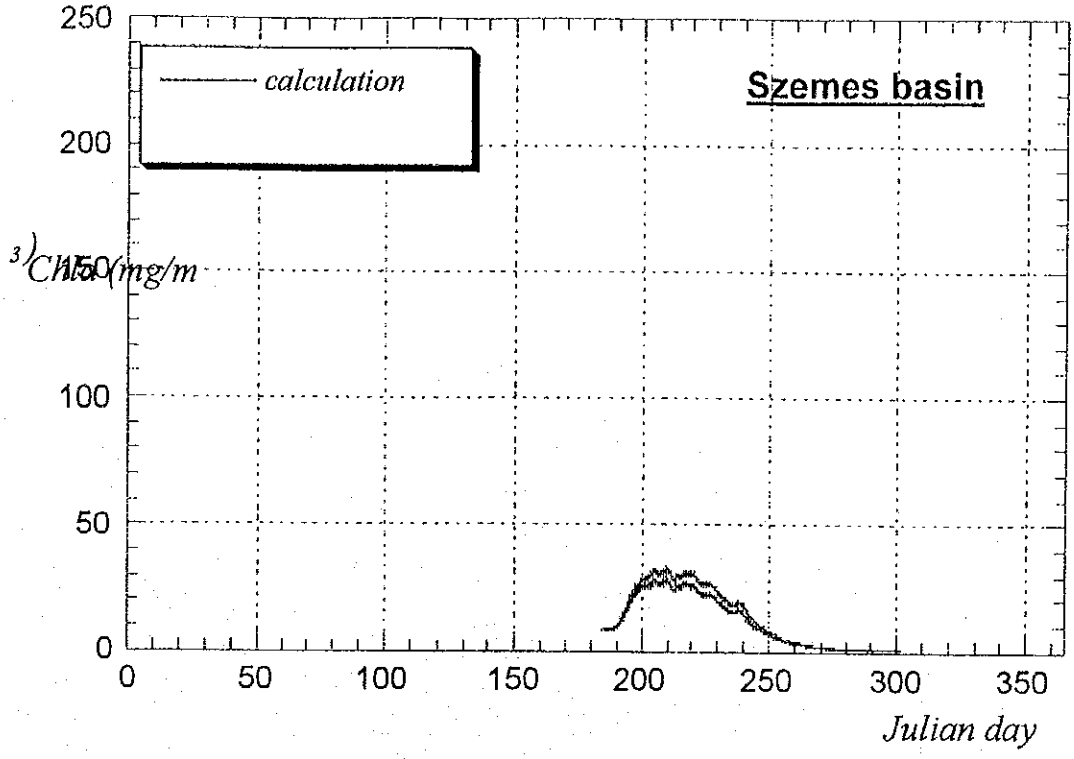


Figure E.16 Hindcast Output of the Water Quality in the Keszthely and the Szigliget Basins in the Case of Internal Loads Reduced 40 % in All Basins (1995)



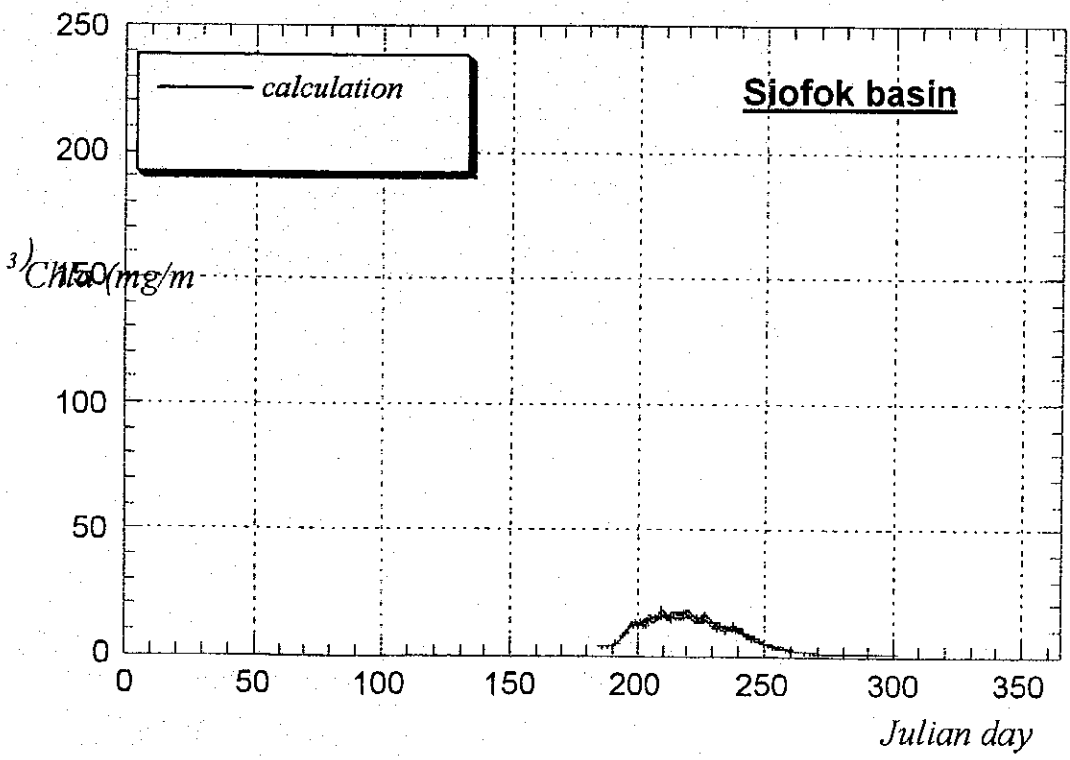


Figure E.17 Hindcast Output of the Water Quality in the Szemes and the Siófok Basins in the Case of Internal Loads Reduced 40 % in All Basins (1995)

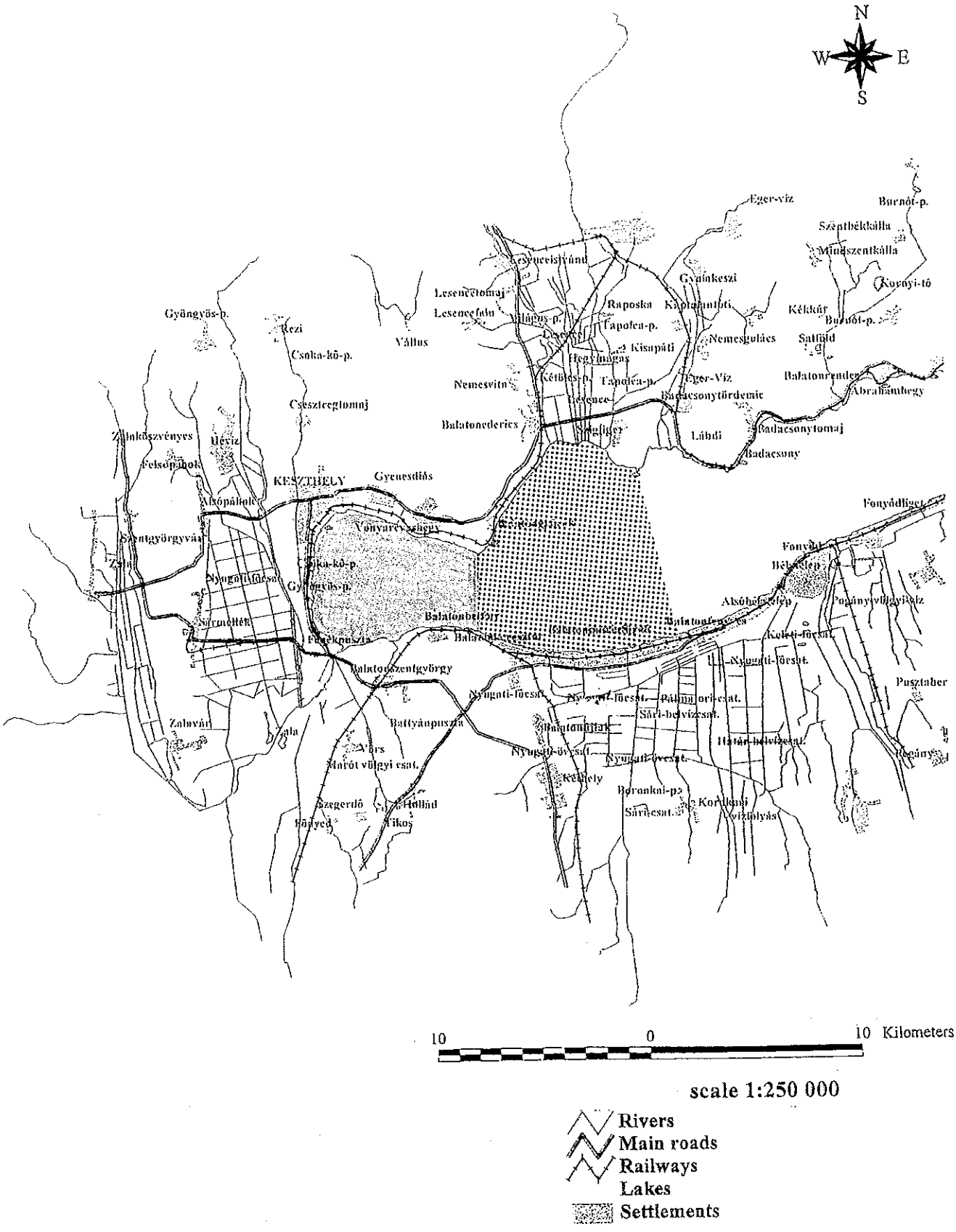


Figure E.18 Planned Dredging Area from 2000 to 2010

CASE4 - wetlands; 3km; 106 - 115 m

ID-code	LU Code	Area (ha)
2	411	89.6
3	411	14.5
4	411	42.5
5	411	54.8
6	411	16.7
7	411	22.5
8	411	13.9
9	411	85.6
10	411	48.3
11	411	81.9
12	411	39.7
13	411	19.0
14	411	92.9
15	411	22.3
16	411	41.4
17	411	22.7
18	411	12.8

ID-code	LU Code	Area (ha)
19	411	177.8
20	411	129.9
21	411	67.6
22	411	62.5
23	411	13.9
24	411	17.3
25	411	309.9
26	411	430.8
27	411	133.6
28	411	641.9
29	411	36.2
30	411	30.8
31	412	118.2
32	411	37.1
33	411	25.2
34	411	24.5

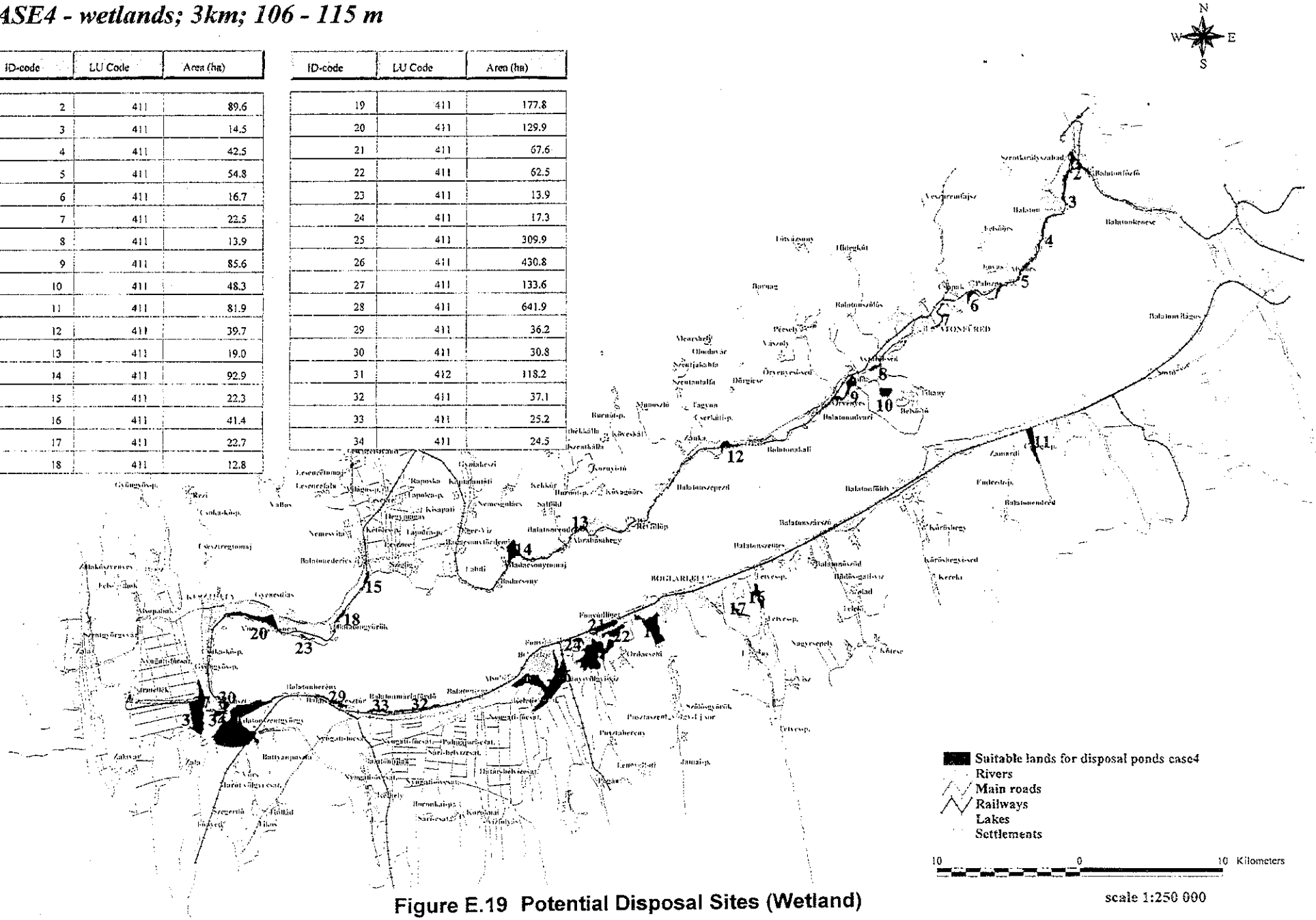


Figure E.19 Potential Disposal Sites (Wetland)

CASE8 - agricultural area; 3km; 106 - 115 m

ID-code	LU Code	Area (ha)
2	211	18.7
3	221	9.1
4	211	75.1
5	221	41.9
6	242	40.6
7	221	19.0
8	211	16.8
9	211	94.4
10	211	64.6
11	221	35.5
12	231	148.1
13	211	75.8
14	231	41.2
15	231	28.7
16	211	50.1
17	211	66.9
18	221	22.5
19	231	36.2
20	222	81.2
21	221	17.5
22	231	142.1
23	211	92.1
24	231	12.8
25	211	26.4
26	221	32.8
27	231	36.9
28	231	30.2
29	211	40.8
30	231	17.5
31	231	9.8
32	211	17.4

ID-code	LU Code	Area (ha)
33	231	177.7
34	221	42.3
35	211	10.9
36	211	9.1
37	221	64.9
38	231	146.5
39	211	10.7
40	221	19.1
41	221	36.8
42	211	18.0
43	221	146.2
44	231	279.7
45	211	30.5
46	211	70.5
47	231	209.0
48	221	35.9
49	231	22.0
50	231	169.1
51	211	108.9
52	211	64.5
53	211	24.0
54	221	132.2
55	221	18.3
56	231	24.6
57	211	46.9
58	211	96.8
59	231	425.0
60	242	51.5
61	231	119.3
62	231	25.2
63	211	15.1

ID-code	LU Code	Area (ha)
64	211	41.0
65	231	26.0
66	211	524.8
67	211	34.1
68	242	12.0
69	231	303.5
70	231	305.0
71	211	73.3
72	211	328.1
73	221	26.2
74	211	88.7
75	231	29.3
76	211	168.0
77	211	11.0
78	231	13.8
79	231	27.2
80	231	14.8
81	243	49.0
82	231	144.2
83	231	31.2
84	231	32.3
85	211	50.9
86	231	206.9
87	231	728.9
88	211	57.8
89	211	13.5
90	211	293.1
91	211	27.3
92	221	13.8
93	211	87.4
94	211	60.3
95	231	17.9
96	211	9.3

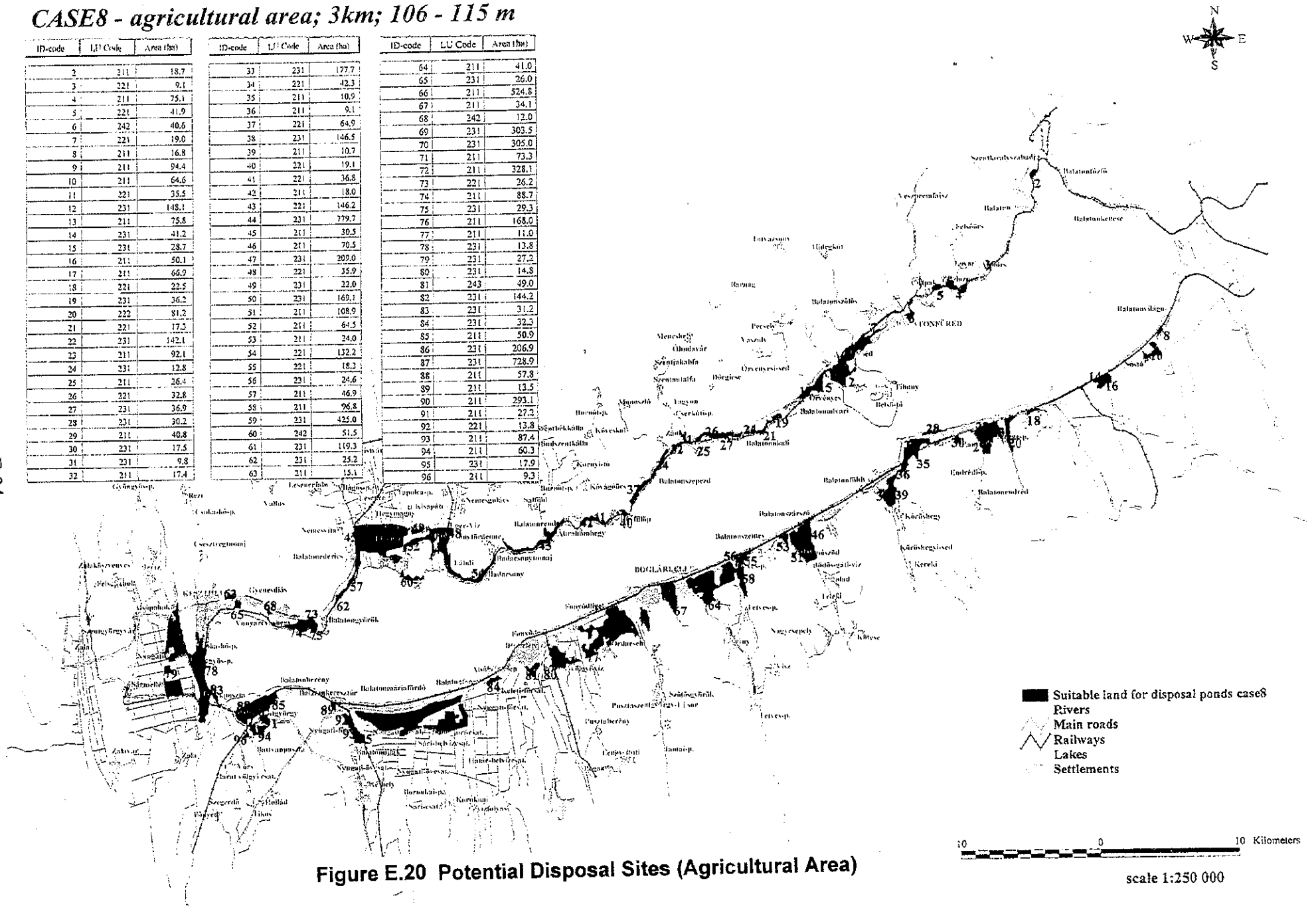


Figure E.20 Potential Disposal Sites (Agricultural Area)

CASE12 - forest and sem-natural areas; 3km; 106 - 115 m

ID-code	LU Code	Area (ha)
2	311	13.1
3	324	24.6
4	311	19.1
5	324	141.5
6	311	17.8
7	311	14.0
8	311	412.3
9	311	30.6
10	311	167.2
11	311	192.6
12	311	21.7
13	311	43.0

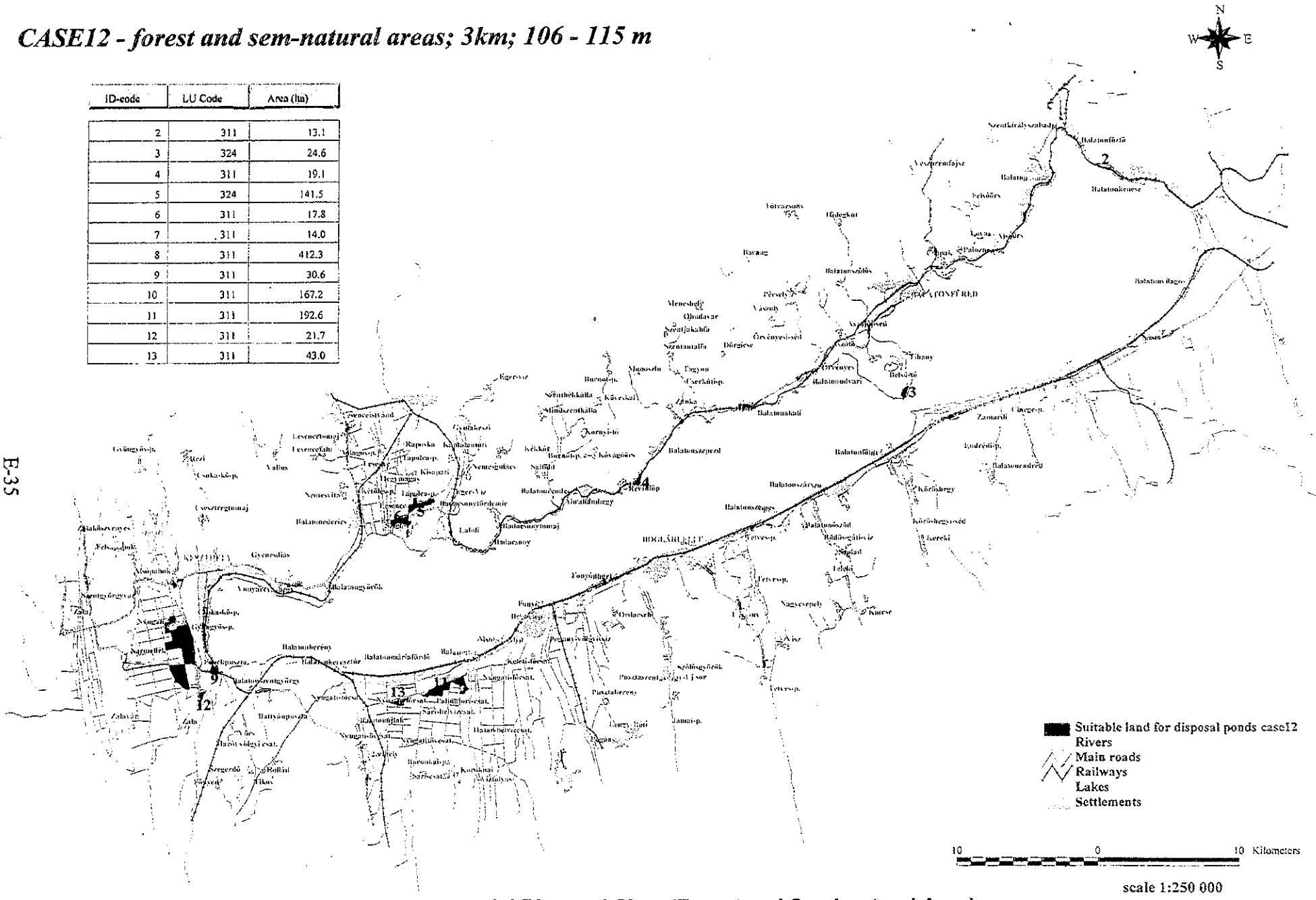


Figure E.21 Potential Disposal Sites (Forest and Semi-natural Area)

APPENDIX - F

ECONOMIC ANALYSIS AND FINANCIAL PLAN

APPENDIX - F

ECONOMIC ANALYSIS AND FINANCIAL PLAN

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APPENDIX - F

ECONOMIC ANALYSIS AND FINANCIAL PLAN

1. BASIC APPROACH

The objective of economic analysis is to examine economic impact of a certain project from the standpoint of a society's entire welfare. In this study, focuses will be given on environmental improvement that brings about indirect and invisible benefits to the whole nation in the "case with project". No direct benefits have been assumed in the project.

Water quality, as well as many other environmental goods such as air quality and preservation of fauna and flora, does not have market prices, which makes traditional economic evaluation almost impossible in this project. Monetary values obtained from a study using contingent valuation method (CVM) have been applied in this analysis. The result of the study, *Economic valuation in transition economies: an application of contingent valuation of contingent valuation to Lake Balaton in Hungary prepared by Susana Mourato*, has been applied here because it well manages to translate water value of Lake Balaton through a survey of contingent market, using carefully designed questionnaires. In the contingent market designed for the survey, the economic valuation of water quality improvement in Lake Balaton is made possible by way of willingness to pay (WTP) of the respondents for potential environmental changes. Equally important reason which supports the CVM is that it is the only technique theoretically capable of estimating the whole range of water-related benefits produced by water quality improvement, including option value and non-use values. Thirdly, relevant survey reported in the above-cited study was carried out during 1995 and the report was completed in 1997. This means that the result of the surveys reflects current environmental awareness of Hungarian people.

For detailed background of the study and assumptions needed for the implementation of the evaluation, please turn to original transcript.

2. ASSUMPTIONS AND BENEFIT VALUATION TECHNIQUE

2.1 ASSUMPTIONS FOR ANALYSIS

In this analysis, water quality improvement denotes improvement of probability of attainment of the target water quality. In case "with the project" the existing or past probability is expected to rise compared to case "without the project". Improvement of the probability is summarized below:

	Probability (%)		
(Basin)	"without" project case	"with" project case	Improvement
Keszthely	23	35	12
Szigliget	35	50	15

The target probability is assumed to be attained first in 2010 and maintained throughout the project period. Relevant margin (%) of improvement of the probability of each basin is the multiplied to its share of area of the whole basins surrounding the lake. Then the result is multiplied to the whole WTP (benefit) for the valuation of the benefits of each basin.

In addition, following specific assumptions and a valuation technique have been necessitated for carrying out the economic evaluation.

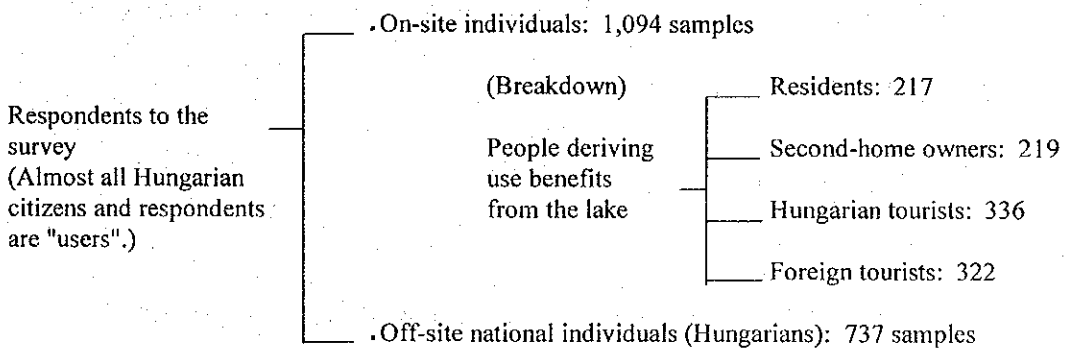
- The area of evaluation covers the whole basins and the lake itself.
- Water quality improvement process and the associated benefits have been envisaged with gradual process as follows:
- Construction period will be from 2001 to 2009, 9 years time, during which the probability will be improved evenly, 11.1%, each year.
- In case "without the project", no further degradation scenario of the water quality has been envisaged.
- All the costs and benefits are estimated in situations "with the project" and "without the project".
- For the benefit of calculations, all the costs and benefits are measured for the first 39 years, including 30 years of operation and maintenance after completion of the construction. It should be noted, however, that the project would eventually lead to a larger benefit than indicated in this analysis as all activities and component envisaged would continue after 30 years of operation and maintenance of the project.
- All the financial costs quoted do not include Hungarian Value Added Tax at 25% (AFA).
- No residual value of the boosters and dredgers at the time of completion of the dredging work has been accounted.
- Shadow prices are not applied to non-tradable goods, including labor.
- No sunk costs are accounted for the sake of simplification of the valuation.
- Foreign exchanges rates for major currencies applied when converted to US$ are as follows:

Currency	Ex. Rate/US$
Hungarian Forint (HUF)	211.945
Japanese Yen (J. Yen)	132.80
German Mark (DM)	1.8136

(Note) Average rate from January to June 1998.

2.2 APPROACH FOR BENEFIT VALUATION

CVM is a survey based hypothetical valuation approach. A hypothetical market is described in the questionnaires used in an associated survey. In the study referred to before, the respondents were asked their WTP for the improvement expected by a hypothetical environmental improvement project, titled *Balaton Clean-Up Programme*. An environmental good or service in question in the survey, the water quality improvement in Lake Balaton, was assumed to be tradable in the hypothetical market. Composition of the respondents to the survey is summarized below:



Note:
・Total respondents: 1,831 (Hungarians 1,509; Foreigners 322)

As a result of the survey, mean annual WTP estimates of the respondents were obtained and they are summarized below:

(Unit: HUF)

Sub-samples	Single bounded	Double bounded	Open bounded
National (whole Hungarians)	4,340.7	3,901.8	3,756.8
Second home owners	2,965.2	2,998.2	3,144.3
Residents in the lake area	2,939.9	2,925.2	2,768.4
Hungarian tourists	979.0	903.6	791.0

It was found that most Hungarians had visited Lake Balaton as 98% of the off-site Hungarian respondents had visited the lake and 93% had visited more than once. So the study classified almost all Hungarians respondents as 'users'. In order to draw each respondent's monetary valuation, three elicitation procedures were adopted in the survey. In the study, the double-bounded elicitation procedure was adopted. The survey results showed that water pollution had been perceived as the most serious environmental problem in Hungary and that the economic benefits from water quality improvements at Lake Balaton are likely to be substantial. Based on these findings, the study concluded that "Hungarians are willing to pay an average of 3,900 HUF every year for clean-up operations, which corresponds approximately to one per cent of net annual earnings." In this analysis, the figure stated by "National" sub-sample, HUF 3,901.8 in 1995 price, was adopted as representative WTP.

3. PROJECT DESCRIPTION

3.1 PROJECT PERIOD

Base Year of the project is set as the year 2001. Project period is as follows:

- Construction including planning and design preparation: 2001～2009 (9 years);
- Operation and maintenance: 2001～2039 (39 years)

3.2 PROJECT COST

Total investment cost, including contingencies and excluding taxes, is estimated at about US$ 27,303 thousand, equivalent to HUF 5,786,688 thousand. Its breakdown by project component is given in *Table F.1.*

Price and physical contingencies are at US$ 1,300 thousand or 5.0% of total base cost and engineering cost. Out of the total cost, foreign cost portion is US$ 10,633 thousand or 38.9 %; local cost portion is US$ 16,669 thousand equivalent.

The cost estimates reflect current market value of 1998 and based on the latest tendering information available for similar works in Hungary.

Investment schedule is expected as below:

(1,000 US$)

Year	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*
Investment Cost	9,342	2,765	3,537	2,935	1,086	2,775
Year	*2007*	*2008*	*2009*	*Total*		
Investment Cost	2,042	2,302	520	27,303		

4. RESULTS OF ANALYSIS

The results of the analysis are summarized below; *Table F.2* shows the details of calculation. As EIRR is over 12%, which is used as a norm for decision making of public projects in many developing countries and for many World Bank projects, this project can be regarded as viable.

Indices	Result of Analysis
EIRR	12.62 %
B/C	1.0394
NPV (12%)	1,724 thousand US$

5. SENSITIVITY ANALYSIS

In this analysis, the following cases have been conducted as the sensitivity analysis; the results are summarized below:

- Benefits in terms of WTP fall by 10%;
- Construction cost and O&M cost increase by 10%; and
- Benefits fall by 10% and all costs increase by 10%.

Case	Indices	Results of Sensitivity Analysis
All benefits fall by 10%	EIRR(%)	10.97
	B/C	0.9355
	NPV (1,000 US$)	- 2,821
Construction cost and O&M cost increase by 10%.	EIRR(%)	11.13
	B/C	0.9449
	NPV (1,000 US$)	-2,649
All benefits 10% down and all costs up by 10%.	EIRR(%)	9.57
	B/C	0.8504
	NPV (1,000 US$)	- 7,194

The result shows that the project as a whole is sensitive to changes in economic conditions, especially the amount of benefits. The project can not maintain to be viable in any cases.

6. OTHER BENEFITS

The project is expected to generate a series of other beneficial effects, which are difficult to measure in economic terms. These include, *inter alia*, improvements in the management of the Balaton National Park, more effective participation of local governments and people in research and development associated with not only water quality, but also various activities in and around the lake, such as prevention of air pollution, forest protection, shoreline protection etc. Other aspects considered in the economic impact as a whole are employment generation in not only tourism sector, but also tourism-related industries, such as transportation, construction and etc. It is widely known that economic development in one sector or industry can bring about favorable effects to other industries in a multiplier process, resulting in further economic development in general.

7. PROJECT FINANCING PLAN

In Hungary, environmental protection has been traditionally a matter of central government. Financial burdens of both capital costs and operational costs of major projects, such as Kis-Balaton Project, have been born solely by the central government, either through the central budget, or through various kinds of fund established for special purposes. This is pointed out in the F/S Report of Kis-Balaton Project (5.3 Budgeting). Another essential point to be considered for financial planning is that any substantial contributions from private sector cannot be expected since the proposed water quality improvement project has a nature that should be implemented by public sector because of its widely accepted urgency and significance despite its middle-of-the-road economic viability indices, compared to attractive commercial projects. Some

minor contribution may come from private sector, but its contribution will not be significant. Thus, there seems to be only one possible financial model to be assumed in this analysis. That is the composition of foreign loan from international financial institution and own fund from budgets of central and/or local government, a public implementing body. It is not realistic to assume for a big public development project in Hungary to be financed with domestic financial resources only. Taking the substantial deficit in the central government budget, combined with the country's development needs in almost all sectors remaining at high level, this scenario appears to be the most practical.

Likely financing plan would be as follows: out of the estimated total investment cost, US$ 27,303 thousand or HUF 5,786,688 thousand, US$ 8,191 thousand or 30% would be financed by the central government, and US$ 19,112 thousand or the remaining 70% would be financed by foreign loan granted by a international financial institution. Yearly financing plan is summarized in *Table F.3*.

The most likely contribution other than own fund could be expected from the World Bank. As shown in *Table F.4*, the Bank has been actively giving financial assistance to various kinds of sectors, including Kis-Balaton Water Management Project within the framework of Lake Balaton Environmental Projects. During the last three years, percentage of the Bank's assistance on capital investment were from 23% to 49% with only Kis-Balaton Water Management Project accounted.

Another reason to assume the World Bank loan is that only the Bank has its substantial share in Hungary's total external debt as shown in the data shown in *Table F.5*. The Bank's outstanding balance of 1,650 million US$ in 1996 takes 48% out of total long-term debt, 3,440 million US$, provided by international official creditors, far bigger than other multilateral and bilateral donor institutions. (Source: Global Development Finance 1998, World Bank)

For the Bank's projects in Hungary, the Bank would normally finance 60 to 70% of total project costs, or 100% of foreign cost components. In this project, 70% has been assumed because of the consideration of heavily indebted financial position of the central and local governments, which will finance the remaining 30% of the total project costs, including recurrent operation and maintenance costs and taxes and duties. Their financial resources can be from their own budgets and/or by grants through various environmental funds established by the central government.

8. LOAN TERMS AND REPAYMENT CONDITIONS

Applying the terms of the Bank's education sector project in Hungary, the loan terms and repayment conditions have been assumed to be 15 years maturity, including 5 years of grace at LIBOR (5.207% p.a. quoted on October 1, 1998) plus 2.0%. These terms may be a little different from the realistic ones, but it does not affect this analysis as particular parameters can be modified easily

whenever necessary. As calculated in *Table F.6*, total amount of interest to be paid is estimated US$ 13,085 thousand under these terms.

9. REFERENCES

1. Susana Mourato (1997) Economic valuation in transition economies: an application of contingent valuation of contingent valuation to Lake Balaton in Hungary, Environmental Valuation, Economic Policy and Sustainability, Recent Advances in Environmental Economics edited by Melinda Acutt and Pamela Mason, Edward Elgar Publishing, London.

2. World Development Indicators (1998), World Bank.

Table F.1 Summary of Investment Cost

(Thousand US$)

Component	Local (HUF 211.945/US$)	Foreign	Total
A. Dredging			
A1. Keszthely basin			
- 1 booster vessel		970	970
A2. Szigliget basin			
- 3 dredgers		5,499	5,499
- 2 booster vessels		1,939	1,939
AA. Total Base Cost of Dredging	0	8,408	8,408
B. River Purification Facility			
B1. facility construction	13,484	1,637	15,122
B2. land acquisition	1,568	0	1,568
BB. Total Base Cost of River Purification Facility	15,053	1,637	16,690
C. Engineering Cost (BB*5%+Survey Cost)	822	82	904
D. Price and Physical Contingency ((AA+BB+C)*5%)	794	506	1,300
Total Project Cost	16,669	10,633	27,303

Table F.2 Cost Benefit Analysis (Base Case)

(Thousand US$)

(No.)	Year	Project Cost (C) Investment	Project Cost (C) Operation & Maintenance	Benefit (B) National WTP (Net)	Benefit - Cost (B) - (C)	Discounted Cash Flow (12%) Cost	Discounted Cash Flow (12%) Benefit
0	2001	9,342	1,348	0	-10,689	10,689	0
1	2002	2,765	2,021	932	-3,854	4,273	832
2	2003	3,537	2,561	1,865	-4,234	4,862	1,487
3	2004	2,934	2,817	2,797	-2,955	4,094	1,991
4	2005	1,086	3,093	3,729	-450	2,656	2,370
5	2006	2,775	3,173	4,662	-1,286	3,375	2,645
6	2007	2,042	3,344	5,594	208	2,729	2,834
7	2008	2,302	3,429	6,526	795	2,592	2,952
8	2009	520	3,632	7,459	3,307	1,677	3,012
9	2010	0	3,665	8,391	4,727	1,321	3,026
10	2011	0	1,886	8,400	6,514	607	2,704
11	2012	0	1,886	8,400	6,514	542	2,415
12	2013	0	1,886	8,400	6,514	484	2,156
13	2014	0	1,886	8,400	6,514	432	1,925
14	2015	0	1,886	8,400	6,514	386	1,719
15	2016	0	1,886	8,400	6,514	345	1,535
16	2017	0	1,886	8,400	6,514	308	1,370
17	2018	0	1,886	8,400	6,514	275	1,223
18	2019	0	1,886	8,400	6,514	245	1,092
19	2020	0	1,886	8,400	6,514	219	975
20	2021	0	1,886	8,400	6,514	196	871
21	2022	0	1,886	8,400	6,514	175	777
22	2023	0	1,886	8,400	6,514	156	694
23	2024	0	1,886	8,400	6,514	139	620
24	2025	0	1,886	8,400	6,514	124	553
25	2026	0	1,886	8,400	6,514	111	494
26	2027	0	1,886	8,400	6,514	99	441
27	2028	0	1,886	8,400	6,514	88	394
28	2029	0	1,886	8,400	6,514	79	352
29	2030	0	1,886	8,400	6,514	71	314
30	2031	0	1,886	8,400	6,514	63	280
31	2032	0	1,886	8,400	6,514	56	250
32	2033	0	1,886	8,400	6,514	50	224
33	2034	0	1,886	8,400	6,514	45	200
34	2035	0	1,886	8,400	6,514	40	178
35	2036	0	1,886	8,400	6,514	36	159
36	2037	0	1,886	8,400	6,514	32	142
37	2038	0	1,886	8,400	6,514	28	127
38	2039	0	1,886	8,400	6,514	25	113
	Total	27,303	83,778	285,544	174,463	43,724	45,448

EIRR	12.6150%	
B/C	1.0394	
NPV	1,724	thousand US$

Table F.3 Financing Plan by Year

(Thousand USD)

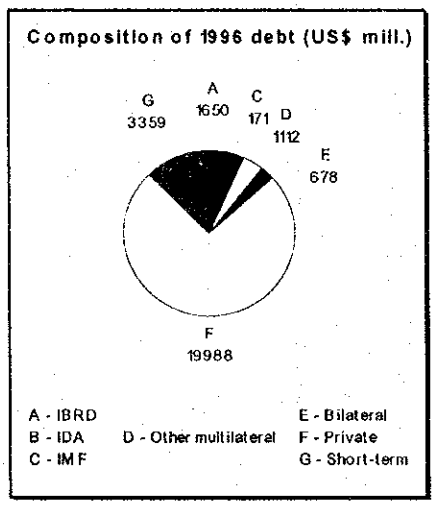
Year	Foreign Loan	Government of Hungary			Total		
		Investment Cost	OM Cost	Total	Investment Cost	OM Cost	Total
2001	8,828	514	1,348	1,861	9,342	1,348	10,689
2002	1,936	830	2,021	2,851	2,765	2,021	4,786
2003	2,476	1,061	2,561	3,623	3,537	2,561	6,098
2004	2,054	881	2,817	3,698	2,934	2,817	5,752
2005	760	326	3,093	3,419	1,086	3,093	4,179
2006	1,943	832	3,173	4,005	2,775	3,173	5,947
2007	1,116	926	3,344	4,270	2,042	3,344	5,386
2008	0	2,302	3,429	5,731	2,302	3,429	5,731
2009	0	520	3,632	4,152	520	3,632	4,152
Total	19,112	8,191	25,418	33,609	27,303	25,418	52,721

Table F.4 Summary of Budget Appropriation of State Ministers for Lake Balaton Environmental Projects

Year	Total Amount of Capital Investment (million HUF)	(Amount and % of Kis-Balaton Project) (million HUF; %)
1993	319	-
1994	445	-
1995	1,727	(840; 49%)
1996	4,862	(1,095; 23%)
1997	2,519	(980; 38%)

Table F.5 External Debt and Resource Flows

	1985	1995	1996
(US$ millions)			
Total debt outstanding and disbursed	13,957	31,462	26,958
IBRD	372	2,218	1,650
IDA	0	0	0
Total debt service	3,689	7,012	8,362
IBRD	25	411	656
IDA	0	0	0
Composition of net resource flows			
Official grants	0	33	108
Official creditors	225	-142	-705
Private creditors	1,707	2,869	-1,369
Foreign direct investment	0	4,519	1,982
Portfolio equity	0	483	1,004
World Bank program			
Commitments	279	38	8
Disbursements	162	188	95
Principal repayments	0	251	514
Net flows	162	-63	-419
Interest payments	25	160	141
Net transfers	137	-223	-560



World Development Indicators 1998 CD-ROM, World Bank

Table F.6 Financing and Repayment Schedule

(Thousand US$)

Year	Borrowing[1)]	Repayment[2)]	Balance	Interest[4)]	Debt Service
2001	8,828		8,828	318	318
2002	1,936		10,764	706	706
2003	2,476		13,239	865	865
2004	2,054		15,293	1,028	1,028
2005	760		16,053	1,130	1,130
2006	1,943	883	17,113	1,195	2,078
2007	1,116	1,076	17,153	1,235	2,311
2008		1,324	15,829	1,188	2,512
2009		1,529	14,299	1,086	2,615
2010		1,605	12,694	973	2,578
2011		1,800	10,895	850	2,650
2012		1,911	8,983	716	2,627
2013		1,911	7,072	579	2,490
2014		1,911	5,161	441	2,352
2015		1,911	3,250	303	2,214
2016		1,028	2,221	197	1,226
2017		835	1,387	130	965
2018		587	799	79	666
2019		382	417	44	426
2020		306	112	19	325
2021		112	0	4	116
2022		0	0	0	0
Total Amount	19,112	19,112	-	13,085	32,197

Assumptions: 1) Disbursement at middle of each year.
2) Starts after 5years of grace period. Repayment at middle of year.
3) Balance at the end of the year.
4) Semi-annually payment at 7.207% p.a.