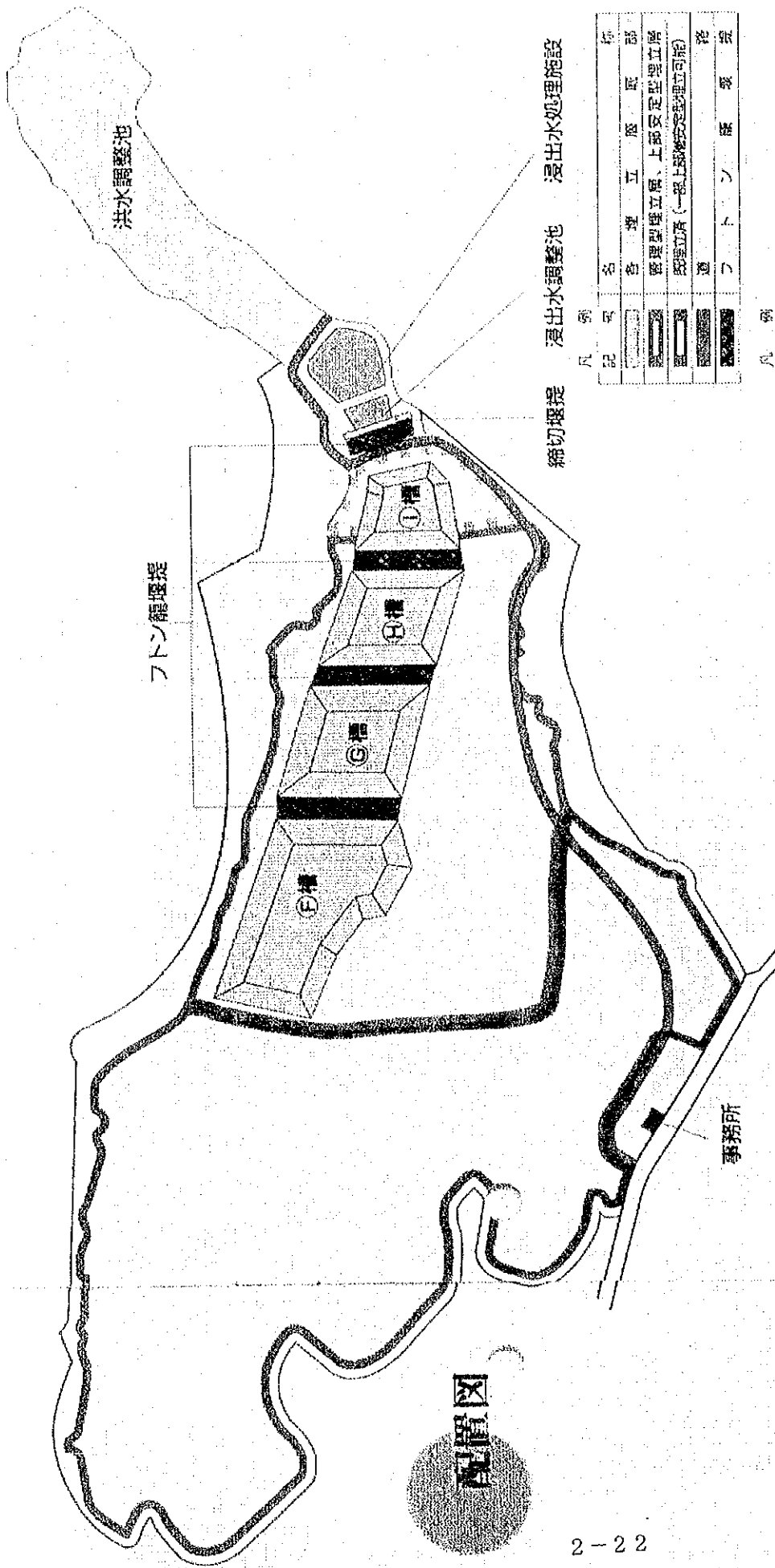


2-21



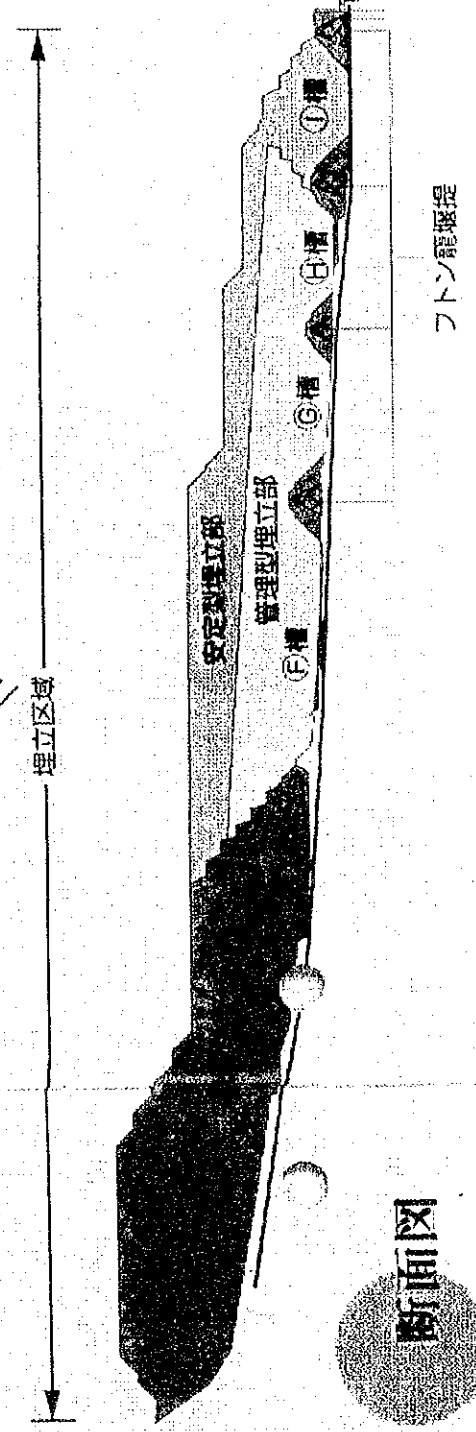
縮切堰堤 浸出水調整池 浸出水処理施設

凡例

記号	名称	種別	工種	部
■	管理型埋立層	埋立層	土木	部
■	管理型埋立層、上部安定型埋立層	埋立層	土木	部
■	浸出水調整池 (一部上部安定型埋立層)	調整池	土木	部
■	フトン龍堰堤	堰堤	土木	部

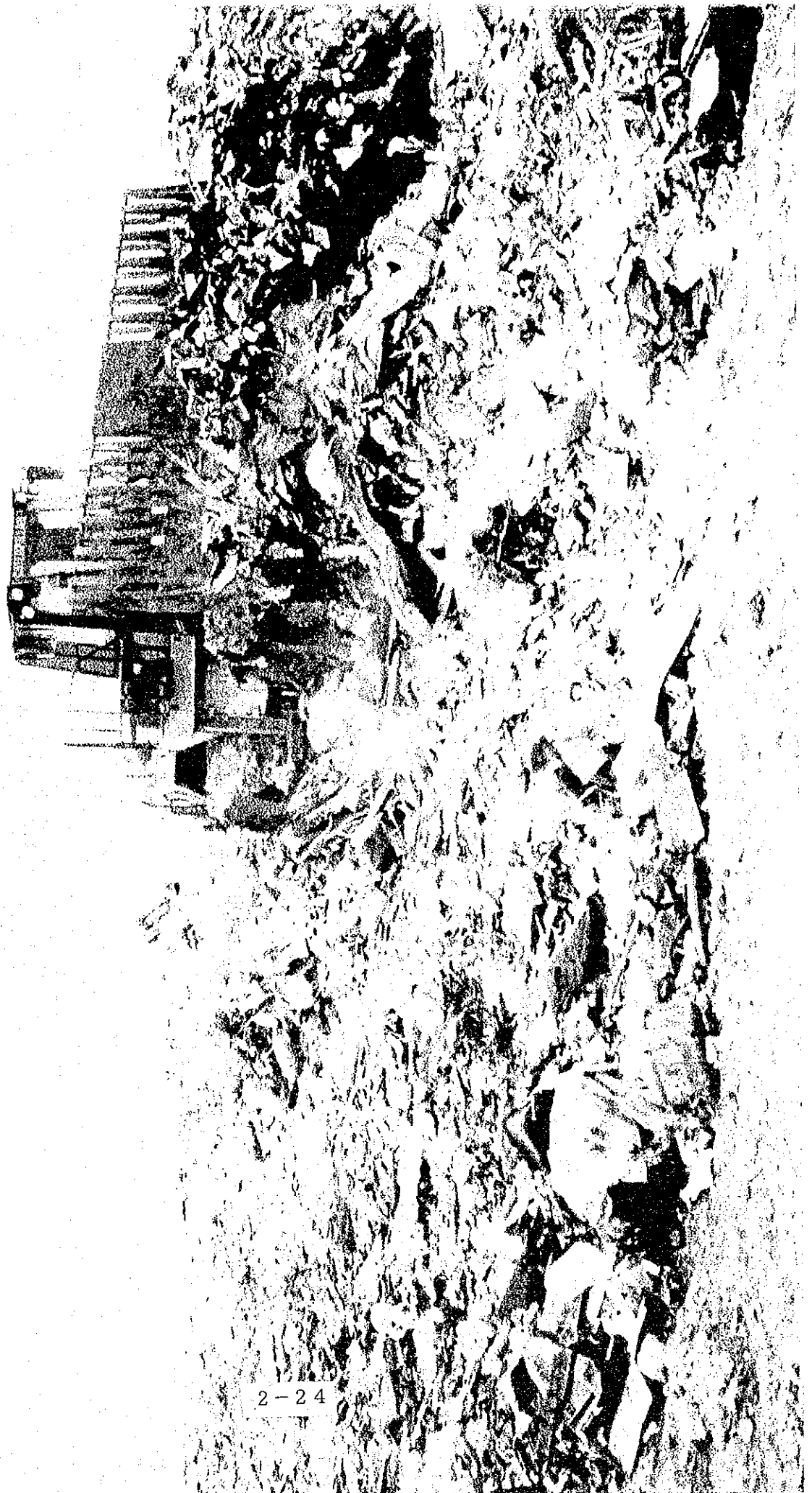
凡例

記号	名称	種別	工種	部
■	切	埋立層	土木	部
■	既	埋立層	土木	部
■	安定型埋立層	埋立層	土木	部
■	管理型埋立層	埋立層	土木	部
■	浸出水調整池	調整池	土木	部
■	フトン龍堰堤	堰堤	土木	部



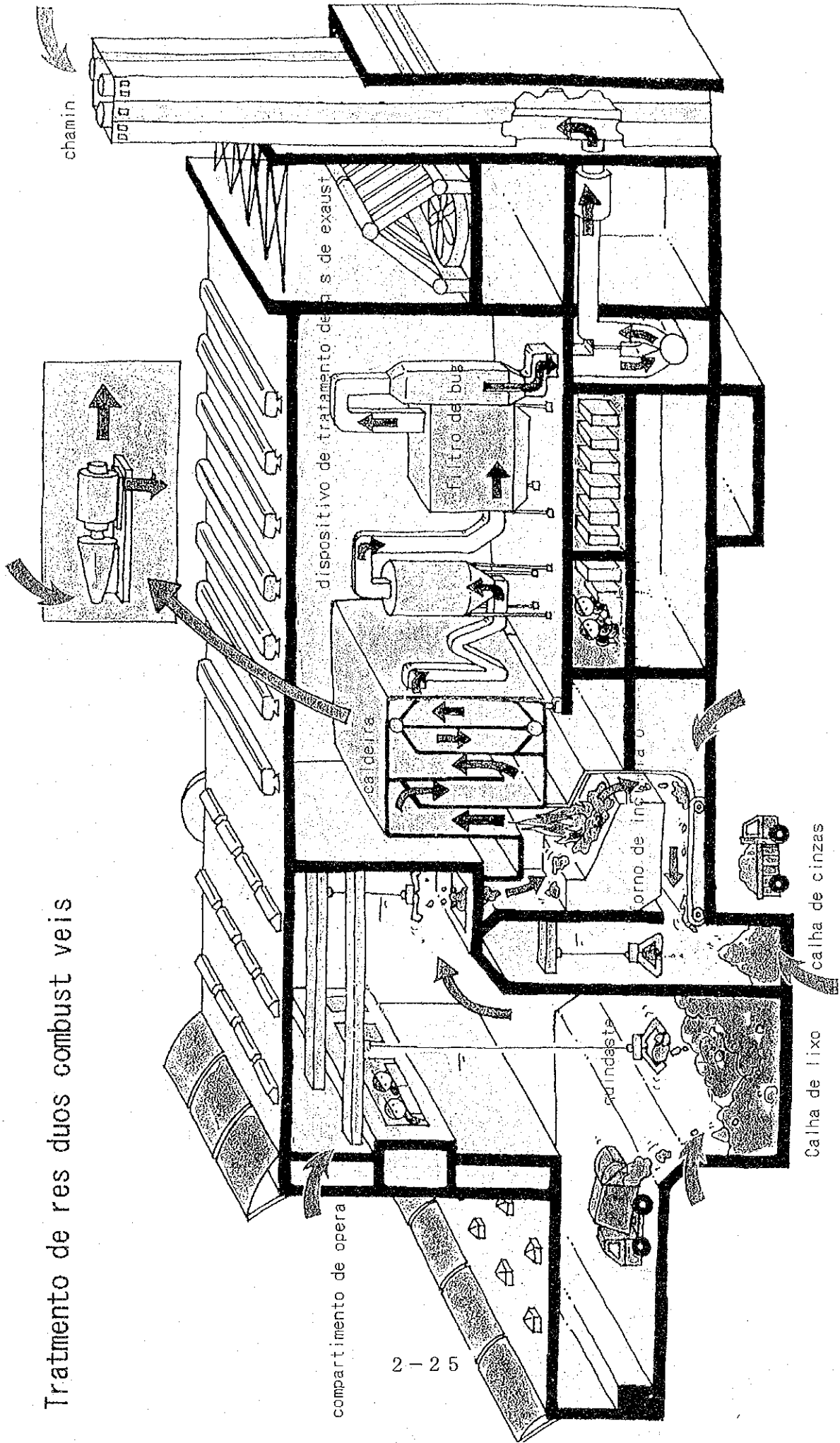


2-23



2-24

Tratamento de res duos combust veis



Medidas de preservação do ambiente aquático no Japão

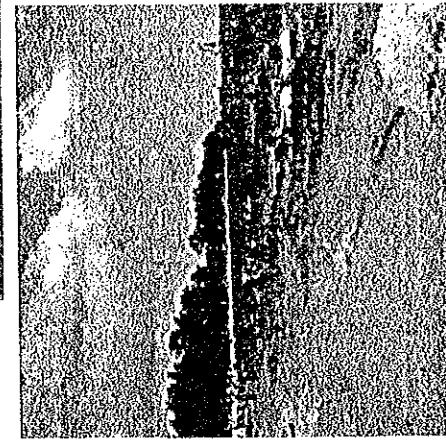
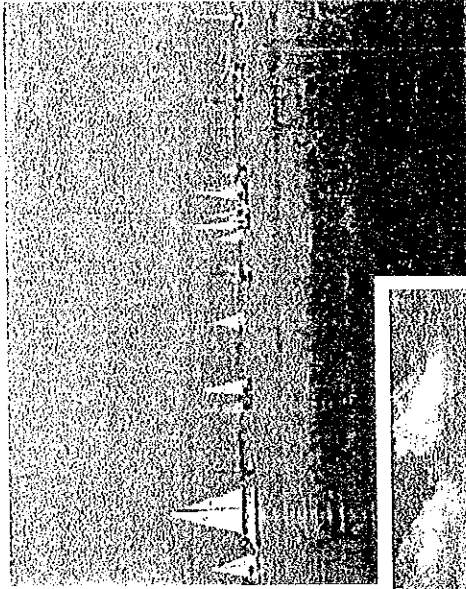
Medida de preservação da qualidade de água do Lago Biwa, como exemplo



JICA
JICA

Utilização de água do Lago Biwa

- ◆ Fonte para canalização de água
- ◆ Pesca
- ◆ Água para agricultura
- ◆ Água para indústria
- ◆ Turismo e lazer



Base para suportar a vida dos habitantes e as atividades industriais

Situação atual do ambiente aquático do Lago Biwa e seus problemas

◆ Transformação do Ecossistema (eutroficação)

Ocorrência de maré vermelha de água

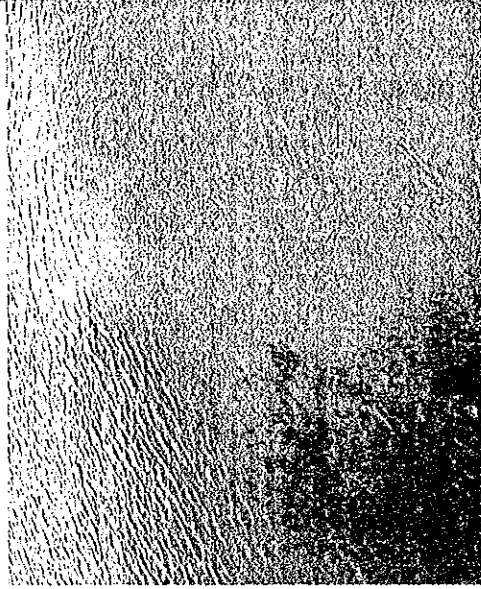
doce e da flor de água(water bloom)

◆ Acúmulo dos materiais orgânicos

Tendência de aumento de DQO

◆ Não atingimento do parâmetro de controle do ambiente

Parâmetro de controle do ambiente: Padrão relativo às condições ambientais desejáveis para proteger a saúde do ser humano e preservar a qualidade ambiental necessária para o cotidiano(valor da meta)



Sistema de Leis e Regulamentos relativos à preservação da qualidade ambiental aquática do Japão

País

Leis básicas do meio ambiente

Lei de prevenção da poluição de qualidade de água

Medidas especiais sobre preservação de lagos e pântanos

Órgão autônomo local

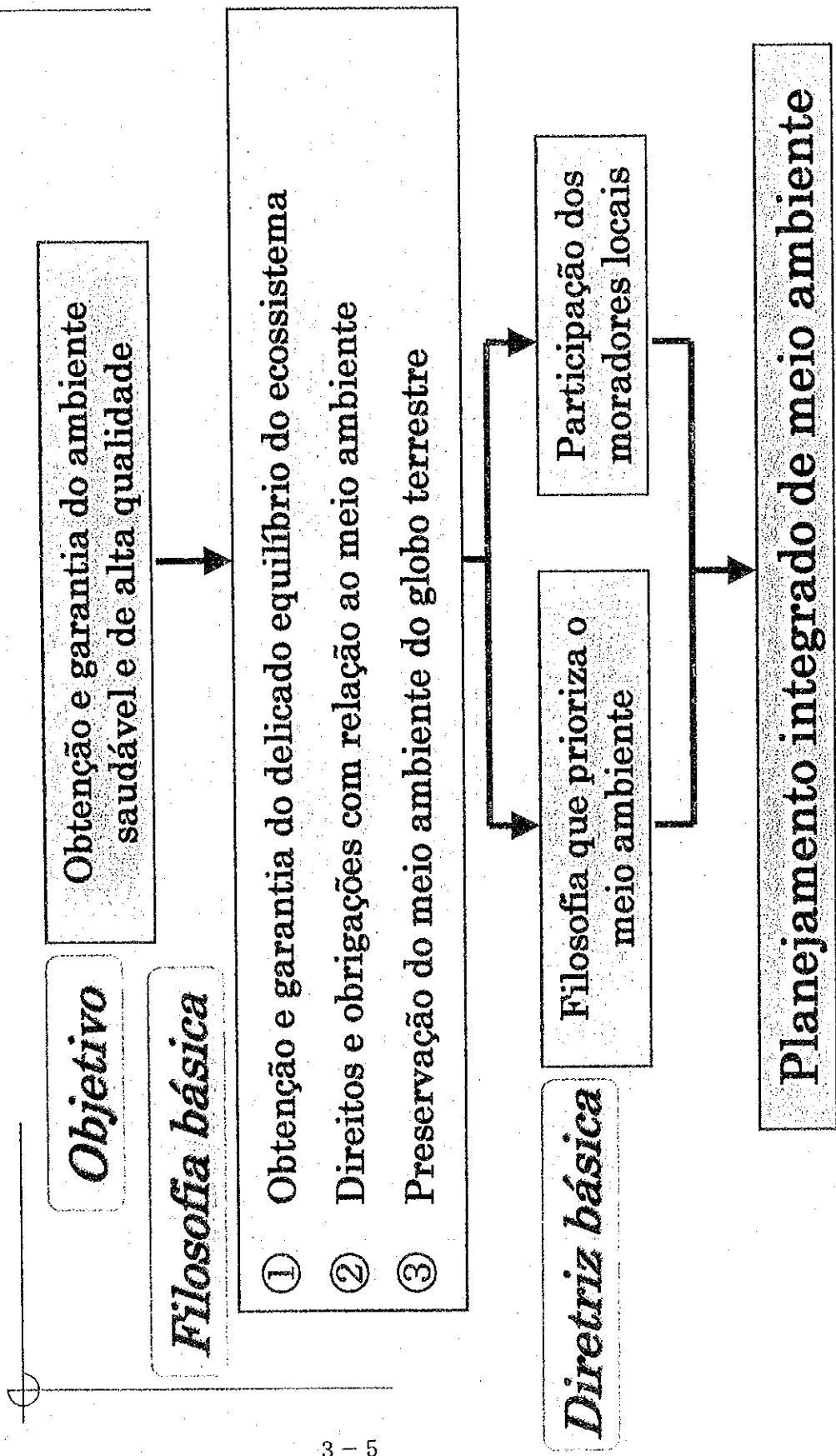
Regulamentos básicos relativos ao meio ambiente

Regulamentos adicionais mediante especificação da lei de prevenção de poluição da qualidade de água

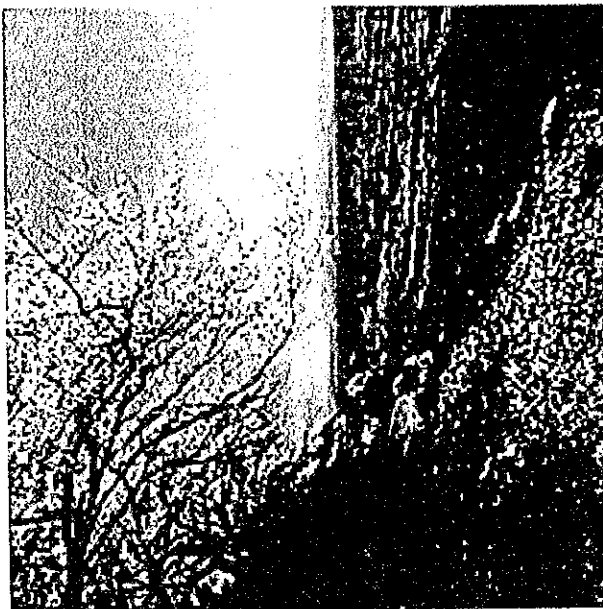
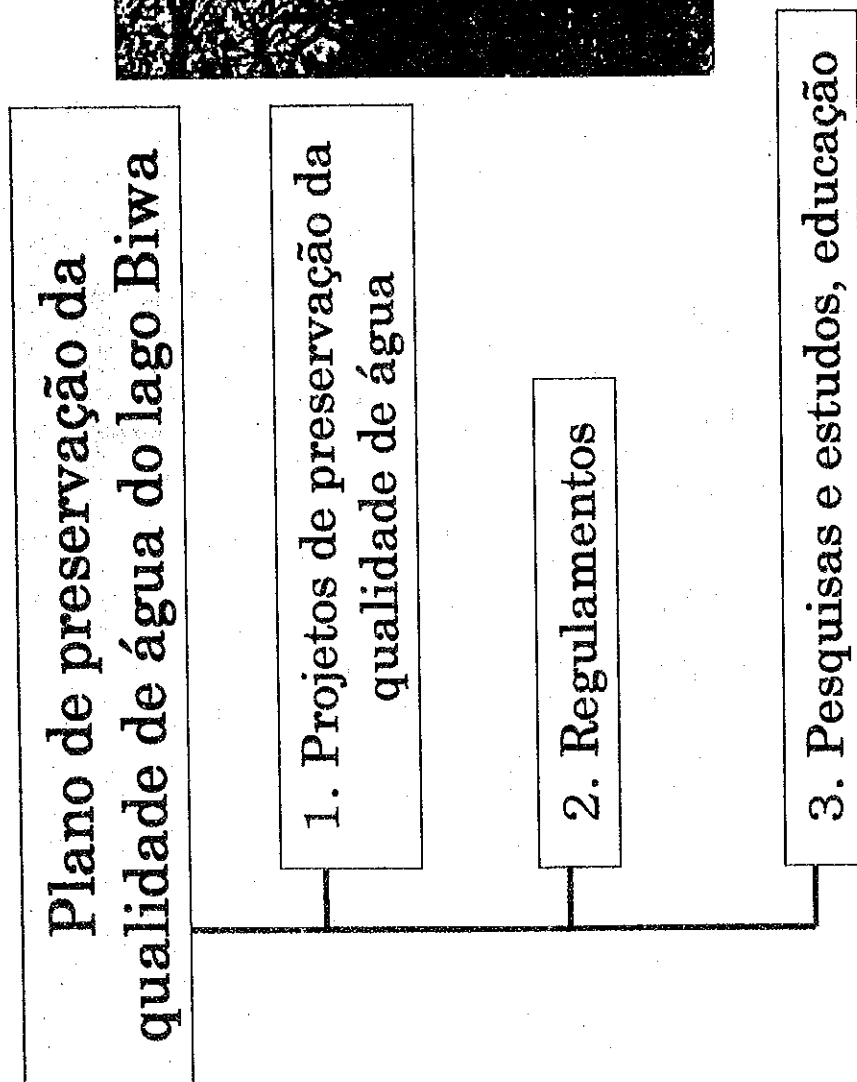
Instrução determinada pela medida especial sobre preservação de lagos e pântanos

A execução do trabalho é responsabilidade e obrigação do governador do órgão autônomo local

Sistema de regulamentos básicos do meio ambiente da província de Shiga

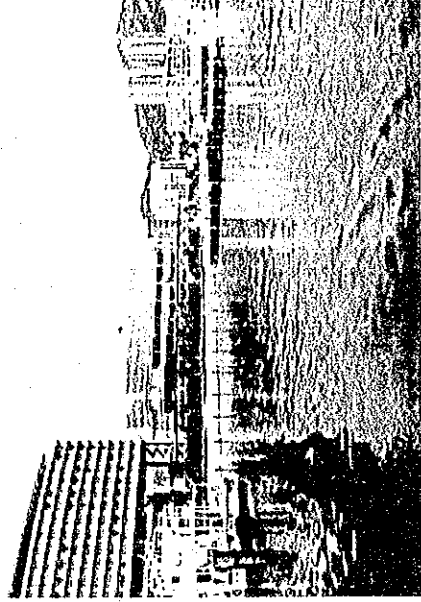
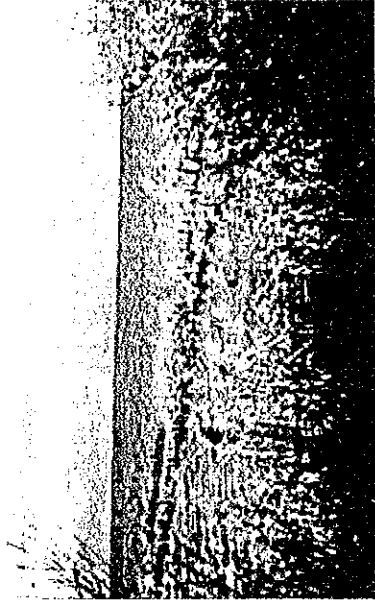


Sistema de plano de preservação da qualidade de água do lago Biwa



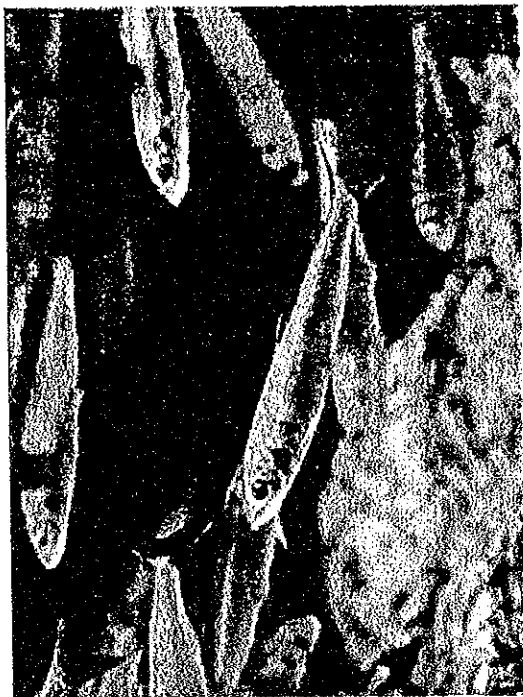
1. Projetos de preservação da qualidade de água

- ◆ Preparação e manutenção de galerias de esgoto
- ◆ Preparação e manutenção da instalação de drenagem das habitações rurais e tanques sépticos de tratamento combinado
- ◆ Preparação e manutenção das instalações de tratamento de resíduos
- ◆ Preparação e manutenção das instalações de tratamento de excrementos de animais domésticos
- ◆ Despoluição de lagos e pântanos
- ◆ Despoluição dos rios descarregadores



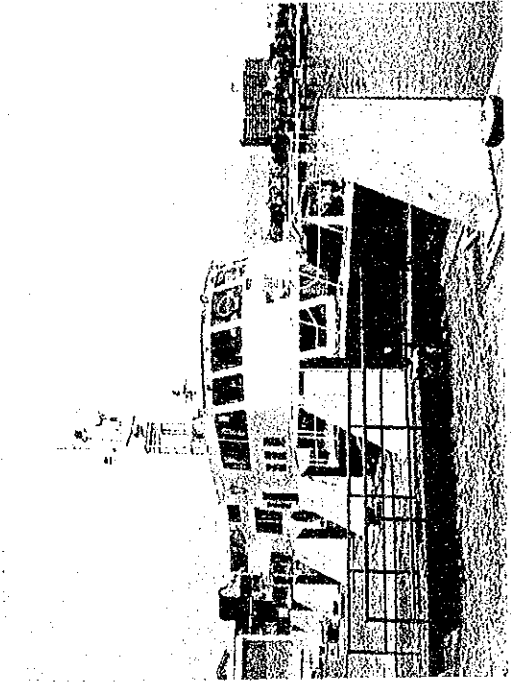
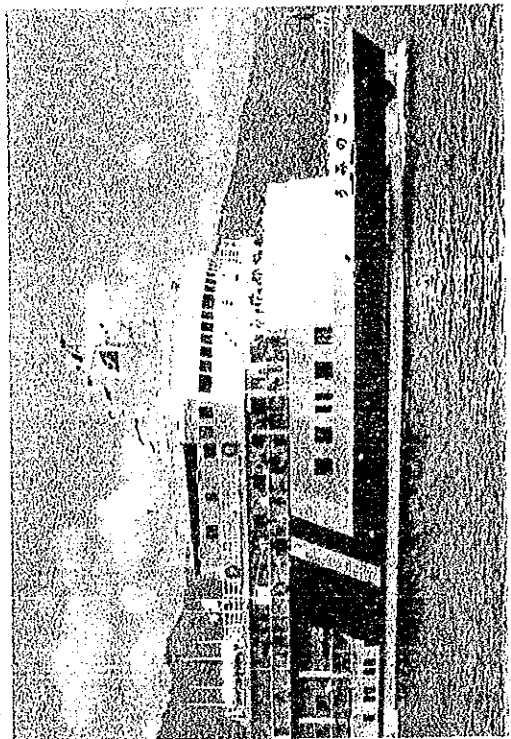
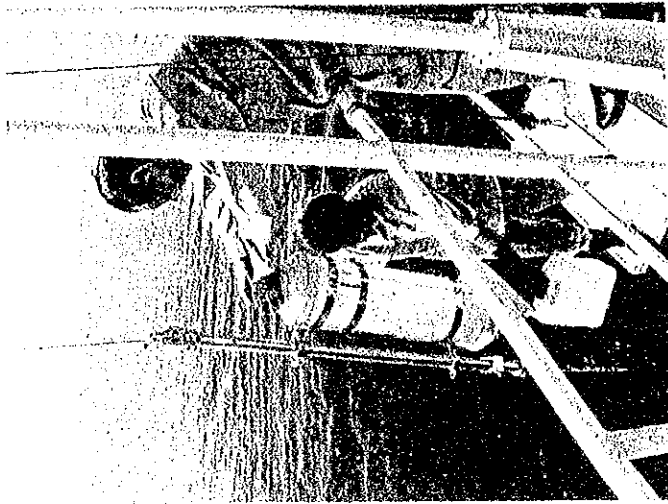
2. Regulamentos

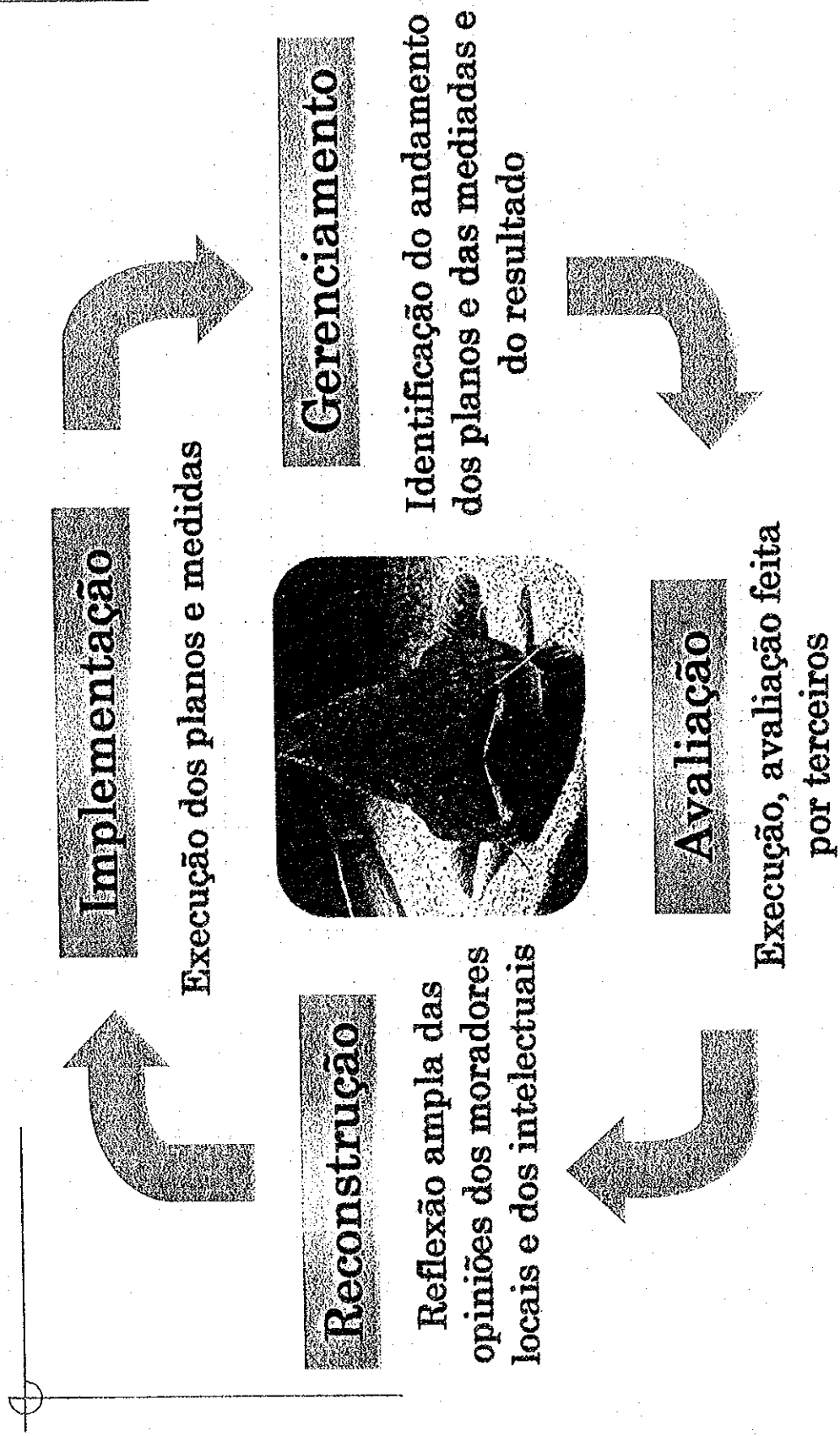
- ◆ Medidas para efluentes industriais e empresas
- ◆ Medidas de drenagem dos efluentes domésticos
- ◆ Medidas para indústria pecuária
- ◆ Medidas para piscicultura
- ◆ Medidas para fontes difusas
- ◆ Proteção de ambiente entorno do lago

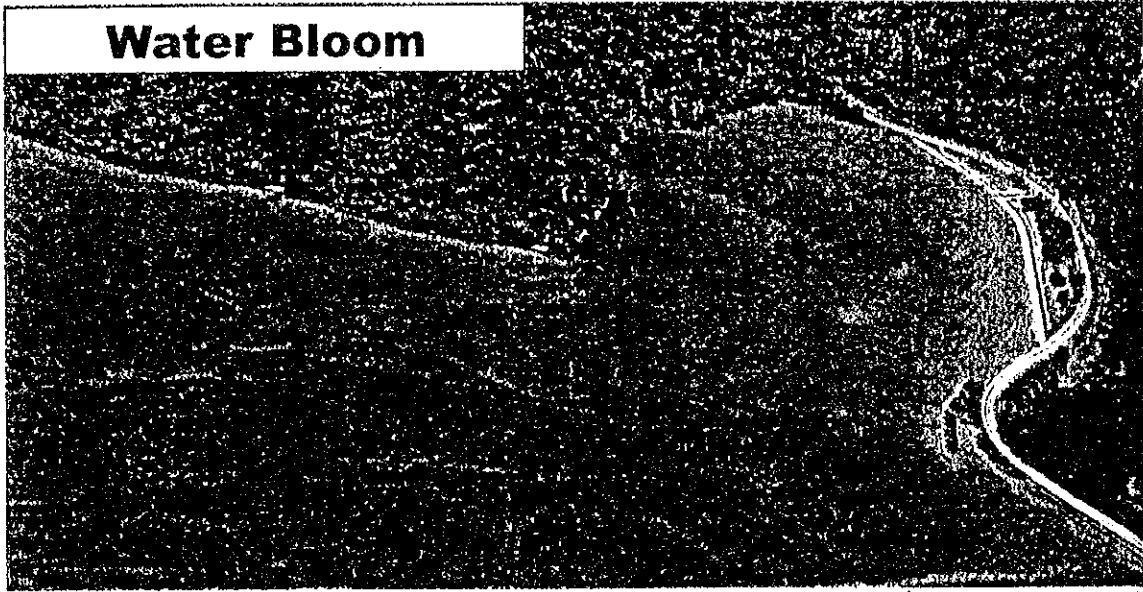


3. Pesquisas e estudos, educação

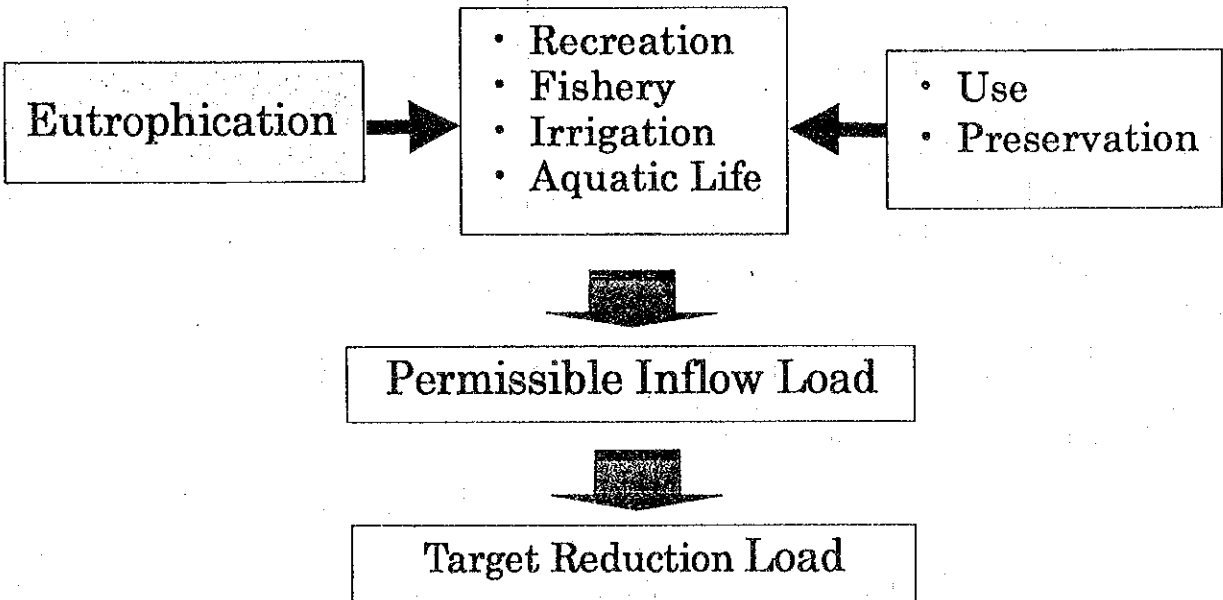
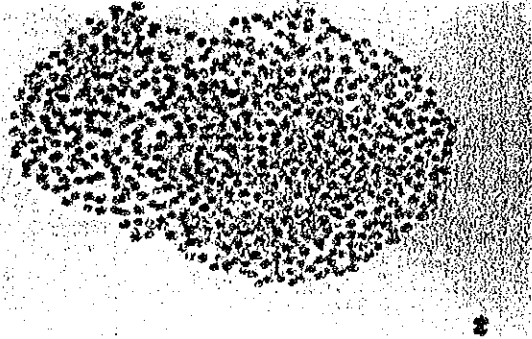
- ◆ Monitoramento da qualidade de água
- ◆ Implementação de pesquisas e estudos
- ◆ Educação ambiental, divulgação e esclarecimento

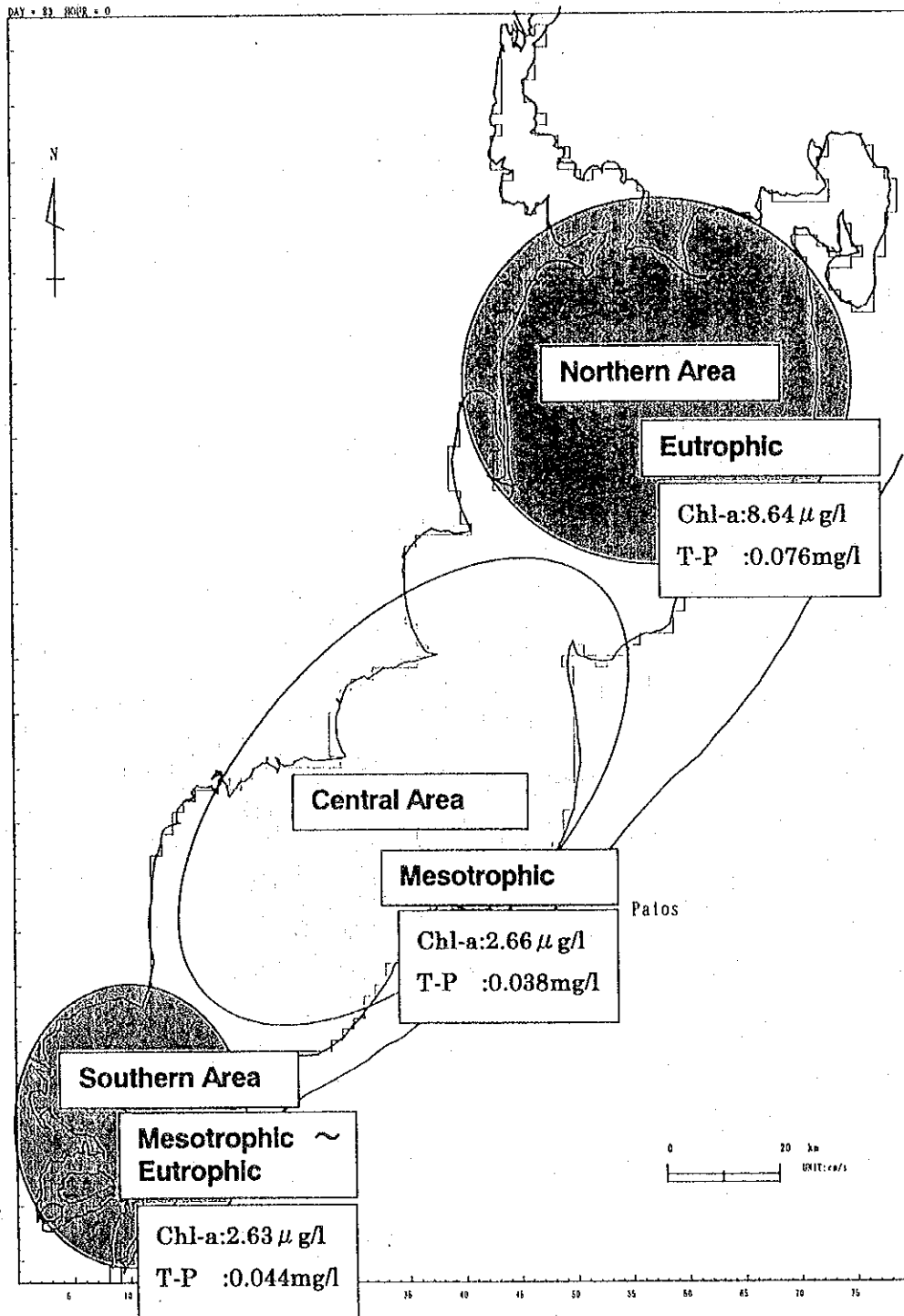






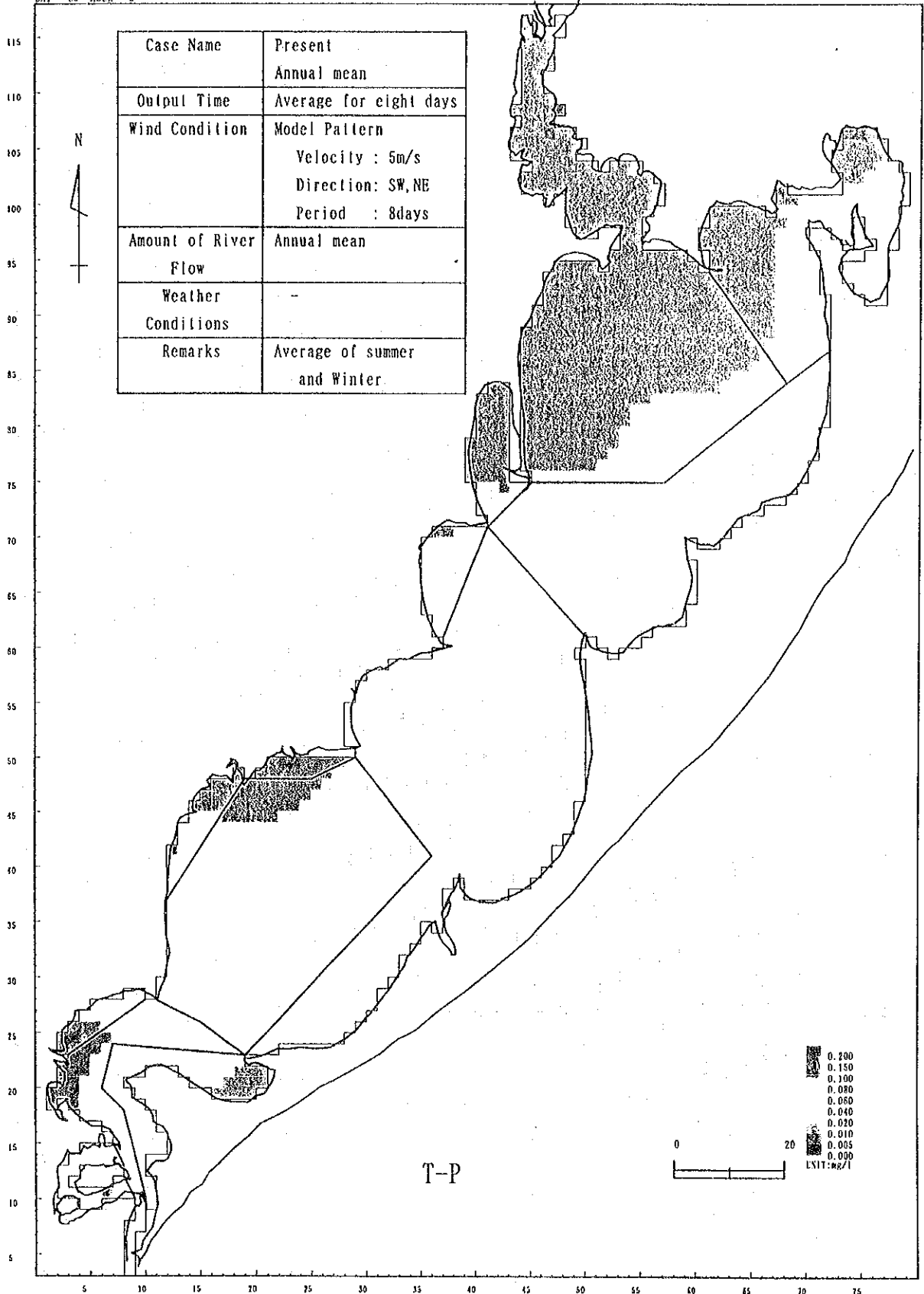
Microcystis



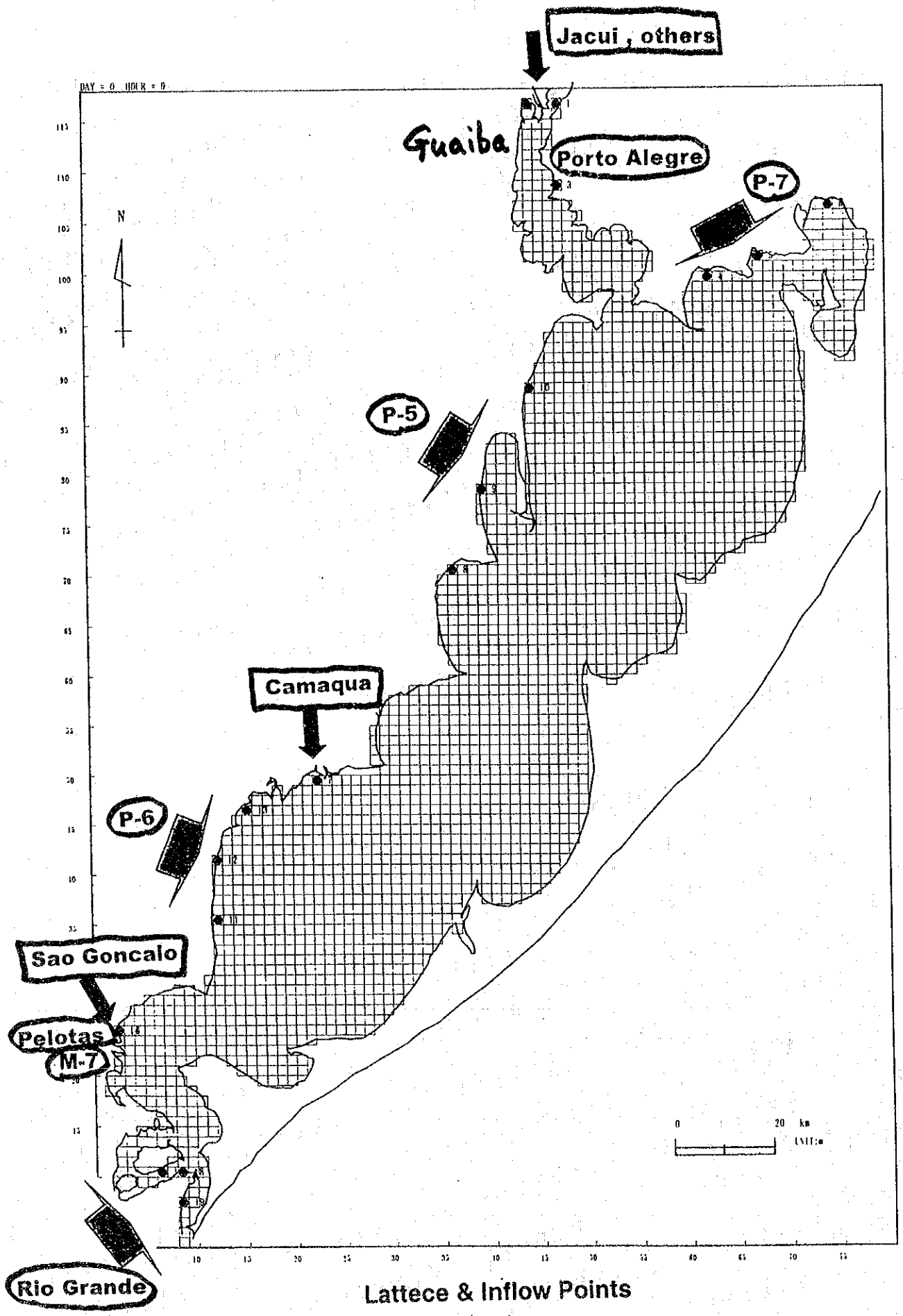


Trophic Level in Patos Lake

DAY = 83 HOUR = 0



Calculated T-P Distribution (Present : Annual Mean)



Lattece & Inflow Points

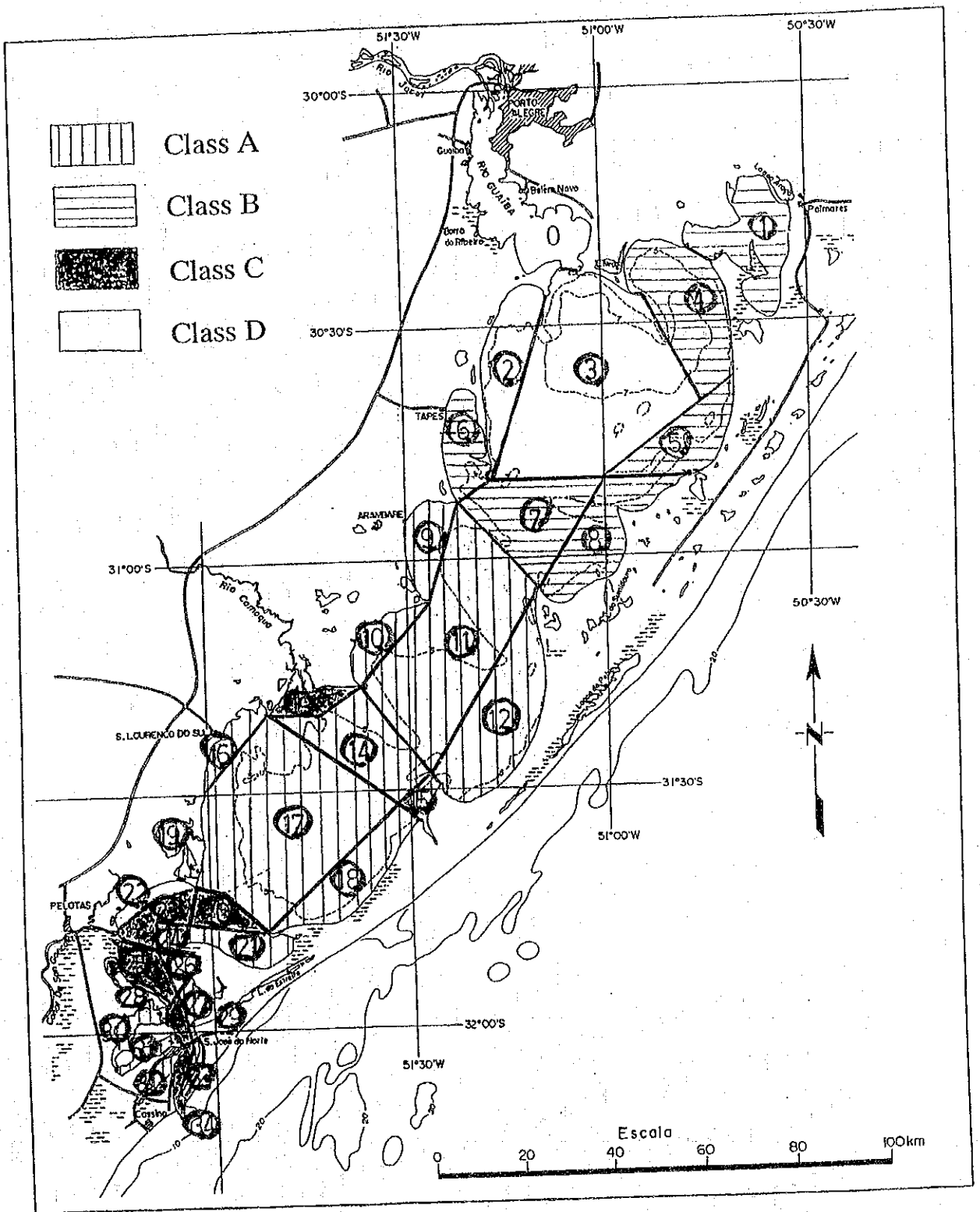
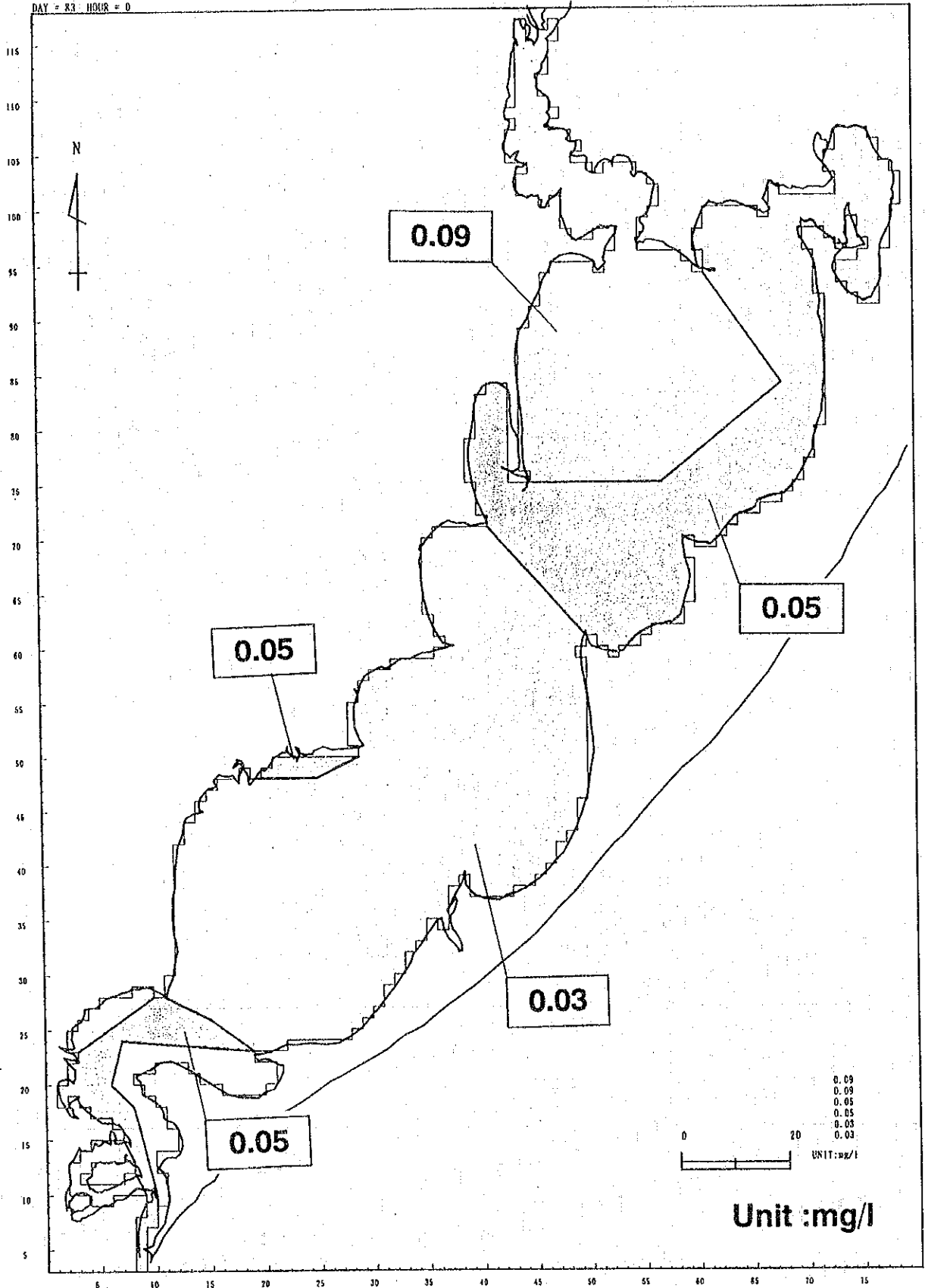


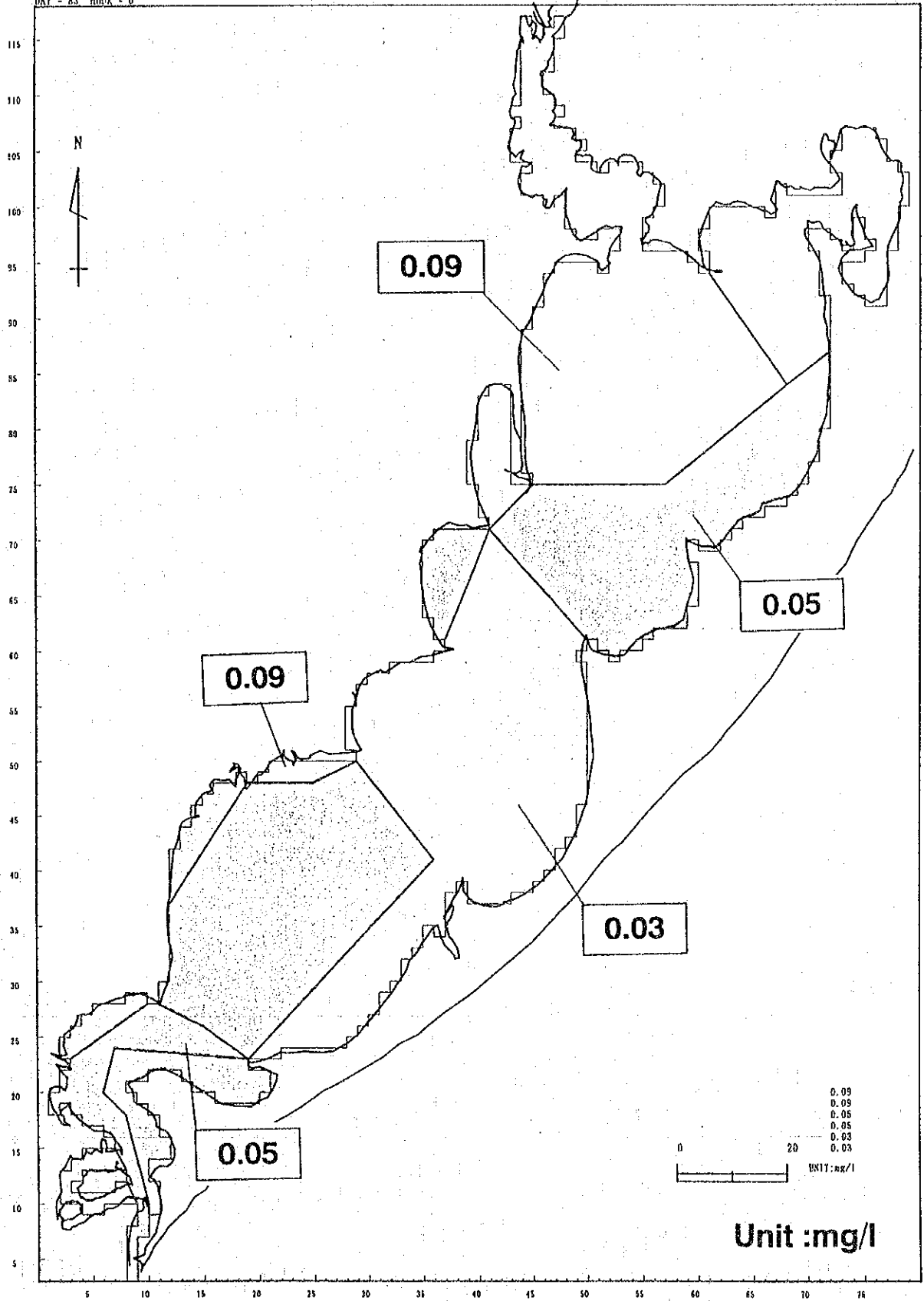
Fig. 8.2-2 Proposed Water Area Classification in Patos Lake

DAY = 83 : HOUR = 0



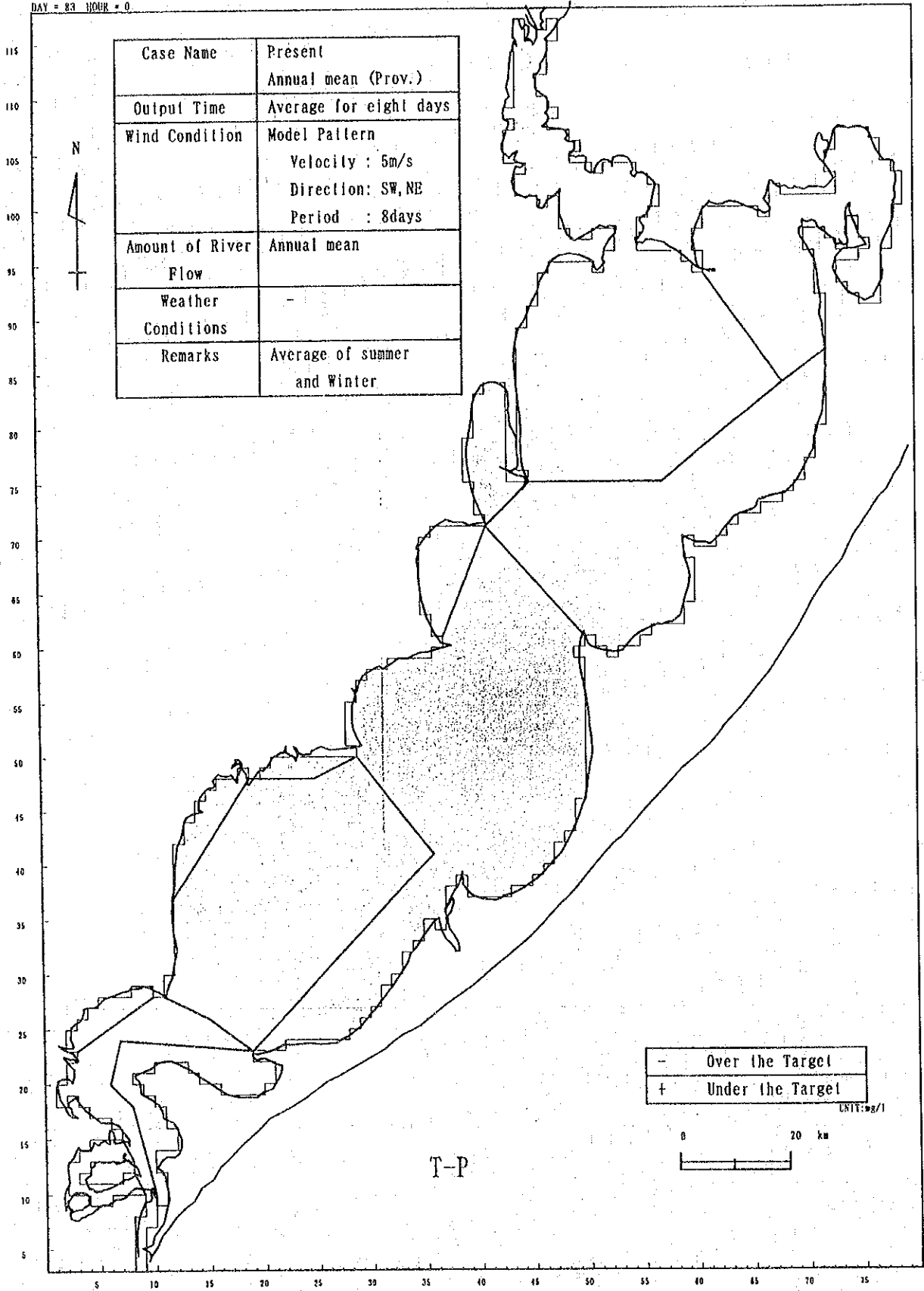
Target Water Quality (T-P)

DAY = 83 HOUR = 0

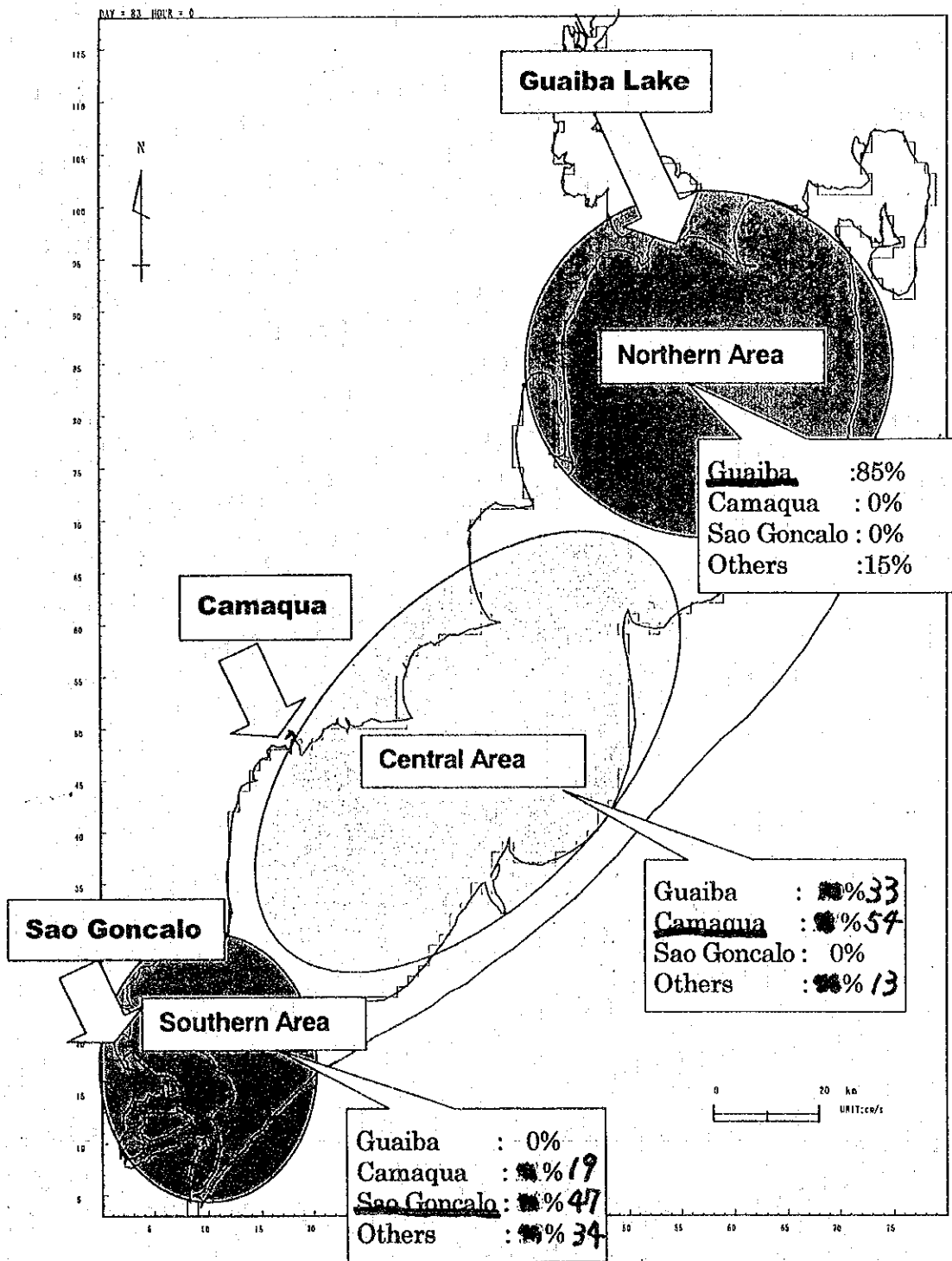


Provisional Target Water Quality (T-P)

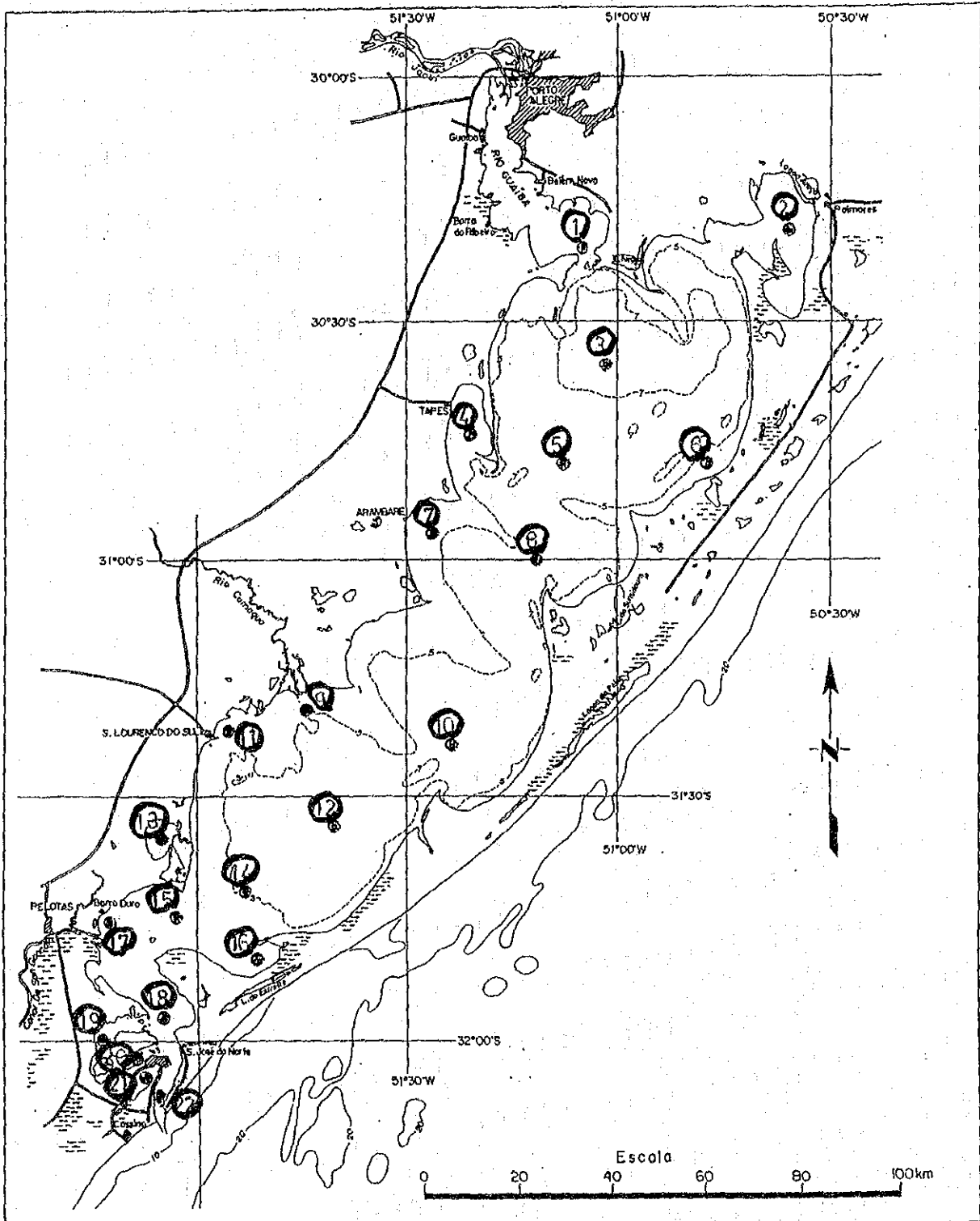
DAY = 83 HOUR = 0



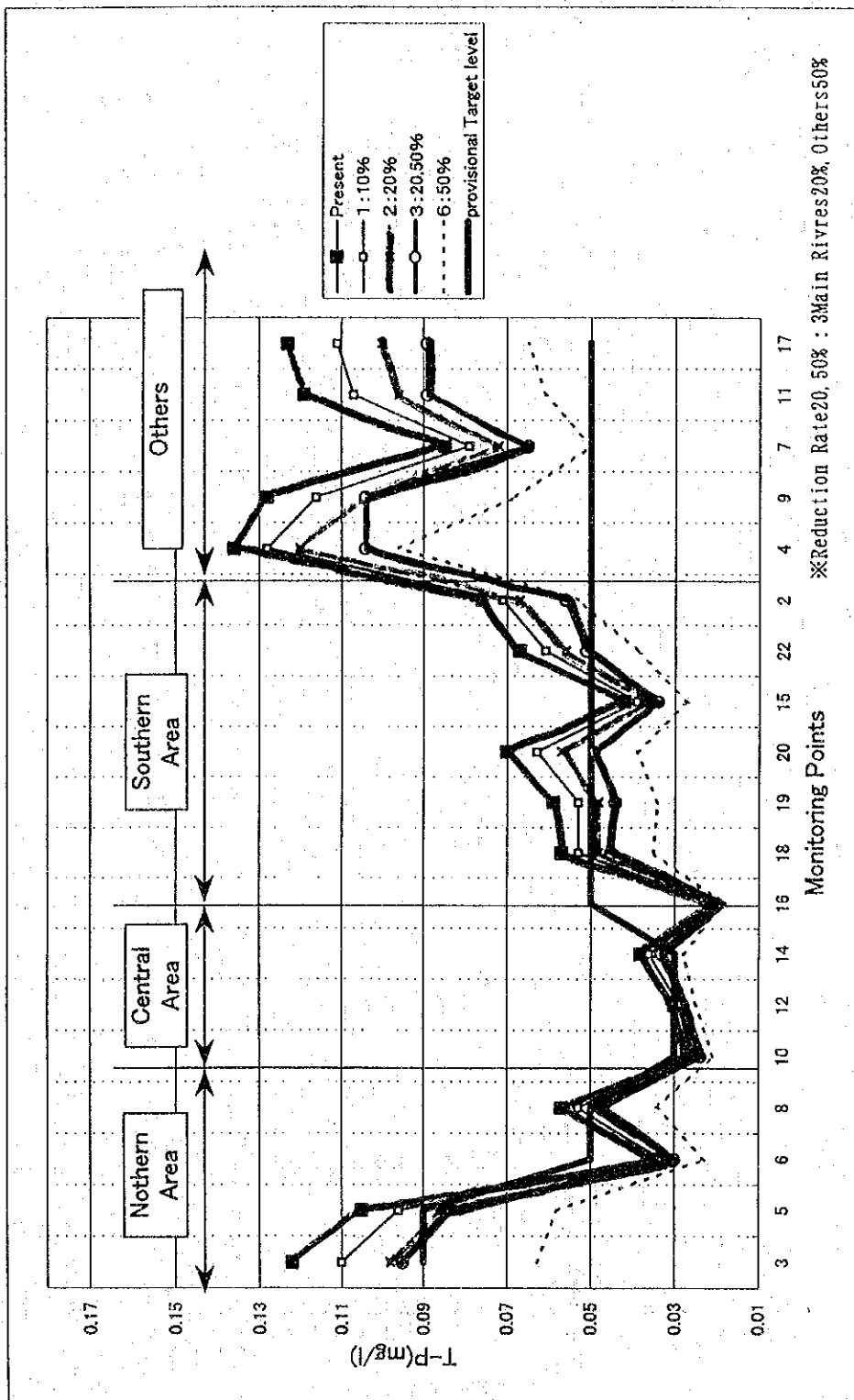
Comparison between Present Concentration and Provisional Target (T-P)



**Contribution Rate of Main Rivers
(T-P)**



Proposed Monitoring Stations in Patos Lake (Case - 1)



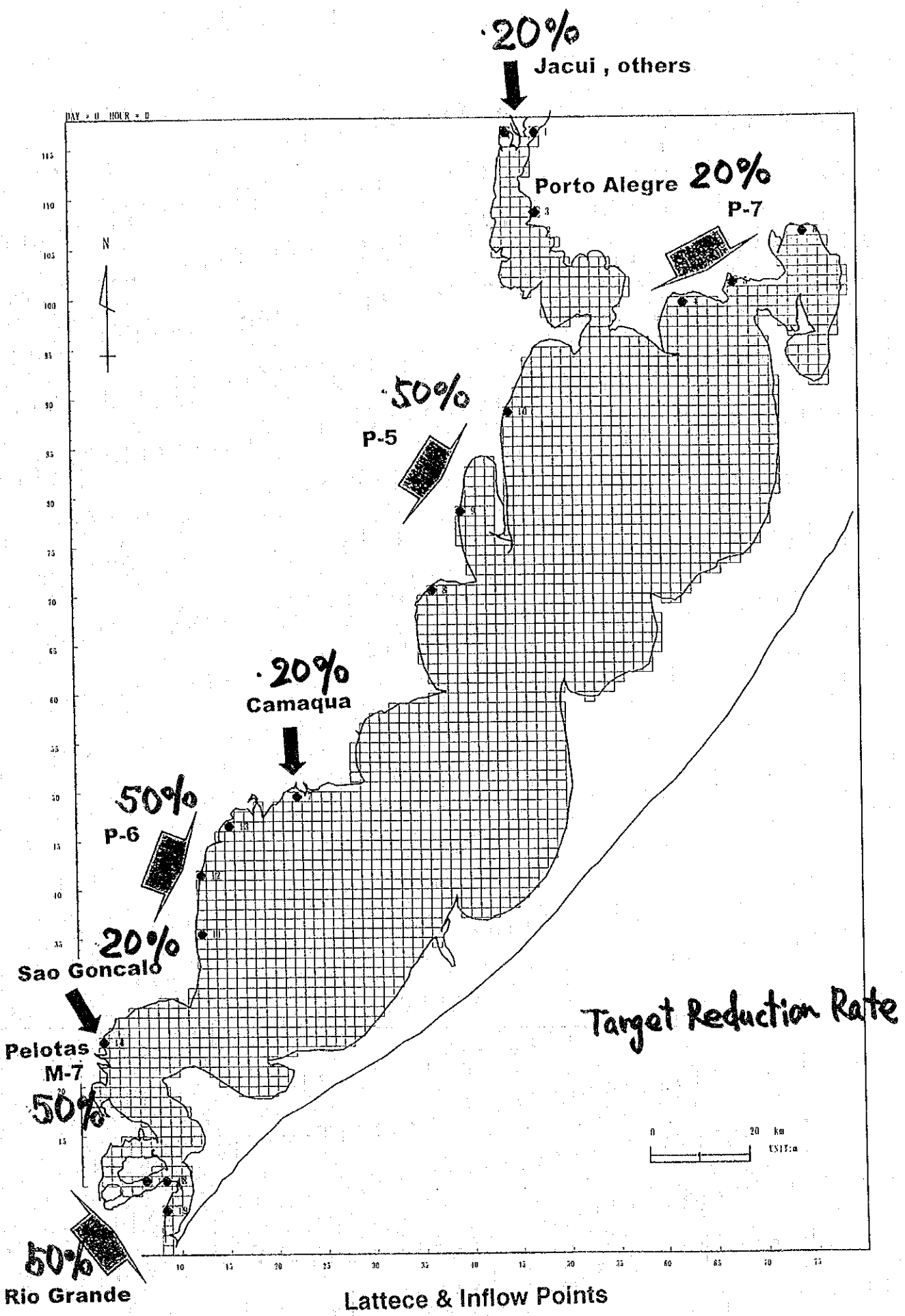
Comparison between Present Concentration and Provisional Target at the Monitoring Points (T-P)

Allowable Inflow Load and Target Reduction Rate

RIVER NAME	Discharge (m ³ /s)	T-P		
		Present (t/day)	Reduction Rate (%)	Inflow Load (t/day)
Guaiba Lake	1841.3	28.6	20	22.9
Porto Alegre	13.4	3.6	20	2.8
P-7	5.3	1.7	20	1.4
Rio Camaqua	397.6	8.4	20	6.7
P-5	7.1	2.3	50	1.1
P-6	3.9	1.2	50	0.6
Canal do Sao Goncalo	539.6	7.6	20	6.1
Rio Grande	2.5	0.8	50	0.4
M-7	4.7	1.4	20	1.1
Pelotas	7.5	2.4	50	1.2
Total	2823.0	<u>58.0</u>	23.5	<u>44.4</u>

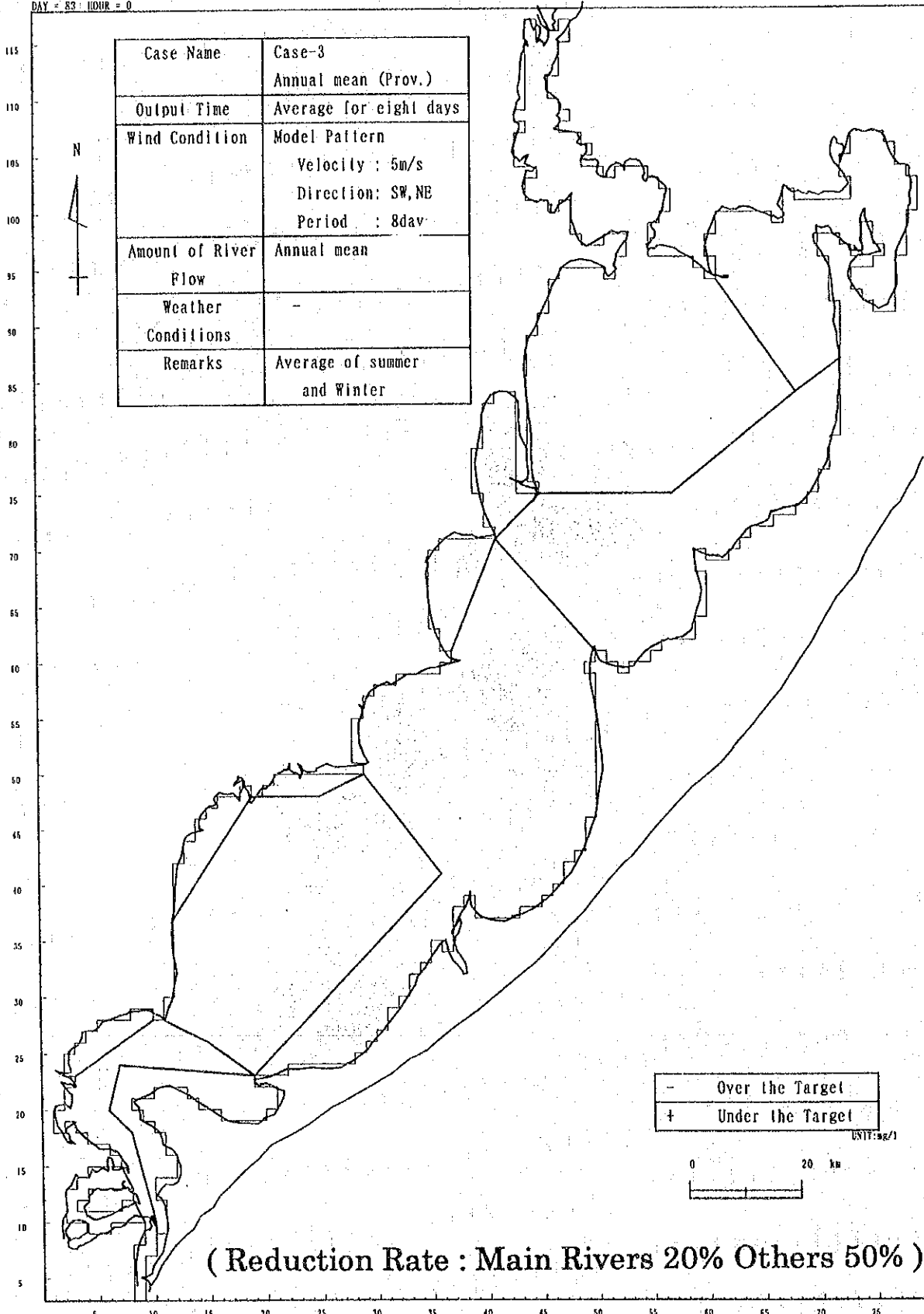
(Tapes)

(Sao Lourenco)



Lattece & Inflow Points

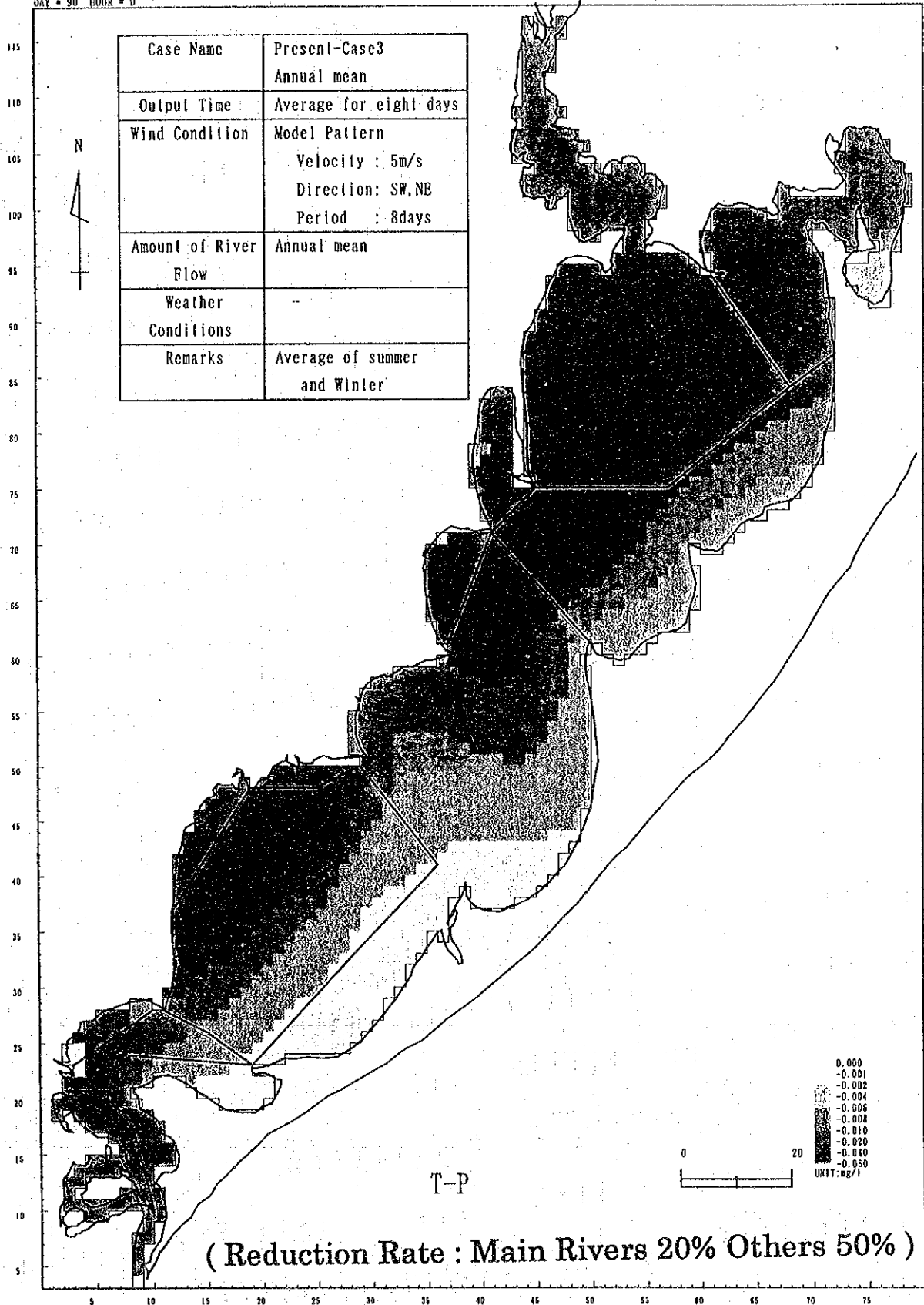
DAY = 83 HOUR = 0



(Reduction Rate : Main Rivers 20% Others 50%)

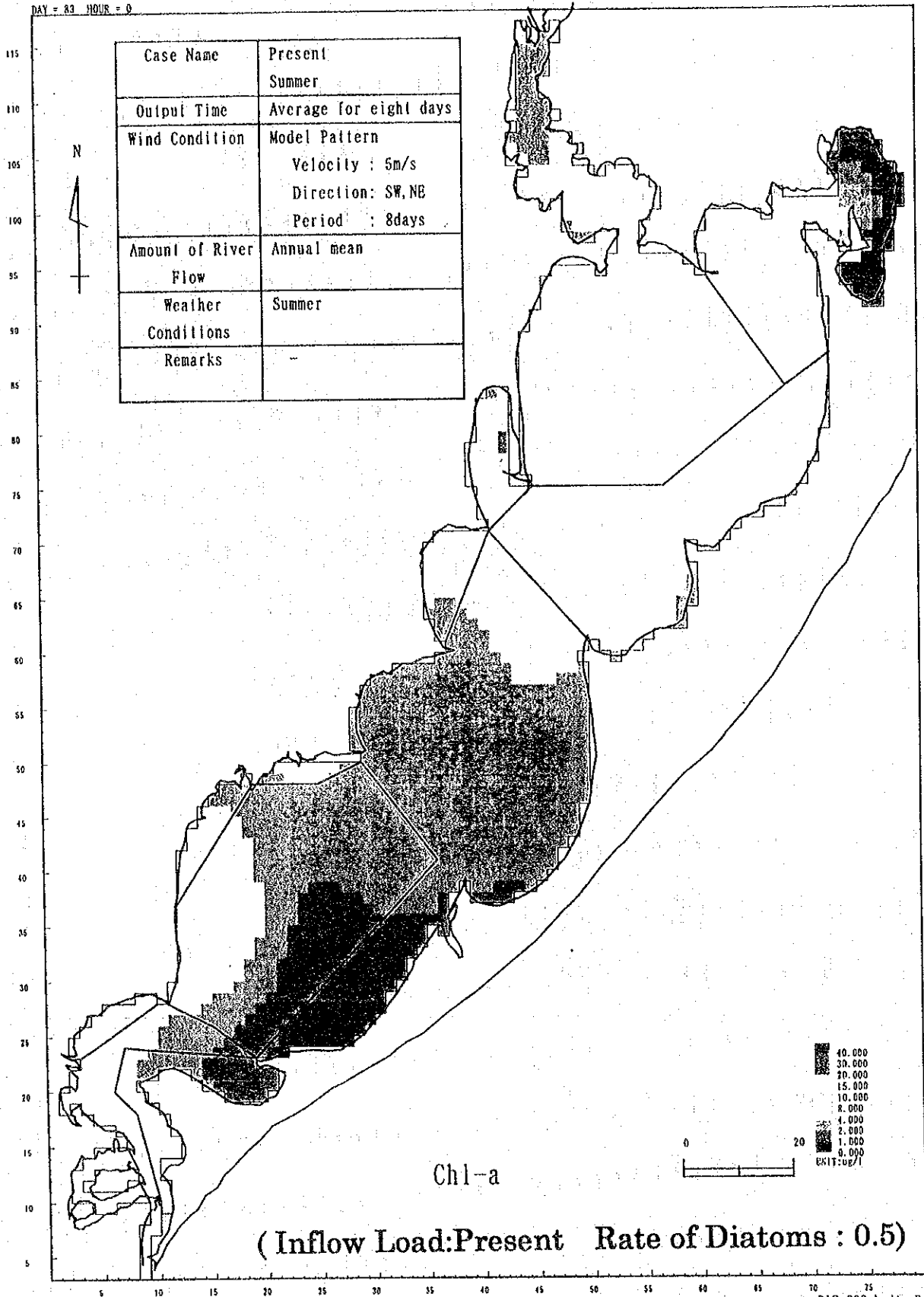
**Comparison
between Future and Provisional Target (T-P)**

DAY = 90 HOUR = 0



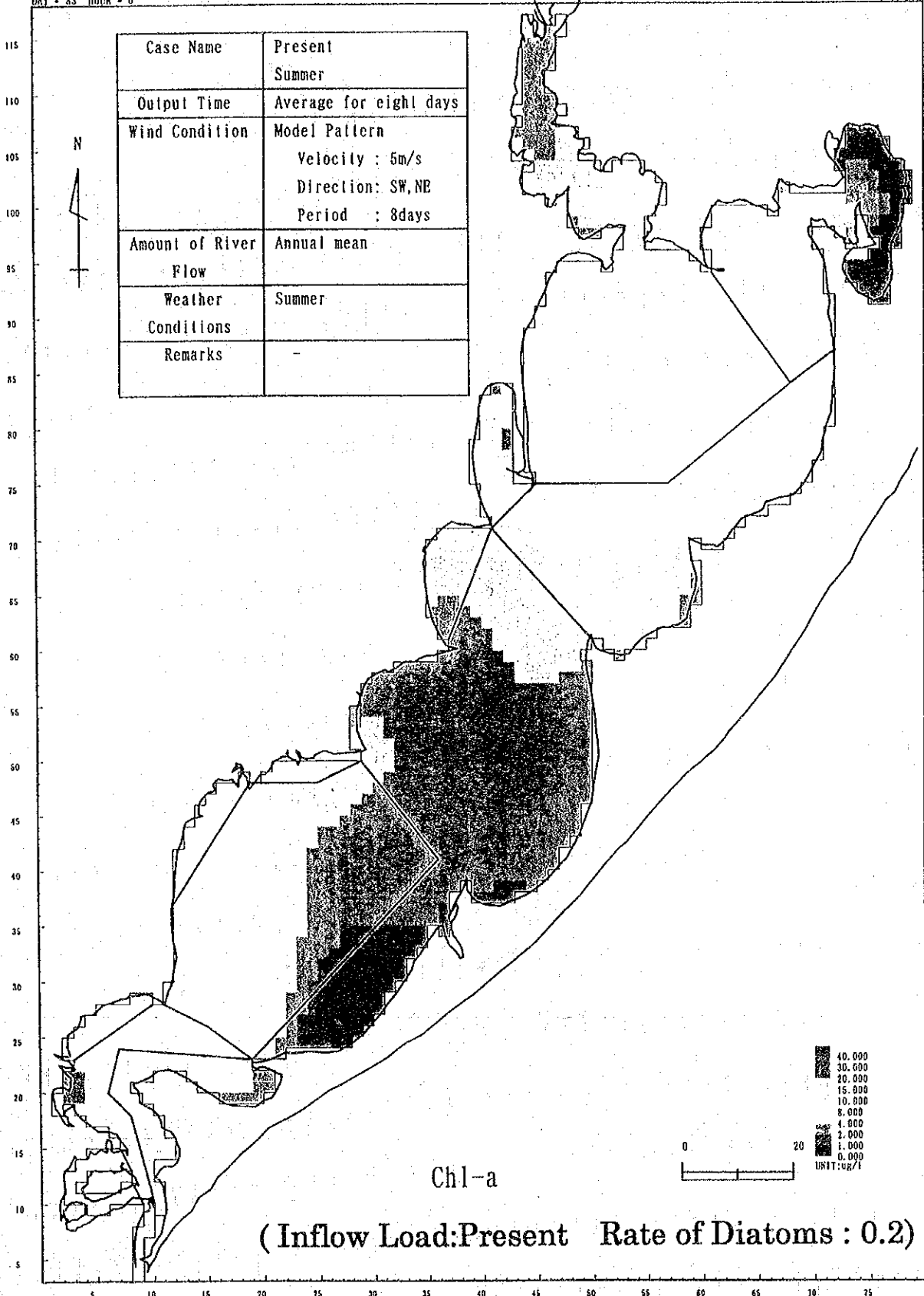
**Comparison
between Future and Present Concentration (T-P)**

DAY = 83 HOUR = 0



Chl-a Distribution (Present :Summer)

DAY = 83 HOUR = 0



Case Name	Present Summer
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW, NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	Summer
Remarks	-

Chl-a

(Inflow Load:Present Rate of Diatoms : 0.2)

- 40.000
 - 30.000
 - 20.000
 - 15.000
 - 10.000
 - 8.000
 - 4.800
 - 2.000
 - 1.000
 - 0.000
- UNIT:ug/l



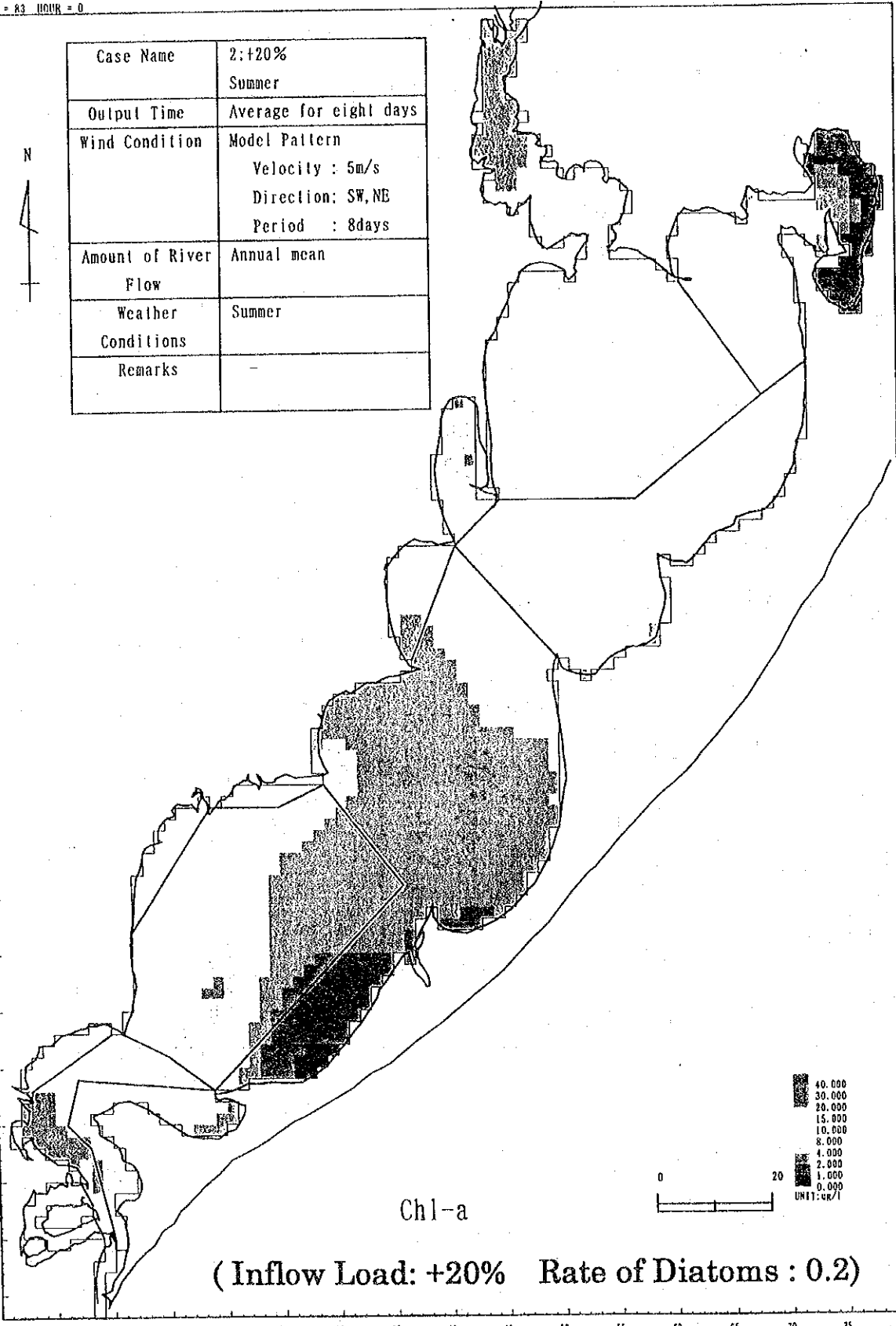
Chl-a Distribution (Summer)

DAY = 83 HOUR = 0

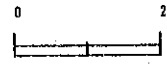
115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5



Case Name	2:+20% Summer
Output Time	Average for eight days
Wind Condition	Model Pattern Velocity : 5m/s Direction: SW, NE Period : 8days
Amount of River Flow	Annual mean
Weather Conditions	Summer
Remarks	-



- 40.000
 - 30.000
 - 20.000
 - 15.000
 - 10.000
 - 8.000
 - 4.000
 - 2.000
 - 1.000
 - 0.000
- UNIT:ug/l



Chl-a

(Inflow Load: +20% Rate of Diatoms : 0.2)

5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

DIGs0-2_bodts.Pcl

Chl-a Distribution (Summer)

11/17