

**REPORT ON
ENVIRONMENTAL STATUS OF
KOLHAPUR
REGION
MAHARASHTRA**



MAHARASHTRA POLLUTION CONTROL BOARD

Kalpataru Point, Sion Circle, Sion (East)

Mumbai 400

PREFEACE



I am very glad to present second Environmental Status Report of Regional Office, Kolhapur. This office has taken enough efforts to our best to complete this work. This type of status report pay proper attention of technical officer towards each and every Rules and Acts during the preparation of this report.

We were doing Annual Report, Statistical etc. since long back but this is first time when our Member Secretary forced us to divert attention for checking compliance of each and every Rules and Acts.

The Maharashtra Pollution Control Board is having huge data. However, it was not reflected in the form of status report. I am sincerely thankful to our Member Secretary compelling us to go for study and prepare a status report. While preparing this report, I came to know the real picture and while doing day to day work I came to know on what matters more efforts are to be taken for proper implementation of the Environmental Acts.

The implementation of Hazardous Waste (Management & Handling) amended Rule 2003 is effectively done due to your continuous persuasion and follow up. It has to come to know from you that Maharashtra is implementing the rules so nicely and leading in India. The credit goes to our dynamic member Secretary who is always encouraging the officers. Undersigned along with all Sub Regional officers and Field Officers at Kolhapur have tried to explain, highlight and compiled the status report under various pollution control Acts, Rules and Regulations. In few cases we may be confused or may be lagging behind the expectations. In this connection, I request our Member Secretary to guide us for better environment and effective implementation of all Environmental Acts, Rules and Regulations.

Dr. Y. B. Sontakke,
Regional Officer,
MPC Board, Kolhapur.

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CHAPTER 1

INTRODUCTION

GENERAL BACKGROUND OF KOLHAPUR REGION:

The MPC Board functions through its various regional and sub regional offices throughout the Maharashtra along with its laboratories. Kolhapur is one of the 12 regional offices of MPC Board. The jurisdiction of Regional Office, Kolhapur, includes four districts viz., Kolhapur, Sangli, Ratnagiri and Sindhudurg. They are further divided into four sub regions viz., Kolhapur, Sangli, Ratnagiri and Chiplun. The head quarters of regional office and sub regional offices are located at their respective district places except Chiplun sub region. Chiplun is located in Khed Taluka of Ratnagiri district. The jurisdiction of Sub Regional Office Ratnagiri also includes Sindhudurg district.

Industries like sugar, distilleries, foundry units etc. are largely located in Kolhapur and Sangli districts. Ichalkaranji is located in Kolhapur district, which is also, known as the Manchester city largely consists of cloth weaving and processing units. Whereas large numbers of chemical units are located at Lote Parshuram MIDC area under the jurisdiction of Chiplun sub region. Ratnagiri and Sindhudurg districts form part of Konkan coastal area.

HISTORICAL BACKGROUND

KOLHAPUR :

Kolhapur district covers area of about 7685 Sq. kms, and the population of the district is 35, 23,162. There are 12 Tahasils, 9 municipal councils, one municipal corporation and 1200 villages in Kolhapur district.

Kolhapur is a former princely state and a historic seat of Chh. Shivaji's capital. Krishna river's tributaries like Warna, Panchaganga, Dudhganga and Vedganga are the main rivers flowing in Kolhapur district and these are the main water source for irrigation, domestic and industrial purpose. The soil is mainly black cotton soil and

due to irrigation main crop is sugarcane and vegetables. There are 18 sugar factories, 7 distilleries and 6 major dairy projects.

The hill fort of Panhala where son of Shivaji, Sambhaji Raje was detained and the Shri Jyotiba temple on nearby hill are places of tourists interests. The Mahalaxmi temple in Kolhapur city draws thousands of pilgrims from all over India. The city has produced world famous wrestlers, singers, musicians and pioneering film artists and producers.

The city has a few magnificent places, gardens, huge water tanks like Rankala lake and Shivaji University.

Leather chappals known for their workmanship and style, silver ornaments are popular in India and world too.

SANGLI -

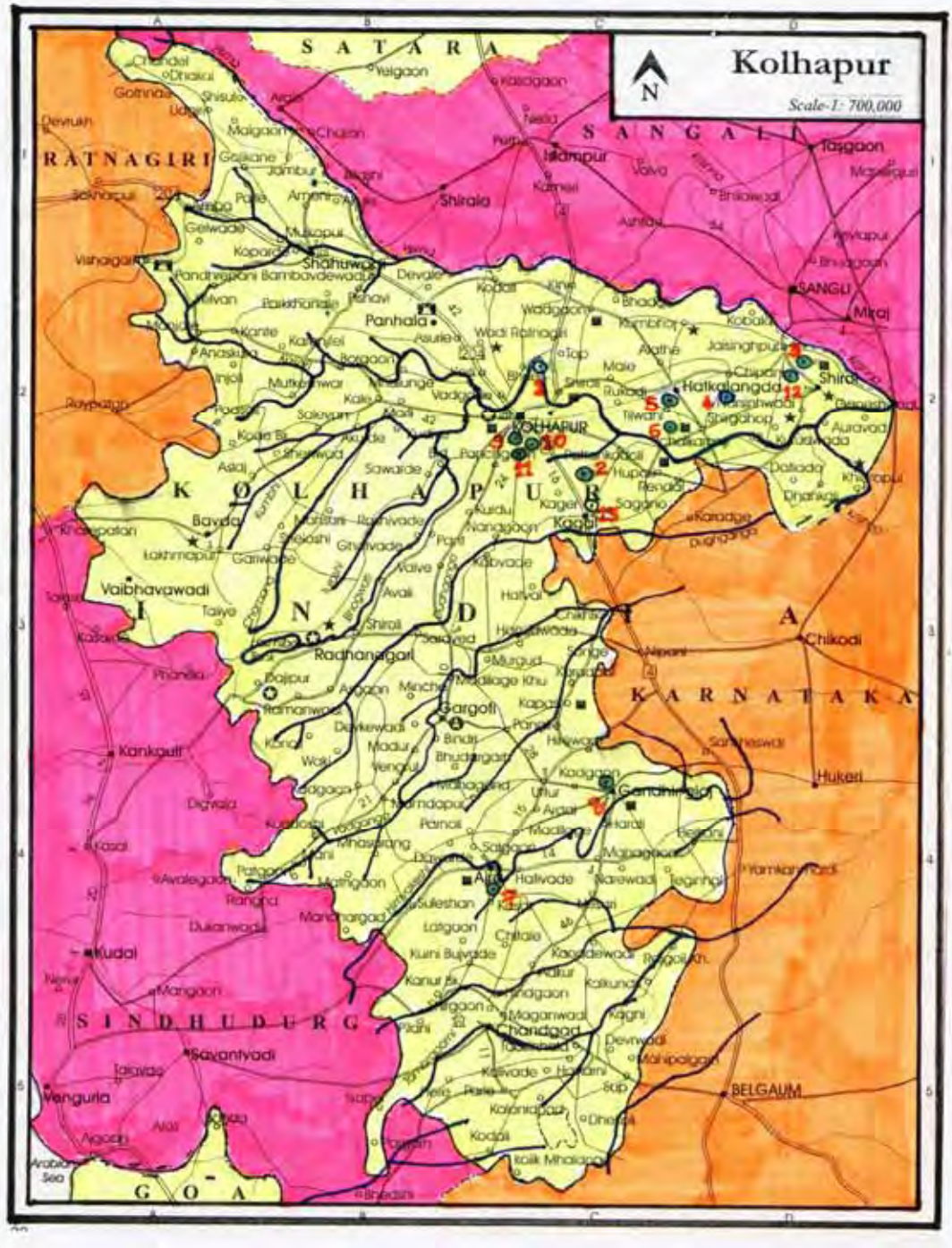
Sangli district covers area of 8572 square Kms and the population is 25, 83,524. There are 11 tahsils, 4 municipal councils, one municipal corporation and 708 villages in Sangli district.

Krishna and its tributaries flow through Sangli district. This is one major water source for industries, dam and irrigation purpose. The Krishna river is perennial .The type of soil is black cotton. The main crop is sugar, turmeric and grapes.

There are 16 sugar factories and 4 distilleries in the district. Due to tremendous yield of grapes in Tasgaon and Palus, the wine park development project is under progress.

During 1942 freedom movement Nana Patil, a revolutionary of this district struck terror in the heart of British ruler by establishing a parallel government.

The district is famous for sugar and seedless grapes. The Ganapati temple, and Audumber are the pilgrim places.



Map of the Kolhapur Region

RATNAGIRI :

The Ratnagiri district covers 8208 sq.kms and the population is 16, 96,777 and covers 9 tahsils and 891 villages. The district is located in Konkan coastal in Maharashtra. The land is reddish orange but fertile. Basalt and Jambha rocks are common. The Devgad of Ratnagiri is famous for Alphonso mangoes. The major crops are coconut, bettlenut, cashew etc. The district is also dominated with Lote Parshuram industrial area near Chiplun where major chemical industries are in existence. The main rives are Vashisti, Shastri, Bav, and Muchkundi.

SINDHUDURG :

The Sindhudurg district covers 5,207 sqkms and the population is 8, 68,825 and covers 8 talukas and 688 villages. The place is famous for sea fort at Malvan and for the rich crop like Alphonso Mangoes, coconut, cashew, areca nut, and grape. Amboli is the hill station. There are huge stocks of iron ore exported to foreign countries. Sawantwadi and Vijaydurg are famous for toys. The district is also having big projects like M/s Usha Ispat Ltd.

The major rivers in this district are Karli, Kalawali and some minor rivers.

CHAPTER 2
SPECIALISED WORKS IN THE YEAR 2004 BY REGIONAL
OFFICE , KOLHAPUR

1. Regularized Lote Parsuram Industrial area under Hazardous Waste (M & H) Rules. Collected about 328.33 MT/M of hazardous waste from all member industries of TSDF.
2. A court case under section 45 A - continuous defaulter - is filed in CJMFC, Kolhapur against Kolhapur Municipal Corporation in March 2004.
3. Encashed B.G. of Kolhapur Municipal Corporation Rs. 1.00 lacs. The action taken is the first in Maharashtra against local body.
4. Proposed CETP at Ichalkaranji city for processing units in March 2005 by Western Maharashtra Processors Association Ichalkaranji and handed over Rupees 52 lacs to Municipal council for implementation.
5. Issued authorizations to all local bodies under Municipal Solid Waste (M & H) Rules, 2000.
6. All facilities for BMW brought under full-fledged capacity and improved in increase in no. of generators.
7. Celebrated 5th June 2004 as World Environment Day. Organized environment protection skating rally in Kolhapur city to generate public awareness, distributed 500 saplings. Arranged programme with major NGOs. Also participated were District Collector, S.P., Divisional Officer of ZP and other educational institutions.
8. Seminar on Environment and Pollution on 12th Dec 2004 organized by Indian Society of Environmental Science and Technology Mumbai, Ratnagiri, Chiplun co-sponsored by MPCB
9. Selected locations for NAAQM in Kolhapur at university and Mahadwar Road, Kolhapur. Started monitoring and communicating results to HQ.
10. Constituted committee for study of Rankala lake, Raman mala lake, Esmo Minechem Ltd., New India Mining Corporation, Ratnagiri.

11. The CETP at Lote was pursued for implement in O & M so as to achieve consented standards. After fish kill incidence in October, November 2004, all industries were instructed to become member of CETP and existing members of CETP were compelled to submit B.G. against performance of CETP.
12. Surface water quality monitoring started for 2 new stations to assess the pollution load at NH4 bridge and Baligna Water Works after initiating agitations and problems of Panchaganga river Kolhapur.
13. Action taken against major cluster of stone crushers near Kolhapur city at Shiye to improve air pollution control devices for 38 industries.
14. Pursued several industries to recycle treated effluent for process.
15. Tackled politically motivated agitations/morchas at Kolhpaur in respect of KMC for Panchaganga river pollution issue since December 2003 to till date.
 - a) Hearing was extended by the Member Secretary of MPC Board and decided that to provide eco-treatment facility at Jayanti nalla for 35 MLD by M/s Shrushti Eco Research Institute Pune.
 - b) Modernize the existing STP to secondary stage and treat 45 MLD by using funds deposited by KMC to MJP.
 - c) Extra sourcing shall be adopted for Dudhali nalla treatment for 25 MLD by hiring the services of ILFS Mumbai.
16. Public awareness programmes through lectures, public meetings at common places and in educational institutes at Kolhapur, Ratnagiri, Chiplun and Sangli. Also S.R.O. Sangli participated by installing stall for public awareness in Agricultural Exhibition.
17. Revenue generation was above the target i.e. targeted figure is Rs. 93 lacs. Actual collection is Rs. 141 lacs i.e. increase in revenue collection by more than 45%
18. The illegal mines running in the area of Kolhapur were visited during midnight and trapped them and issued closure directions for illegal operation of mines.

CHAPTER - 3
INDUSTRIAL DATA SHEET

Industrial Statistics At
Regional Office Kolhapur

1. **Jurisdiction** : - Kolhapur, Sangli, Ratnagiri, and Sindhudurg District

2. **Status of industries** :-

Type of Industry		SRO Kolhapur	SRO Sangali	SRO Chiplun	SRO Ratnagiri	RO Total
Red	Large	21	23	13	03	60
	Medium	42	15	33	04	94
	Small	327	136	109	07	579
Orange	Large	10	8	0	0	18
	Medium	3	0	2	4	09
	Small	393	394	52	242	1081
Green	Large	0	0	0	1	1
	Medium	0	0	2	1	3
	Small	3132	2504	35	277	5948
		3928	3080	246	539	7793

- In Sub-Region Kolhapur predominantly large No. of Sugar, Distillery, Small foundries & Cloth Processing Industries are in existence.
- In Sub-Region, Ratnagiri predominantly fish processing & fruit processing (Mango & Cashew) industries are in existence.
- In Sub-Region, Chiplun predominantly chemical industries are existing.
- In Sub-Region, Sangli predominantly large no. of Sugar, Distillery, Small foundries are in existence.

A) COMMON EFFLUENT TREATMENT PLANT

There exists three Common Effluent Treatment Plants in Kolhapur Region for treatment of industrial effluent. Out of these, the CETP at Sangli has not yet commissioned. The detailed information about each of these three plants is as follows-

1) INFORMATION OF CETP AT MIDC LOTE PARSHURAM

1. Year of Establishment : 14 May 2000
2. Year of commissioning : 3rd June 2003
- a) Primary treatment
- b) Secondary/Tertiary treatment :
3. Design capacity : 6 MLD
4. Quantity of Effluent presently treated: 4 - 5 MLD
5. Total no. of member industries : 122
6. Total project cost : 4.25 Crores
7. Method of collection of effluent : Through pipeline and tankers.
8. Type of treatment : Primary treatment followed by
Activated sludge process
9. Operational status : Regular
10. Recurring cost : Rs. 8 lakh per month
11. Effluent disposal point : In Karambavane creek about 7 KM
From CETP through closed pipeline
12. Performance status & remarks :
- A - Whether complying with standards : No
- B - If no, reasons : Lack of adequate operation and
Maintenance. MLSS in bio-
reactor is low
- C - Action taken so far : Show cause notices and proposed
Directions have been issued also
final directions issued for submit B.G.

To assure functioning of CETP to consented norms.

D - Results of CETP : Time being improvement is Observed

E - Way forward :

1. Collection system is to be Improved.
2. Collection system & disposal System is to be hand over to L.P.I.A. from MIDC.
3. Every member industry shall Dispose their effluent as per CETP inlet norms.
4. For checking compliance and performance of CETP the total survey of all the units in Lote Parshuram is conducted in the month of April 2005 and also, S.R.O. Chiplun has been directed for strict vigilance.

2) INFORMATION OF L.K. AKIWATE INDUSTRIAL ESTATE, CETP, JAYSINGPUR

1. Year of Establishment : 1997
2. Year of commissioning : December 1997
- A) Primary treatment
- B) Secondary/Tertiary treatment :
3. Design capacity : 0.8 MLD.
4. Quantity of Effluent presently treated: 0.8 MLD.
5. Total no. of member industries : 24
6. Total project cost : Rs. 41.62 lakh
7. Method of collection of effluent : Through open gutter by gravity.
8. Type of treatment : Primary treatment followed by Conventional Activated sludge Process.
9. Operational status : Poor
10. Recurring cost : Rs. 2 lakh per month
11. Effluent disposal point : On land for gardening but actually disposing in to local nalla leading to Krishna river.

12. Performance status & remarks :
- A - Whether complying with standards : No
- B - If no, reasons : Poor operation and maintenance
- C - Action taken so far : No .of show cause notices and proposed directions issued for improvement of performance of O & M of CETP, and also imposed B.G
- D - Results : Time being improvements Observed.
However, habitual defaulter
- E - Way forward : Needs stringent actions.

3) INFORMATION OF SANGLI-MIRAJ MIDC CETP

1. Year of Establishment : 2003
2. Year of commissioning : Yet to be commissioned.
- a) Primary treatment
- b) Secondary/Tertiary treatment :
3. Design capacity : 1.5 MLD
4. Quantity of Effluent present treated : Yet to be commissioned
5. Total no. of member industries : 17
6. Total project cost : 2.0 Cores
7. Method of collection of effluent : Through tankers and partially through pipeline.
8. Type of treatment : Physico-chemical and biological
9. Operational status : Yet to be commissioned
10. Recurring cost : Yet to be commissioned
11. Effluent disposal point : Proposed in MIDC area
12. Performance status & remarks : Construction of CETP completed is completed and not yet commissioned. Consent to Establish is granted but till not applied for consent to operate.
 - A - Whether complying with standards
 - B - If no, reasons
 - C - Action taken so far
 - D - Results of C
 - E - Way forward

B) Environmental Management in Industrial Estate.

I) List of MIDC's & Industrial Estates.

SRO Kolhapur SRO Sangli SRO Ratnagiri SRO Chiplun

SRO Kolhapur	SRO Sangli	SRO Ratnagiri	SRO Chiplun
<ul style="list-style-type: none">• Shirol• Gokulshirgaon• L.K. Akiwate• Parvati Co. Op.• Laxmi Co. Op.• Ichalkaranji Ind.• Ajara• Gadhinglaj• Shivaji• Panjarpol• Kolhapur Udyamnagar• Kagal Proposed five star M.I.D.C. estate• Chhatrapati Shahu co. Op. Ind. Estate, Shirol• Babasaheb Khanjire Ind. Estate, Ichalkaranji	<ul style="list-style-type: none">• Kupwad• Miraj• Sangli• Palus & Addl. MIDC• Islampur• Jath• Kavthemahankal• Kadgaon• patangrao Kadam Co. Op. Udyamnagar Ind. Estate, Palus	<ul style="list-style-type: none">• Mirjole• Zadgaon• Devrukh• Kudal• Sawantwadi (Co. Op.)	<ul style="list-style-type: none">• Lote Parshuram• Kherdi• Ganekhadpoli

II) EFFLUENT GENERATION AND TREATMENT

Sr. No.	Name Of Sub Region	Total Effluent Generated	Treated	Untreated
1	Kolhapur	194.751 MLD	194.751 MLD	--
	Sangli	20.158 MLD	20.158 MLD	--
3	Chiplun	67.61 MLD	67.61 MLD	--
4	Ratnagiri	4.29 MLD	4.29 MLD	--
Total		286.81 MLD	286.81 MLD	

LIST OF M.1.D.C. INDUSTRIAL ESTATE IN KOLHAPUR REGION.

KOLHAPUR DISTRICT.

1. Shiroli M.I.D.C.Shiroli. Dist-Kolhapur.
2. Gokul Shirgaon M.I.D.C.Gokul-Shirgaon. Dist-Kolhapur.
3. Panjarpol Estate, Kolhapur.
4. Shivaji Udyamnagar,Kolhapur.
5. L.K.Akiwate Co.Op.Industrial Estate,Jaysingpur. Dist-Kolhapur.
6. Shri Chhatrapati Shahu Co.Op.Indl.Estate,Shirol,Dist-Kolhapur.
7. Parvati Co.Op.Industrial Estate, Yadrav. Tal-Shirol,Dist-Kolhapur.
8. Shri Laxmi Co.Op.Industrial Estate,Hatkanangale,Dist-Kolhapur.
9. Ichalkaranji Industrial Estate Ichalkaranji. Dist-Kolhapur.
10. Babasaheb Khanjire Industrial Estate,Ichalkaranji.
11. Ajara M.I.D.C.Ajara, Dist- Kolhapur.
12. Gadhinglaj M.I.D.C.Gadhinglaj, Dist-Kolhapur.
13. Kagal-Hatkanangale,Five Star M.I.D.C.Kagal,Dist-Kolhapur.

SANGLI DISTRICT

1. Kupwad M.I.D.C.Kupwad, Dist-Sangli.
2. Miraj M.I.D.C.Miraj, Dist-Sangli.
3. Vasantdada Industrial Estate,Madhavnagar-Sangli.Dist-Sangli.
4. Palus M.I.D.C.Palus, Dist-Sangli.
5. Patangrao Kadam Co.Op.Industrial Estate, Palus, Dist-Sangli.
6. Islampur M.I.D.C.Islampur, Dist-Sangli.
7. Jath M.I.D.C.Jath, Dist-Sangli.
8. Kavathe Mahankal M.I.D.C.Kavathe-Mahankal. Dist-Sangli.
9. Kadegaon M.I.D.C.Kadegaon, Dist-Sangli.

RATNAGIRI DISTRICT

1. Mirjole M.I.D.C.Mirjole, Dist-Ratnagiri.
2. Zadgaon M.I.D.C.Zadgaon.Dist-Ratnagiri.
3. Devrukh M.I.D.C.Devrukh, Dist-Ratnagiri.
4. Lote Parshuram M.I.D.C.Lote Parshuram.Dist-Ratnagiri.
5. Kherdi M.I.D.C.Kherdi.Dist-Ratnagiri.
6. Ganekhadpoli M.I.D.C.Ganekhadpoli, Dist-Ratnagiri.

SINDHUDURG DISTRICT

1. Kudal M.I.D.C.Kudal, Dist-Sindhudurg.
2. Sawantwadi M.I.D.C.Swantwadi, Dist-Sindhudurg.

ESS- COMPLIANCE OF CESS ACT, 1977.

There are 7569 industrial units registered in Kolhapur region. Out of these industries 193 units comes under Large, Medium, Red and Orange units. These units are the only major water consuming units. Out of total units 6838 units come under Small Green and Orange category which consume mostly only small quantity water for domestic purpose. Remaining 538 units come under Small Red category and out these units some units are sick due to different commercial reason and some are not in operation regularly.

As per the record of Cess Wing, 335 units pertaining to this region regularly submit Cess returns. This shows that most of the major Medium and Large, Red/Orange water consuming units are submitting cess returns regularly.

This office is looking forward to cover small scale units under Cess Act.

Sr.No.	Category of Industries	No. of Industries.
1.	Total No. of Industries.	7793
2.	L.S.I. and M.S.I. (Red and Orange)	193
3.	S.S.I. Green and Orange	6727
4.	S.S.I..Red	538
5.	Industries covered under Cess as per record of Cess Wing.	335

Note: - Major water consuming i.e. Large-Medium/Red -Orange category Units are submitting the returns regularly.

D) LEGAL STATUS – 2004-05

Directions issued by R.O., Kolhapur u/s 33A of water Act, 1974 and u/s 31A of Air Act, 1981.

Sr.No.	Proposed Directions issue	Final Directions issue
1	83	108

Information about Criminal cases – Kolhapur Region.

Sr. No.	Name of the Industry	Court case No.	Name of the Court	Case filed by
1.	M/S. Gadhinglaj Taluka S.S.K. Ltd., Gadhinglaj, Dist-Kolhapur	125/97	J.M.F.C. Gadhinglaj	R.O.Kolhapur
2.	M/S. Bhogawati S.S.K. Ltd., Parite, Dist.-Kolhapur	7342/97	J.M.F.C. Kolhapur	R.O.Kolhapur
3.	M/s. Kumbhikasari S.S.K. Ltd., Kuditre, Dist.-Kolhapur	7745/97	J.M.F.C. Kolhapur	R.O.Kolhapur
4	M/s. Datta S.S.K. Ltd., Asurle Porle, Dist.-Kolhapur	273/97	J.M.F.C. Panhala	R.O.Kolhapur
5	M/s. Kolhapur Municipal Corporation, Kolhapur	54/2000	J.M.F.C. Kolhapur	R.O.Kolhapur
6	M/s. Vasantdada S.S.S.K. Ltd., Sangli, Dist.- Sangli.	53/98	J.M.F.C. Sangli	S.R.O.Sangli

Sr. No.	Name of the Industry	Court case No.	Name of the Court	Case filed by
7	M/s. Rajarambapu S.S.K. Ltd., Rajaramnagar, Islampur, Dist.-Sangli.	59/98	J.M.F.C. Islampur	S.R.O.Sangli
8	M/s. Managanga S.S.K. Ltd., Atpadi, Dist.- Sangli.	20/98	J.M.F.C. Atpadi	S.R.O.Sangli
9	M/s. Tatyasaheb Kore Warana S.S.K. Ltd., Warananagar, Dist.- Kolhapur.	259/2003	J.M.F.C. Panhala	S.R.O. Kolhapur
10	M/s. Empire Dyeing & Bleaching Works, MIDC Road, Miraj, Dist-Sangli.	100/2002	J.M.F.C. Sangli	S.R.O. Sangli
11	The Commissioner, Sangli, Miraj & Kupwad City Municipal Corporation, Sangli.	2040/2002	J.M.F.C. Sangli	S.R.O. Sangli
12	M/s. Rajarambapu S.S.K. Ltd., Rajaramnagar, Islampur, Dist.-Sangli.	1600/2002	J.M.F.C. Islampur	S.R.O.Sangli
13	M/s. Pushkar Petro Product Ltd., MIDC Lote Parshuram, Dist.- Ratnagiri.	31/2003	J.M.F.C. Ratnagiri	S.R.O. Chiplun

Sr. No.	Name of the Industry	Court case No.	Name of the Court	Case filed by
14	M/s. D.Y. Patil Saptganga S.S.K. Ltd., Aslaj, Tal- Gaganbawada, Dist.- Kolhapur.	160/2004	J.M.F.C. Kolhapur	R.O. Kolhapur
15	The Commissioner, Kolhapur Municipal Corporation, Kolhapur.(Jayanti Nala)	220/2004	J.M.F.C. Kolhapur	R.O. Kolhapur
16	The Commissioner, Kolhapur Municipal Corporation, Kolhapur.(Rankala lake)	768/2004	J.M.F.C. Kolhapur	S.R.O. Kolhapur
17	The Chief Officer, Ichalkaranji Municipal Council, Ichalkaranji, Kolhapur.	1251/2004	J.M.F.C. Kolhapur	S.R.O. Kolhapur

CHAPTER 4
LOCAL BODIES & MUNICIPAL SOLID WASTE

A) ENVIRONMENT MANAGEMENT OF MUNICIPAL COUNCILS AND
CORPORATIONS

The environmental management of local bodies covers details of water source of local body, population, effluent generation, sewage treatment facility. It was observed that most of the local bodies were not having full-fledged sewage treatment and disposal facility. They are disposing treated/ partially treated /untreated effluent into near by nalla / river and few on land for irrigation. Individual status and compliance about MSW is shown in the following table.

STATUS OF ENVIRONMENTAL MANAGEMENT SYSTEM IN LOCAL BODIES

A) MUNICIPAL COUNCILS

Sr. No.	Name of Municipal Council	Regional/ SRO/ District	Population	Source of water	Qty. of water consumption m3/d	Qty. of domestic effl. m3/d	Treatment facility provided whether Adequate/ Inadequate	Mode of effluent disposal	Qty. of solid waste generated MT/d	Treat. facility for Solid Waste Generated	Mode of solid waste disposal
1	Ichalkaranji	SRO Kolhapur	2,70,000	Krishna river	50,000	40,000	Only 20 MLD capacity STP provided	Partially for irrigation & remaining into Panchaganga river	52	Mechanical composting & land filling site under process	Proposed mechanical composting not yet started. Application for Authorization is submitted for due to some queries application return for resubmission
2	Kurundwad	- " -	21,325	Krishna river	1000	750	Inadequate	Irrigation & Panchaganga river	2.8	Vermi composting site completed land filling site under process	Processing of MSW is given on BOT basis, started composting. Authorization obtained.

LIST OF MUNICIPAL COUNCILS/CORPORATIONS IN KOLHAPUR REGION.

KOLHAPUR DISTRICT.

1. Kolhapur Municipal Corporation, Kolhapur.
2. Vadgaon Municipal Council, Vadgaon, Dist-Kolhapur.
3. Ichalkaranji Municipal Council, Ichalkaranji Dist-Kolhapur.
4. Panhala Municipal Council, Panhala, Dist-Kolhapur.
5. Gadhinglaj Municipal Council, Gadhinglaj, Dist-Kolhapur,
6. Jaysingpur Municipal Council, Jaysingpur, Dist-Kolhapur.
7. Murgud Municipal Council, Murgud, Dist-Kolhapur.
8. Kagal Municipal Council, Kagal, Dist-Kolhapur.
9. Malkapur Municipal Council, Malkapur, Dist-Kolhapur.
10. Kurundwad Municipal Council, Kurundwad, Dist-Kolhapur.

SANGLI DISTRICT.

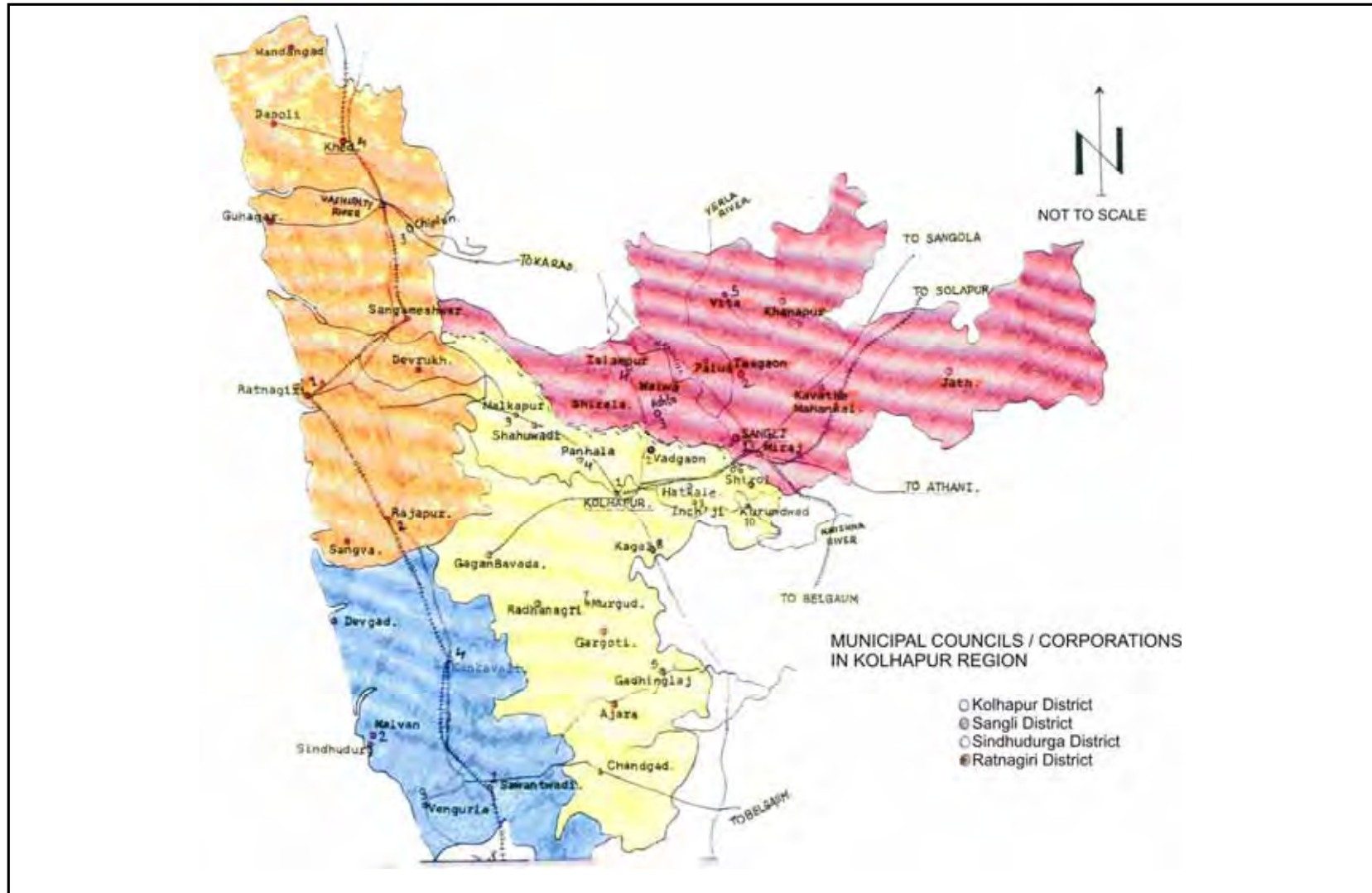
1. Sangli, Miraj and Kupwad City Municipal Corporation, Sangli, Dist-Sangli.
2. Tasgaon Municipal Council, Tasgaon, Dist-Sangli..
3. Ashta Municipal Council, Ashta, Dist-Sangli,
4. Islampur Municipal Council, Islampur, Dist-Sangli.
5. Vita Municipal Council, Vita, Dist-Sangli.

KATNAGIRI DISTRICT.

1. Ratnagiri Municipal Council, Ratnagiri, Dist-Ratnagiri.
2. Rajapur Municipal Council, Rajapur, Dist-Ratnagiri.
3. Chiplun Municipal Council, Chiplun, Dist-Ratnagiri.
4. Khed Municipal Council, Khed, Dist-Ratnagiri.

SINDHUDURG DISTRICT.

1. Sawantwadi Municipal Council, Sawantwadi, Dist-Sindhudurg.
2. Malvan Municipal Council, Malvan, Dist-Sindhudurg.
3. Vengurla Municipal Council, Vengurla, Dist-Sindhudurg.
4. Kankavali Nagar Panchayat, Kankavali, Dist-Sindhudurg.



Sr. No.	Name of Municipal Council	Regional/ SRO/ District	Population	Source of water	Qty. of water consumption m3/d	Qty. of domestic effl. m3/d	Treatment facility provided whether Adequate/ Inadequate	Mode of effluent disposal	Qty. of solid waste generated MT/d	Treat. facility for Solid Waste Generated	Mode of solid waste disposal
3	Kagal	- " -	23,775	Jaisingrao lake & Dudhganga river	3000	2100	Inadequate	Open gutter & irrigation	5	Vermi composting & land filling site under process	Proposal is submitted for processing and land filling of MSW but not yet started. Application for authorization submitted.
4	Gadhinglaj	-"-	25356	Hiranyakeshi river	3500	2400	Inadequate	Open gutter & irrigation	5	Vermi composting site completed land filling site under process	Processing and land filling site is under construction. Application for authorization is submitted
5	Murgud	-"-	9200	Pirajao lake	800	640	Inadequate	open gutter & irrigation	3	Vermi composting & land filling site under process	Proposal is submitted for processing & land filling of MSW but not yet started. Application for authorization

Sr. No.	Name of Municipal Council	Regional/ SRO/ District	Population	Source of water	Qty. of water consumption m3/d	Qty. of domestic effl. m3/d	Treatment facility provided whether Adequate/ Inadequate	Mode of effluent disposal	Qty. of solid waste generated MT/d	Treat. facility for Solid Waste Generated	Mode of solid waste disposal
7	Panhala	-"	3450	Kasari river	450	337	Inadequate	open gutter & irrigation	1.091	Vermi composting site completed land filling site under process	Submitted. Not yet any proposal is submitted. Application for authorization submitted .
8	Vadgaon	-"	22754	Mahalank lake	1200	840	Inadequate	open gutter & irrigation	5	Not yet any proposal submitted	Not yet any proposal submitted. Application for authorisation is submitted
9	Jaysingpur	-"	43055	Krishna river	5800	2000	Inadequate	open gutter & irrigation	24	Vermi composting site completed landfilling site under process	Started vermicomposting on BOT basis. Application for authorisation submitted land filling site under construction
10	Vita Muni. Council, Vita	-"	40000	Krishna river	5 MLD	3.25 MLD	Inadequate	Into local nalla & for irrigation	20	Compo. on open land	Compost sold out

Sr. No.	Name of Municipal Council	Regional/ SRO/ District	Population	Source of water	Qty. of water consumption m3/d	Qty. of domestic effl. m3/d	Treatment facility provided whether Adequate/ Inadequate	Mode of effluent disposal	Qty. of solid waste generated MT/d	Treat. facility for Solid Waste Generated	Mode of solid waste disposal
11	IslampurMun. Council, Islampur	-"	58330	Krishna river	4.4 MLD	4 MLD	Inadequate	Into local nalla for irrigation	15	Composting on open land	Compost sold out.
12	Ashta Mun. Council Ashta	-"	33000	Krishna river	1.2 MLD	0.96 MLD	Inadequate	Into local nalla for irrigation	3	Composting on open land	Compost sold out
13	Tasgaon Mun Council Tasgaon	-"	33435	Krishna river	1.6 MLD	0.8 MLD	Inadequate	Into local nalla for irrigation	6	Composting on open land	Compost sold out
14	Ratnagiri Mun Council Ratnagiri	SRO Office Ratnagiri	56529	Panval & Sheel Dam	8 MLD	6.4 MLD	No	Open gutter	24	Nil	Open land
15	Rajapur Mun Council, Rajapur	-"	10499	Kondavali Dam & Pickup well	1.8 MLD	0.6 MLD	No.	Open gutter	1	Nil	Open land
16	Malvan Mun. Council Malvan	-"	18675	Dongurla tank	1 MLD	0.7 MLD	No	Open gutter	1.5	Nil	Open land.
17	Sawantwadi Nagarpalika, Sawantwadi	-"	21305	Kunkery dam	2 MLD	0.75 MLD	No	Open gutter	2.0	Nil	Open land.

Sr. No.	Name of Municipal Council	Regional/ SRO/ District	Population	Source of water	Qty. of water consumption m3/d	Qty. of domestic effl. m3/d	Treatment facility provided whether Adequate/ Inadequate	Mode of effluent disposal	Qty. of solid waste generated MT/d	Treat. facility for Solid Waste Generated	Mode of solid waste disposal
18	Vengurla Mun Council Vengurla	-"	12471	Nishank Talav	0.8 MLD	0.2 MLD	No	Open gutter	6	Trials of composting in progress	Open land
19	Chiplun Mun Council	SRO, Chiplun, Dist: Ratnagiri	46213	Vashisti river	9 MLD	7 MLD	Inadequate	Into Shiv & Vashishti river	12	No treatment provided	Landfill
20	Khed Mun. Council	-"	13812	Jagbudi river	1.5 MLD	0.7 MLD	Inadequate	Into Jagbudi river	5	No treatment provided	Landfill

MUNICIPAL CORPORATION

Sr. No.	Name of Municipal Council	Regional/ SRO/ District	Population	Source of water	Qty. of water consumption m3/d	Qty. of domestic effl. m3/d	Treatment facility provided whether Adequate/ Inadequate	Mode of effluent disposal	Qty. of solid waste generated MT/d	Treat. facility for Solid Waste Generated	Mode of solid waste disposal
1	Kolhapur Municipal Corporation	SRO Office Dist: Kolhapur	4,84,101	Panchagan-ga river, Bhogavati river and Kalamba Talav.	1,20,000	85,000	Only undercapacit y primary STP provided to treat 43.5 MLD	Partially for irrigation & remaining into Panchaganga river	150	Unscientif-ic composting	Unscientific land filling and composting site under construction.
2	Sangli Miraj & Kupwad city Mun. Corporation Sangli	S.R.O. Sangli, Dist: Sangli.	4,36,639	Krishna river	60 MLD	40 MLD	Oxidation ponds – Inadequate	30% on land for irrigation & remaining discharged into Krishna river	170	Composti-ng on open land	Compost sold out

B) ENVIRONMENTAL MANAGEMENT OF MUNICIPAL SOLID WASTE AS PER MUNICIPAL SOLID WASTE (MANAGEMENT AND HANDLING) RULES, 2000.

There are two municipal corporations, 20 municipal councils and two nagar panchayats under Kolhapur region. Total 2418 local bodies have been granted Authorisation and all 24 sites were visited by the site selection team. All the councils and corporations are going for composting.

The local bodies who completed site selection have started developing site for composting/vermi-composting. The JVS of leachate collection will be completed after completion of the development of site.

Till date there is no alternative site for the site refused by the Board to Ichalkaranji Mun. Council. The existing site is too old and overloaded and acquiring alternative site may take long duration up to a year or more to acquire and develop. In case of Kolhapur, site is not yet identified and visited by the team. The existing site is not fit as per the check list and guidelines of municipal solid waste. Sangli Municipal Corporation is also carrying on vermi-composting on existing site and the proposed site for the Miraj city is more than 5 KM away from the city. The development of the same is in progress. (Enclosed compliance table)

**ENVIRONMENTAL MANAGEMENT OF MUNICIPAL SOLID WASTES
REGIONAL OFFICE, KOLHAPUR**

Sr. No		S.R.O., Kolhapur.	S.R.O., Sangli	S.R.O. chiplun	S.R.O. Ratnagiri	Total
1.	Total no. of municipal corporation	1	1	--	--	2
2.	Total no. of municipal councils	9	4	2+1 nagar panchayat	5+1 nagar panchayat	20+2 nagar panchayat
3.	Authorisation granted under M.S.W. (M & H) Rules, 2000	10	5	3	6	24
4.	Site selection for process and landfill completed	10	5	3	6	24
5	Present status of the process	composting	composting	composting	composting	composting

STATUS OF LOCAL BODIES AS PER MUNICIPAL SOLID WASTE (M & H) RULES, 2000.

Sub- Regional Office, Sangli.

Sr. No	Name of Local body with address.	Class.	Population	Area in Sq.Kms.	Qty. of Municipal Solid Waste/day	Details of authorization of M.P.C.B. with its validity	Details of Existing site if any	Details of improvement of existing land fill site.	Details of proposed site.	Details of development of proposed site.	Reports of District level committee for site selection	Waste processing technology adopted.	Details of Time bound programme submission by ULB	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Sangli Miraj & Kupwad Municipal Corporation Sangli.	-	436639	90	170	31-12-2004	Sr.No. 208 & 231 54 Acres	Tree plantation, Fencing	Already existing	N.A.	Site selection done by District level committee on 24-10-02.	Unscientific composting on open area and vermi composting	Not submitted	Applied
2	Ashta Municipal Council	C	33190	74.3	20	31-12-2004	Sr.No. 268	Tree plantation, Fencing	Already existing	N.A.	Site selection done by District level committee on 21-09-02.	Unscientific composting on open area and vermi composting	Not submitted	Applied
3	Islampur Municipal Council	B	58330	33.03	10	31.12.04	Sr. No. 214, 219	Tree plantation, Fencing	Already existing	N.A.	Site selection done by District level committee on 21-09-02.	Unscientific composting on open area and vermi composting	Not submitted	Applied
4	Vita Municipal Council	B	41757	55.0	15	31.12.04	Sr. No.707 5.62 Hect.	Tree plantation, Fencing	Already existing	N.A.	Site selection done by District level committee on 19-09-02.	Unscientific composting on open area and vermi composting	Not submitted	Applied
5	Tasgaon Municipal Council	C	33435	43.41	10	31.12.04	Sr. No. 844 5 Hect.	Tree plantation, Fencing	Already existing	N.A.	Site selection done by District level committee on 21-09-02.	Unscientific composting on open area and vermi composting	Not submitted	Applied

Sub- Regional Office, Chiplun.

Sr .No	Name of Local body with address.	Classs.	Population	Area in Sq.Kms.	Qty. of Municipal Solid Waste/day	Details of authorization of M .P .C B. with its validity	Details of Existing site if any	Details of improvement of existing land fill site.	Details of proposed site.	Details of development of proposed site.	Reports of District level committee for site selection	Waste processing technology adopted.	Details of Time bound programme submission by ULB	Remarks.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Chiplun Municipal Council, Chiplun, Dist.- Ratnagiri.	B	46213	14.6 sq.km.	12 MT/D	RO/KOP/MSWA/250/ 04 dt.-26-2-04 Valid upto 31-12-04. For teravsite & applied for shivaji-nagar site	Govalkot and Ramtirth	---	Shivaji nagar site Details is enclosed (District level committee report enclosed)	---	Report is enclosed herewith	Composting / varmi composting	---	Overall not compl-ing as per Norms. There is strong appose for both site.
2	Khed Municipal Council, Khed, Dist.- Ratnagiri.	C	13812	2.01 sq.km..	4.105 MT/D	RO/KOP/MSWA/1609/ 04 dt.-09-09-04 Valid upto 31-12-04. for site No. 321 sudhadar, Khed.	Sr. no. 33 and 30	---	---	---	Report is enclosed herewith	Compost-ing	---	There is strong appose for sukhadar site.
3	Dapoli Nager Panchayat Dapoli, Dist.- Ratnagiri.	C	13848	---	1.5 MT/D	RO/KOP/MSWA/1608/ 04 dt.-09-09-04 Valid upto 31-12-04. for Mouje Dapoli site.	Sr. No. 722 Near Macerc-hi Market	---	---	---	Report is enclosed herewith	Compost-ing	---	---

Sub- Regional Office, Ratnagiri.

Sr. No	Name of Local body with address.	Class	Population	Area in Sq.Kms.	Qty. of Municipal Solid Waste/day	Details of authorization of M .P .C B. with its validity	Details of Existing site if any	Details of improvement of existing land fill site.	Details of proposed site.	Details of development of proposed site.	Reports of District level committee for site selection	Waste processing technology adopted.	Details of Time bound programme submission by ULB	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Municipal Council, Ratnagiri, Dist.- Ratnagiri	B	70,385	11 sq.km.	25 MT/D	Expired on 31-12-04..	Disposed at village Nachane, Sr.No. 385 i.e. on open land	No improvement in existing land fill site	The land is allotted at Dande Adam but villagers are objecting for composting, vermiculture & to install the incinerator for BMW proposed by local body.	No development as Dande Adam villagers have objected.	Submitted on 12-12-03 with condition (enclosed)	At present waste is burnt out	Time bound programme is not submitted	Applied for renewal.
2	Municipal Council, Rajapur, Dist.- Ratnagiri.	C	9,822	6.19 sq.km.	01 MT/D	Expired on 31-12-04. .	Disposed in quarry pit	Nil	The land at village Hardi is to be acquired. Reported that villagers are objecting	Nil	Yes. Letter of Town planner (11-7-03 is enclosed)	Details are not submitted	Not submitted	Applied for renewal
3	Municipal Council, Sawantwadi, Dist.- Sindhudurg.	C	21,305	6.8 sq.km.	20 MT/D	Expired on 31-12-04. Applied for renewal.	At present the wet & dry solid waste is segregated & partially composted & vermiculture at 3 places out of 5 spot disposal.	---	Land acquired 5.5 Acres at Kariwade.	WPM Roads are constructed. Trenches for land fill are prepared including completion fencing wall	Reported that it is obtained but not available on the records of M.P.C. Board.	Proposed the composting	Not submitted	Applied for renewal.

Sr. No	Name of Local body with address.	Class	Population	Area in Sq.Kms.	Qty. of Municipal Solid Waste/day	Details of authorization of M .P .C B. with its validity	Details of Existing site if any	Details of improvement of existing land fill site.	Details of proposed site.	Details of development of proposed site.	Reports of District level committee for site selection	Waste processing technology adopted.	Details of Time bound programme submission by ULB	Remarks
4	Kanakawali Nagar Panchayat Kankawali Dist.- Sindhudurg.	C	14,725	846.42 sq.km.	03 MT/D	Valid upto 31-3-05	Disposed adjacent to notified river (Gad) bed	Proposed to put the gate at disposal site. Also proposed to keep a watchman.	New land is proposed (2 Hector) to acquire	Nil	Letter from Ground Water survey and forest Deptt. Is provided.	Composting and vermiculture is proposed	Not submitted	
5	M/s. Vengurla Municipal Council, Dist.- Sindhudurg.	C	12,441	02 sq.km.	06 MT/D	Valid up to 31-12-04		Levelling and Road is constructed. Compound wall is under construction.	Not proposed	N.A.	N.A.	Vermiculture at present	Not yet submitted	Applied for renewal
6	M/s. Malvan Municipal Council, Dist.- Sindhudurg.	C	17,986	6.5 sq.km.	1.5 MT/D	Expired on 31-12-04.		---	Proposed to purchase 20 Guntas of private land. Reported that it is approved by Dist. collector	No development as it is to be purchased yet.	---	Proposed to produce electricity but proposal is not submitted to M.P.C. Board.	Not yet Submitted	Applied for renewal.

Sub- Sub-Regional Office, Kolhapur.

Sr. No	Name of Local body with address.	Class	Population	Area in Sq.Km s.	Qty. of Municipal Solid Waste MT/D	Details of authorization of M .P .C B. with its validity	Details of Existing site if any	Details of improvement of existing land fill site.	Details of proposed site.	Details of development of proposed site.	Reports of District level committee for site selection	Waste processing technology adopted.	Details of Time bound programme submission by ULB	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Ichalkaranji Municipal Council, Ichalkarnji.	A	2.70 lack	14.5	52	Conditional Authorisation granted	8.0 Acres site selection done as per criteria on 16-12-2002	Tree plantation	Already existing	NA	Site selection done by Dist. Level committee. 16-12-2002	Unscientific composting	Not submitted.	Applied for Authorisation
2	Kurundwad Municipal Council, Kurundwad.	C	21325	18.5	2.80	Upto 31-12-2004	1.25 Acres site selection done as per criteria on 18-12-2002	Tree plantation	Details submitted for proposed site.	NA	Site selection done by Dist. Level committee. 18-12-2002	Unscientific composting	Not submitted.	Applied for renewal
3	Kagal Municipal Council, Kagal.	C	23775	28	5	Upto 31-12-2004	0.80 Acres site selection done as per criteria on 23-12-2002	Tree plantation	Already existing	Details submitted for proposed site	Site selection done by Dist. Level committee. 23-12-2002	Unscientific composting	Not submitted.	Applied for renewal
4	Gadhinglaj Municipal Council, Gadhinglaj.	C	25356	3.29	5	Upto 31-12-2004	72.52 R Acres site selection done as per criteria on 26-12-2002	Tree plantation	Already existing	NA	Site selection done by Dist. Level committee. 26-12-2002	Unscientific composting	Not submitted.	Applied for renewal
5	Murgud Municipal Council, Murgud.	C	9200	11.71	3	Upto 31-12-2004	1.0 Acres site selection done as per criteria on 24-12-2002	Tree plantation	Already existing	NA	Site selection done by Dist. Level committee. 24-12-2002	Unscientific composting	Not submitted.	Applied for renewal

Sr. No	Name of Local body with address.	Class	Population	Area in Sq.Km s.	Qty. of Municipal Solid Waste MT/D	Details of authorization of M .P .C B. with its validity	Details of Existing site if any	Details of improvement of existing land fill site.	Details of proposed site.	Details of development of proposed site.	Reports of District level committee for site selection	Waste processing technology adopted.	Details of Time bound programme submission by ULB	Remarks
6	Malkapur Municipal Council, Malkapur.	C	5503	1.04	1	Upto 31-12-2004	1.25 Acres site selection done as per criteria on 20-12-2002	Tree planta-tion	Already existing	NA	Site selection done by Dist. Level committee. 20-12-2002	Unscientific composting	Not submitted.	Applied for renewal
7	Panhala Municipal Council, Panhala.	C	3450	14	5	Up to 31.12. 2003	0.14 Hect. site selection done as per criteria on 21-12-2002	Tree planta-tion	Details submitted for proposed site.	Details submit-ed for proposed site	Site selection done by Dist. Level committee. 21-12-2002	Dumping of MSW	Not submitted.	Applied for renewal
8	Vadgaon Municipal Council, Vadgaon.	C	22754	14	5	Upto 31-12-2003	4.5 Acres site selection done as per criteria on 19-12-2002	Tree planta-tion	Already existing	NA	Site selection done by Dist. Level committee. 19-12-2002	Dumping of MSWs.	Not submitted.	Applied for renewal
9	Jaysingpur Municipal Council, Jaysingpur.	C	43055	3.5	24	Upto 31-12-2004	2.0 Hect site selection done as per criteria on 17-12-2002	Tree planta-tion	Already existing	NA	Site selection done by Dist. Level committee. 17-12-2002	Unscientific composting	Not submitted.	---
10	Kolhapur Municipal Corporation, Kolhapur.	A	4.84 lack	6682	200	Upto 30-06-2003	6.0 Acres	Tree planta-tion	Already existing	NA	Site selection committee is not done.	Mechanical composting	Not submitted.	---

CHAPTER 5
BIO-MEDICAL WASTE

ENVIRONMENTAL MANAGEMENT OF BIO-MEDICAL WASTE AS PER BIO-MEDICAL WASTE (MANAGEMENT & HANDLING) RULES, 1998

The work of inventorisation of hospitals in Kolhapur region is completed. As per the record available with the Regional Office Kolhapur, there are 1592 hospitals in the region and total no. of beds is 7782. Of these, two hospitals are above 500 beds, two hospitals are between 200 and 500 beds and 18 hospitals are between 50-200 beds. Efforts are being made to compel all the hospitals in this region to apply for Authorisation under the Bio Medical Waste (M & H) Rules 1998 including hospitals having beds below 50 number.

There are four common BMW treatment facility centres located in Kolhapur region.

DIFFICULTIES –

1. It is difficult to find out all the hospitals with existing manpower available with this office.
2. The procedure of BMW monitoring is not yet understood fully.
3. No guidelines for the treatment of liquid waste ?

BIO MEDICAL WASTES (M & H) RULES, 1998

REGIONAL OFFICE, KOLHAPUR

Sr. No		S.R.O., Kolhapur.	S.R.O., Sangli	S.R.O. chiplun	S.R.O. Ratnagiri	Total
1.	Total no. of hospitals	698	449	280	165	1592
2.	Total no. of common treatment facility centres	2	2	--	--	4
3.	Total no. of hospitals applied for BMW authorisation	295	166	48	157	666
4.	No. of authorisation granted	267	163	48	152	630
5.	Total no. of beds	4206	3438	559	1579	7782
6.	No. of hospitals-	1	1	--	--	2
	a) above 500 beds					
	b) above 200 & less than 500	--	1	--	1	2
	c) above 50 & less than 200	9	6	--	3	18
	d) less than 50	688	441	280	161	1574

1) S.R.O. Kolhapur has been instructed to direct all the hospitals in his jurisdiction to apply for B.M.W. Authorisation.

2) 70% of hospitals having beds below 50 no. comprise hospitals and clinics having beds below 5. Some of them are yet to be covered under B.M.W Rules. Necessary instructions have been given to S.R.O. Kolhapur and Sangli for covering all hospitals.

COMMON BIO-MEDICAL TREATMENT FACILITIES

In this region, four common Bio-Medical treatment facility centres are in operation. They treat and dispose about 21.5 MT/M from 789 hospitals in Kolhapur and Sangli District. Out of 1136 hospitals, 789 hospitals are covered for safe disposal. There is no common facility in Ratnagiri and Shindhudurg District. They are going for deep burial.

A) Sangli Miraj -Kupwad Municipal Corporation

- | | | | |
|---|---|---|--|
| 1 | Name of the Common Bio Medical facility center & location | - | M/s. Sangli Miraj -Kupwad Municipal Corporation (common Bio-Medical Waste Treatment & Disposal Plant) Bedag Road, Miraj, Dist.- Sangli. |
| 2 | Area Covered | - | Miraj city & nearby area. |
| 3 | No. of Bio Medical Waste generators covered | - | 172 No. |
| 4 | Qty. of Bio-Medical Treated & disposal off | - | 4.5 MT/M. |
| 5 | Type & No. of Instruments provided with technical specification | - | <ol style="list-style-type: none">1. <u>Incinerator</u> - 1 No.<ol style="list-style-type: none">a. Double chamberb. Temp -
Primary Chamber - 800 °C
Secondary Chamber - 1000-1100 °Cc. Fuel used - HSD - 200 lit/dayd. Pollution control devices provided - i) Wet scrubber
ii) 30 mtr. ht stack
are providede. Capacity - 50 kg/ltr.2. <u>Autoclave</u> - No3. <u>Disinfection</u> - By using Sodium Hypo chloride. |

4. **Shredder** -
 a. Type - Plastic shredder
 Capacity - 100 Kg/M
- 6 Authorization status - MPCB/RO-Kolhapur/BMW-6/2002 Dt.-
 27-9-02
 Valid upto - one year
 Not applied for renewal.
7. Total no. of beds - 750

B) Surya Central Treatment Facility Center

- 1 Name of the Common Bio Medical facility center & location - M/s. Surya Central Treatment Facility Center , D-60, MIDC Miraj, Dist.- Sangli.
- 2 Area Covered - Sangli city & District.
- 3 No. of Bio Medical Waste generators covered - Sangli City - 109 No.
 Other city -42 No.
- 4 Qty. of Bio-Medical Treated & disposal off - 6 to 7 MT/M
- 5 Type & No. of Instruments provided with technical specification - **1. Incinerator** - 2 No.
 a. Double chamber - 60 kg/ltr.
 b. Temperature -
 Primary Chamber - 800 °C
 Secondary Chamber - 1050 °C
 c. Fuel used - Electricity
 d. Pollution control devices provided -
 i) Wet scrubber
 ii) 30 mts. Ht. stack are provided
2. Autoclave - 1 No.
 a. Capacity - 60 kg/ltr.
 b. Type - vacuum
 c. Size of inner chamber - 18" x 24" Ht.

- d. Temp- 121 °C
- e. Pressure - 15 psb.
- f. Residence time - 45 minutes

3 Disinfection - 1 unit by using Sodium Hypo chloride

4. Shredder -

- a. Type - Plastic shredder
- b. Capacity - 100 Kg/M

6 Authorization status - MPCB/RO-Kolhapur/BMW-2/2002 Dt.- 30-9-02
Valid upto - 30-9-2003
Applied for renewal.

7. Total no. of beds - 985

C) DASS Enterprises

1 Name of the Common Bio Medical facility center & location - M/s. DASS Enterprises, R.C. No. 206, C.S.No. 29/92 A, Kasaba Bawada, Dist.- Kolhapur.

2 Area Covered - Kolhapur city.

3 No. of Bio Medical Waste generators covered - 365

4 Qty. of Bio-Medical Treated & disposal off - 5.5 MT/M

5 Type & No. of Instruments provided with technical specification - **1. Incinerator** - 2 Nos.
a. Double chamber - 50 kg/ltr.
b. Temperature - Primary Chamber - 800 °C

Secondary Chamber - 1050 °C
 c. Fuel used - HSD - 6 ltrs/Hr.
 d. Pollution control devices provided -
 i) Wet scrubber
 ii) 30 mts. Ht. stack
 are provided

2. Autoclave - 1 No.

a. Capacity - Single drum.
 b. Type - Nursing Home type
 c. Size of inner chamber - 18" x 24" Ht.
 d. Temp- 121 °C
 e. Pressure - 15 psb.
 f. Residence time - 45 minutes

3. Disinfection - 1 unit by using Sodium Hypo chlorite

4. Shredder -

a. Type - Plastic shredder
 b. Capacity - 30 Kg/hr.

6 Authorization status - MPCB/RO-Kolhapur/BMW-K-3/2002
 Dt.- 07-10-02
 Valid upto – 07.10.2003
 Applied for renewal.

7. Total no. of beds - 3175

D) S.S. Services

1 Name of the Common Bio - M/s. S.S. Services, R.S. No. 638, C.S.
 Medical facility center & No. 17695, Ichalkaranji,
 location Dist.- Kolhapur.

- | | | | |
|----|---|---|---|
| 2. | Area Covered | - | Ichalkaranji, Jaysingpur, Peth
Vadgaon, Kurundwad |
| 3 | No. of Bio Medical Waste
generators covered | - | 287 |
| 4 | Qty. of Bio-Medical Waste
Treated & disposal off | - | 2.5 MT/M |
| 5 | Type & No. of Instruments
provided with technical
specification | - | <p><u>1. Incinerator</u> - 1 No.</p> <p>a. Double chamber - 60 kg/ltr.</p> <p>b. Temperature -
Primary Chamber - 800 °C
Secondary Chamber - 1050 °C</p> <p>c. Fuel used - HSD - 120 ltr/day.</p> <p>d. Pollution control devices provided -
i) Wet scrubber
ii) 30 mts. Ht. stack
are provided</p> <p><u>2. Autoclave</u> - 1 No.</p> <p>a. Capacity - 20 kg/cycle.</p> <p>b. Type - vacuum</p> <p>c. Size of inner chamber -
400mm x 600mm.</p> <p>d. Temp- 135 °C</p> <p>e. Pressure - 10 psi to 35 psi</p> <p>f. Residence time - 45 minutes</p> <p><u>3. Disinfection</u> - 1 unit by using
Sodium Hypo chlorite</p> |

4. Shredder -

a. Type - Plastic shredder

b. Capacity - 100 Kg/hr.

6 Authorization status - MPCB/RO-KOLHAPUR/BMW-5/ 2003
Dt. 06.08.2003

Valid upto 31st March 2007

Applied for renewal

7. Total no. of beds. - 1446

CHAPTER 6

HAZARDOUS WASTE MANAGEMENT

STATEMENT OF HAZARDOUS WASTE PERTAINING TO SUB REGIONAL OFFICE, CHIPLUN, IN COMPLIANCE OF THE HAZARDOUS WASTE (MANAGEMENT & HANDLING) RULES, 1989 AMENDED 2003

Sr. No	Name of the region	No. of HW generating industries as per 1989 Rules	No. of units operating without Authorisation	No. of closed units	No. of units not complying with conditions in Authorisation	No. of units complying with Authorisation	Total	Quantity of hazardous waste disposal MT/M.		
								Incineration	landfill	sale/ recycle
1.	Sub Regional Office, Chiplun	52	03	03	31	21	52	204.13	244.57	---

LEGAL ACTIONS TAKEN

Three industries were issued closure directions u/s 5 of EPA. Out of them, one industry was brought under purview of Rules and allowed to restart. Two industries are closed.

There are various industries to whom closure directions were issued by R. O. Kolhapur. Out of them 49 units become member of CHWTDF at Talaja, TTC and rest four units are members through their sister concern.

ENVIRONMENTAL MANAGEMENT OF HAZARDOUS WASTE AS PER THE HAZARDOUS WASTE (MANAGEMENT & HANDLING) RULES, 1989 AS AMENDED IN 2003

There are 193 units in Kolhapur region which come under of the Hazardous Waste (M & H) Rules, 1989 as amended in 2003. Inventorisation work is completed and report has already been submitted to H.Q. The total 193 units generate about 94.3 MT/M incinerable waste, 2726 MT/M landfillable waste and 217.7 MT/M of recyclable waste.

The industries generating hazardous waste in Lote Parshuram were immediately brought under the purview of Hazardous Wastes (M & H) Rules, 1989. There are 49 such units in Chiplun out of which 37 units comply with the Hazardous Wastes (M & H) Rules, 1989. Four units dispose their hazardous waste through their sister concern.

The industries have started display of boards for hazardous waste.

Information of Vth ATR about HWMH Aspect.

A) Inventorization as per HWMH Rules - 2003.

A			S.R.O. Chiplun
	1	Total No. of Units covered	52
	2	Total No. of Units found closed	3
	3	No. of Ind. joined to CHWTSDF	49
	4	No. of Ind. selling/ reusing the waste	1
	5	No. of Ind. having own treatment	Nil
	6	No. of Ind. sending waste to others units for treatment	Out of 49 units 5 units sending waste to CHWTDF through their concern units
	7	No. of Ind. not joined CHWTSDF	3
B		Action taken as per HWMH Rules-1989 & 2003 Rules.	
	i)	Action taken against Ind. operating without Authorisation	3
	ii)	Action taken for violation of HWMH Rules 1989 Direction issued for c) Non compliance d) Complied units	-
	iii)	Action taken for non-compliance (Final closure directions)	20
		a) Complied	21
		b) Non-Compliance	2 Closed
c		Action taken for violation of HWMH Rules 2003	
	A	Proposed directions issued for non-compliance (09-03-04)	-
		a) Complied	-
		b) Non-compliance (Existing + Recently identified)	

		c) Action taken for noncompliance Final closure	
		i) Compliance	
		ii) Non compliance (Recently identified)	
D		Compliance about Display Board	
	a)	Total No. of Industries	52
	b)	Total No. of Ind. found closed	3
	c)	No. of Industries displayed Board	49
	d)	No. of Industries not installed Board	Nil
	e)	Action taken	Nil

E) Hazardous waste management in MIDC area

a) MIDC - Lote Parshuram- There are 52 hazardous waste generating industries out of these 49 industries have joined CHWTSDf, 3 No. of in industries are closed & 1 No. of industry used to sale to authorized agency. All the hazardous waste generating units have installed Hazardous waste display boards.

The Regional officer, Kolhapur had issued closure direction to 20 No. of industries in the month of Dec, 03 for non compliance of Hazardous waste (M & H) Rules, 2003. Further the said industries have become a member of CHWTSDf & submitted compliance report. After consideration of reply submitted by industry & the facts observed the Board has issued restart permission.

Supreme court M.C. has visited the MIDC area in June, 04 & Regional Officer, Kolhapur visited to the same in July 2004 report already communicated to HQ.

b) During survey in December, 2004 of the industries in Lote Parshuram MIDC area closer directions were insured to 4 defaulting industries due to non-compliance of hazardous waste (M & H) Amended Rules-

- 1) M/s. Deepak Chemtek Industries, Near MIDC Lote Parshuram, Dist.-Ratnagiri
- 2) M/s. Rallis India Ltd., D-26, MIDC Lote, Dist.-Ratnagiri.
- 3) M/s. Gharda Chemical Ltd., D-1/2, B-1/7, MIDC Lote Parshuram, Dist.-Ratnagiri.
- 4) M/s. Viniti Organics, A-20, MIDC Lote Parshuram, Dist.- Ratnagiri.

c) In Lote Parshuram MIDC area Maharashtra Pollution Control Board has carried out special survey for checking compliance during 11 April to 16 April., 05. During this survey three separate team has done sampling & monitoring work for 24 hours. In the survey 38 industries were covered.

Sampling & analysis work has been completed and preparation of report is under progress. Appropriate actions will be initiated against defaulting industries as deem fit.

During this survey it was observed that all industries had taken membership of CHWTSDF after issuance of notices to Industries in December, 2003. However, it was found that following industries has not sent there Hazardous waste to CHWTSDF.

This office has recommended to Head Office to initiate appropriate action i.e. imposing fine etc. against these industries.

Sr. No.	Name of Industry	HW Storage Qty.	Since	Remark
1	M/s. Deepak Chemtex, Awashi	10T	—	13040 Sand on 21-3-05.
2	M/s. Shreyas Intermediate	5T	6 month	Not sent yet.
3	M/s. Schetantady Hardilia Ltd.	400 kg	1 year	Sending illegally to M/s. Bayer Qty.
4	M/s. Riverside Industries	3T	1 years	Not yet dispose
5	M/s. Rencal Industries	LOT	1 Year	Not yet disposed
6	M/s. Konkan Synthetics	4.0 T	1 year	Not yet disposed
7	M/s. Filtra Speciality	4.0 T	1 year	Not yet disposed
8	M/s. Swastik Industries	2T	1 year	Not yet disposed
9	M/s. Deepak Colour Chem	2T	1 year	Not yet disposed

The CETP Lote has huge Qty. of Hazardous Waste in 'C sump. This sludge is accumulated since long back & MIDC also not cleaned it. Allongwith sludge. That 'C sump is being used by CETP association. The Qty. lying in sump is approx 200 - 300 T. The responsibility may be fixed either MIDC/ CETP association. The CETP is disposing their sludge about 50 T/M to CHWTSDF regularly.

F) Identification of Accumulated waste in industries & Action there of -

i) Lote Parshuram Env. Co.op. Society used to operate & maintain the C.E.T.P. at MIDC Lote. It is a member of CHWTSDF. Time to time appropriate directions has been given to the operator for removing sludge from the 'C sump & sludge drying beds.

G) Clean Technology for zerefining / Recycling of waste/ used oil -

a) No as such industry found in operation in S.R.O. Chiplun area.

CHAPTER : 7

RIVER WATER QUALITY MONITORING

ENVIRONMENTAL STATUS REPORT UNDER THE WATER (PREVENTION & CONTROL OF POLLUTION) ACT, 1974

It is a statutory responsibility of every industry to operate its plant in an environment friendly manner. The units have to work as per the norms laid down under various environmental laws. The effluent coming out of the plants shall be treated properly before its discharge into the environment. The compliance of the Acts is checked through on site visits by concerned officers of the Board. During the visit they inspect the status of effluent treatment plant and disposal of treated effluent of the industries and municipal corporations/councils.

The quality of river water in Kolhapur and Sangli districts is monitored under GEMS, MINARS, Water Quality Model. There are four such points in Sangli and Kolhapur districts. There is no such kind of monitoring point in Ratnagiri and Sindhudurg districts. Water quality is also assessed by collecting LES as and when required and also on the receipt of complaints.

ENVIRONMENTAL QUALITY :

RIVER MONITORING:

During the monitoring of the river Panchaganga at Shirol, the B.O.D. levels are observed increased at Shirol and Ichalkaranji. It is due to mixing of untreated/partially treated domestic sewage into river from Kolhapur and Ichalkaranji cities. The water quality is also observed contaminated due to micro biological parameters.

The problem is felt during the summer when there is lean flow in the river and the problem of pollution goes critical. This results in severe reactions from the citizens of the Kolhapur and Ichalkaranji cities like agitations, rasta roko etc. With the release of the water from dams, the river water gets diluted.

It is observed that the raw water of the Panchaganga river at down stream of Kolhapur is not fit for drinking. It is supposed to be further treated before using it for drinking purpose. The water of Krishna river is also observed contaminated in case of the B.O.D. which is not conforming to the All zone. It might be due to mixing of sewage of villages located in the vicinity of river Krishna. The Krishna river is also observed marginally polluted for parameter B.O.D at Rajapur, Kurundwad and upstream of Sangli city where BOD is observed within the range of 5 to 9.

RIVER WATER QUALITY MONITORING STATIONS

RIVER WATER QUALITY MONITORING STATIONS IN THE REGION - GEMS,
MINARS & OTHERS-

1. **GEMS** -

Krishna river at Maigad, Sangli - Monthly.

2. **MINARS** -

(i) Panchaganga river at Ichalkaranji - Quarterly.

(ii) Krishna river at Rajapur - Monthly.

(iii) Krishna river at Kurundwad - Monthly.

3. **Water Quality Model** -

(i) Panchaganga river at Shirol - Monthly.

- ❖ The water quality on all above points are contaminated with micro-biological parameters.
- ❖ The Panchaganga river is polluted at Ichalkaranji and Shirol due to mixing of domestic sewage and industrial treated/under treated effluent.
- ❖ Only 9 parameters are analysed, viz., Temperature, pH, Turbidity, D.O., B.O.D., Total Coliform, Fecal Coliform, Nitrite and Nitrate.
- ❖ Only BOD was observed above stipulated limits of All class of river

LIST OF RIVER WATER SAMPLING STATIONS.

Kolhapur District

1. Krishna River water at Rajapur (20516) MINARS
2. Krishna River water at Kurundwad (20515) MINARS
3. Panchaganga River Water at Shirol (20513) WQM
4. Panchaganga River Water at Balinga U/S Kolhapur
5. Panchaganga River Water at NH-4 Bridge D/S Kolhapur
6. Panchaganga River water at Ichalkaranji (920511)

Sangli District

7. Krishna River water at Maighat, Sangli (20488) GEMS
8. Krishna River water at Walwa (1906) MINARS

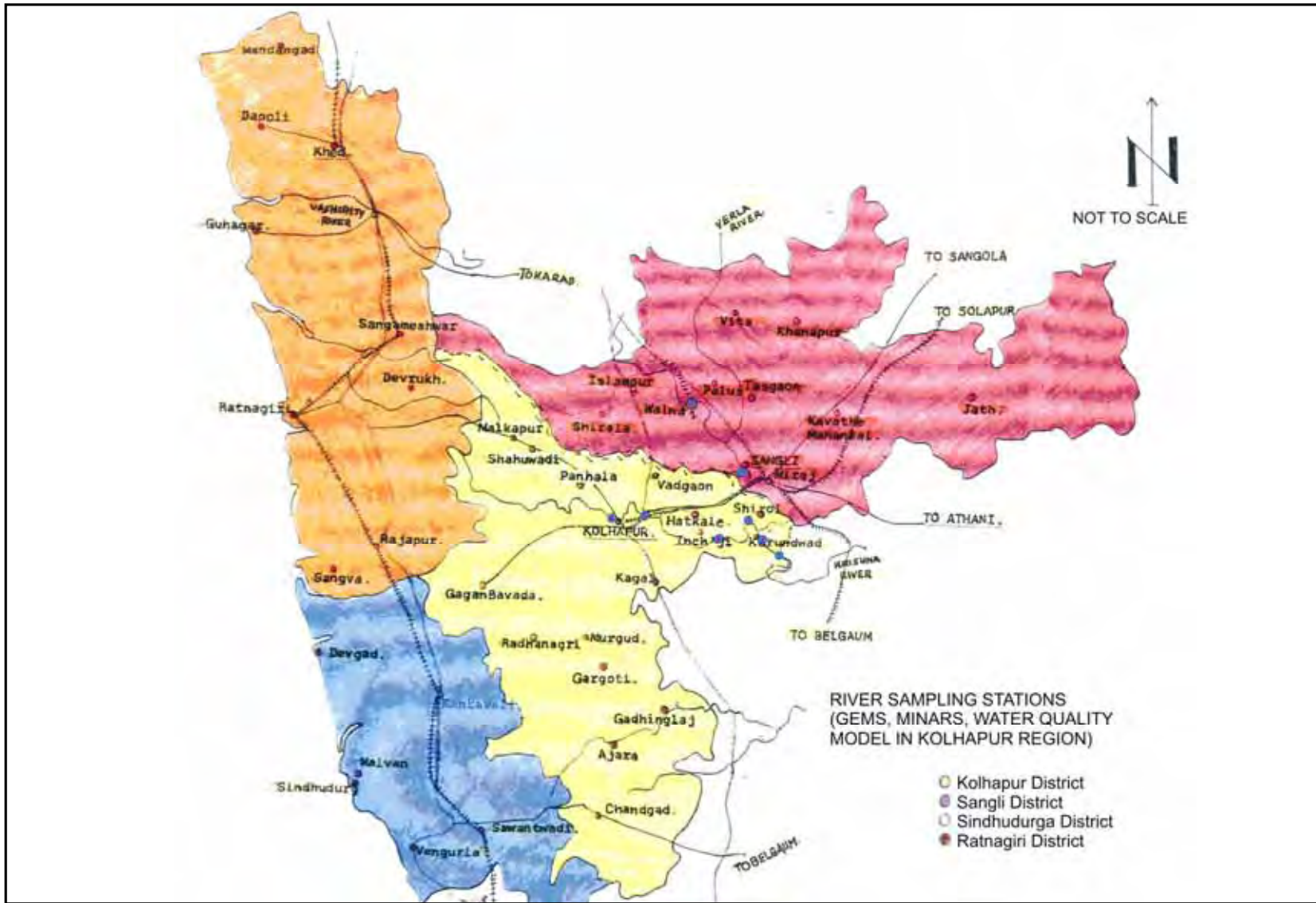


TABLE No. 1 MINARS – 20516

ANALYSIS RESULTS OF KRISHNA RIVER WATER AT RAJAPUR

Sr. No.	Parameters	April 2004	June 2004	July 2004	Aug 2004	Sep 2004	Oct 2004	Nov 2004	Dec 2004	Jan 2005	Feb 2005	March 2005
1	Temperature	23.5 °C	23 °C	21 °C	19 °C	19.5 °C	19.5 °C	22 °C	--	--	--	34 °C
2	pH	7.2	7.5	7.10	7.36	7.13	8.1	8.2	8.2	8.2	8.3	8.5
3	D.O.	6.1	4.2	6.8	6.8	6.4	6.8	5.9	8.0	7.5	6.9	7.0
4	B.O.D.	4.0	5.0	6.5	6.5	5.4	6.0	6.2	6.0	4.2	4.6	4.8
5	Conductivity	420	460	164	88.8	100.0	358	925.6	697.7	407.9	469.2	502.0
6	Coliform fecal	4.0	9.0	7.0	7.0	14.0	8.0	14.0	30.0	20.0	9.0	4.0
7	Total coliform	175	225	225	225	250	200	275	350	275	275	170.0
8	Nitrate	1.202	1.91	2.04	0.324	0.570	1.11	3.1	3.8	0.8	3.4	1.4
9	Nitrite	0.042	0.015	0.055	0.012	0.015	0.117	0.0257	0.088	0.162	0.176	0.098

TABLE No. 2 MINARS – 20515

ANALYSIS RESULTS OF KRISHNA RIVER WATER AT KURUNDWAD

Sr. No.	Parameters	April 2004	June 2004	July 2004	Aug 2004	Sep 2004	Oct 2004	Nov 2004	Dec 2004	Jan 2005	Feb 2005	March 2005
1	Temperature	23 °C	23.5 °C	20 °C	19 °C	19 °C	19 °C	22 °C	22 °C	19 °C	21 °C	32 °C
2	pH	7.2	8.0	7.08	7.42	6.79	8.17	8.4	8.2	7.3	8.2	8.4
3	D.O.	6.70	5.6	5.9	7.0	5.7	6.5	5.2	8.6	6.9	8.0	6.8
4	B.O.D.	4.0	4.0	7.5	5.5	5.6	6.4	5.6	5.8	5.0	4.2	6.0
5	Conductivity	410	420	175	90	166	439.2	911	711.1	414.2	474.1	459.7
6	Coliform fecal	4.0	6.0	8.0	8.0	25.0	6.0	17	25	30	6.0	13
7	Total coliform	170	175	250	200	275	250	275	350	550	175	550
8	Nitrate	1.3938	1.66	2.22	0.371	0.610	1.242	3.2	4.0	0.8	2.1	1.19
9	Nitrite	0.0276	0.018	0.073	0.011	0.019	0.088	0.814	0.103	0.191	0.206	0.165

TABLE No. 3 MINARS – 20511

ANALYSIS RESULTS OF PANCHAGANGA RIVER WATER AT ICHALKARANJI GANAPATI GHAT

Sr. No.	Parameters	March 2004	April 2004	May 2004	June 2004	July 2004	Aug 2004	Sep 2004	Oct 2004	Nov 2004	Dec 2004	Jan 2005
1	Temperature	--	24 °C	--	--	20 °C	--	--	19.5 °C	--	--	19 °C
2	pH	--	7.4	--	--	7.18	--	--	8.12	--	--	6.8
3	D.O.	--	6.2	--	--	6.8	--	--	7.0	--	--	6.3
4	B.O.D.	--	3.0	--	--	6.0	--	--	6.2	--	--	5.4
5	Conductivity	--	260	--	--	115	--	--	243	--	--	408
6	Coliform fecal	--	8.0	--	--	7.0	--	--	14.0	--	--	220
7	Total coliform	--	275	--	--	200	--	--	350	--	--	350
8	Nitrate	--	1.4847	--	--	3.1	--	--	1.224	--	--	---
9	Nitrite	--	0.0788	--	--	0.05	--	--	0.132	--	--	0.419

* quarterly monitoring

TABLE No. 4 : MINARS – 20513
ANALYSIS RESULTS OF PANCHAGANGA RIVER WATER AT SHIROL

Sr. No.	Parameters	April 2004	May 2004	June 2004	July 2004	Aug 2004	Sep 2004	Oct 2004	Nov 2004	Dec 2004	Jan 2005	Feb 2005	Mar 2005
1	pH	7.6	6.6	NA	7.48	NA	7.18	8.06	8.4	8.0	7.4	7.7	6.9
3	D.O.	5.7	4.5	--	6.6	--	6.5	6.8	4.6	4.0	5.8	5.6	6.7
4	B.O.D.	4.0	8.0	--	7.0	--	8.00	8.0	13.0	8.0	9.0	9	5
5	Conductivity	530	97	--	129	--	160	341.0	1078.0	675.0	108.0	448.0	447.2
6	Coliform fecal	--	--	--	--	--	--	--	--		--	--	--
7	S.S.	22.0	17.0	--	13.0	-	18.0	28.0	20.0	20.0	19.0	20	16
8	Nitrite	0.032	0.014	--	0.031	--	0.056	0.078	0.001	0.018	0.34	0.009	0.12
9	Nitrate	2.15	0.454	--	1.911	--	0.770	1.206	3.2	1.6	0.004	1.5	1.624

TABLE No. 5

ANALYSIS RESULTS OF PANCHAGANGA RIVER WATER AT UPSTREAM OF KOLHAPUR NEAR BALINGA

Sr. No.	Parameters	June 2004	July 2004	Aug 2004	Sep 2004	Oct 2004	Nov 2004	Dec 2004	Jan 2004	Feb 2005	March 2005
1	Temperature	22 °C	19 °C	19 °C	--	19 °C	24 °C	24 °C	21 °C	18 °C	30 °C
2	pH	7.1	7.24	7.42	--	7.8	7.5	7.6	7.8	7.5	7.9
3	D.O.	5.4	7.0	6.9	--	6.7	6.5	7.9	7.4	6.9	6.8
4	B.O.D.	5.0	6.0	6.5	--	6.2	6.4	6.8	6.6	5.6	6
5	Conductivity	360	104	95	--	137	97.5	87.8	78.8	153.7	60.2
6	Coliform fecal	8	12	11	--	8	35	14	14	4.0	20.0
7	Total coliform	200	275	250	--	250	250	170	350	130	900
8	Nitrate	3.33	2.85	0.212	--	1.824	0.5	0.7	0.2	0.8	0.364
9	Nitrite	0.252	0.087	0.008	--	0.154	--	0.132	0.147	--	--

*Monitoring started from June regularly.

TABLE No. 6
ANALYSIS RESULTS OF PANCHAGANGA RIVER WATER AT DOWNSTREAM OF KOLHAPUR NEAR
N.H. 4 BRIDGE

Sr. No.	Parameters	June 2004	July 2004	Aug 2004	Sep 2004	Oct 2004	Nov 2004	Dec 2004	Jan 2005	Feb 2005	March 2005
1	Temperature	22 °C	20 °C	18 °C	NA	19 °C	24 °C	29°C	21°C	18°C	31 °C
2	pH	7.1	7.25	7.39	--	7.8	7.1	7.3	7.2	6.1	7.7
3	D.O.	5.6	6.9	7.0	--	6.2	6.1	7.4	5.9	6.9	6.7
4	B.O.D.	4.0	7.0	5.0	--	6.6	6.8	7.0	7.2	5.8	5.5
5	Conductivity	360	105	91.5	--	137	186.9	131.4	208.7	180.6	155.2
6	Coliform fecal	12	14	12	--	8	35	17	35	35	20.0
7	Total coliform	250	350	275	--	225	350	225	425	225	900
8	Nitrate	2.80	3.03	0.280	--	1.90	3.2	1.2	1.0	2.0	2.53
9	Nitrite	0.43	0.009	0.009	--	0.073	--	0.221	0.676	0.25	0.144

*Monitoring started from June regularly

TABLE No. 7 GEMS – 20488

ANALYSIS RESULTS OF KRISHNA RIVER WATER SAMPLES (MAI GHAT GEMS 20488)

Sr. No.	Parameters	April 04	May 04	June 04	July 04	Aug. 04	Sept. 04	Oct. 04	Nov. 04	Dec, 04	Jan, 05	Feb, 05	Mar, 05
1	pH	7.9	7.9	7.9	7.69	7.88	7.86	8.27	8.4	8.1	8.2	8.0	8.7
2	B.O.D.	5.0	7.0	4.0	6.0	5.5	5.0	5.4	6.4	6.4	5.0	5.6	5
3	D. O.	5.7	5.6	6.4	7.3	6.9	6.6	7.0	6.7	7.9	7.7	5.4	6.7
4	C.O.D.	--	--	36	--	--	--	--	--	--	--	--	
5	Turbidity (NTU)	--	--	8.14	----	----	--	-	-	--	--	--	
6	Chlorides	--	--	40	--	--	--	--	--	--	--	--	
7	Hardness	--	--	116	--	--	--	--	--	--	--	--	
8	Sulphates	--	--	56.2	--	--	--	--	--	--	--	--	
9	TDS	--	--	368	--	--	--	--	--	--	--	--	
10	TSS	--	--	28	--	--	--	--	--	--	--	--	

TABLE No. 8 MINARS – 1906

ANALYSIS RESULTS OF KRISHNA RIVER WATER SAMPLES D/S OF ISLAMPUR (MINARS-1906)

Sr. No.	Parameters	Aug. 04	Sept. 04	Oct. 04	Nov. 04	Dec 04	Jan 05	Feb 05	Mar, 05
1	pH	7.87	7.87	8.35	8.4	8.1	8.1	8.0	8.2
2	B.O.D.	8.0	4.8	5.6	7.8	6.6	6.0	6.0	5.6
3	D. O.	6.9	6.9	7.0	7.0	7.7	7.5	5.3	7.1

(Note: All parameters except pH are in mg/lit.)

ANALYSIS RESULTS OF PANCHAGANGA RIVER WATER AT UP STREAM OF KOLHAPUR NEAR BALINGA

Sr. No.	Parameters	June 2004	July 2004	Aug 2004	Sep 2004	Oct 2004	Nov 2004	Dec 2004	Jan 2004	Feb 2005	March 2005
1	Temperature	22 °C	19 °C	19 °C	--	19 °C	24 °C	24 °C	21 °C	18 °C	30 °C
2	pH	7.1	7.24	7.42	--	7.8	7.5	7.6	7.8	7.5	7.9
3	D.O.	5.4	7.0	6.9	--	6.7	6.5	7.9	7.4	6.9	6.8
4	B.O.D.	5.0	6.0	6.5	--	6.2	6.4	6.8	6.6	5.6	6
5	Conductivity	360	104	95	--	137	97.5	87.8	78.8	153.7	60.2
6	Coliform fecal	8	12	11	--	8	35	14	14	4.0	20.0
7	Total coliform	200	275	250	--	250	250	170	350	130	900
8	Nitrate	3.33	2.85	0.212	--	1.824	0.5	0.7	0.2	0.8	0.364
9	Nitrite	0.252	0.087	0.008	--	0.154	--	0.132	0.147	--	--

*Monitoring started from June regularly.

GROUND WATER RESULTS 2005. (S.R.O. CHIPLUN AREA)

Sampling date	31-1-2005	31-1-2005	28-02-2005	28-02-2005	31-03-2005	31-03-2005	25-04-2005	25-04-2005
Parameters	Arkatewadi Masjid	Arkatewadi Mohalla	Arkatewadi Masjid	Arkatewadi Mohalla	Arkatewadi Masjid	Arkatewadi Mohalla	Arkatewadi Masjid	Arkatewadi Mohalla
pH	7.34	7.22	7.96	7.31	7.36	7.26	7.56	7.87
D.O.	6.50	6.9	6.5	6.6	---	--	--	--
B.O.D.	2.00	1.4	1.6	1.4	1.5	2.6	2	2
C.O.D.	16.0	20.0	8	12	16	32	16	12
Suspended Solids	28.0	14.0	20	18	9	6	14	16
Hardness	54.0	58.0	84	58	116	58	136	130
T.D.S.	196.0	149.0	293	224	290	142	843	440
Total Alkalinity	32.0	24.0	30	20	26	26	86	84
Chlorids	19.0	14.0	47	18	98	14	128	16
Sulphate	8.0	1.0	6	1	4	1	4	4
Oil & Grease	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.
Phosphate	---	--	---	--	--	--	---	--
Magnesium	9.1	10.3	14	10.1	19	9.5		
Calcium	17.6	16.8	28	17.6	40	20		
Turbidity								
R. Chloride								

LOTE PARSHURAM ENVIRONMENT PROTECTION CO.OP. SOCIETY (CETP RESULTS)

Sampling date	Cosent-ed limits	21-7-04	10-8-04	14-09-04	06-10-04	04-11-04	07-12-04	31-12-04	18-01-05	24-02-05	16-03-05	02-04-05	12-04-05
Parameters		Treated	Treated	Treated	Treated	Treated	Treated	Treated	Treated	Treated	Treated	Treated	Treated
pH	6.5 to 9	7.73	7.82	7.45	7.9	7.65	8.28	8.53	8.11	8.33	8.34	8.14	8.96
B.O.D.	100	540	800	1250	1550	2400	8400	1750	2050	--	2550	1150	2750
C.O.D.	250	2112	2448	3200	5600	3200	10400	5360	3120	7920	6880	2240	7200
Suspended solids	100	416	390	380	286	188	394	298	268	210	904	1150	1740
Sulphates	1000	--	--	--	1350	1440	5450	2580	2050	1800	1740	1600	1740
Oil & Grease	20	24	32.2	18.2	28.4	10.80	17.8	17	30	51	14	50	39.6
Phenolic Compo.	5	--	--	--	--	--	0.308	0.59	0.209	0.35	---	---	---
T.D.S.	2100	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	2	--	--	--	1.3	0.02	--	0.35	0.45	0.4	0.07	---	--
Chlorids	600	--	--	--	6450	7800	10250	5500	11500	920	8700	10575	13250
Phosphate		--	--	--	0.57	--	--	--	--	--	--	--	--
Iron	3	--	--	--	--	1.6	--	0.06	0.2	0.07	0.50	--	--
Zinc	15	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyanide	0.2	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	--	--	--	--	--	--	--	--	--	--	0.296	--	--

KARAMBAVANE CREEK SAMPLING RESULTS 2004-2005

Sampling date	28.4.04	11.5.04	15.6.04	19.7.04	21.8.0	28.10.04	24.11.04	29.01.05	7.2.05	28.3.04
PARAMETERS										
pH	7.7	7.1	6.9	7.7	8.0	7.03	7.8	6.99	7.10	7.65
D.O.	5.8	5.2	6.0	8.0	Nil	5.1	Nil	6.8	7.2	7.0
B.O.D.	3.0	8.0	4.0	6.0	3.2	5.4	7	2.0	2.8	2.4
C.O.D.	24.0	64.0	36.0	20.0	40.0	48.0	28.0	44.0	48.0	48
Suspended Solids.	12.0	22.0	32.0	10.0	25.0	22.0	18	28.0	24.0	60.0
Hardness	360	--	12	BDL	40	138	--	484	560	1270
T.D.S.	2116	710	104	115	240	700	--	3337	10165	14318
Chlorides	1210	292	33	42	19	337	--	1560	3950	7175
Sulphates	107	58	6.0	2.0	8.0	38.0	--	111	122	185
Oil & Grease	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phospet	---	---	---	---	---	NIL	---	0.02	1.2	---
Magnecium	79.3	---	---	---	---	---	---	---	---	---
Calcium	33.0	---	---	---	---	---	---	---	---	---
Alkalinity	32.0	---	44	58	64	12	---	16	10	14
Iron	---	---	---	BDL	---	---	---	---	---	0.25
Turbidity(NTU)	---	---	---	---	---	---	---	4.33	2.67	---
Conductivity	---	---	---	---	---	---	---	0.681	1.2	176
Arsenic	---	---	---	---	---	---	---	---	---	---

VASHISTI RIVER U/S AND D/S OF THREE M PAPER MILL WATER SAMPLING RESULTS – 2005

Sampling date	4-1-05	4-1-05	1-2-05	1-2-05	21-3-05	21-3-05	16-4-05	16-4-05
PARAMETER	U/S	D/S	U/S	D/S	U/S	D/S	U/S	D/S
pH	7.54	7.8	7.10	6.78	7.40	7.25	7.38	7.36
D.O.	7.5	7.3	7.1	5.6	7.2	7	7.3	7.0
B.O.D.	2	2.4	2	2.8	1.8	2	1.8	2.0
C.O.D.	48	64	16	24	16	20	12	20.0
Suspended Solids	24	28	12	16	14	16	12	15.0
Hardness	NIL	18	10	30	15	15	10	9.0
T.D.S.	146	140	182	118	82	108	138	148.0
Total Alkalinity	14	12	14	14	12	8	34	42.0
Chlorids	13	15	31	19	12	15	12	13.0
Sulphate	4	NIL	1	9	1	1	2	2.0
Oil & Grease	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phosphate	--	--	--	--	0.0013	0.0011	0.1	0.1
Magnesium	--	--	--	--	--	--	--	--
Calcium	7.3	6.4	8.8	10.4	--	--	--	--
Turbidity	--	--	--	--	--	--	--	--
TAN	--	--	0.02	0.02	--	--	--	--

KETKI BANDER CREEK SAMPLING RESULTS 2004-05.

Sampling date	15-3-04	28-4-04	11-5-04	29-1-05	7-2-05	28-3-05	19-4-05
PARAMETERS							
pH	8.3	7.7	7.3	7.3	7.03	7.55	8.04
D.O.	6.8	5.7	5.4	7.0	7.1	6.7	7.2
B.O.D.	2.0	4.0	3.4	2.6	1.8	2.8	1.8
C.O.D.	12.0	24.0	48.0	48.0	84.0	56.0	40.0
Suspended Solids.	--	10.0	24.0	30.0	26.0	50.0	56.0
Hardness	364.0	128.0	--	500.0	740.0	1250.0	880.0
T.D.S.	2216.0	2132.0	796.0	4098.0	10234.0	10202.0	6660.0
Chlorides	1240.0	1100.0	225.0	1455.0	5500.0	4550.0	3750.0
Sulphates	95.0	103.0	58.0	109.0	675.0	182.0	185.0
Oil & Grease	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phospet	--	--	--	0.0	1.3	--	--
Magnecium	--	17.66	--	--	--	--	--
Calcium	--	54.4	--	--	--	--	--
Alkalinity	66.0	52.0	--	16.0	16.0	14.0	44.0
Iron	--	--	--	--	--	0.2	0.2
Turbidity(NTU)	--	--	--	2.47	2.05	---	---
Conductivity	--	--	--	0.593	5.5	735.0	1360.0
Chromium	--	--	--	--	--	BDL	BDL
Arsenic	--	--	--	--	--	--	--

WELL WATER MR. VADIYA NO. 2 BRAMONWADI ANJANWEL

Sampling date	29-1-05	7-2-05	21-3-05
PARAMETERS			
pH	7.20	7	7.40
D.O.	6.7	6.3	6.1
B.O.D.	1.6	1.8	2.0
C.O.D.	20.0	12.0	20.0
Suspended Solids.	--	--	38.0
Hardness	6.0	11.0	18.0
T.D.S.	124.0	106.0	176.0
Total Alkalinity	12.0	10.0	10.0
Chlorides	17.0	21.0	22.0
Sulphates	1.0	1.0	1.0
Oil & Grease	BDL	BDL	BDL
Phospet	0.10	0.02	0.0014
Magnecium	--	--	--
Calcium	--	--	--
Iron	0.05	0.48	0.28
Turbidity(NTU)	0.16	10.0	20.0

WATER Mr.VADIYA NO. 1 BRAMONWADI ANJANWEL

Sampling date	29-1-05	7-2-05	21-3-05	19-4-05
PARAMETERS				
pH	7.18	6.97	7.71	6.20
D.O.	6.6	6.1	6.2	6.2
B.O.D.	1.4	2.8	1.8	1.8
C.O.D.	24.0	20.0	16.0	20
Suspended Solids.	--	--	26.0	9
Hardness	20.0	10.0	19.0	8
T.D.S.	103.0	131.0	136.0	161
Total Alkalinity	10.0	6.0	12.0	34
Chlorides	17.0	19.0	21.0	26
Sulphates	2.0	2.0	1.0	2
Oil & Grease	BDL	BDL	BDL	BDL
Phospet	0.08	NIL	0.0013	0.1
Magnecium	---	---	---	---
Calcium	---	---	---	---
Iron	0.13	0.20	0.26	1.92
Conductivity	9.43	10.6	13.00	17

CHAPTER 8

RANDOM AIR/NOISE MONITORING

AIR QUALITY MONITORING

AAQM Results 2004-05

Sr. No.	Name of the City	Name of sampling station	Class of Area	No. of Sample of analysed in the Quarter	Air Quality Status											
					So2 (ug/m3)			Nox (ug/m3)			SPM (ug/m3)			RSPM (ug/m3)		
					Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.
1	LOTE	Primary School (Awasi)		1 (I st Quarter)	02	312	157.0	11.12	20.0	15.56	38.75	101.0	69.875	---	29.92	29.92
				2 (II nd Quarter)	4.62	9.68	6.77	20.16	41.14	28.57	79.011	259.083	146.10	42.75	254.05	120.64
				3 (III rd Quarter)	7.27	9.7	8.47	12.07	27.71	19.34	98.17	184.12	135.82	98.17	184.12	135.82
2	LOTE	Gharda R & D Gate		1 (I st Quarter)	2.0	3.0	3.5	19.0	20.0	19.5	--	--	--	109	101	105
				2 (II nd Quarter)	6.30	10.26	8.28	12.68	26.51	19.59	50.35	237.21	143.78	30.28	228.5	129.30
				3 (III rd Quarter)	5.83	11.90	8.865	24.27	28.50	26.385	133.69	166.93	150.31	--	--	--
3	LOTE	Excel Main Gate		1 (I st Quarter)	2.0	2.0	1.33	23.00	26.0	18.34	26.98	105.0	65.99	26.19	93.0	51.73
				2 (II nd Quarter)	3.47	9.10	6.285	12.11	20.2	16.065	160.48	493.95	372.215	98.83	482.05	290.44
				3 (III rd Quarter)	7.93	21.82	14.87	18.84	23.61	21.22	217.79	314.88	266.33	--	--	--
4	LOTE	WTP MIDC Parshuram		1 (I st Quarter)	2.0	2.0	1.33	11.00	22.0	17.05	223.0	447.00	313.94	79.56	286.00	156.18
				2 (II nd Quarter)	5.20	11.35	8.275	18.16	19.47	18.815	29.513	225.5	127.50	2.7992	14.236	8.5176
				3 (III rd Quarter)	10.41	27.11	18.76	23.26	45.10	34.18	88.55	215.79	152.17	69.77	84.02	76.895

AMBIENT AIR QUALITY DATA FOR SO2 AND NOX MONITORED BY DEPT. OF ENVIRONMENTAL SCIENCE, SHIVAJI UNIVERSITY, KOLHAPUR

Sampling location address : Mahadwar Road, Near Mahalaxmi Temple, Kolhapur.

City: Kolhapur

State: Maharashtra

Station Code:

Station type: Residential and commercial

Month April

Year 2005

SO2										NOX										
Sr. No	Hrs.							4 Hrs	24 Hrs							4 Hrs	24 Hrs	Weath-er condit ion	RSPM	SPM
	Date	06_10	10_14	14_18	18_22	22_02	02_06	Max	Avg	06_10	10_14	14_18	18_22	22_02	02_06	Max	Avg	Condition		
1	13/4 /05	*	5.68	BDL	BDL	BDL	BDL	5.68	2.73	*	34.8	14.53	25.5	17.1	17.4	34.8	21.86	Cloudy	77.31	165.18
2	16/4 /05	*	BDL	BDL	BDL	BDL	BDL	2	2	*	15.5	10.54	13.6	10.4	9	15.5	11.81	Cloudy	54.03	138.51

Remarks - * The blank spaces indicate non availability of data due to power or instrument failure.

“AMBIENT AIR QUALITY MONITORING STATIONS AT KOLHAPUR CITY”

Period: 28 March to 02 April 2005

Station I: University Campus Type: Residential

Sr. No.	Date	SO ₂ (ug/m ³)	NO _x (ug/m ³)	RSPM (ug/m ³)	SPM (ug/m ³)
01	28.03.2005	02.37	05.61	55.43	120.33
02	31.03.2005	01.05	03.39	41.65	79.48
Average		1.71	4.50	48.54	99.90

Station II: Dabholkar Corner Type: Commercial & Residential

Sr. No.	Date	SO ₂ (ug/m ³)	NO _x (ug/m ³)	RSPM (ug/m ³)	SPM (ug/m ³)
01	29.03.2005	5.60	19.08	113.86	302.46
02	01.04.2005	10.96	25.73	77.05	181.60
Average		8.28	22.40	95.45	242.03

Station III: Mahadwar Road Type: Commercial & Residential

Sr. No.	Date	SO ₂ (ug/m ³)	NO _x (ug/m ³)	RSPM (ug/m ³)	SPM (ug/m ³)
01	30.03.2005	3.71	7.50	71.85	138.95
02	02.04.2005	6.19	7.85	63.54	128.69
Average		4.95	7.68	67.69	133.82

KOLHAPUR CITY AVERAGE

Sr. No.	Site name	SO ₂ (ug/m ³)	NO _x (ug/m ³)	RSPM (ug/m ³)	SPM (ug/m ³)
01	University Campus	1.71	4.50	48.54	99.90
02	Dabholkar Corner	8.28	22.40	95.45	242.03
03	Mahadwar Road	4.95	7.68	67.69	133.82
Kolhapur City Average		4.98	11.52	70.56	158.58

AMBIENT AIR QUALITY DATA FOR SO2 AND NOX MONITORED BY DEPT. OF ENVIRONMENTAL SCIENCE, SHIVAJI UNIVERSITY, KOLHAPUR

Sampling location address : Mahadwar Road, Near Mahalaxmi Temple, Kolhapur.

City: Kolhapur
State: Maharashtra
Station Code:

Station type: Residential and commercial

Month April

Year 2005

SO2 (ug/m3)										NOX (ug/m3)											
Sr. No	Hrs.							4 Hrs	24 Hrs								4 Hrs	24 Hrs	Weather condition	RSPM (ug/m3)	SPM (ug/m3)
	Date	06_10	10_14	14_18	18_22	22_02	02_06	Max	Avg	06_10	10_14	14_18	18_22	22_02	02_06	Max	Avg	Condition			
1	13/4/05	*	5.68	BDL	BDL	BDL	BDL	5.68	2.73	*	34.8	14.53	25.5	17.1	17.4	34.8	21.86	Cloudy	77.31	165.18	
2	16/4/05	*	BDL	BDL	BDL	BDL	BDL	2	2	*	15.5	10.54	13.6	10.4	9	15.5	11.81	Cloudy	54.03	138.51	

Remarks - * The blank spaces indicate non availability of data due to power or instrument failure.

AMBIENT AIR QUALITY DATA FOR SO2 AND NOX MONITORED BY DEPT. OF ENVIRONMENTAL SCIENCE, SHIVAJI UNIVERSITY, KOLHAPUR

Sampling location address : University campus, Shivaji University, Kolhapur.

City: Kolhapur
State: Maharashtra

Station Code:

Station type: Residential

Month April

Year 2005

SO2 (ug/m3)										NOX (ug/m3)											
Sr. No	Hrs.							4 Hrs	24 Hrs								4 Hrs	24 Hrs	Weath-er condition	RSPM (ug/m3)	SPM (ug/m3)
	Date	06_10	10_14	14_18	18_22	22_02	02_06	Max	Avg	06_10	10_14	14_18	18_22	22_02	02_06	Max	Avg	Condition			
1	18/4/05	BDL	5.02	BDL	4.55	4.46	4.68	5.02	3.78	10.23	BDL	BDL	16.59	11.7	13.6	13.6	10.18	Clear	50.48	105.31	
2	21/4/05	*	BDL	BDL	BDL	BDL	BDL	2	2	*	9.81	12.09	BDL	BDL	BDL	12.1	7.08	Cloudy	44.44	109.71	

Remarks - * The blank spaces indicate non availability of data due to power or instrument failure.

AMBIENT AIR QUALITY DATA FOR SO2 AND NOX MONITORED BY DEPT. OF ENVIRONMENTAL SCIENCE, SHIVAJI UNIVERSITY, KOLHAPUR

Sampling location address : Mahadwar Road, Near Mahalaxmi Temple, Kolhapur.

City: Kolhapur

State: Maharashtra

Station Code:

Station type: Residential and commercial

Month April

Year 2005

SO2 (ug/m3)										NOX (ug/m3)										
Sr. No	Hrs.							4 Hrs	24 Hrs							4 Hrs	24 Hrs	Weath-er condit- ion	RSPM (ug/m3)	SPM (ug/m3)
	Date	06_10	10_14	14_18	18_22	22_02	02_06	Max	Avg	06_10	10_14	14_18	18_22	22_02	02_06	Max	Avg	Condition		
1	27/4 /05	*	6.35	6.02	4.01	BDL	BDL	6.35	4.07	*	22.93	15	14.22	11.45	13.81	22.9	15.49	Clear	47.45	160.64
2	30/4 /05	*	BDL	4.26	BDL	BDL	BDL	4.26	2.45	*	15.55	26.1	14.53	25.48	16.48	26.1	19.28	Clear	58.79	136.1

Remarks - * The blank spaces indicate non availability of data due to power or instrument failure.

B) WATER ANALYSIS RESULTS BEFORE AND AFTER GANESH FESTIVAL 2004 IN KOLHAPUR REGION

SUB REGION KOLHAPUR															
Sr. No.	Parameters	Rankala Lake at Kolhapur (1495)		Panchaganga River Water U/S of Rajaram Bandhara (1496)		Panchaganga River Water D/S of Rajaram Bandhara (1497)		Panchaganga river water at Shivaji Bridge U/S Kop. (1498)		Panchaganga River Water at Shivaji Bridge D/S (1499)		Panchaganga River Water at NH4 Bridge Kop U/S (1500)		Panchaganga River Water at NH4 Bridge Kop D/S (1501)	
		Before Ganesh Festival	After Ganesh Festival	Before Ganesh Festival	After Ganesh Festival	Before Ganesh Festival	After Ganesh Festival	Before Ganesh Festival	After Ganesh Festival	Before Ganesh Festival	After Ganesh Festival	Before Ganesh Festival	After Ganesh Festival	Before Ganesh Festival	After Ganesh Festival
1.	pH		7.54		7.37		7.38		7.32		6.95		7.23		7.26
2.	BOD 3 days 27°C		2.2		1.8		2.0		2.0		2.0		2.0		2.6
3.	COD		24		16		20		16		28		16		28
4.	Suspended Solids		22		20		22		24		28		20		24
5.	Chloride		90		22		24		25		24		25		23
6.	Sulphate		21		4		7		3		9		3		4
7.	Total Dissolved Solids		480		--		168		180		166		148		176
8.	Oil & Grease		BDL		BDL		BDL		BDL		BDL		BDL		BDL

SUB REGION RATNAGIRI

Sr. No.	Parameters	Bhagavati Mandir		Mandavi Bridge		White Sea	
		Before Ganesh Festival	After Ganesh Festival	Before Ganesh Festival	After Ganesh Festival	Before Ganesh Festival	After Ganesh Festival
1.	pH	7.71	7.98	7.76	7.92	6.93	8.0
2.	Dissolved Oxygen		6.2		6.3		6.4
3.	BOD 3 days 27°C	3.2	1.4	2.4	1.6	825	2.0
4.	C.O.D.	280	172	320	196	2400	156
5.	Suspended Solids	22	26	30	22	86	36
6.	Hardness	7100	1085	5760	1705	7300	1440
7.	Magnesium		245.25		396.25		337
8.	Total Alkalinity		220		180		200
9.	Chloride	19500	4975	18950	5100	32200	4625
10.	Sulphate	930	164	1050	164	970	158
11.	Total Dissolved Solids	30460	14280	29960	11840	47790	12480
12.	Oil & Grease	BDL	BDL	BDL	BDL	BDL	BDL

SUB REGION SANGLI

Sr. No.	Parameters	Analysis results of Krishna River Water	
		Before Ganesh Festival	After Ganesh Festival
1.	pH	6.75	9.55
2.	BOD	2.6	2.2
3.	COD	32	24
4.	S.S.	22	28
5.	T.D.S.	372	540
6.	Oil & Grease	BDL	BDL
7.	Chlorides	65	61
8.	Sulphates	40	54
9.	Cal.	48.8	77.6
10.	Manganese	42.8	32.6
11.	Hardness	220	208

SUB REGION CHIPLUN

Sr. No.	Parameters	Analysis results of Vashisti River D/S of M/s Three M Paper Mfg. Co. Pvt. Ltd.	
		Before Ganesh Festival	After Ganesh Festival
1.	pH		7.6
2.	BOD 3 days 27°C		2.8
3.	C.O.D.		28
4.	S.S.		24
5.	Hardness		44
6.	Oil & Grease		BDL
7.	Chlorides		12
8.	Sulphates		1.0
9.	Total Alkalinity		56
10.	Total Dissolved Solids		138

NOTE - 1. All results are expressed in ppm except pH

2. B.D.L. – Below Detectable Limit.

NOISE MONITORING - RATNAGIRI CITY

(During Diwali Festival)

Noise level (2004-2005)

City	Location	Class ***	Monitoring Period		No. of observations	Noise levels in dBA		
			Date	Time		Min	Max	Avg.
Ratnagiri	1) Collector Office Chowk	Commercial	7-9-04	1.00 am	2	79.0	82.3	80.65
			7-10-04	0.30 pm	2	78.0	84.0	81.0
			10-11-04	10.45 am	6	89.7	90.3	89.8
			28-1-05	21.00 pm	2	86.4	86.4	86.4
	2) Bus stand Ratnagiri	Commercial	7-9-04	1.30 pm	2	79	82.3	80.65
			7-10-04	5.00 pm	2	73	77	75
			10-11-04	11.00 pm	2	89.9	90	90
			28-1-05	21.10 pm	2	89.3	89.3	89.3
	3) Athawadi Bazar	Commercial	10-11-04	11.15	3	90.2	93.8	92.0
	4) Gadital chowk	Commercial	12-11-04 13-11-04	22.30	3	79.1	82.3	80.5
	5) Ram Ali	Commercial	12-11-04 13-11-04	20.30	3	74.1	77.3	75.8
	6) Maruti Mandir chowk	Commercial	12-11-04	22.40	3	86.1	89.3	87.8
13-11-04								
			20.40	3	88.1	90.3	89.2	
			22.50	3	87.1	89.3	88.2	
				20.50	3	90.1	33.3	91.8

Note - *** means industrial, commercial, residential & sensitive.

NOISE MONITORING - CHIPLUN CITY

(During Diwali Festival)

Noise level (2004-2005)

City	Location	Class ***	Monitoring Period		No. of observations	Noise levels in dBA		
			Date	time		Min	Max	Avg.
Chiplun	1) Gadhaval Near nagar Parishad Chiplun	Residential & Commercial	10-11-04	7.00 to 7.15	1	60	75	67.5
			12-11-04	7.00 to 7.15	1	65	85	75
	2)Chinchnaka Shivaji Chowk, Chiplun	Residential & Commercial	10-11-04	19 to 19.15	1	72	88	80
			12-11-04	19.30 to 19.45	1	80	97	88.5
	3) Gandhi Chowk Bazar Peth, Chiplun	Residential & Commercial	10-11-04	7.30 to 7.45	1	63	84	73.5
			12-11-04	8.00 to 8.15	1	80	98	89
	4) Markandi Chiplun	Residential & Commercial	10-11-04	19.00 to 19.30	1	64	86	75
			12-11-04	20.00 to 20.15	1	84	100	92

Note - *** means industrial, commercial, residential & sensitive.

NOISE MONITORING -SANGLI CITY

(During Diwali Festival)

Noise level (2004-2005)

City	Location	Class ***	Monitoring Period		No. of observations	Noise levels in dBA		
			Date	time		Min	Max	Avg.
Sangli	Civil Hospital	Silence	8-2-05	11.30	3	71.5	78.3	75.8
	S.T. Stand	Commercial	8-2-05	12.40	3	75.2	81.6	78.4
	Rajwada Chowk	Commercial	8-2-05	13.35	3	78.5	87.4	82.6
	Vishrambag	Commercial	8-2-05	14.30	3	68.3	73.3	70.8

Note - *** means industrial, commercial, residential & sensitive.

NOISE MONITORING - KOLHAPUR CITY

Table – 11
(During Diwali Festival)

NOISE LEVELS (2004-05)

Sr. No.	Place	Date	Time (Hours)	Before Diwali		Date	Time (Hours)	During Diwali	
				Minimum (dB)	Maximum (dB)			Minimum (dB)	Maximum (dB)
1.	Mahadwar road	09.11.04	Morning	63.0	64.0	12.11.04	Morning	65.0	105.0
			Evening	70.0	72.0		Evening	72.0	122.0
2.	Rajrampuri	09.11.04	Morning	60.0	65.0	12.11.04	Morning	65	105
			Evening	62.0	71.0		Evening	68.0	126.0
3.	Tarabai Park	9.11.04	Morning	52.0	68.0	12.11.04	Morning	58.0	95.0
			Evening	58.0	69.0		Evening	64.0	110.0
4.	Shivaji Peth	9.11.04	Morning	60.0	65.0	12.11.04	Morning	72.0	112.0
			Evening	65.0	70.0		Evening	75.0	120.0
5.	K.M.C. area	9.11.04	Morning	55.0	60.0	12.11.04	Morning	62.0	115.0
			Evening	65.0	68.0		Evening	73.0	120.0
6.	Jawaharnagar	9.11.04	Morning	56.0	61.0	12.11.04	Morning	52.0	104.0
			Evening	62.0	67.0		Evening	66.0	115.0

NOISE LEVELS IN RATNAGIRI CITY DURING NAVARATRI FESTIVAL 2004

Sr. No.	Place	Date	Noise recorded in Nigh dB		
			22 Hrs	22.45 Hrs	13.3 Hrs
1.	Dandiya at Partavane, Near Laxmi Chowk	19.10.04	98.1	98.2	98.7
2.	Dandiya at Partavane, Near Laxmi Chowk	20.10.04	98.2	98.6	98.5
3.	Dandiya at Partavane, Near Laxmi Chowk	21.10.04	98.2	98.2	98.9

NOISE LEVELS MONITORING DURING DIWALI FESTIVAL IN RATNAGIRI CITY 2004

Sr.No.	Commercial area	Date	Time	Noise level Reading 1 in dB	Noise level Reading 2 in dB	Noise level Reading 3 in dB	Average in dB
1.	Gadital Chowk	12/11/04	8.50 p.m.	74.1	76.2	77.3	75.8
2.	Ram Aali	12/11/04	8.40 p.m.	78.1	76.2	74.3	76.2
3.	Maruti Mandir	12.11.04	8.30 p.m.	93.1	92.3	89.4	91.6
1.	Gadital Chowk	12/11/04	9.30 pm	89.1	91.2	78.3	86.2
2.	Ram Aali	12/11/04	9.40 p.m.	75.1	77.2	78.3	76.8
3.	Maruti Mandir	12.11.04	9.50 p.m.	89.1	90.2	91.3	90.2
1.	Gadital Chowk	12/11/04	10.30 pm	79.1	80.2	82.3	80.5
2.	Ram Aali	12/11/04	10.40 pm	86.1	88.2	89.3	87.8
3.	Maruti Mandir	12.11.04	10.50 pm	87.1	88.2	89.3	88.2

NOISE MONITORING – CHIPLUN CITY

(During Diwali Festival)

Sr. No.	Place	Date	Time (Hours)	Before Diwali		Date	Time (Hours)	During Diwali	
				Minimum (dB)	Maximum (dB)			Minimum (dB)	Maximum (dB)
1.	Gadhav Tal, near Chiplun Nagar Parishad Chiplun	10.11.04	7 to 7.15 hrs	60	75	12.11.04	7.00 to 7:15 hrs	65	85
2.	Chinchnaka, Shivaji Chowk, Chiplun	10.11.04	19 to 19:15 hrs	72	88	12.11.04	19:30 hrs to 19:45 hrs	80	97
3.	Gandhi Chowk, Bazar Peth, Chiplun	10.11.04	7:30 hrs to 7:45 hrs	63	84	12.11.04	8 hrs to 8.15 hrs	80	98
4.	Markandi, Chiplun, Tal: Chiplun.	10.11.04	19:30 to 19:45 hrs	64	86	12.11.04	20:00 hrs to 20:15 hrs	84	100

NOISE LEVEL MONITORING IN SANGLI BEFORE DIWALI FESTIVAL AND DURING DIWALI FESTIVAL

Sr. No	Date	Before Diwali 10.11.2004				11.11.04				During Diwali 12.11.04				After Diwali 13.11.04			
		Morning		Evening		Morning		Evening		Morning		Evening		Morning		Evening	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1.	Yashwant Nagar	56.3	66.2	68.4	78.6	62.3	79.5	57.6	68.5	60.2	62.4	58.2	62.2	67.5	78.2	69.9	81.3
2.	Vishrambag Chowk	59.2	69.4	60.4	76.5	72.5	87.6	66.4	90.5	61.3	65.5	75.5	84.2	73.5	86.4	81.2	90.6
3.	Pusparaj Chowk	60.5	72.3	56.4	70.5	60.6	75	52.6	65.5	65.2	68.5	71.6	80.4	60.6	75.1	67.2	79.3
4.	Civil Hospital	63.1	69.1	70.2	78.2	66.4	70.5	52.5	68	59.4	64.3	60.4	87.4	65.4	72.5	72.3	81.2
5.	Zulelal Chowk	62.5	67.4	65.5	75.4	70.5	72.6	66.5	80.4	71.5	90.5	65.6	75.2	70.3	75.5	74.5	77.4
6.	Patrakar nagar	57.4	69.3	70.2	80.4	68.2	72.6	68.5	75.3	70.5	82.3	60.2	62.2	67.2	72.6	69.2	74.3
7.	Maruti Chowk	55.3	70.5	70.2	82.3	72.2	78.6	61.4	83.3	82.1	98.1	64.5	72.5	73.5	78.6	79.8	98.5
8.	Ranzunzar Chowk	58.6	68.8	66.2	76.2	70.6	76.8	64.2	79.2	73.5	90.5	68.5	97.3	72.6	77.8	71.2	82.5
9.	Haripur Road	62.1	71.3	72.2	88.4	58.4	62.6	58.5	63.4	64.5	72.4	52.4	63.6	59.4	62.5	64.4	85.4
10.	City Highschool	57.6	67.4	62.5	83.6	56.2	60.2	72.3	79.2	70.4	82.4	55.5	70.2	56.2	62.2	70	76.9
11.	Ganapati Mandir	58.2	70.5	58.4	78.5	60.4	64.3	67.4	81.3	64.5	82.5	70.2	85.6	60.4	64.3	72.5	92.1
12.	Saraf Katta	61.2	68.7	62.4	79.2	65.5	70.6	55.3	65.4	67.3	94.6	72.2	80.5	65.5	70.6	72.5	90.3
13.	Main Road Corner	58.8	72.3	60.4	80.1	67.5	80.4	65.2	77.4	65.1	48.4	65.2	84.5	67.5	80.4	67.4	86.6
14.	Rajwada Chowk	64.2	73.2	70.4	77.4	60.4	72.5	56.5	62.2	68.6	85.5	70.5	81.9	62.3	72.5	74.9	95.3

CHAPTER - 9
PANCHAGANGA RIVER POLLUTION -

Panchaganga river originates at the Sahyadris. The river is called Panchaganga from Prayag chikhali, Dist: Kolhapur, after confluence with 5 rivers namely Kumbhi, Kasari, Tulshi, Dhamani & Bhogowati. The river flows towards eastern northern side and meets river Krishna at Narsinhwadi, Tal: Shirol, Dist: Kolhapur. This entire catchment area lies in Kolhapur district.

Apart from many villages, two main cities viz. Kolhapur and Ichalkaranji are located on the bank of Panchaganga river.

KOLHAPUR CITY -

As per census 2001, the population of Kolhapur city is 4, 84,100, and presently 119 MLD water is supplied to the city through

1. Balinga Water Works - 41 MLD
2. Kalamba Lake Water Works -08 MLD
3. Kasaba Bawada Water works - 20 MLD
4. Pukodi Water Works - 50 MLD

Kolhapur city generates about 90 MLD sewage. The underground drainage system of Kolhapur city is of 30 years old and was designed for 25 MLD taking into consideration of the population of 2.5 lacs. The existing STP located at Bawada is only of primary nature comprising screen bar, grit chambers, primary clarifier and sludge digester. Sludge digester is not in operation since last 8-10 years.

Kolhapur Municipal Corporation (KMC) has provided primary treatment of the capacity 43.5 MLD and as such partially treated 43.5 MLD & rest untreated sewage

gets mixed into Panchaganga river through various nallas in Kolhapur city. So total quantities of treated/untreated sewage 90 MLD discharged to Panchaganga river.

During monsoon the river is in high floods. The pollution problem is hardly noticed between June to September every year. The effect of dilution is so high that except turbidity all the parameters noticed during analysis of river water are within acceptable limits. Domestic sewage generated in the city flows through various nallas e.g. Jayanti nalla, Bapat Camp nalla and Dudhali nalla and through pipeline near Rajaram Bandhara. Jayanti nalla is bunded and the sewage is lifted by pumping for primary treatment to Bawada S.T.P. Partly Dudhali nalla is also diverted to STP by pumping. However, remaining flows directly into river Panchaganga. Bapat camp nalla meets to Panchaganga river. Due to non-availability of the adequate land, large quantity of domestic effluent enters into river Panchaganga.

Kasaba Bawada water works gets water from Rajaram weir of Panchaganga river. The nallas like Jayanti & Dudhali meet the river just u/s of the Rajaram weir. Hence, many times the people depending on this water supply get polluted water.

The citizens of Kolhapur and N.G.O. has started morchas/agitations since December 2003 at this office due to pollution of Panchaganga river. This types of agitations were also observed in the year 1999 and 2000 and every year during summer season. This office/Board has already issued directions u/s 33 A of the Water (Prevention & Control of Pollution) Act, 1974 to Kolhapur Municipal Corporation and filed criminal case at J.M.F.C., Kolhapur in the year 1998 and recently one more criminal case filed as continuous defaulter in the March 2004.



PANCHAGANGA RIVER - KOLHAPUR



PANCHAGANGA RIVER - AT BALINGA WATER WORKS



**DUDHALI NALA - CARRYING SEWAGE TO PANCHAGANGA RIVER
AT KOLHAPUR**



CONFLUENCE OF JAYANTI NALA WITH PANCHAGANGA RIVER



RAJARAM BANDHARA - DISPOSAL OF SEWAGE INTO PANCHAGANGA



PANCHAGANGA RIVER AFTER KOLHAPUR

River Quality -

Taking into consideration river samples collected from Panchaganga river, since last few years, the river quality is not as per the river classification A2 and bacterial contamination is also increased (copies enclosed in Ann. I).

Panchaganga river Water quality at NH4 bridge D/s. Kolhapur (Year 04-05)

Sr. No.	Parameters	June 2004	July 2004	Aug 2004	Sep 2004	Oct 2004	Nov 2004	Dec 2004	Jan 2005	Feb 2005	March 2005
1	Temperature	22 °C	20 °C	18 °C	NA	19 °C	24 °C	29°C	21°C	18°C	31 °C
2	pH	7.1	7.25	7.39	--	7.8	7.1	7.3	7.2	6.1	7.7
3	D.O.	5.6	6.9	7.0	--	6.2	6.1	7.4	5.9	6.9	6.7
4	B.O.D.	4.0	7.0	5.0	--	6.6	6.8	7.0	7.2	5.8	5.5
5	Conductivity	360	105	91.5	--	137	186.9	131.4	208.7	180.6	155.2
6	Coliform fecal	12	14	12	--	8	35	17	35	35	20.0
7	Total coliform	250	350	275	--	225	350	225	425	225	900
8	Nitrate	2.80	3.03	0.280	--	1.90	3.2	1.2	1.0	2.0	2.53
9	Nitrite	0.43	0.009	0.009	--	0.073	--	0.221	0.676	0.25	0.144

*Monitoring started from June regularly

ICHALKARANJI CITY –

Ichalkaranji city is located on the left bank of the river panchaganga. It is famous for textile processing industries. Its population is about 2,70,000. There are 10 power processors and 45 hand processing units which discharge their treated industrial effluent into the sewage system. All the nallas passing through Ichalkaranji carrying domestic and industrial waste water finally meets to Panchaganga river.

Presently about 50 MLD water is supplied from Krishna river to the city and about 35 MLD of domestic effluent is generated. Ichalkaranji Mun. Council has provided STP of 20 MLD capacity, which is presently operated. There is no complete sewerage system to the city hardly 50% of city is covered. The STP comprises the units e.g. screen, grit chamber, aeration, secondary clarifier, chlorination, sludge thickner & S.D.B. About 50% area is covered under ground drainage system and sewage generated through remaining area of about 23 MLD enter into the nallas which finally meets to Panchaganga river.

The industries in Ichalkaranji also contribute to pollution load due to accidental discharges /negligence, non-availability of full-fledged treatment facility etc.

Due to negligence/accidental discharges this office had carried out day and night vigilance in Ichalkaranji area and 15 defaulting industries were closed and 28 proposed directions were issued u/s 33 A of the Water (P & CP) Act, 1974 including directions to Ichalkaranji Mun. Council and filed criminal case against council.

The matter is subjudice with court.

There are various rural water supply schemes on down stream of the Ichalkaranji city which get affected due to pollution of panchaganga river. Local citizens and Sangharsh Samitis have started agitations/morchas at Prant Office, Ichalkaranji and at this office.

River Quality -

Taking into consideration river samples collected from Panchaganga river, since last few years, the river quality is not as per the river classification A2 and bacterial contamination is also increased.

However, the pollution problem of Panchaganga remains unsolved till date.

In view of the above, MPC Board has taken follow-up of the pollution with the Kolhapur Mun. Corporation, the Ichalkaranji Mun. Council and defaulter industries. Though the MPC Board has taken stringent actions including filing of civil suits against all defaulters, the Panchaganga river pollution problem has not been solved. Hence, it is necessary to change the mentality of the officials of local body. And hence, Regional Office of MPC Board at Kolhapur has taken up this matter on priority, and finally the mayor of Kolhapur convened a meeting 2.4.2004. He presided over the meeting attended by corporators, administrators of KMC, complainant like Vidnyan Prabodhini, Daavi Aghadi, senior citizens and the officers of Regional Officer, MPC Board, Kolhapur. At the meeting, the officers of the Board suggested that long term measures may take more time e.g. up to three years. Hence, it is necessary to provide short term measures like using treated / partially treated / raw effluent for irrigation/plantation purpose. The similar suggestions were given by the High Court committee constituted against PIL on Panchaganga river pollution.

Recently Member Secretary of Board in his directions after personal hearing extended to The Commissioner, Kolhapur Municipal Corporation, Kolhapur asked to comply with directions dt. 10-2-05.

ANALYSIS RESULTS OF PANCHAGANGA RIVER WATER AT ICHALKARANJI

GANAPATI GHAT

Sr. No.	Parameters	April 2004	July 2004	Oct 2004	Jan 2005
1	Temperature	24 °C	20 °C	19.5 °C	19 °C
2	pH	7.4	7.18	8.12	6.8
3	D.O.	6.2	6.8	7.0	6.3
4	B.O.D.	3.0	6.0	6.2	5.4
5	Conductivity	260	115	243	408
6	Coliform fecal	8.0	7.0	14.0	220
7	Total coliform	275	200	350	350
8	Nitrate	1.4847	3.1	1.224	---
9	Nitrite	0.0788	0.05	0.132	0.419

* quarterly monitoring

Treatment Facilities Provided :-

The existing STP provided by Ichalkaranji Mun. Council treats only 12 MLD (STP capacity 20 MLD) of domestic waste which can be extended to 25 MLD. Hence, out of total 35 MLD, 25 MLD of domestic waste will be treated and 10 MLD will left as untreated sewage. In this concern, the work is in progress.

There are 75 no. of cloth processing units in Ichalkaranji city, which are discharging treated/untreated effluent partly into municipal gutter and local nallas which finally meets to Panchaganga river. Ichalkaranji Mun. Council has given permission to industrial units to dispose off their treated effluent into municipal gutter. However, local nallas which carrying domestic sewage alongwith industrial effluent finally meets Panchaganga river & intensity of pollution increases in vicinity of Ichalkaranji city and its dam/stream.

Hence, it is essential to provide S.T.P.s of an adequate capacity at the tail end of nallas before confluence with Panchaganga river.

All villages on the bank of Panchaganga river are discharging their domestic effluent into Panchaganga river without any treatment.

The details of the nallas & tributaries are enclosed herewith.

The details of industries cited on Panchganga river is enclosed herewith.

The total quantities of domestic and industrial effluent discharged from these nalla is about 14530 m³/day. From this 50% effluent used on land for irrigation by the farmers and about 10% evaporation losses, 10% percolation etc. So the total domestic effluent of 5792 m³/day mixed to the Panchaganga river without treatment. Regional Officer, MPC Board, Kolhapur had written a letter to Zilla Parishad Kolhapur dated 27.01.2005 to provide proper treatment to the domestic effluent and to reuse on land for irrigation purpose only.

State Government has declared Panchaganga river in A-2 zone so the water from Panchaganga river may be supplied with proper treatment to the villagers for drinking purposes.

CHAPTER - 10

CASE STUDY

A) CASE STUDY OF M/S. JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD., JAWAHARNAGAR, HUPRI, TAL: HATKANANGALE, DIST: KOLHAPUR

Jawahar Shetkari Sahakari Sakhar Karkhana Ltd. Yalgud, Hupari situated at about 28 Km south east to Kolhapur city between Panchaganga and Dudhganga river basins; has unique Effluent Treatment Plant and water management with total water recycle (Zero discharge) with efforts taken in waste water minimization in initial stages. Karkhana had presented paper on the very same subject conducted by M.P.C.B. and Government of Maharashtra called by honourable Chief Minister of Maharashtra state in May 2003.

Waste water minimization includes excess condensate recycle after cooling in indigenously developed mini spray-pond; this imparts less load on effluent generation and its capacity to recycle the water from 3500 m³ to 4000 m³ per day. This includes systematic network of recycle water collection, pits, pumps and consequent pumping in mini spray pond. From various houses of sugar plant for example D.C. drive motor cooling water from mill house. Boiler feed pump cooling water, cooling water from power house, boiling house etc.

After minimization effluent generation ETP comprises adequate primary, secondary and unique design tertiary system.



E.T.P. (SEC.) OF SUGAR - M/S JAWAHAR S.S.K. LTD.



E.T.P. (TERTIARY) OF SUGAR - M/S JAWAHAR S.S.K. LTD.

Primary Treatment comprises of gravity base oil-sludge separator in two stages; to staged equalization tank, sludge drying bed and its recycle. After equalization tank adequate to stage separate streams of secondary un-aerobic digesters having capacity of 20 m³/hr and 70 m³/hr capacity followed by aerobic system. Prior to ariation tank system has surface aeration tank, floating areator, sludge separator, preareation tank and fine bubble diffuse aeration tank having 1000 m³ hold up. Fine bubble diffusers are backed up by 800 m³/hr capacity blower and 1200 m³/hr capacity blower, powered by 20 hp and 40 hp electric motors. This is immediately followed by 500 m³ capacity and 2500 m³ capacity clarifloculators. Taking into consideration system designed for 4000 mg per litre of C.O.D. load the efficiencies C.O.D. reduction after digester in 30 % is obtained and that after secondary clarifior another 50 to 60 % reduction is being achieved. The C.O.D. after clarifier at 190 to 150 mg per litre is achieved.

Karkhana had developed a power tertiary system comprising of high head pumps to achieve final effluent through a series of power sand filter followed activated carbon filter followed by polishing unit, this lives water of high purity of 20 to 30 mg per litre of C.O.D. is being achieved since last 2 consecutive years. The water being used, recycled in karkhana again with already recycled water from mini spray-pond. Thus 2000 m³ per day from ETP treated water and 4000 m³ per day from mini spray-pond fulfills the requirement (industrial) of sugar factory.

This elaborate ETP consumes various biomass feed and an electricity of 160 hp. Karkhana has thus, achieved zero water requirement (industrial), effluent discharge and have more prominently absolute no fresh industrial water consumption from Dudhganga river. Today karkahana lifts water from Dudhganga river for drinking and irrigation purpose only this saves Rs. 50 lakh per year towards industrial water consumption. In addition to this karkahana irrigates almost 20 hector of land in nearby village Jangamvadi.

The importance of case study is if every sugar factory follows principle of zero intake of water and maintain their water usage through treatment of waste water to the extent of reuse of process, this will minimize pollution as well as conservation of water resources.

**B) CASE STUDY OF COMMON BIO-MEDICAL WASTE TREATMENT FACILITY -
OPERATED AS AN INDUSTRY BY
M/S SURYA CENTRAL TREATMENT FACILITY
D-60, M.I.D.C., Miraj, Dist. Sangli.**

DETAILS OF TREATMENT FACILITY

? M/s. Surya Central Treatment Facility, a Bio-Medical Waste collection, treatment, transport and disposal facility provider is located at Plot No. D-60, MIDC, Miraj under Pvt. Sector. It is a SSI unit having capital investment of Rs. 19.00 lacs including plant, building, land and machinery.

? Probably, it is the first project established in MIDC area in Maharashtra State. It has started its operation since 1st January 2003.

? Incinerator and technical know-how is taken from Don-Whitely Scientific Equipments Pvt Ltd. UK as ISO 9002 awarded company

? MPCB has granted Authorisation vide No. 2/2002 dt. 30.09.2002 for incinerating 7000 Kg BMW/Month.

? Incinerator details -

a. Capacity.....50 lit/hr

b. Dimension.....8 ft x 8 ft x 6 ft

c. Construction.... Heat resistant Mirror finished stainless steel body.

d. TemperaturePrimary chamber.....800 °C and secondary chamber ... 1050 °C

Combustion efficiency.....99%

e. Height of chimney....30 mtrs. Solid cone spray nozzle and pump for water circulation and exhaust fan are provided as ECS.

Substitute – In case of failure of one machine another Incinerator is kept stand by Control panel with fully computerized system provided.



**COMMON BIO-MEDICAL WASTE TREATMENT FACILITY
(Surya Central Treatment facility) at Sangli**



**VISIT OF R.O. KOLHAPUR TO THE FACILITY ALONG WITH G.S. FULARI,
S.R.O. SANGLI.**

? Fuel is 100% electricity. Power supply...3 phase 440 volt and Power connection. ...30 HP. Electric consumption-75-78 units per 100 Kgs-120 kgs waste.

? Daily working-machine is run in one shift for 5-6 hours (Including Preheating and Cooling time)

i) Chemical Disinfection Tank-

All plastic waste comes in contact with a patient is treated in chemical tank.

Chemical used is-Hypochloride solution.

Batches taken – 3-4 in one shift

ii) Shredder – chemically disinfected waste is segregated properly & then each plastic material is shredded and send for recycling.

? Vacuum type Autoclave having capacity 60 kg/hr attaining temperature of 121 °C, pressure 15 pounds (psi) and resident time 45-55 m in 2 Batches/day.

Metal waste and needles comes in contact of patient is treated in Autoclave.

iii) Effluent Treatment Plant -

Anaerobic filter Type Effluent Treatment Plant is installed. App-1000 lit to 1200 lits. daily treated and disposed on land for gardening after achiving standards of land disposal.

iv) Vehicles-

Two vehicles collects Bio-Medical Waste on line daily, these are closed vehicles.(pack body).

? Daily waste collected records –

Incinerable waste .. 100-120 Kgs

Plastic waste 120-180 Kgs

Metal Waste 10-20 Kgs

8) Present working covered hospitals -

City	No. of hospitals	No. of beds	No. of GPS
Sangli	86	680	78
Tasgaon	12	93	27
Vita	22	120	14
Islampur	35	145	24

The overall working of this BMW facility is satisfactory.

CHAPTER - 11
WORLD ENVIRONMENT DAY

The World Environment Day is celebrated on 5th June every year. It is celebrated as per decided theme by the 'United Nation Environment Programme (NREP). In 2004, the World Environment Day was celebrated with the motto Wanted ! Ocean & Sea – Live or Dead ?

As per every year the Regional Office, Kolhapur celebrated World Environment Day on 5th June 2004 with great interest. This office conducted following programmes on the day-

1) **Skating Rally** —

A Skating rally was inaugurated by Hon. Prakash Kadam, R.D.C., Kolhapur. Sixty students from Swami Vivekanand Skating School & Bhaktiseva Vidyapeeth participated in the rally. The rally passed main streets of the Kolhapur city. During the rally march students gave slogans regarding environment protection as a part of public awareness. Participated students were awarded certificates for taking part in skating rally at the hands of Hon. Suraj More, Additional S. Police, Kolhapur.

2) **World Environment Day Celebration Programme** -

The main celebration programme of the World Environment day was held at Udyog Bhavan hall Kolhapur. Hon. Suraj More, Add. S.P., Kolhapur was the chief guest of the programme. Mr. Ramesh Khandare, General Manager, DIC, Kolhapur, Mr. Uday Gaikwad, N.G.O., Dr. Bhosale, Environmentalist, also participated in programme on dias.

Dr. Y. B. Sontakke, Regional Officer, Kolhapur, delivered the inaugural speech and appealed support and contribution of common people in task work of environment protection.



On World Environment Day, Residential District Collector Mr. Prakash Kadam & Regional Officer Dr. Y. B. Sontakke inaugurating by green flag to Environment Protection Rally.



Regional Officer Dr. Y.B. Sontakke addressing to the gathering, The dignitaries Mr. Suraj More, Additional S.P., Sub Regional Officer, S.R. Patil, Dr. Deshmukh of K.I.T., etc.



Gathering during the celebration of World Environment Day 2004



Mr. Suraj More, Additional S.P. while distributing certificates to the participants of Environment Protection rally.

Hon. Suraj More, Add. S.P., Kolhapur, in his address pointed the main cause of pollution is the increasing population which has caused the major disturbance in efforts of environment protection. He also told about the need of plantation, water conservation in connection with environment protection.

Dr. Suhas Deshmukh from K.I.T. College, Kolhapur, Dr. Jay Samant from Environment Dept., Shivaji University, Kolhapur and Mr. Uday Gaikwad, local N.G.O., Kolhapur also delivered the speech. For this programme about 100 delegates from different bodies were present. Maharashtra Pollution Control Board, organizer of the programme, distributed tree plants among participant of the programme. Mr. S. R. Patil, Sub Regional Officer, Kolhapur delivered vote of thank.

3) **Tree Plantation Programme** –

M.P.C.B. officials and M/s. Tissue Tora Mouti jointly organized tree plantation programme at industry's premises and planted about 50 plants.

VISIT OF HON'BLE ENVIRONMENT MINISTER TO CETP AT
LOTE

Honourable Environment Minister Shri.Ganeshji Naik, Govt.of Maharashtra and Dr.D.B.Boralkar, Member Secretary, Maharashtra Pollution Control Board visit to Lote Parshuram Tal-Khed, Dist-Ratnagiri.

Honourable Minister of Environment Shri.Ganeshji Naik visited Lote Parshuram are alongwith Dr.D.B.Boralkar, Member Secretary, Maharashtra Pollution Control Board Mumbai, Shri. Nanudsekhar, P.S.O., Shri.A.B.Jain, Senior Law Officer, Dr.Y.B.Sontakke, Regional Officer, Kolhapur, Shri.Bhosale, S.R.O. Chiplun and Shri. Reddy, Scientific Officer were also present during the visit of Honourable Minister visit on 2nd and 3rd-March 2005. The meeting was organised by Maharashtra Pollution Control Board at Hotel Riverview Chiplun Dist-Ratnagiri. Under Chairmansheep of Honourable Minister Shri.Ganeshji Naik and Member Secretary and in presence of other dignitaries. Dr.Sontakke, Regional Officer for explained the importance of the meeting , Lote M.I.D.C. is in established in 1982 many industrialist have established their units in this industrial area due to industrialization Pollution related problems were also developed. All Govt. agencies and industries concern were finding way out for this problem. This resulted in establishing a Common Effluent Treatment Plant in 2001 and same is upgraded in 2003. Commom Effluent Treatment Plant Association, industrial association, Dabhol Khadi Sangharsh Samittee. Press reporters and Citizens were also present for discussion during this meeting.

Industries association representative Mr. Khare told that after C.E.T.P. came into operation fish killing incidents in this area is reduced considerably Chairman C.E.T.P. owners association Mr. Shirke told that pH of water in indusial area is neutral and they are treating 30 lakh ltrs. of effluent per day and their proposal is to use this treated effluent for green belt development. He further requested M.I.D.C. to make available 1000 Acres of land for green belt development.



Hon'ble Ganeshji Naik, Minister, Environment and State Excise, Govt. of Maharashtra visited Lote Parshuram MIDC area, Dist. Ratnagiri, along with Dr. D.B. Boralkar, Member Secretary, MPC Board, Dr. Sontakke, Regional Officer welcoming the guests.



Welcome to the guests



Hon'ble Ganeshji Naik, Minister, Environment and State Excise, Govt. of Maharashtra visited Lote Parshuram MIDC area, Dist. Ratnagiri, along with Dr. D.B. Boralkar, Member Secretary, MPC Board.



Dr. Boralkar, Member Secretary while explaining problems and solutions of CETP of Lote Parshuram MIDC area.

Chairman of Dabhol Khadi Sangharsh Samittee said that due to pollution fish kill incident occurs but if the treated effluent is used for green belt development this problem will be solved. Due to fish kill the local fisherman life is getting badly effected and requested Honourable Minister to look into this matter and direct concerned authorities. Similarly Press reporter raised the problems of Hazardous Waste transportation charges which are very high hence asked to minimize charges so that industries will dispose Hazardous Waste in scientific manner.

Dr.Boralkar, Member Secretary quoted that pollution problems are created due to negligence by one or two industries told that C.E.T.P. will treat the industrial effluent to the quality of mineral water. It is found that C.O.D. of E.T.P. is more due to mixing of Hazardous Waste in to industrial effluent so board will take savior action on such defaulting industries. C.E.T.P. must the problem of industries and citizens in this area. Further M.P.C.B is going to audit of all industries and action will be taken on defaulting industries. Hence industries must find out their own problem.

Honourable Minister Shri.Ganeshji Naik took note of all the issues and said defaulting industries will not be excused at all henceforth .The industries who are creating environment problems will be viewed seriously and strong action will be taken against defaulting units. He expressed serious concern over fish kill incident and destruction of environment. To keep environment clean he assured that continuous AAQM stations will be established in this area to control pollution and to keep environment clean to financial help will be given the local bodies and C.E.T.P

The meeting ended with thanks to the Chair. The discussion over in very graceful atmosphere. About 90 to 100 representatives were present during the meeting.

After meeting Minister visited industrial area and C.E.T.P along with Dr.Boralkar, Member Secretary, M.P.C.B. and other delegates. C.E.T.P.representative explained about functioning of C. E.T.P. He told C.E.T.P. people to take atmost care to prevent discharge of effluent into the creek. And asked to use all treated effluent for green belt development. Lastly he assured his full assistance to C.E.T.P.

After lunch he left to Mahad.