GOA STATE POLLUTION CONTROL BOARD
PANAJI – GOA

1 INTRODUCTION

The Goa State Pollution Control Board has been constituted on 01/07/1988 under the Water (Prevention & Control of Pollution) Act, 1974. Prior to that the erstwhile Union Territory Goa, Daman and Diu, the Central Board for the Prevention and Control of Water Pollution was performing the functions of the State Board in Goa. The Central Pollution Control Board at Ponda – Goa established a section office for the purpose. The same arrangement was continued till constitution of the State Board. In the meanwhile, the section office of the Central Board was shifted to Baroda on 4th April 1988, to reconstitute it as a West Zonal Office. All the relevant records pertaining to Goa were transferred to the Goa State Pollution Control Board on 12th September 1988.

The Goa State Pollution Control Board after constitution established its office at Bambolim in Goa Medical College Complex. In June 1991, the Government of Goa allotted independent premises for the Board at Patto-Panaji, where the Board office was shifted in September 1991.

The Board acquired new premises on the first floor in Dempo Tower at Patto Plaza, Panaji and shifted its full setup at this new premise on 15th August 2002.

An additional half floor has been acquired by the Board on the 4th floor of Dempo Tower as part of laboratory and the same was inaugurated on 15th August 2005.

2 CONSTITUTION OF THE BOARD INCLUDING CHANGES THEREIN

The present constitution of the Board is as given below: -

Chairman
Dr. L.U. Joshi

Members
1. Dr. N.P.S. Varde, Director, S.T.E
2. Dr. Arvind Salelkar, Director, Health Services
3. Shri S.S. Prabhudessai, Chief Inspector, Factories & Boilers
4. Shri P. P. Borkar / Shri P. K. Nambiar, Principal Chief Engineer, PWD
5. Shri Mihir Vardhan / Shri J.B. Bhingui, Director, Mines
6. Shri Ashok Naik, Mayor, Corporation of City of Panaji
7. Smt. Kamilini Poiguinkar, Chairperson, Margao Municipal Council
8. Smt. Kunda Chodankar, Vice President, Zilla Parishad (North)
9. Smt. Nilima Naik, Zilla Parishad Member
10. Smt. Zinia Dias do Rosario, Zilla Parishad Member (North)
11. Shri Nitin Kunkolienkar, President, Goa Chamber of Commerce & Industry
12. Shri Atul Pai Kane, Representative of Goa Small Industries Association.
13. Shri Tulio de Souza, Architect
14. Shri Sandeep Jacques / Shri A. V. Palekar, Managing Director, Goa Industrial Development Corporation
15. Shri Pramod Shetye, Managing Director, Goa Tourism Development Corporation

Member Secretary
Shri A. K. Vazirani

The Board members at sl. nos. 3, 4, 5, 7, 8, 9, 10, 14 and 15 above have been changed vide Notification No. 5/2087/STE/(PartII)/951 dated 22/12/05, and may be substituted as follows:

3. Shri S.G. Redkar, Chief Inspector, Factories & Boilers
4. Shri P. K. Nambiar, Principal Chief Engineer, PWD
5. Shri J.B. Bhingui, Director, Department of Mines
7. Smt. Piedade Noronha, Chairperson, Margao Municipal Council
8. Shri. Ryan Braganza, Vice-Chairperson, Mapusa Municipal Council
9. Kum. Carminia Franco, Sarpanch, Village Panchayat, Guirim
10. Shri. Savio Almeida, Sarpanch, Village Panchayat, Anjuna-Caissua
14. Shri A. V. Palekar, Managing Director, Goa Industrial Development Corporation
15. Shri Elvis Gomes, Managing Director, Goa Tourism Development Corporation
16. Shri Joseph Sequeira, Sarpanch, Village Panchayat, Calangute

3 CONSTITUTION OF THE TECHNICAL COMMITTEE AND THE MEETINGS HELD

In order to develop uniformity in approach and to ensure timely disposal of the consent applications, a technical committee composed of technical and scientific officers was constituted. The composition of the committee is as given below:

April 2005 to August 09, 2005

Shri A.K. Vazirani Member Secretary			*Member*
Smt. Jenica Sequeira Scientist 'B'	/	Smt. Francisca Pereira Scientific Assistant.	*Member*
Shri Sanjeev Joglekar Junior Env. Engineer	/	Shri Marciano Sampayo Junior Env. Engineer	*Member*

August 10, 2005 to December 05, 2005

Shri A.K. Vazirani Member Secretary				*Member*
Shri Nitin Kunkolienkar / President, GCCI	Shri Tulio De Sousa / Architect		Shri Atul Pai Kane Representative, SSI	*Member*
Dr. S. P. Fondekar / Scientist, NIO	Dr. P. V. Shirodkar / Scientist, NIO		Dr. Analia Mesquita Scientist, NIO	*Member*
Shri Sanjeev Joglekar Junior Env. Engineer	/	Shri Marciano Sampayo Junior Env. Engineer		*Member*

December 06, 2005 to March 2006

Shri A.K. Vazirani Member Secretary				*Member*
Shri Nitin Kunkolienkar / President, GCCI	Shri Tulio De Sousa / Architect		Shri Atul Pai Kane Representative, SSI	*Member*

Dr. S. P. Fondekar / Dr. P. V. Shirodkar / Dr. Analia Mesquita *Member*
Scientist, NIO Scientist, NIO Scientist, NIO

Shri Sanjeev Joglekar / Shri Marciano Sampayo *Member*
Junior Env. Engineer Junior Env. Engineer

Dr. S. N. De Sousa *Member*
Scientist/Consultant

The committee held weekly meetings for scrutiny of consent applications, both under Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981. meetings were held upto 31st March 2006.

The Committee examines the applications keeping in mind that the sole function of the Board is to ascertain that all industries discharging effluent or gaseous emissions, shall meet the standards prescribed and published under EP Act, 1986.

4 MEETINGS OF THE BOARD

During the year under report, 4 meetings of the Board were held as given below: -

Sr. No.	Sr. No. of Meeting	Date of meeting	Venue	No. of members who attended the meeting
1.	65th	6th June, 2005	Board's Conference Hall	6
2.	66th	30th August, 2005	Board's Conference Hall	8
3.	67th	4th October, 2005	Board's Conference Hall	7
4.	68th	18th November, 2005	Board's Conference Hall	8
5.	69th	15th February, 2006	Board's Conference Hall	

5 ACTIVITIES OF THE BOARD INCLUDING VARIOUS FUNCTIONS PERFORMED UNDER THE ACT: -

The functions of the State Board as specified in the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981.

Functions under the Water (Prevention and Control of Pollution) Act, 1974

(a) To plan a comprehensive program for the prevention, control or abatement of pollution of streams and wells in the State and to secure the execution thereof.

(b) To advice the State Government on any matter concerning the prevention, control or abatement of water pollution;

(c) To collect and disseminate information relating to water pollution and the prevention, control or abatement thereof;

(d) To encourage, conduct and participate in investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution;

(e) To collaborate with the Central Board in organizing the training of persons engaged or to be engaged in programs relating to prevention, control or abatement of water pollution and to organize mass education programs relating thereto;

(f) To inspect sewage or trade effluents, works and plants for the treatment of sewage and trade effluents and to review plants, specifications or other data relating to plants set up for the treatment of water, works for the purification thereof and the system for the disposal of sewage or trade effluents or in connection with the grant of consent as required by this Act;

(g) To lay down, modify or annual effluent standards for the sewage and trade effluents and for the quality of receiving waters (not being water in an interstate stream) resulting from the discharge of effluents and to classify waters of the State;

(h) To evolve economical and reliable methods of treatment of sewage and trade effluents, having regard to the peculiar conditions of soils climate and water resources of different regions and more specially the prevailing flow characteristics of water in streams and wells which render it impossible to attain even the minimum degree of dilution;

(i) To evolve methods of utilization of sewage and suitable trade effluents in agriculture;

(j) To evolve efficient methods of disposal of sewage and trade effluents on land, as are necessary on account of the predominant conditions of scant stream flows that do not provide for major part of the year the minimum degree of dilution;

(k) To lay down standards of treatment of sewage and trade effluents to be discharged into any particular stream tasking into account the minimum fair weather dilution available in that stream and the tolerance limits of pollution permissible in the water of the stream, after the discharge of such effluents.

(l) To make, vary or revoke any order: -

(i) For the prevention, control or abatement of discharge of waste into streams or wells;
(ii) Requiring any person concerned to construct new system for the disposal of sewage and trade effluents or to modify alter or extend any such existing system or to adopt such remedial measures as are necessary to prevent, control or abate water pollution;

(m) To lay down effluent standards to be complied with by persons while causing discharge of sewage or sullage on both and to lay down, modify or annual effluent standards for the sewage and trade effluents;

(n) To advice the State Govt. with respect to the location of any industry the carrying on of which is likely to pollute a stream or well;

(o) To perform such other functions as may be prescribed or may, from time to time be entrusted to it by the Central Board or the State Government.

Functions under the Air (Prevention and Control of Pollution) Act, 1981

(a) To plan a comprehensive program for the prevention, control or abatement of air pollution and to secure the execution thereof;

(b) To advice the State Government or any matter concerning the prevention, control, or abatement of air pollution;

(c) To collect and disseminate information relating to air pollution;

(d) To collaborate with the Central Board in organizing the training of persons engaged or to be engaged in programs relating to prevention, control or abatement of air pollution and to organize mass education program relating thereof;

(e) To inspect, at all reasonable times, any control equipment, the prevention, control or abatement of air pollution in such areas; such directions to such persons as it may consider necessary to take steps for the prevention, control, or abatement of air pollution;

(f) To inspect air pollution control areas at such intervals as it think may be necessary, assess the quality of air therein and to take steps for the prevention, control or abatement of air pollution;

(g) To lay down, in consultation with the Central Board and having regard to the standards for the quality of air laid down by the Central Board, standards for emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any other source whatsoever not being a ship

or an aircraft; Provided that different standards for emission may be laid down under this clause for different industrial plants having regard to the quantity and composition of emission of air pollutants into the atmosphere from such industrial plants;

(h) To advise the State Government with respect to the suitability of any premises or location for carrying on any industry which is likely to cause air pollution;

(i) To perform such other functions as may be prescribed or as may, from time to time, be entrusted to it by the Central Board or the State Government;

(j) To do such other things and to perform such other acts as it may think necessary for the proper discharge of its functions and generally for the purpose of carrying into effect the purposes of this Act.

Note: - The Govt. of Goa vide Notification No.14-1-88-STE dated 2-1-92 has extended the air pollution control area over the whole State.

5.1 OBJECTIVES AND APPROACH

The functions listed above are directed towards the effective control of water and air pollution and thus to maintain and restore, wherever necessary the wholesomeness of water for various designated best uses and to preserve the quality of air as per requirement of ambient air quality. The Goa State Pollution Control Board aims to achieve these objectives through:

- Control on quality effluents and emissions from existing industrial units by periodical analysis of their effluent and emission samples.
- Maintain suitable industrial development by selecting non-polluting industries and the industries with effective effluent treatment arrangements.
- Developing Database to prepare water use and water quality maps and air quality zoning.

5.2 SAMPLING AND ANALYSIS OF INDUSTRIAL EFFLUENTS

Goa State Pollution Control Board has established its laboratory to carry out water and wastewater analysis. During the period from April 2005 to March 2006 the Board has collected 58 no. of industrial effluent samples and analysed the same for the following parameters: pH, Biochemical Oxygen Demand, Chemical Oxygen Demand, Suspended Solids and Oil & Grease. Apart from this the Board has also collected and analysed fresh water samples from different sources such as wells, springs, streams, etc.

5.3 MINARS (Monitoring of Indian National Aquatic Resources)

Goa State Pollution Control Board has undertaken this project through Central Pollution Control Board, New Delhi.

Under this project, the Board has monitored the water quality of the following rivers. (1) Mandovi at Panaji and Tonca-Marcela, (2) Zuari at Cortalim and Panchwadi, (3) Khandepar at OPA, Ponda, (4) Madei at Dabos, Valpoi, (5) Valvanti at Sanquelim, (6) Assanora at Assanora, (7) Kalna at Chandel, Pernem, (8) Talpona at Canacona and (9) Salaulim Dam at Salaulim, Sanguem. Hundred and Twenty-Four samples from all these rivers were analyzed during the year.

The Analytical results show that all these rivers satisfy the quality requirement of the designated best uses as recommended by Central pollution Control Board. The water quality data for these rivers observed during the year have been given in the following pages.

5.4 AMBIENT AIR QUALITY MONITORING

Under the National Air Quality Monitoring Programme (NAMP) the Board continued to monitor Ambient Air Quality at Vasco, Panaji and Mormugao Port Trust, Vasco.

The Ambient Air Quality samples were collected as per the standard norms for ambient air quality monitoring and normal parameters like SPM, RSPM, SO2 and NOx were analysed.

AMBIENT AIR QUALITY DATA OF PANAJI STATION-GOA UNDER NAAQM PROGRAMME, 2005-2006

Month & Year	SO_2		NOx		SPM	
	No. of Obs	Arith Mean	No. of Obs	Arith Mean	No. of Obs	Arith Mean
April ' 05						
May ' 05						
June ' 05						
July ' 05						
Aug. ' 05						
Sept. ' 05						
Oct. ' 05						
Nov. ' 05						
Dec. ' 05						
Jan. ' 06						
Feb. ' 06						
March ' 06						

AMBIENT AIR QUALITY DATA OF VASCO STATION-GOA UNDER NAAQM PROGRAMME, 2005-2006

Month & Year	SO_2		NOx		RSPM	
	No. of Obs	Arith Mean	No. of Obs	Arith Mean	No. of Obs	Arith Mean
April ' 05						

May ' 05						
June ' 05						
July ' 05						
Aug. ' 05						
Sept. ' 05						
Oct. ' 05						
Nov. ' 05						
Dec. ' 05						
Jan. ' 06						
Feb. ' 06						
March ' 06						

AMBIENT AIR QUALITY DATA OF MPT STATION-VASCO, GOA UNDER NAAQM PROGRAMME, 2004-2005

Month & Year	SO_2		NOx		RSPM	
	No. of Obs	Arith Mean	No. of Obs	Arith Mean	No. of Obs	Arith Mean
April ' 05						
May ' 05						
June ' 05						
July ' 05						
Aug. ' 05						
Sept. ' 05						
Oct. ' 05						
Nov. ' 05						
Dec. ' 05						
Jan. ' 06						
Feb. ' 06						
March ' 06						

MINARS DATA OF RIVER MANDOVI AT PANAJI-GOA 2005 – 2006

Sr. No.	Parameters	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
1	Temperature°C	32	32	28	29	27	26	26	25	32	24		
2	pH	6.9	7.4	7.4	6.9	6.4	7.1	7.8	7.6	7.9	7.5		
3	Conductivity ms/cm	50	52	8.4	10.2	1.1	8.5	9.3	9.3	9.6	28.57		
4	Nitrogen (Nitrate) mg/l	0.6	0.4	0.18	0.12	0.14	0.18	0.01	0.01	0.06	0.53		
5	Dissolved Oxygen mg/l	2.2	4.8	7.4	7.4	7.41	7.4	7.09	6.12	6.77	6.4		
6	BOD mg/l	1.2	3.1	2.1	1.0	1.01	1.0	2.2	0.35	1.64	1.2		
7	Fecal Coliform MPN/100ml	NIL	13	14	13	12	12	13	NIL	NIL			
8	Total Coliform MPN/100ml	90	175	200	175	150	150	175	85	80			
9	Nitrogen (Nitrite) mg/l	BDL	0.07	0.01	BDL	BDL	BDL	BDL	BDL	0.01	0.02		

MINARS DATA OF RIVER MANDOVI AT TONCA MARCELA-GOA 2005 – 2006

Sr. No.	Parameters	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
1	Temperature°C	31.5	32	32	26	27	27	21	25	30	30		
2	pH	6.9	7.1	7.3	6.1	6.14	6.3	6.65	6.7	6.7	7.3		
3	Conductivity ms/cm	41.2	43	39.2	40.1	0.11	7.2	8.1	8.1	8.5	14.8		
4	Nitrogen (Nitrate) mg/l	0.3	0.6	0.12	0.16	0.1	0.27	0.05	0.04	0.08	0.11		
5	Dissolved Oxygen mg/l	7.1	6.1	8.38	8.4	7.41	8.7	7.09	8.06	8.06	7.8		
6	BOD mg/l	2.9	4	4.9	1.5	0.5	1.96	1.39	2.45	3.57	2.0		
7	Fecal Coliform MPN/100ml	NIL	12	14	13	13	12	14	NIL	NIL			
8	Total Coliform MPN/100ml	85	15.	200	175	175	150	200	80	90			
9	Nitrogen (Nitrite) mg/l	BDL	0.09	0.02	BDL	BDL	BDL	BDL	BDL	BDL	BDL		

MINARS DATA OF RIVER ZUARI AT CORTALIM-GOA 2005 – 2006

Sr. No.	Parameters	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
1	Temperature°C	32	30	26	27	26.5	27	26	26	25	25		
2	pH	7.4	7.2	6.6	6.6	7.52	7.42	7.2	7.9	7.5	7.2		
3	Conductivity ms/cm	43	48	19.35	27.1	10.44	10.32	9.43	9.43	10.1	30		
4	Nitrogen (Nitrate) mg/l	0.07	0.2	0.3	0.18	0.2	BDL	0.03	0.02	0.11	0.21		
5	Dissolved Oxygen mg/l	7.1	6.1	6.5	7.7	7.41	8.06	6.45	7.09	6.12	8.1		
6	BOD mg/l	3.6	2.9	3.2	3.7	1.8	4.05	2.12	3.88	1.47	3.6		
7	Fecal Coliform MPN/100ml	12	14	12	13	12	12	NIL	12	13			
8	Total Coliform MPN/100ml	150	200	150	175	150	150	65	150	175			
9	Nitrogen (Nitrite) mg/l	BDL	0.04	0.04	0.02	0.01	0.01	BDL	0.01	0.02	0.02		

MINARS DATA OF RIVER ZUARI AT PANCHAWADI-GOA 2005 – 2006

Sr. No.	Parameters	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
1	Temperature°C	31	29	27	30.5	27	27.5	21	25	26	27		
2	pH	6.9	6.9	6.01	6.4	6.2	6.17	6.2	6.5	6.8	6.9		
3	Conductivity ms/cm	21.3	26	0.83	14.7	84.8	60.5	7.3	7.3	7.7	3.0		
4	Nitrogen (Nitrate) mg/l	0.2	0.5	0.17	0.2	0.1	BDL	0.11	0.02	0.06	0.07		
5	Dissolved Oxygen mg/l	6.5	6.1	5.8	5.4	7.74	8.7	7.7	7.41	7.41	6.8		
6	BOD mg/l	2.8	3.7	1.6	1.9	1.97	3.57	3.21	1.31	1.8	1.6		
7	Fecal Coliform MPN/100ml	NIL	NIL	14	NIL	13	12	NIL	12	13			
8	Total Coliform MPN/100ml	80	80	200	60	175	150	70	150	175			
9	Nitrogen (Nitrite) mg/l	0.02	0.09	0.01	BDL	BDL	0.11	BDL	0.01	BDL	BDL		

MINARS DATA OF RIVER KHANDEPAR AT OPA, PONDA-GOA 2005 – 2006

Sr. No.	Parameters	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
1	Temperature°C	33	32	27.5	32	27	27	25	25	25	25		
2	pH	6.5	6.7	6.4	6.9	6.24	6.04	6.1	6.7	6.2	6.3		
3	Conductivityµs/cm	124.8	109	65.7	113	51	61.01	60.5	60.5	65.5	67.7		
4	Nitrogen (Nitrate) mg/l	0.6	0.05	0.18	BDL	0.18	0.28	0.16	0.03	0.09	0.07		
5	Dissolved Oxygen mg/l	9.3	7.4	7.4	10	8.06	8.38	7.41	9.03	8.06	8.7		
6	BOD mg/l	2.24	2.3	1.15	3.1	1.8	1.64	0.51	1.01	0.84	1.2		
7	Fecal Coliform MPN/100ml	NIL	12	13	13	13	13	NIL	13	12			
8	Total Coliform MPN/100ml	90	150	175	175	175	175	90	175	150			
9	Nitrogen (Nitrite) mg/l	BDL	BDL	BDL	BDL	BDL	BDL	0.01	BDL	0.02	BDL		

MINARS DATA OF RIVER MADEI AT DABOS, VALPOI-GOA 2005 – 2006

Sr. No.	Parameters	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
1	Temperature°C	33	32	32	25	25	26	18	25	22	28		
2	pH	6.5	7.6	6.8	6.1	6.2	6.1	6.6	6.1	6.9	6.4		
3	Conductivityµs/cm	197.5	147	134	108.5	55.6	138.4	130.2	130.2	110	54.8		
4	Nitrogen (Nitrate) mg/l	0.04	0.03	0.03	0.04	0.2	0.2	0.12	0.1	0.07	0.02		
5	Dissolved Oxygen mg/l	8.7	6.5	7.4	8.7	8.38	8.7	9.0	6.45	8.38	8.7		
6	BOD mg/l	5.9	2.3	3.1	1.6	1.0	1.32	2.26	0.52	1.32	1.6		
7	Fecal Coliform MPN/100ml	NIL	14	12	12	14	12	14	12	12			
8	Total Coliform MPN/100ml	90	200	150	150	200	150	200	150	150			
9	Nitrogen (Nitrite) mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		

MINARS DATA OF RIVER VALVANTI AT SANQUELIM-GOA 2005– 2006

Sr. No.	Parameters	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
1	Temperature°C	31.5	29	32	26.5	27	26.5	25	25	26	29		
2	pH	6.16	6.3	5.9	6	5.7	6.2	5.96	6.8	6.1	6.5		
3	Conductivityµs/cm	68.5	147.5	73	97	49.6	102.3	109.3	109.3	95	46		
4	Nitrogen (Nitrate) mg/l	0.4	0.06	0.05	0.13	0.03	0.22	0.15	0.1	0.11	0.14		
5	Dissolved Oxygen mg/l	7.7	5.2	6.1	9	8.38	10.3	7.7	8.06	8.38	8.4		
6	BOD mg/l	2.8	1.8	2.8	2.3	1.8	3.56	1.77	1.16	1.1	1.3		
7	Fecal Coliform MPN/100ml	12	14	12	13	12	11	13	12	12			
8	Total Coliform MPN/100ml	150	175	150	175	150	125	175	150	150			
9	Nitrogen (Nitrite) mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.01	BDL		

MINARS DATA OF RIVER ASSANORA AT ASSANORA-GOA 2005 – 2006

Sr. No.	Parameters	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
1	Temperature°C	32.5	29	31	27.5	27.5	27	20	25	26	28		
2	pH	6.3	6.2	6.1	5.9	5.87	6.2	5.61	6.1	5.71	6.8		
3	Conductivityµs/cm	90.9	109.5	170.6	123	44.5	62.6	66.7	66.7	80	98.1		
4	Nitrogen (Nitrate) mg/l	0.8	0.06	0.03	0.05	0.1	0.2	0.16	0.1	0.1	0.16		
5	Dissolved Oxygen mg/l	8.38	5.8	5.8	7.1	8.06	8.06	6.77	7.74	5.48	8.4		
6	BOD mg/l	2.45	2.6	1.3	1.3	1.96	0.52	0.67	2.29	1.79	2.2		
7	Fecal Coliform MPN/100ml	NIL	12	13	12	12	13	12	11	14			
8	Total Coliform MPN/100ml	85	150	175	150	150	175	150	125	200			
9	Nitrogen (Nitrite) mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		

MINARS DATA OF RIVER KALNA AT CHANDEL, PERNEM-GOA 2005 – 2006

Sr. No.	Parameters	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
1	Temperature°C	32	32	26.5	26.5	26	26	26	25	29	27		
2	pH	7	7.6	6.2	6.8	6.1	5.92	7.5	6.14	6.7	6.8		
3	Conductivityµs/cm	116.3	82.3	61	69.8	58.2	14.72	70.2	70.2	85	53.4		
4	Nitrogen (Nitrate) mg/l	0.1	0.04	0.09	0.06	0.15	0.15	0.02	0.1	0.07	0.14		
5	Dissolved Oxygen mg/l	9.6	6.1	8.4	8.0	9.0	8.38	7.7	8.4	9.03	8.4		
6	BOD mg/l	6.1	2.8	1.5	1.4	2.1	1.32	2.0	3.3	3.3	1.6		
7	Fecal Coliform MPN/100ml	NIL	13	13	12	14	14	12	12	11			
8	Total Coliform MPN/100ml	85	175	175	150	200	175	150	150	125			
9	Nitrogen (Nitrite) mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		

MINARS DATA OF RIVER TALPONA AT CANACONA-GOA 2005– 2006

Sr. No.	Parameters	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06
1	Temperature°C	31.5	29	25.5	26	26	26.5	25	26	26	25		
2	pH	6.2	6.3	7.9	6.0	6.1	5.95	7.4	6.7	6.9	8.9		
3	Conductivityµs/cm	104.7	99.3	55.7	78.7	83.1	60.5	71.3	71.3	70.0	75.1		
4	Nitrogen (Nitrate) mg/l	0.2	0.3	0.14	0.09	0.04	0.04	0.02	0.02	0.05	0.04		
5	Dissolved Oxygen mg/l	7.4	6.1	7.4	8.1	8.38	8.38	7.7	7.09	8.06	7.8		
6	BOD mg/l	3.2	3.4	1.0	1.3	1.16	1.8	0.8	1.49	1.32	2.0		
7	Fecal Coliform MPN/100ml	13	13	12	12	13	13	BDL	13	BDL			
8	Total Coliform MPN/100ml	175	175	150	150	175	170	80	175	90			
9	Nitrogen (Nitrite) mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		

MINARS DATA OF RIVER SALAULIM DAM AT SALAULIM, SANGUEM-GOA 2005 – 2006

Sr. No.	Parameters	April 2005	August 2005	Dec 2005	Mar 2006
1.	Temperature°C	31	26	26	
2.	pH	6.4	6.4	6.3	
3.	Conductivityµs/cm	52.2	42.1	52	
4.	Nitrogen (Nitrate) mg/l.	0.02	0.02	0.06	
5.	Dissolved Oxygen mg/l	10	9	8.38	
6.	BOD mg/l	3.4	1.46	1.64	
7.	Fecal Coliform MPN/100ml	NIL	12	12	
8.	Total Coliform MPN/100ml	75	150	155	
9.	Nitrogen (Nitrite) mg/l.	BDL	BDL	BDL	

5.5 STATUS OF IMPLEMENTATION OF BIO-MEDICAL WASTE (MANAGEMENT AND HANDLING) RULES, 1998

For implementation of the Bio-Medical Waste (Management and Handling) Rules1998, Hospitals are classified as per their bedded capacity. The

1.	Category 1:	With 500 beds and above	- 1No.
2.	Category 2:	With 200 beds and above, but less than 500	- 1 No.
3.	Category 3:	With 50 beds and above, but less than 200	- 14 Nos.
4.	Category 4:	With beds less than 50	- 153 Nos.

Total authorizations granted till date are to 158 Hospitals and 11 veterinary units.

6.0 LEGAL MATTERS

STATUS OF THE CASES FILED BY THE BOARD DURING THE YEAR 2004-2005

7.0 TRAINING

TRAININGS / WORKSHOPS / SEMINARS ATTENDED DURING 2004-2005

Sr. No.	Name of the Official	Title of the Seminar	Duration	Organizing Institution
1.	Shri A. K. Vazirani, Member Secretary			
2.	Smt Jenica Sequeira, Scientist 'B'			
3.	Shri Sanjeev Joglekar, Jr. Env. Engineer			
4.				

8.0 FINANCE AND ACCOUNTS OF THE BOARD

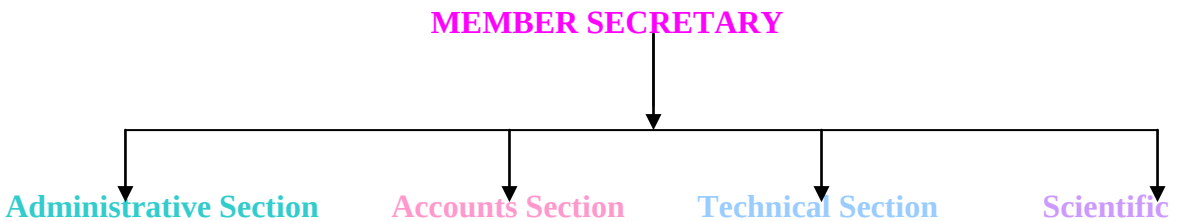
As per sub-section 2 & 3 of section 40 of the Water (Prevention and Control of Pollution) Act, 1974, the accounts of the Board are to be audited by an Auditor duly qualified to act as an Auditor of Companies under section 226 of the companies Act, 1956. The said Auditor is to be appointed by the State Government on the advice of Comptroller & Auditor General of India.

Auditing of the accounts for the year 2000-2001 is in process. Auditors are appointed for auditing the accounts for the years 2001-2002 and Auditors are being appointed for auditing the accounts for the years 2002-2003 up to 2005-2006.

9.0 IMPLEMENTATION OF THE SUPREME COURT GUIDELINES ON PREVENTION OF SEXUAL HARASSMENT OF WOMEN AT WORK PLACE

The information as per the Supreme Court Judgement dated 13/08/1997, it is stated that no complaints about sexual harassment was received during the financial year covered by this report.

ORGANISATIONAL SETUP



Administrative Section	Accounts Section	Technical Section	Scientific Section
A.L.O.	Accountant	J.E.E.	Scientist
'B'			
Sr. Steno			Scientific Asst.
UDC			S.L.A.
Drivers (2 nos.)			J.L.A. (3 nos.)
Peons (1 no.)			