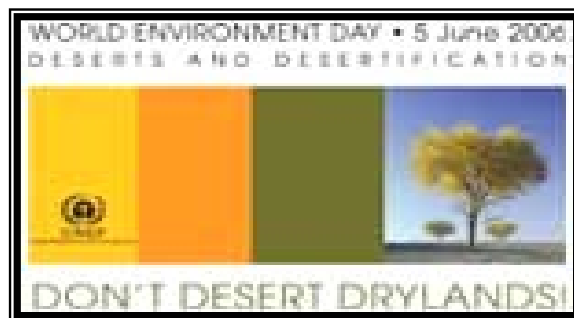


Annual Report

2005-06



**H. P. STATE ENVIRONMENT PROTECTION
&
POLLUTION CONTROL BOARD**
"PARYAVARAN BHAWAN" NEW SHIMLA-171 009

CHAPTER – 1

INTRODUCTION

The Himachal Pradesh State Environment Protection and Pollution Control Board (HPSEP&PCB) was constituted in the year 1974 under the provision of Water (Prevention and Control of Pollution) Act, 1974. Subsequently the implementation of the provision contained in Water (Prevention and Control of Pollution) Cess Act, 1977, Air (Prevention and Control of Pollution) Act, 1981 and Environmental Protection Act, 1986 in addition to Rules framed under these Act were also entrusted to the State Board. The prime objective of all these Acts is maintaining, restoring and preserving the wholesomeness of quality of environment and prevention of hazards to human beings and terrestrial flora and fauna.

HPSEP & PCB is a nodal agency in the administrative structure of the State Government for planning, coordination, prevention & control of pollution and so also protection of environment in the framework of environmental regulations. The State Board has always endeavoured to strike a rational balance between economic growth and environmental preservation. In the pursuit of attaining the objectives enshrined in the environmental legislations the State Board has followed the principles of sustainable development. Continuous efforts are being made by the board to expand its activities to fulfill the demands of emerging environmental concerns, challenges and new statutes.

The following legislative measures are significant and worth mentioning here vis-à-vis the functions and duties of the State Board.

- **Water (Prevention & Control of Pollution) Act, 1974:** The Parliament in the 25th year of the Republic promulgated this legislation in pursuance to Clause-1 of Article 252 of the Constitution of India, with the objective of prevention and control of water pollution and maintenance and restoration of wholesomeness of water. The H.P. State Environment Protection & Pollution Control Board was constituted in 1974 under the provisions of this Act.
- **Water (Prevention & Control of Pollution) Cess Act, 1977:** This Act provides for levy of cess on the water consumed for specific purposes with a view to dissuade wasteful and indiscreet use of water.
- **Air (Prevention & Control of Pollution) Act, 1981:** On the analogy of the Water (Prevention & Control of Pollution) Act, 1974 the Union Government promulgated another identical legislation which was exclusively meant to deal with the problems of air quality and preservation and maintenance thereof.
- **Environment (Protection) Act, 1986:** In order to provide the existing legislation for control of water and air pollution more effectively and to remove the deficiency of these legislations, the Union Government enacted umbrella legislation in 37th Year of Republic. The prime objective of the legislation was to plug the existing statutory gaps whereby tremendous responsibilities by way of functions have been entrusted to the State Board.

The following prominent rules and notifications are significant in context to the role and functions of the H.P. State Environment Protection & Pollution Control Board:

1. Manufacture, Storage and Import of Hazardous Chemical Rules, 1989.
2. The Hazardous Waste (Management & Handling) Rules, 1989/2000.
3. Rules for Manufacture, Use, Import, Export and Storage of Hazardous Microorganism, Genetically Engineered Organisms or Cells, 1989.
4. Noise Pollution (Control and Regulation) Rules, 1999.
5. Bio-medical Wastes (Management & Handling) Rules, 1998.
6. Recycled Plastics Manufacture and Usage Rules, 1999/2003.
7. Municipal Solid Wastes (Management & Handling) Rules, 2000.
8. Ozone Depleting Substances (Regulation & Control) Rules, 2000.
9. Batteries (Management & Handling) Rules, 2000.

Other Areas/Acts/Rules Concerning General Public:

The following Rules, which have bearing on, the state of the environment and health of the society are also in existence/enactments. Under these Rules, the H.P. State Environment Protection & Pollution Control Board is not the only agency responsible for the implementation of these Rules but nevertheless these Rules and enactments are of great significance. They are as under:

- Public Liability Insurance Act, 1991.
- H.P. Non-Biodegradable Garbage (Control) Act, 1995.
- Motor Vehicle Act, 1988.

MANDATE OF THE STATE BOARD:

The mandate of the State Board has increased manifold since its constitution. The State Board has adopted a major shift in its policy from purely regulatory set-up to an interactive scientific organization by performing various functions under the domain of environment protection and pollution control.

- ❖ Plan a comprehensive program for prevention, control or abatement of pollution of air, streams, rivers and wells in the state and to secure the execution thereof.
- ❖ Advise the state government on any matter concerning the prevention, control or abatement of water and air pollution.
- ❖ Collect and disseminate information related to water and air pollution and prevention, control or abatement thereof.
- ❖ Lay down or modify standards for quality of air, sewage and trade effluents.
- ❖ Inspect any control equipment, sewage or trade effluents, works and plants and takes steps for the prevention.

- ❖ Provide technical assistance and guidance in problems related to water and air pollution and control thereof.
- ❖ To implement the provision of Environmental Impact Assessment (EIA) notification, 1994 for specified 32 categories of development project listed in its schedule.
- ❖ Delimitation of pollution control areas.
- ❖ Creating mass-awareness and training programs relating to prevention, control or abatement of environmental pollution.
- ❖ Encourage, conduct and participate in investigation and research relating to problems of water & air pollution and prevention, control or abatement.
- ❖ To perform such other functions as may be prescribed or as may, from time to time; be entrusted by the Central Board or the State Government.
- ❖ Advise the State Government with respect to the location of any industry the carrying of which is likely to pollute stream or well or cause air pollution.
- ❖ To make, vary or revoke any order: –
 - i) For the prevention, control or abatement of discharge of waste into the stream or wells.
 - ii) Requiring any person concerned to construct new systems 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 etc.
 - iii) To integrate environmental aspects into development planning/activity through spatial environmental planning.
 - iv) To perform such other functions as may be prescribed by the State/Central Governments from time to time.

ADMINISTRATIVE STRUCTURE:

The HPSEP&PCB as per the provisions of Water Act, 1974 is headed by the Chairman. The executive head of the State Board is Member Secretary. The State Board has eleven Regional Offices at Shimla, Parwanoo, Paonta Sahib, Nalagarh, Baddi, Barotiwala, Una, Rampur, Jassur, Chamba, Kullu and Bilaspur to perform regulatory functions for prevention and control of pollution as prescribed under various environmental legislations. The State Board has one Central Laboratory located at Parwanoo and there are three Regional Laboratories at Paonta Sahib, Jassur and Sunder Nagar for providing scientific support to the regulatory functions. This administrative setup of the State Board caters to the diverse environmental matters in Himachal Pradesh. The Organizational Structure of the State Board is shown in Annexure-I.

CHAPTER – 2

CONSTITUTION OF THE STATE BOARD

The Government of Himachal Pradesh vide Notification No. STE-A (1)-4/2001- Loose dated 17.01.2004, appointed Sh. J.P. Negi, IAS, Principal Secretary to the Govt. of Himachal Pradesh as Chairman of H.P. State Environment Protection and Pollution Control Board and reconstituted the State Board vide Notification No. STE-A [1]-4-2001-I dated 15.01.2005 for a period of three years, comprising of:

I. **Five Official Members:**

- | | |
|--|--------|
| i) Secretary (Science & Technology) to the Govt. of H.P. | Member |
| ii) Secretary (Forests) to the Govt. of H.P. | Member |
| iii) Secretary (Industries) to the Govt. of H.P. | Member |
| iv) Secretary (MPP & Power) to the Govt. of H.P. | Member |
| v) Secretary (Health) to the Govt. of H.P. | Member |

II. **Representatives of State owned Corporations/Companies:**

- | | |
|--|--------|
| i) Managing Director,
H. P. Road Transport Corporation, Shimla. | Member |
| ii) CEO-cum-Secretary,
H. P. Housing Board & Urban Development Authority, Shimla. | Member |

III. **Non-official Members – Representative of Local Authorities:**

- | | |
|---|--------|
| i) Smt. Mala Singh, Municipal Corporation, Shimla. | Member |
| ii) Sh. Daya Ram, Nagar Panchayat, Ghumarwin, Bilaspur. | Member |
| iii) Sh. Pushp Raj, Municipal Council, Mandi. | Member |
| iv) Sh. Rajiv Mahajan, Municipal Council, Dharamshala. | Member |

IV. **Non-official Members** nominated by the Government of Himachal Pradesh vide Notification No. STE-A [1]-4-2001-I dated 15.01.2005

- | | |
|--|--------|
| i) Sh. Arvind Gupta, Solan. | Member |
| ii) Sh. Vijay Pal Khachi, Kumarsain, Shimla. | Member |
| iii) Sh. Sunder Thakur, Kullu. | Member |

V. **Permanent Special Invitee Members:** The Government of Himachal Pradesh vide above notification has also nominated the following Non-Official Permanent Special Invitee Members to the State Board.

- | | |
|------------------------------------|--------|
| i) Smt. Promila Condillac, Shimla. | Member |
| ii) Sh. B. S. Malhans, Shimla. | Member |
| iii) Sh. Swaraaj Chauhan, Gurgaon. | Member |

CHAPTER -3

MEETING OF THE STATE BOARD

In the 53rd meeting of the State Board held on 15/02/2006 the following major decisions were taken:

- i) **Constitution of the Consent Committee:** To examine cases of consent to operate/authorization committee comprising of the following members were constituted.

1.	Member Secretary.	Chairman
2.	Environmental Engineer.	Member
3.	Sr. Scientific Officer.	Member
4.	Sr. Project Consultant.	Member
5.	2 Non official members by rotation.	Member
6.	Secretary of the Committee AEE/Scientific Officer/ Project Consultant by rotation.	Member

- ii) **REGULARISATION OF SERVICES OF DAILY WAGE WORKERS:** The following daily wage workers who had completed 8 years of Service up to 31.03.2004 were regularized.

1.	Sh. Surinder Singh	Helper Class-IV
2.	Sh. Shyam Singh	Helper Class-IV
3.	Sh. Megh Raj	Helper Class-IV
4.	Sh. Gobind Ram	Helper Class-IV
5.	Sh. Ramesh Kumar	Helper Class-IV
6.	Sh. Chandermani	Helper Class-IV

- iii) **CREATION OF POSTS:** The following additional posts of Scientific and Engineering professional were created.

S. No.	Name of the post	Number of Posts
1.	Sr. Env. Engineer (Rs.14,300-18,150/-)	1
2.	Pr. Scientific Officer (Rs.14,300-18,150/-)	1
3.	Sr. Scientific Officer (Rs.12,000-15,500/-)	1
4.	Environmental Engineers (Rs.12,000-15,500/-)	3
5.	Scientific Officer,(Rs.7880-13,500/-(initial start with Rs.8000/-PM.	2
6.	Sr. Environmental Planner, (Rs.10,025-15,100/-)	1
7.	Assistant Environmental Engineer, (Rs.7880-13,500/- (initial start with Rs.8000/-PM.	6

- iv) SIMPLIFICATION & RATIONALISATION OF CONSENT PROCEDURE:** In order to bring about administrative efficiency and to simplify the procedural mechanism of annual renewal of consent to operate under the provision of section-25 of the Water Act, 1974 and/or section-21 of the Air Act, 1981 the State Board has modified the period of renewal of consent to operate in respect of all industries/development projects/local bodies/institutions/ activities as per the following schedule.

Classification of applicant	Scale of applicant	Proposed
Red	Large & Medium	Two financial years
	Small	Three financial years
Orange	Large, Medium & Small	Three financial years
Green	Large, Medium & Small	Five financial years
Mining Activities falling under EIA Notification of 1994.		Two financial years depending upon valid period of mining permission or lease deed.
Mining Activities not falling under EIA Notification of 1994.		Three financial years depending upon valid period of mining permission or lease.
Hotels/Institutions not falling under EIA Notification of 1994 & Local bodies including Water Treatment Plants.		Five financial years.

- v) FRAMING OF NEW RECRUITMENT AND PROMOTION RULES:** Recruitment and Promotion Rules for the following posts were approved by the State Board.

S. No	Name of Post
1.	Principal Scientific Officer
2.	Senior Environmental Engineer
3.	Sr. Environmental Planner
4.	Senior Database Analyst

- vi) ALLOWING USE OF FORMS DOWNLOADED FROM INTERNET FOR APPLICATIONS OF CONSENT / AUTHORISATIONS:** The entrepreneurs would now have an option of using consent/authorization application forms available on the website of the Board. This will help in promoting e-governance and simplification of procedure.

In the 54th meeting of the State Board held on 31/03/2006 the following major decisions were taken:

- i) The fee structure under the consent mechanism for discharge of sewage from the STP, effluent from the water treatment plant and waste water from slaughter houses were approved by the Board as per the following schedule:

S. No.	Classification	Consent Fee
1.	For discharge of sewage	
	I&PH Deptt. for discharge of sewage	Rs. 5000/-
	Municipal Corporation	Rs. 5000/-
	Municipal Council	Rs. 3000/-
	Nagar Panchayat	Rs. 1000/-
	Cantonment Board	Rs. 3000/-
2.	For discharge of effluent from water treatment plant	
	I&PH Deptt.	RS. 5000/-
3.	For discharge of waste water from slaughter house.	
	Municipal Corporation/Municipal Council/Nagar Panchayat/Cantonment Board	Rs. 500/-

- ii) **SCHEDULE OF INSPECTION UNDER BIO-MEDICAL WASTE (MANAGEMENT & HANDLING) RULES, 1998 AS AMENDED IN 2000:** The following schedule for inspection of health care facilities in the State was approved by the State Board.

S. No.	Category	Schedule of Inspection
1	Hospitals having bed capacity more than 500 beds	Twice a month
2	Hospitals having bed capacity more than 200 beds but less than 500 beds	Twice a month
3	Hospitals having bed capacity more than 50 beds but less than 200 beds	Once a month
4	Hospitals having bed capacity less than 50 beds	Quarterly
5	Hospitals / Clinics / Labs. Without beds.	Quarterly
6	Common Bio- Medical Waste Treatment facility (CBWTF)	Twice a month

CHAPTER –4

ACTIVITIES OF THE STATE BOARD INCLUDING THE VARIOUS FUNCTIONS

4.1 STATUS OF AMBIENT AIR QUALITY:

The monitoring of Ambient Air Quality was started in 1986-87 under the **National Ambient Air Quality Monitoring Program (NAMP)** with the objective to find the current status of pollution and to study the trends as a result of increasing industrialization. The National Ambient Air Quality Standards are indicated in Table 1. The general objectives of the program are:

1. To evaluate the general air quality conditions in the city/town and to provide the basis for analyzing long term trends of pollution concentrations.
2. To provide the data for subsequent development of air quality standards and pollution prevention and control program for the city/town.

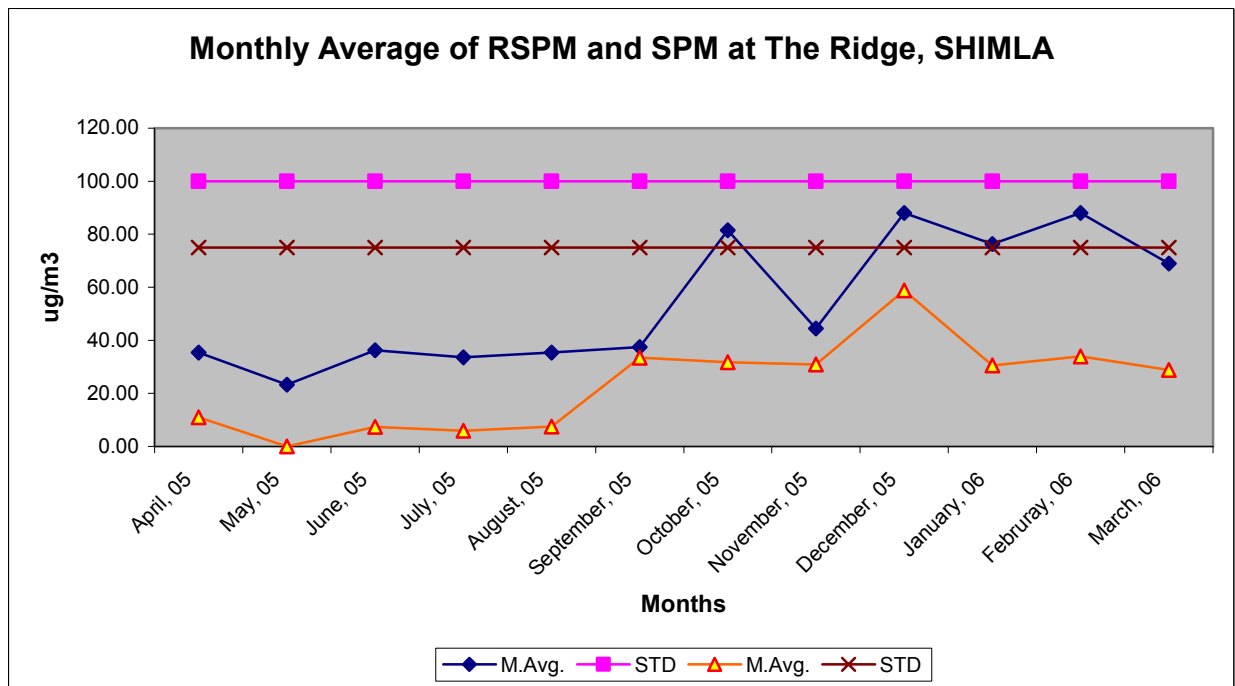
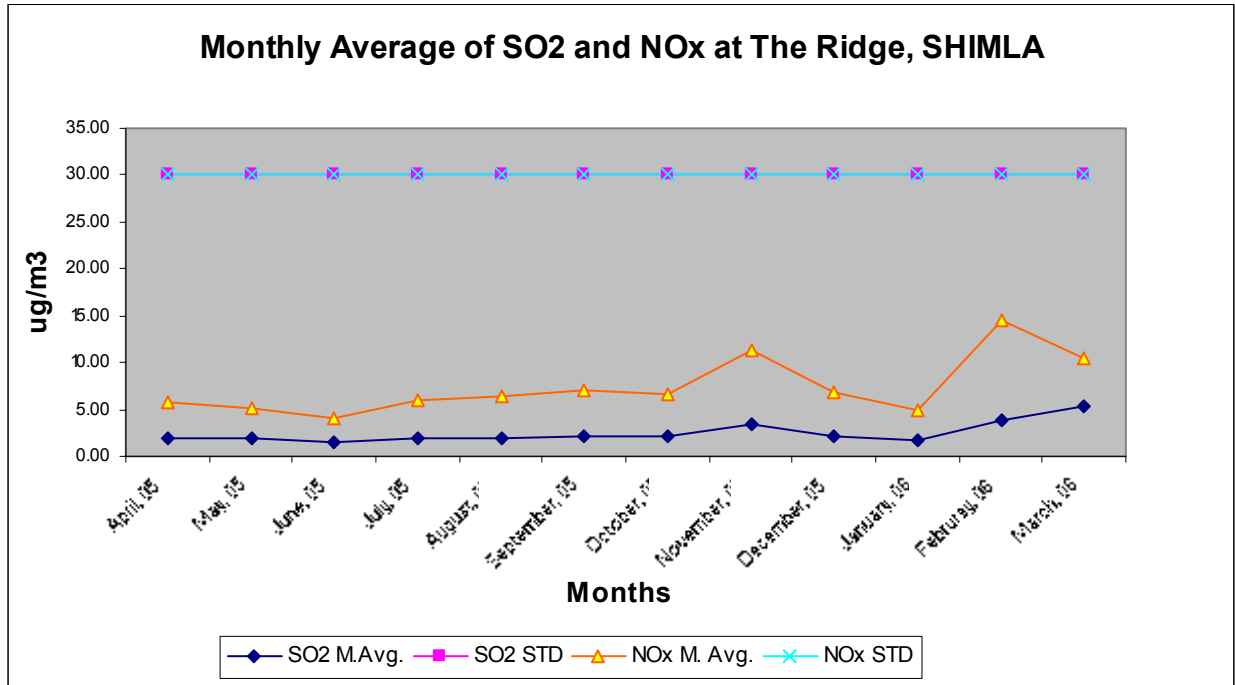
TABLE 1: NATIONAL AMBIENT AIR QUALITY STANDARDS					
Pollutant	Time Weighted Average	Concentration in Ambient Air			Method of Measurement
		Industrial Area	Resi., Rural & Other Area	Sensitive	
(1)	(2)	(3)	(4)	(5)	(6)
Sulphur Dioxide (SO ₂)	Annual Average*	80 µg/ m ³	60 µg/ m ³	15 µg/ m ³	-Improved West and Geeks method
	24 hours**	120µg/ m ³	80µg/ m ³	30µg/ m ³	-Ultraviolet fluorescence
Oxides of Nitrogen (NO ₂)	Annual Average*	80 µg/ m ³	60 µg/ m ³	15 µg/ m ³	-Jacab and Hochhwiser modified (Na-Arsenite) method-Gas-Phase Chemilumescence
	24 hours**	120µg/ m ³	80µg/ m ³	30µg/ m ³	
Suspended Particulate Matter (SPM)	Annual Average*	360µg/ m ³	140 µg/ m ³	70 µg/ m ³	-High Volume Sampling [Average flow rate not less than 1.1 m ³ /minute]
	24 hours**	500µg/ m ³	200µg/ m ³	100µg/ m ³	
	Annual Average*	120µg/ m ³	60 µg/ m ³	50 µg/ m ³	-Respirable particulate matter sampler
	24 hours**	150µg/ m ³	100µg/ m ³	75µg/ m ³	
Lead (Pb)	Annual Average*	1.0 µg/ m ³	0.75 µg/ m ³	0.50µg/m ³	-AAS method after sampling using EPM
	24 hours**	1.5µg/ m ³	1.00µg/ m ³	0.75µg/m ³	2000 or equivalent filter paper
Carbon Monoxides	8 hours**	5.0 mg/ m ³	2.0mg/ m ³	1.0mg/ m ³	-Non disperse, infrared spectroscopy
	1 hour	10.0mg/ m ³	4.0mg/ m ³	2.0mg/ m ³	

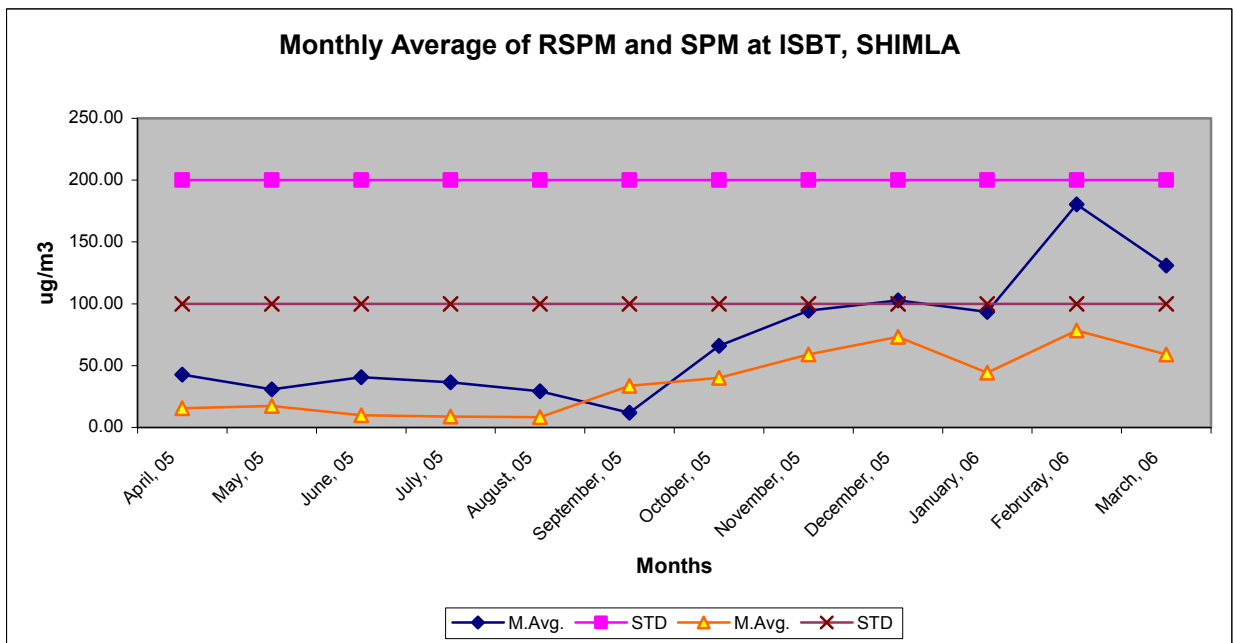
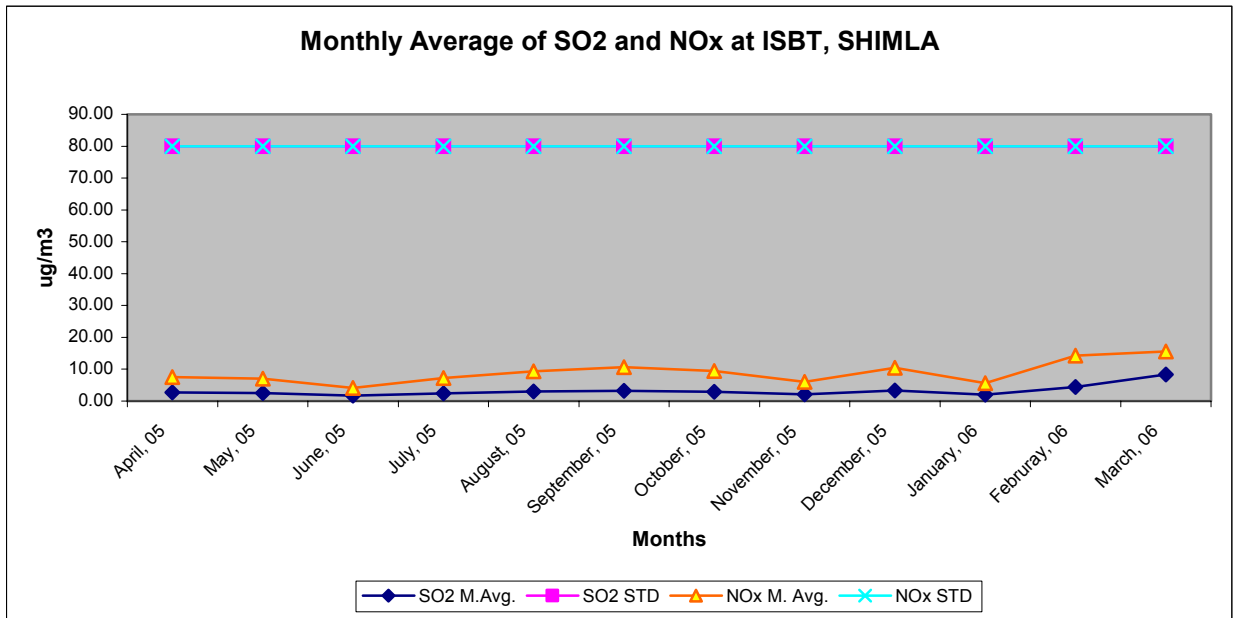
1 µg (micro-gram) - .001 mg (milli gram)

4.1.1 AMBIENT AIR QUALITY SHIMLA:

Shimla is an important hill station at an elevation of 2000 meters from mean sea level. It has remained summer capital of India during British regime. In 1971 it became the capital of Himachal Pradesh. A large number of tourists visit the city almost throughout the year. Station No. 1 is located at Takka Bench on the Ridge which falls under **Sensitive Area Zone 'S'** and Station No. 2 is located on the top of the main building of Inter State Bus Stand, which falls

under **Residential Area Zone 'R'**. The monitoring is being done with the help of the Respirable Particulate Matter sampler on the basis of three days per station per week for 24 hours. The data collected for the year 2005-2006 has been scrutinized for monthly average and peak values for these two locations and the trends of monthly average SO₂, NO_x, SPM and RSPM are as shown below.





Monthly Mean Average Values of SO₂ and NO_x at both stations were observed much below the maximum permissible limits. However, the peak values of SO₂ and NO_x were observed as high as 10.94 μg/m³ and 26.25 μg/m³ in the month of October 2005 for Station No.1. The peak values of RSPM and SPM were observed as high as 170.97 μg/m³ in the month of December, 2005 and 421.53 μg/m³ in the month of October, 2005 respectively at Station No. 1. However, for Station No. 2 the peak values of SO₂ and NO_x were found to be 13.63 μg/m³ and 24.27 μg/m³ in the month of March, 2006 & September, 2005 respectively. The peak values of RSPM and SPM for Station No. 2 were observed as high as 162.09 μg/m³ and 521.43 μg/m³ in the month of February, 2006 & November, 2005 respectively. Though the monthly mean average value

ranged between 1.46 $\mu\text{g}/\text{m}^3$ to 8.34 $\mu\text{g}/\text{m}^3$ for SO_2 and 4.06 $\mu\text{g}/\text{m}^3$ to 15.57 $\mu\text{g}/\text{m}^3$ for NO_x for both the Stations. Yearly annual average values for RSPM & SPM at Station No. 1 observed as 24.68 $\mu\text{g}/\text{m}^3$ and 68.60 $\mu\text{g}/\text{m}^3$ respectively are below the permissible limit of 50 $\mu\text{g}/\text{m}^3$ and 70 $\mu\text{g}/\text{m}^3$ prescribed for Sensitive Area where as RSPM & SPM at Station No. 2 observed as 37.11 $\mu\text{g}/\text{m}^3$ and 92.87 $\mu\text{g}/\text{m}^3$ respectively are also below the permissible limit of 60 $\mu\text{g}/\text{m}^3$ and 140 $\mu\text{g}/\text{m}^3$ for Residential Area. In comparison to previous year's data of yearly average values, there is a rise in the level of RSPM & SPM at both the locations. The ambient air quality data of both the stations is as listed below.

AMBIENT AIR QUALITY DATA:

Monitoring Location: SHIMLA

Table-I

Station-I

Month	SO_2		NO_x		SPM		RSPM	
	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak
April, 05	1.83	3.18	5.68	9.16	46.31	89.44	10.94	19.48
May, 05	1.95	2.90	5.03	9.17	35.62	41.25	12.40	17.04
June, 05	1.46	3.46	4.06	10.20	43.65	76.13	7.35	13.88
July, 05	1.85	3.29	5.90	8.54	38.24	76.40	5.37	19.59
August, 05	1.87	3.29	6.43	12.12	42.90	92.11	7.50	11.54
Sept., 05	2.20	7.68	7.10	23.66	47.57	103.98	33.46	92.45
October, 05	2.18	10.94	6.69	26.25	113.00	421.53	31.74	99.06
Nov., 05	3.31	5.47	11.36	19.47	75.80	180.36	30.95	73.73
Dec., 05	2.19	6.14	6.82	11.87	146.86	369.50	58.85	170.97
January, 06	1.62	2.68	4.97	8.12	76.28	264.38	34.89	122.32
Feb., 06	3.93	5.93	14.42	20.89	87.99	172.05	33.87	68.95
March, 06	5.39	10.66	10.40	16.92	68.94	96.14	28.84	48.12

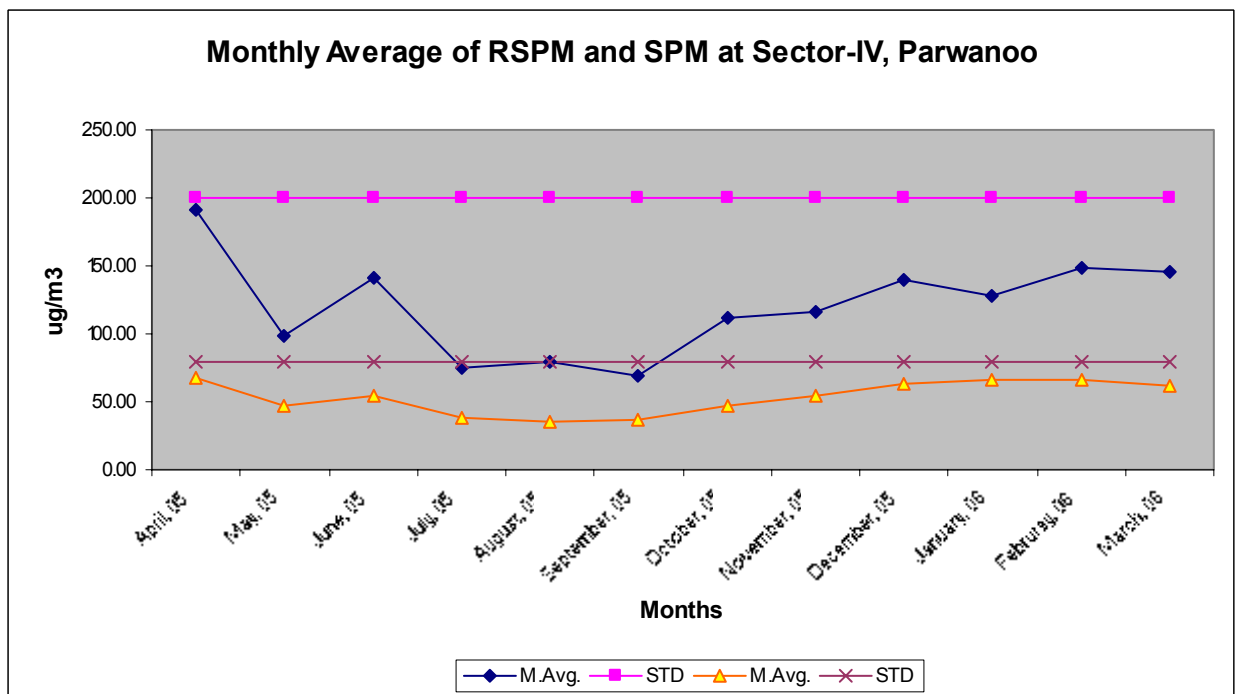
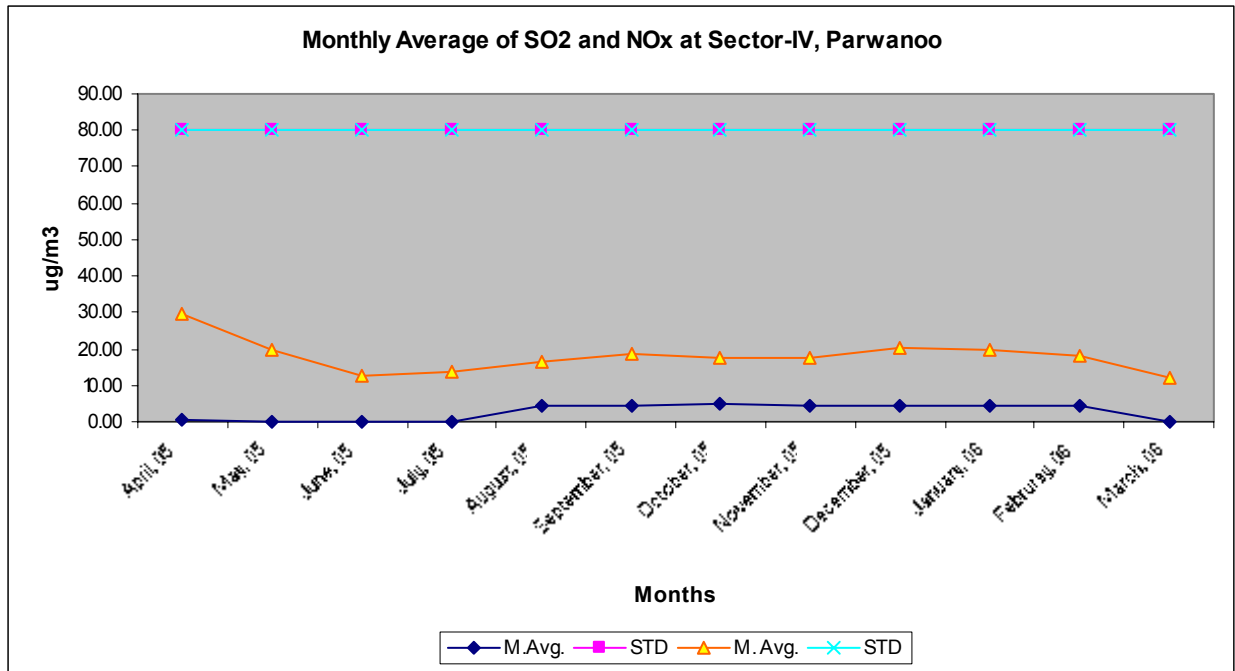
Table-II

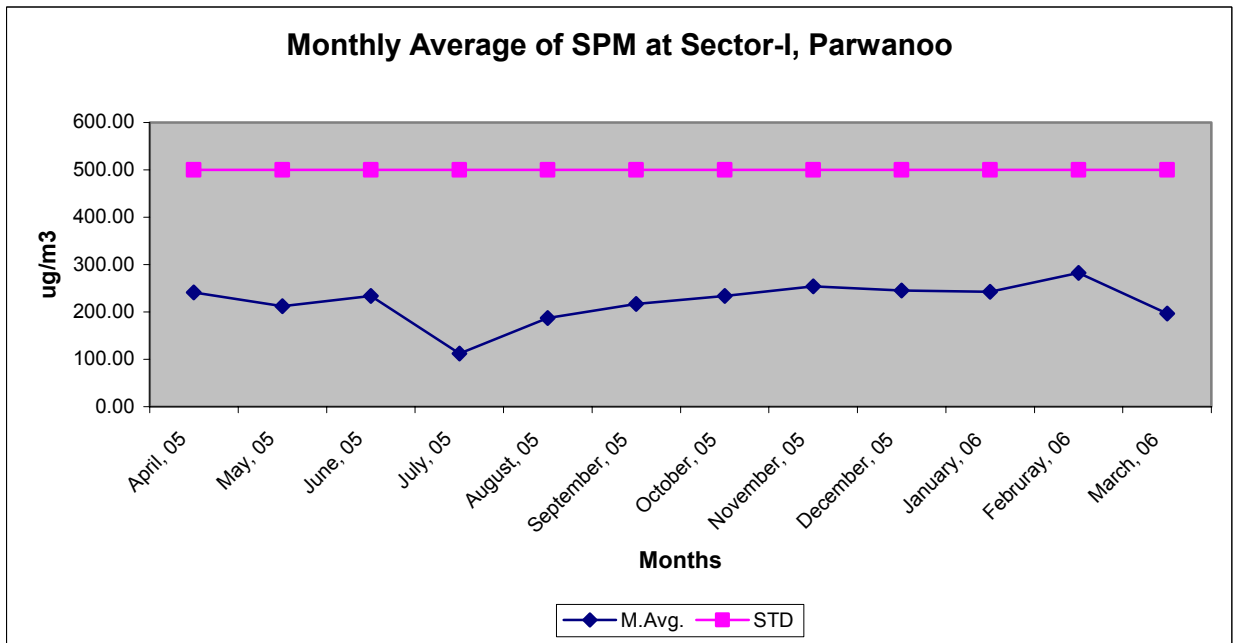
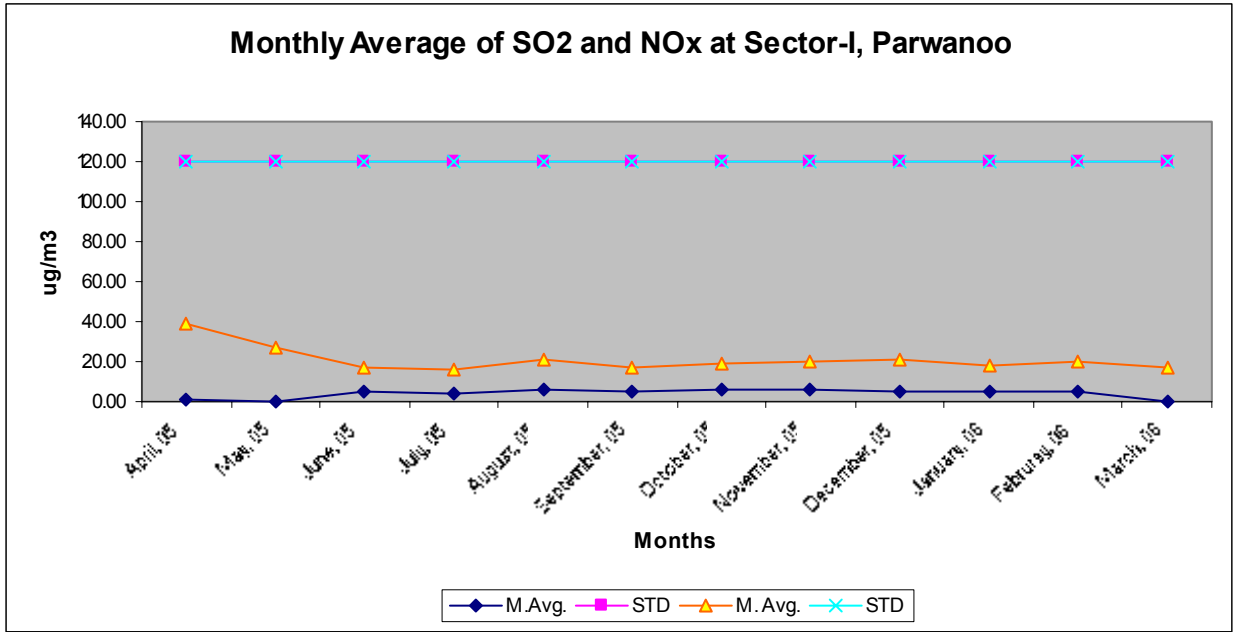
Station-II

Month	SO_2		NO_x		SPM		RSPM	
	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak
April, 05	2.74	5.13	7.57	16.25	58.50	81.89	15.61	20.99
May, 05	2.50	3.96	7.05	10.72	50.09	88.67	17.39	26.62
June, 05	1.71	2.73	4.15	7.18	49.09	82.25	9.83	15.31
July, 05	2.37	4.36	7.26	10.79	43.23	110.08	8.73	22.56
August, 05	2.99	6.64	9.35	21.56	36.51	70.75	8.43	14.31
Sept., 05	3.22	6.47	10.63	24.27	44.16	98.69	33.64	88.72
October, 05	2.91	5.08	9.49	15.00	104.50	219.02	38.52	94.93
Nov., 05	2.09	4.63	6.01	9.68	153.52	521.43	58.99	145.06
Dec., 05	3.36	5.47	10.49	16.35	170.39	325.70	72.24	139.62
January, 06	1.98	3.35	5.65	7.34	93.37	269.51	44.37	131.15
Feb., 06	4.44	9.48	14.28	23.88	180.27	326.04	78.45	162.09
March, 06	8.34	13.63	15.57	23.88	130.85	291.95	59.06	138.97

4.1.2 AMBIENT AIR QUALITY AT PARWANOO:

Air quality of Parwanoo town is being monitored continuously at two different locations, one at Sector IV (Station No.1), which falls under **Residential Area Zone ‘R’** and other station is situated at Sector -I (Station No. 2), which falls under the category of **Industrial Area Zone ‘I’**. The data collected for the year 2005-2006 has been scrutinized for monthly average and peak values for these two locations and the trends of monthly average SO₂, NO_x, SPM and RSPM are as shown below.





At Station No. 1 & 2 the monthly Mean Average Values of SO₂ & NO_x were observed well below the prescribed standards at both the stations. However, the peak values of SO₂ were observed as high as 9.91 µg/m³ and 7.41 µg/m³ respectively at both stations and for NO_x it was 43.90 µg/m³ at Station No. 1 and 54.35 µg/m³ at Station No. 2. The highest values of SPM were observed as high as 530.46 µg/m³ and 675.75 µg/m³ in the month of April & May, 2005 at both the Stations respectively. However, the monthly mean average values ranged between 69.65 µg/m³ to 190.74 µg/m³ at Station No. 1 and 111.92 to 282.49 µg/m³ at Station No. 2. From these observations, it can be concluded that the air quality was poor at Station No. 2 in comparison to Station No.1. The annual average values of SPM have decreased during 2005-06 over the values of SPM observed during 2002-03 & 2003-04, 2004-05 at Station No.1 & 2. These values are

less than the prescribed limit of 140 $\mu\text{g}/\text{m}^3$ & 360 $\mu\text{g}/\text{m}^3$ for Residential & Industrial areas. The ambient air quality data of both the stations is as listed below.

AMBIENT AIR QUALITY DATA:

Monitoring Location: PARWANOO

Station-I

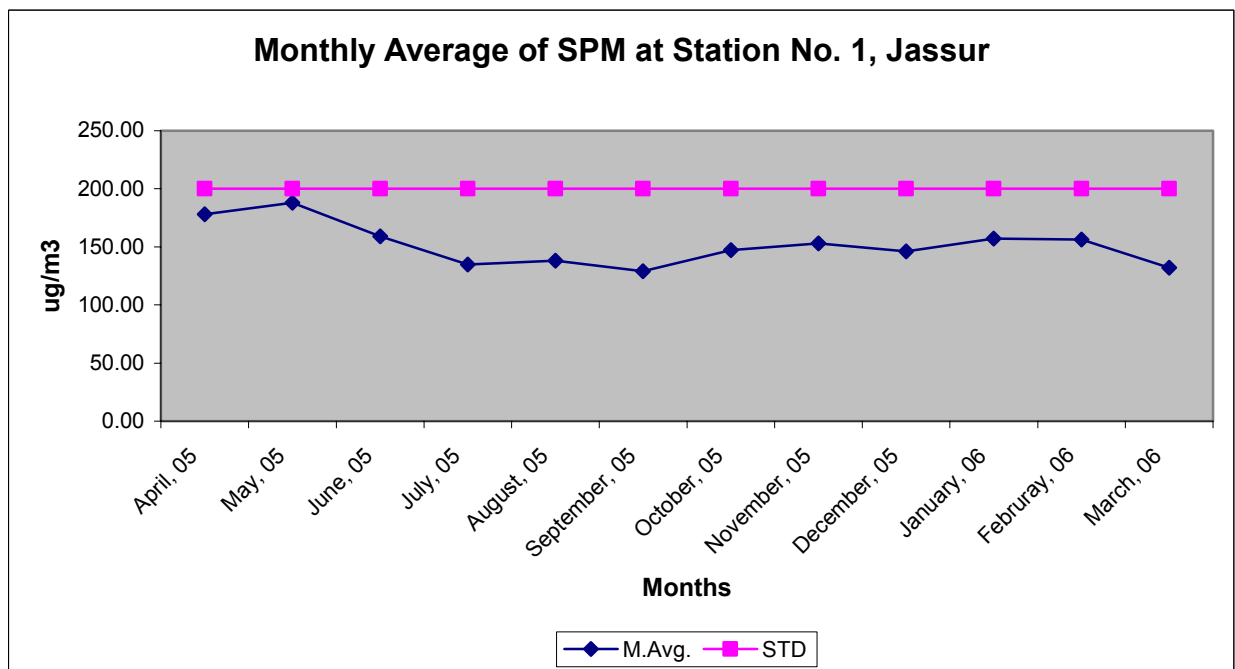
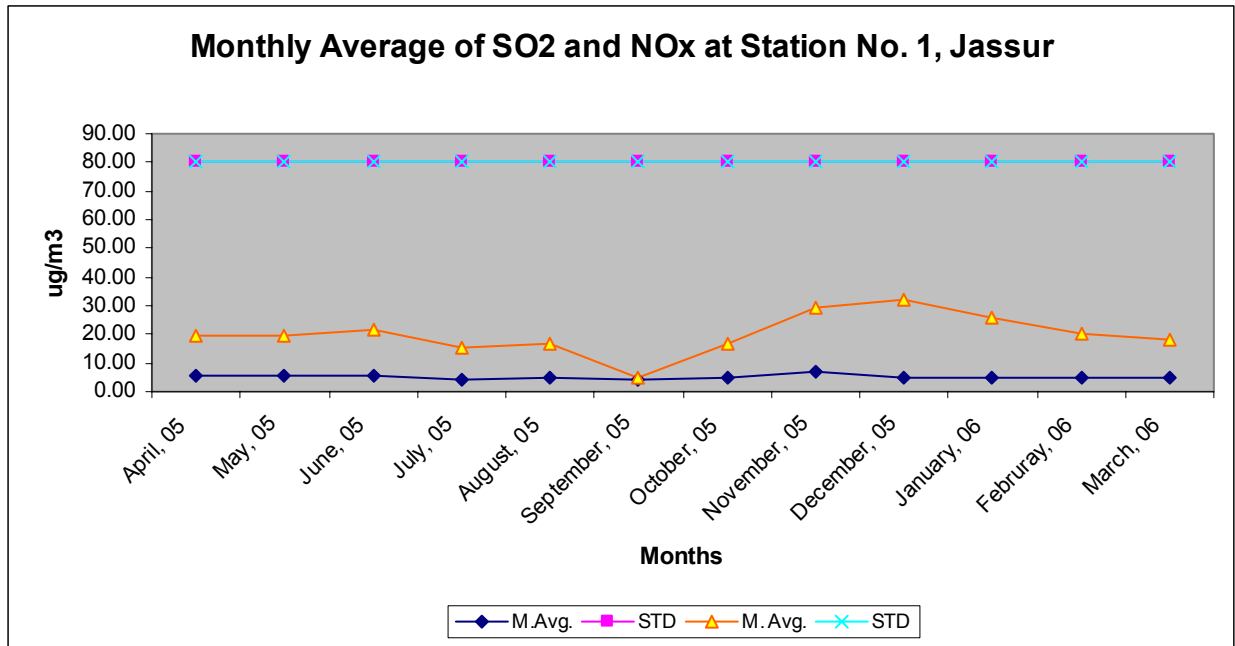
Month	SO ₂		NO _x		SPM		RSPM	
	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak
April, 05	0.58	2.00	29.79	39.02	190.74	530.46	68.08	179.27
May, 05	BDL	6.80	19.63	43.90	98.75	308.58	47.18	147.93
June, 05	BDL	2.00	12.64	17.11	140.48	206.31	54.59	101.12
July, 05	BDL	5.66	13.60	23.29	74.69	125.55	37.92	67.84
August, 05	4.17	5.59	16.19	32.64	79.99	183.62	34.86	99.41
Sept., 05	4.38	7.87	18.56	40.63	69.65	180.70	36.42	61.34
October, 05	5.04	7.55	17.41	33.91	112.42	190.39	47.72	76.15
Nov., 05	4.63	9.91	17.67	31.83	116.10	307.73	54.40	149.33
Dec., 05	4.18	9.79	20.27	34.54	139.96	211.21	62.86	84.66
January, 06	4.14	6.23	19.58	28.42	127.24	206.40	65.89	102.73
Feb., 06	4.18	6.14	17.88	27.80	148.80	223.41	65.68	120.99
March, 06	BDL	5.60	12.07	22.19	145.95	259.81	61.17	141.02

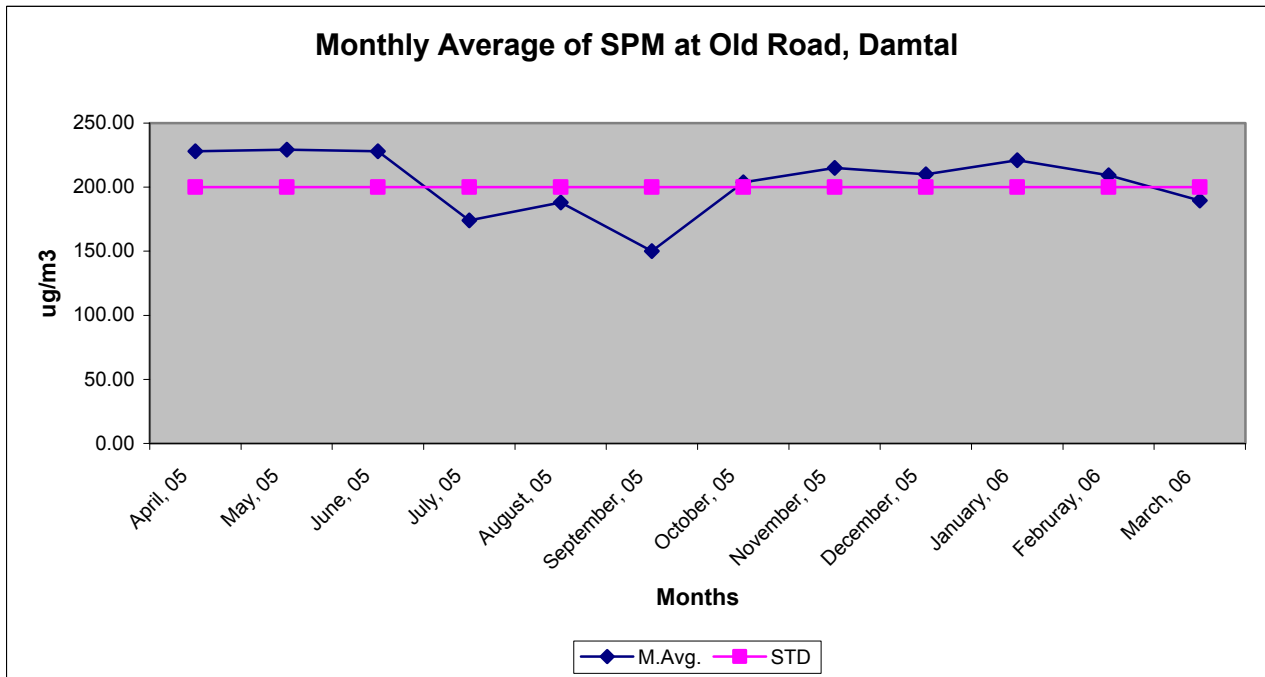
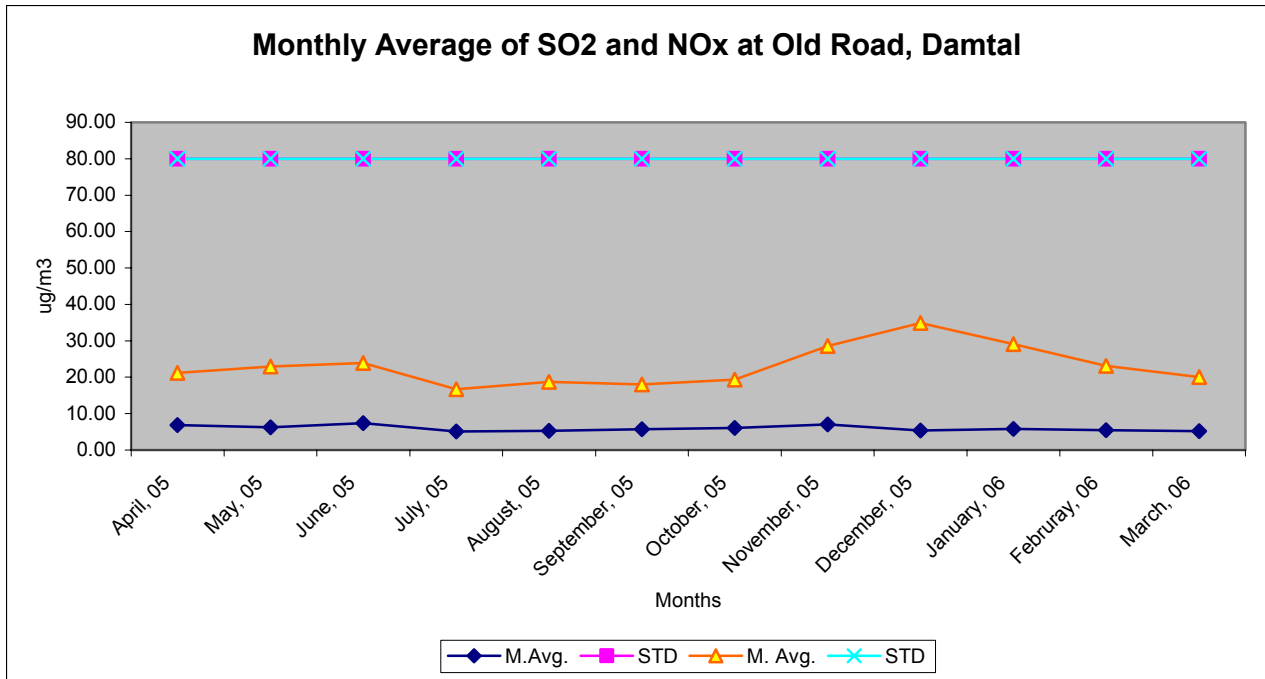
Station-II

Month	SO ₂		NO _x		SPM	
	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak
April, 05	1.12	2.00	38.78	54.35	241.42	560.71
May, 05	0.00	6.80	27.11	48.78	212.25	675.75
June, 05	4.73	6.03	16.79	20.87	233.45	467.25
July, 05	4.48	5.39	15.78	19.63	111.92	255.51
August, 05	5.52	6.09	20.82	45.95	187.48	346.18
Sept., 05	5.17	7.36	17.16	22.19	217.09	479.58
October, 05	5.83	7.29	18.51	27.75	233.78	523.89
Nov., 05	5.99	7.28	19.54	28.05	253.82	558.32
Dec., 05	5.19	6.99	21.45	51.30	245.40	468.31
January, 06	4.83	7.41	18.22	23.39	242.64	413.94
Feb., 06	5.32	6.04	20.07	25.20	282.49	344.30
March, 06	BDL	6.50	16.93	21.95	196.35	240.70

4.1.3 AMBIENT AIR QUALITY AT DAMTAL:

Air quality of Damtal is being monitored at two different locations. One near HPSEP & PCB, Office Jassur (Station No.1) and other at Old Road Damtal (Station No.2). Both these stations fall under **Residential Area Zone 'R'**. Monitoring station at Damtal has a large numbers of stone crushers in the vicinity. The data collection for the year 2005-2006 has been scrutinized for monthly average and peak values for both these locations and the trends of monthly average SO₂, NO_x, SPM and RSPM are as shown below.





Although the monthly Mean Average Values of SPM ranged between 129 $\mu\text{g}/\text{m}^3$ to 188 $\mu\text{g}/\text{m}^3$ are within the prescribed limit of 200 $\mu\text{g}/\text{m}^3$ for Station No. 1. The monthly mean average values of SPM ranged between 150 $\mu\text{g}/\text{m}^3$ to 229.39 $\mu\text{g}/\text{m}^3$ for Station No. 2. However, the peak value was observed as 334 $\mu\text{g}/\text{m}^3$ at Station No. 1 and 366 $\mu\text{g}/\text{m}^3$ at station No. 2. The peak values are highest in the month of April & June 2005 at station No. 1 & station No.2 respectively because of dry summer season. The mean average values for SO₂ ranged between 4.46 $\mu\text{g}/\text{m}^3$ to 7.41 $\mu\text{g}/\text{m}^3$ at both the stations whereas mean average values for NO_x ranged between 4.61 $\mu\text{g}/\text{m}^3$ to

34.88 $\mu\text{g}/\text{m}^3$ at both the stations. These values are within the prescribed limit showing the good quality of air from gaseous point of view. From the above observations it can be concluded that quality of air at Station No.2 is comparatively poor than Station No.1 with respect to the SPM values. The annual average values of SPM have increased during 2005-06 over the values of SPM values observed during 2004-05 at both the stations. The ambient air quality data of both the stations is as listed below.

AMBIENT AIR QUALITY DATA:

Monitoring Location: DAMTAL

Station-I

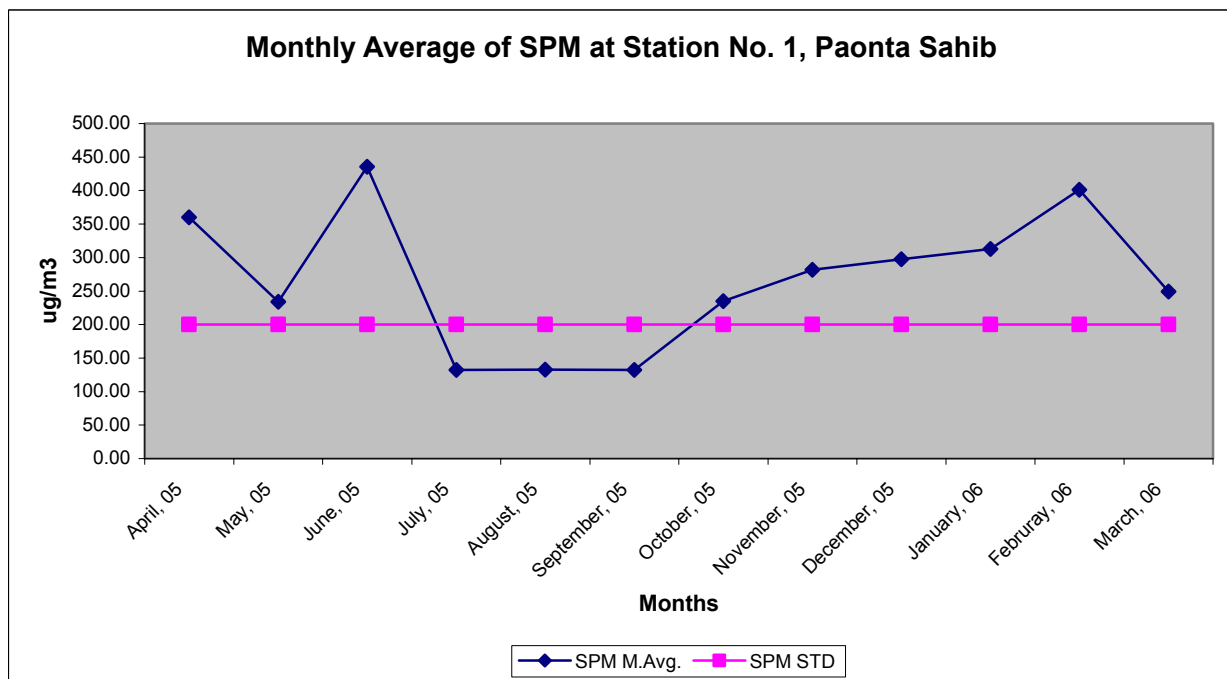
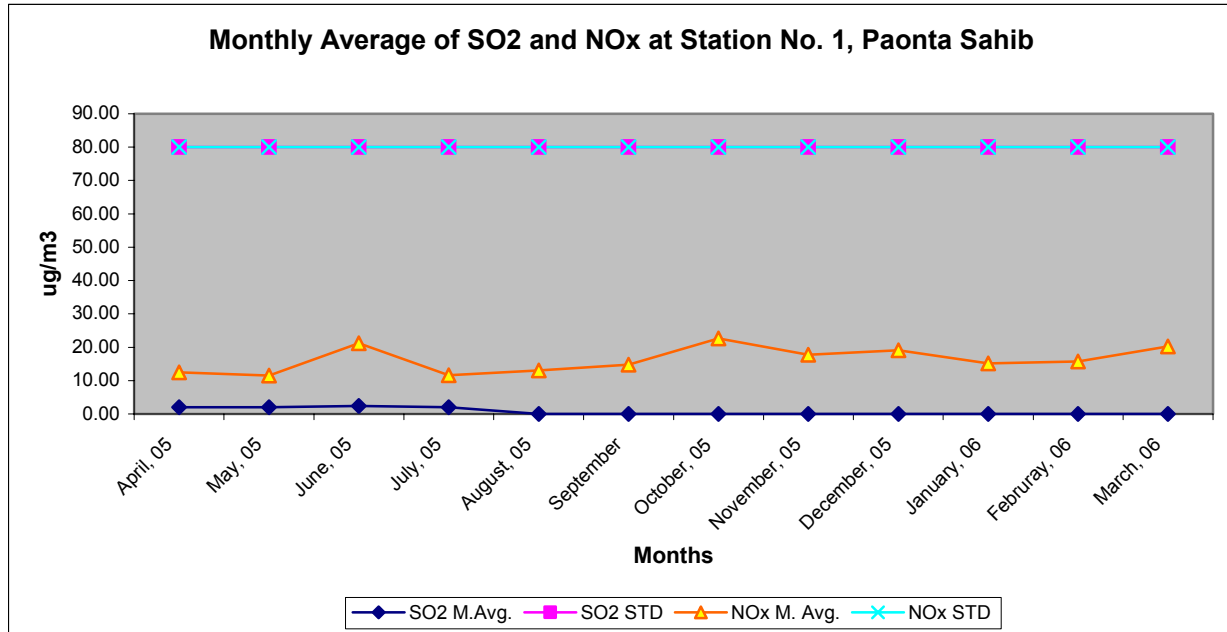
Month	SO ₂		NO _x		SPM	
	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak
April, 05	5.42	8.30	19.30	24.38	178.00	334.00
May, 05	5.69	8.38	19.52	24.38	188.03	295.00
June, 05	5.90	8.53	21.75	27.20	159.00	270.00
July, 05	4.46	8.30	15.61	21.40	134.67	234.00
August, 05	4.64	7.11	17.07	26.87	138.00	246.00
Sept., 05	4.47	7.11	4.61	18.91	129.00	197.00
October, 05	4.67	7.70	16.51	23.00	147.24	204.00
Nov., 05	6.88	20.74	29.59	195.07	153.00	240.00
Dec., 05	4.65	7.70	31.83	44.71	146.00	214.00
January, 06	4.82	8.30	25.90	35.30	157.00	237.00
Feb., 06	4.59	8.25	20.51	23.26	156.41	243.00
March, 06	5.11	8.24	17.90	26.91	132.13	211.00

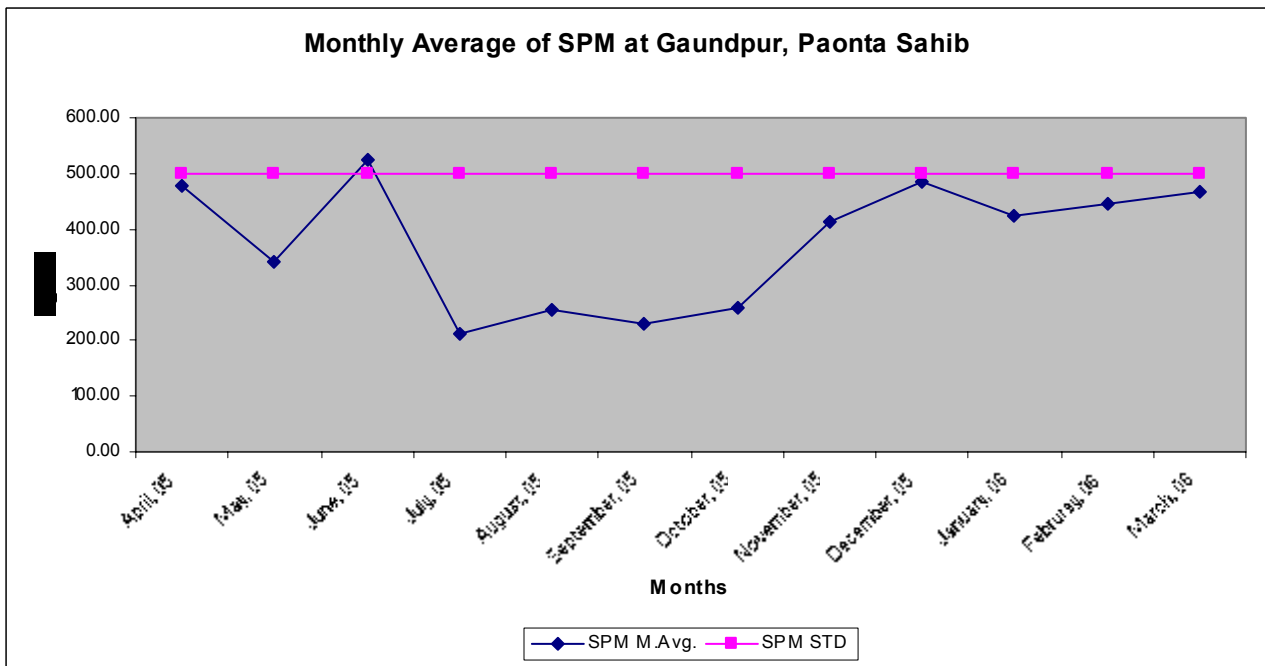
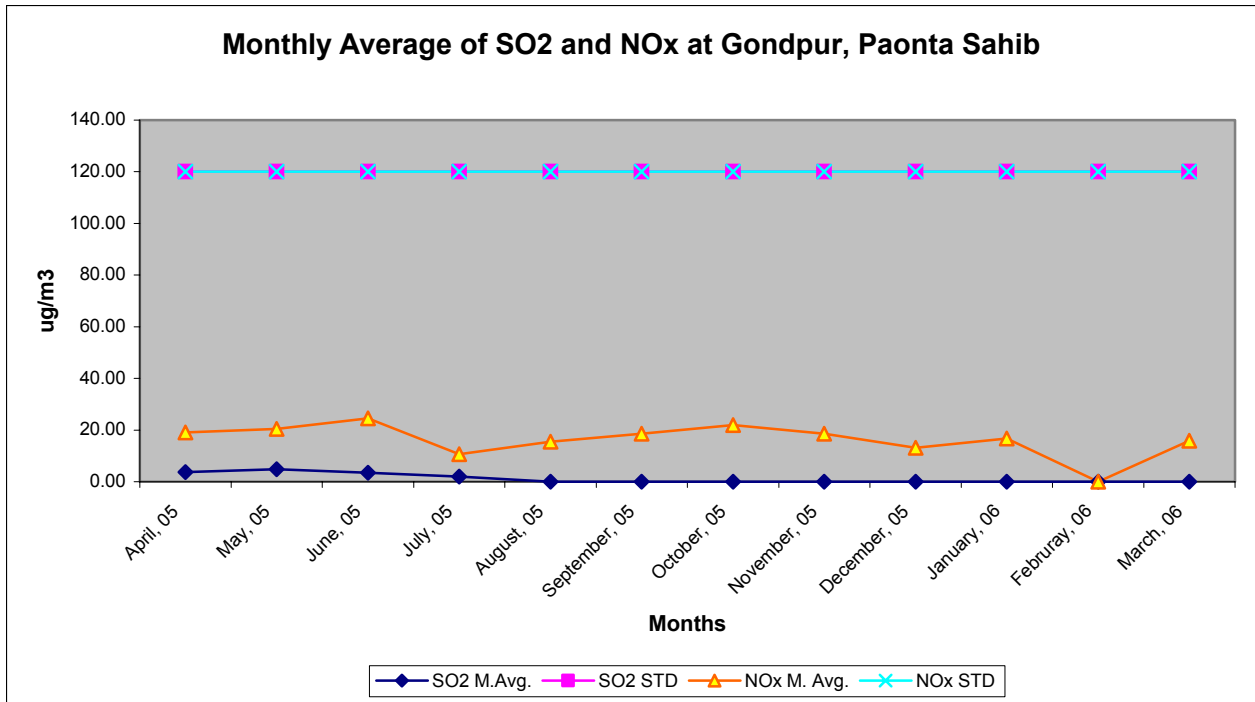
Station-II

Month	SO ₂		NO _x		SPM	
	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak
April, 05	6.88	11.13	21.20	30.11	228.00	341.00
May, 05	6.28	8.30	22.96	29.37	229.39	341.00
June, 05	7.41	12.19	23.94	29.85	228.00	344.00
July, 05	5.14	8.75	16.74	26.72	174.12	307.00
August, 05	5.25	9.48	18.70	24.68	188.00	326.00
Sept., 05	5.75	8.30	18.01	24.64	150.00	253.00
October, 05	6.09	9.24	19.37	26.83	203.71	302.00
Nov., 05	7.07	17.77	28.59	147.56	215.00	366.00
Dec., 05	5.37	8.89	34.88	50.30	210.00	303.00
January, 06	5.76	9.48	29.06	39.50	221.00	328.00
Feb., 06	5.47	9.24	23.12	33.54	209.37	283.00
March, 06	5.20	8.24	20.01	29.73	189.57	272.00

4.1.4 AMBIENT AIR QUALITY AT PAONTA SAHIB:

Ambient air quality of Paonta Sahib is being monitored during day at two different locations, one at Paonta Sahib town (Station No.1) and other industrial area Gondpur (Station No. 2). These stations fall under **Residential Area Zone 'R'** and **Industrial Area Zone 'I'** respectively. The data collected for the year 2005-2006 has been scrutinized for monthly Average & Peak values for these two locations and the trends of monthly average SO₂, NO_x, SPM and RSPM are as shown below.





All the values of SO₂ and NO_x remained below the maximum permissible limits of 80 µg/m³ at Station No. 1 and 120 µg/m³ at Station No. 2. The mean average values of SPM crossed the limit of 200 ug/m³ except in the months of July to September, 2005 at Station No. 1 while at Station No. 2 the mean average value of SPM was observed above the prescribed limit of 500 ug/m³ in the month of June, 2005 only (525.64 µg/m³). The annual average values of SPM have slightly decreased during 2005-06 over the values of SPM values observed during 2004-05 at both the stations. However, these values are more than the prescribed limit of 140 µg/m³ & 360 µg/m³

for Residential & Industrial areas. The comparison of annual average values of SPM in the last three years shows that lot of variation in concentration of SPM at both these stations because of more industrial activities in these areas. The ambient air quality data of both the stations is as listed below.

AMBIENT AIR QUALITY DATA:

Monitoring Location: PAONTA SAHIB

Station-I

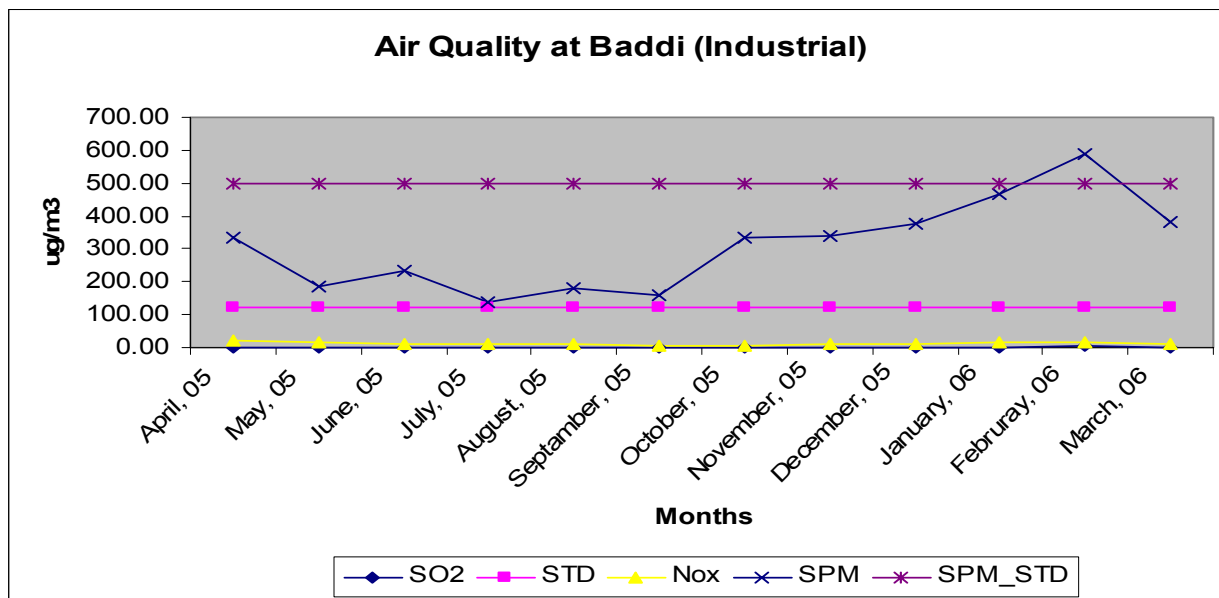
Month	SO ₂		NO _x		SPM	
	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak
April, 05	2.06	4.53	12.45	20.00	360.00	865.00
May, 05	2.00	2.00	11.51	25.36	233.85	662.30
June, 05	2.43	9.07	21.16	51.71	435.38	1303.16
July, 05	2.00	2.00	11.60	21.46	132.41	464.86
August, 05	BDL	BDL	13.09	35.12	132.70	239.82
Sept., 05	BDL	BDL	14.73	36.58	132.08	268.90
October, 05	BDL	BDL	22.61	45.73	234.80	645.00
Nov., 05	BDL	BDL	17.72	27.44	281.56	555.01
Dec., 05	BDL	BDL	19.10	46.34	297.58	508.83
January, 06	BDL	BDL	15.13	27.02	313.03	883.44
Feb., 06	NR	NR	15.77	23.16	401.25	865.15
March, 06	BDL	6.76	20.29	48.76	249.12	614.37

Station-II

Month	SO ₂		NO _x		SPM	
	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak
April, 05	3.70	6.80	19.06	26.34	477.00	1115.00
May, 05	4.84	6.81	20.44	25.36	342.54	697.25
June, 05	3.41	5.67	24.51	35.12	525.64	1358.60
July, 05	2.00	2.00	10.66	13.17	212.21	548.43
August, 05	BDL	BDL	15.54	23.41	253.74	666.15
Sept., 05	BDL	BDL	18.61	45.73	231.51	715.20
October, 05	BDL	BDL	21.88	68.60	258.81	482.50
Nov., 05	BDL	BDL	18.54	27.44	414.00	1252.33
Dec., 05	BDL	BDL	13.16	30.90	483.78	886.80
January, 06	BDL	BDL	16.73	27.00	424.27	986.29
Feb., 06	NR	NR	NR	NR	443.75	894.23
March, 06	BDL	6.76	15.91	26.82	466.95	1250.31

4.1.5 AMBIENT AIR QUALITY AT BADDI:

Under the National Ambient Air Quality Program (NAPM) the State Board has established one ambient air quality monitoring station at Baddi in February 2005. Since then monitoring is being done regularly at Industries Department building on 24 hour basis. This station falls under the category of Industrial and mixed use. The monthly average values of SPM, SO₂ and NO_x for this station are as listed below:



All the values of SO₂ and NO_x remained below the maximum permissible limits of 120 µg/m³. The mean average values of SPM are within the limit of 500 ug/m³ except in the month of February, 2006. These average values were found in the range of 158.15-586.74 µg/m³. The annual average value of SPM was also found within limit for the year 2005-06. The observed values of ambient air quality data is as listed below.

AMBIENT AIR QUALITY DATA:

Monitoring Location: **BADDI**

Month	SO ₂		NO _x		SPM	
	M. Avg.	Peak	M. Avg.	Peak	M. Avg.	Peak
April, 05	2.00	2.00	22.06	39.84	333.56	1778.00
May, 05	2.00	2.00	14.47	42.87	187.18	334.57
June, 05	2.00	2.00	9.75	14.88	235.60	982.48
July, 05	2.00	2.00	12.62	19.98	136.93	260.72
August, 05	2.00	2.00	9.20	12.91	180.64	384.39
Sept., 05	2.00	2.00	4.50	9.12	158.15	248.25
October, 05	2.00	2.00	4.50	11.71	332.58	454.06
Nov., 05	2.00	4.24	9.31	23.84	338.33	529.62
Dec., 05	2.00	4.24	11.14	12.86	376.35	688.39
January, 06	2.00	6.08	17.12	23.73	465.70	819.92
Feb., 06	4.02	5.85	17.52	21.63	586.74	1255.00
March, 06	2.00	5.38	13.09	25.54	384.27	698.70

4.1.6 VEHICULAR MONITORING IN HIMACHAL PRADESH:

The government of Himachal Pradesh under the Motor Vehicle Act, 1989 has empowered the Regional Officers of the State Board with checking of the vehicles. The State Board is regularly monitoring vehicles during mass awareness camps organized from time to time in the State. A total number of 3079 vehicles were monitored/checked during the year 2005-2006. Out of these vehicles 279 vehicles were challaned for non-compliance of the emission norms. The percentage of non-complying vehicles was 4% petrol driven and 11 % diesel driven. Therefore, in order to implement the provisions of law effective and efficient measures are required for vehicular pollution control in the State, so that it does not effect the air quality of the State.

4.1.7 STEPS TAKEN TO IMPROVE THE AIR QUALITY:

- a) Preventing burning of Bio-fuels in Shimla and other towns due to availability of cheap and assured electricity.
- b) No industry is allowed to come up without Air Pollution Control Device installed.
- c) In already existed industries, 81 Air Pollution Control devices were improved/upgraded during the year
- d) Vehicles performance has improved – complying better emission norms.

4.2 STATUS OF RIVER WATER QUALITY:

Assessment of the status of water quality of the natural water bodies is one of the most important activities of the Pollution Control Board. Water quality data not only help to ascertain the nature and extent of the requirement for pollution control measures but also indicates its impact on water quality. The Central Pollution Control Board under the National Program: **MONITORING OF NATIONAL AQUATIC RESOURCES (MINARS)** is sponsoring the water quality monitoring of major rivers of the State. The monitoring has been carried out in the month of April, July, October and January every year. In all 32 points have been selected on major rivers Satluj, Beas, Ravi, Yamuna, Parvati, Sirsa, Markanda & Sukhna and samples are being analyzed for 22 parameters which includes the physico-chemical and bacteriological contents. The results are shown in Table 3. Seventeen points have also been selected in major industrial towns for the monitoring of ground water of hand pumps & wells. It has been observed that quality of ground water monitored in the State confirms the prescribed standards.

However, in addition to the State Board is also monitoring the water quality of different tributaries of rivers, nallahs and lakes in the State.

Following conclusion were drawn from the above studies:

- In case of major rivers on the basis of Primary Water Quality Criteria as shown in Table 2, it can be concluded that quality of river falls under ‘A’ category of water with respect to pH, DO and BOD in general. The critical parameters observed is Total Coliform according to which category of river comes down to either category ‘B’ if the Total Coliform are more than 50 MPN/ 100 ml or category ‘C’ if the Total Coliform are more than 500 MPN/100ml.

- Urban waste affects water quality near towns and water resources are required to be treated and disinfected before it is used for drinking purposes.

Designated Base Use	Class of Water	Criteria
Drinking water source without conventional treatment but after disinfection.	A	1. Total Coliform organism MPN/100ml. shall be 50 or less. 2. pH between 6.5 and 8.5. 3. Dissolved Oxygen 6 mg/l or more. 4. Biochemical Oxygen Demand 5 days 20°C 2 mg/l or less.
Outdoor bathing (Organized)	B	1. Total Coliform organism MPN/100ml. shall be 500 or less. 2. pH between 6.5 and 8.5. 3. Dissolved Oxygen 5 mg/l or more. 4. Biochemical Oxygen Demand 5 days 20°C 3 mg/l or less.
Drinking Water Sources after conventional treatment	C	1. Total Coliform organism MPN/100ml. shall be 5000 or less. 2. pH between 6 and 9. 3. Dissolved Oxygen 4 mg/l or more. 4. Biochemical Oxygen Demand 5 days 20°C 3 mg/l or less.
Propagation of Wild Life Fisheries.	D	1. pH between 6.5 and 9.5. 2. Dissolved Oxygen 4 mg/l or more. 3. Free Ammonia (as N) 1.2 mg/l or less.
Irrigation, Industrial Cooling Controlled Waste.	E	1. pH between 6.5 and 9.5. 2. Electrical Conductivity at 25-mg/cm max. 2250. 3. Sodium absorption ratio Max. 26. 4. Boron Max 2 mg/l.

- If three parameters falls in category 'A' but fourth parameter falls in category C. The overall quality of river will fall under Class 'C'.

April, 2005				
Location/ Station Code	pH	DO (mg/l)	BOD (mg/l)	TC (MPN/SPC/100ml)
Manali U/S, 1001-R-BEA-A	8.10	10.8	0.4	17
Kullu D/S, 1002-R-BEA-A	7.67	10.0	0.6	33
Aut D/S, 1003-R-BEA-A	7.60	9.6	0.2	26
Pardon Dam U/S, 1004-R-BEA-A	7.20	9.2	0.3	14
Dehar Power House, 1005-R-BEA-A	8.12	12.0	0.4	33
Mandi D/S, 1006-R-BEA-A	7.90	9.8	0.3	70
Alampur D/S, 1007-R-BEA-A	7.75	8.0	0.9	11
Dehra D/S, 1008-R-BEA-A	7.92	7.7	1.3	33
Pong Dam D/S, 1009-R-BEA-A	8.28	8.1	1.1	11
Tatapani U/S, 1013-R-SAT-A	7.96	10.2	0.1	364
Slapper U/S, 1014-R-SAT-A	7.80	10.9	0.3	110

Slapper D/S, 1015-R-SAT-A	8.19	11.3	0.2	79
Bhakhra D/S, 1016-R-SAT-A	8.22	8.4	0.1	32
Rampur U/S, 1086-R-SAT-A	8.03	9.5	0.2	221
Rampur D/S, 1087-R-SAT-A	8.02	9.5	0.3	246
Madhopur H/W, 1088-R-RAV-A	7.75	7.7	1.5	17
Chamba U/S, 1089-R-RAV-A	7.36	10.2	0.8	5
Largi D/S, 1090-R-LAR-A	7.45	10.2	0.7	17
Bhunter Parvati, 1290-R-PAR-A	7.71	10.2	0.4	46
Bilaspur D/S, 1291-L-GOL-A	8.40	11.0	0.5	94
Pong Dam U/S, 1292-L-PDL-A	7.56	7.9	1.3	2
Wangtu Bridge, 1389-R-SAT-A	8.11	9.1	0.2	8
Renuka Lake, 1429-L-REL-B	8.28	8.0	3.4	36
U/S Mandi, 1550-R-BEA-A	8.25	9.9	0.2	26
U/S Sirsa River before conf. of Sitomajri Nallah, 1551-R-SIRSA-A	7.83	8.0	1.0	250
D/S Nalagarh Bridge, 1552-R SIRSA-A	8.30	10.7	3.0	1400
U/S Paonta Sahib, 1553-R-Yamuna-A	9.04	8.5	3.4	56
D/S Paonta Sahib, 1554-R-Yamuna-A	8.45	7.5	0.6	60
River Markanda at Paonta Sahib	8.03	8.2	4.4	-
River Satluj before confluence of River Spiti at Khab	7.85	8.5	0.2	1
D/S Nalagarh after meeting with Khad	8.13	10.7	4	1800
D/S Parwanoo Town River Sukhna	7.70	1.3	18	15000
July, 2005				
Location/ Station Code	pH	DO (mg/l)	BOD (mg/l)	TC (MPN/SPC/100ml)
Manali U/S, 1001-R-BEA-A	7.50	9.9	1.4	17
Kullu D/S, 1002-R-BEA-A	7.37	9.5	0.3	33
Aut D/S, 1003-R-BEA-A	8.36	10.2	0.5	17
Pandoh Dam U/S, 1004-R-BEA-A	7.95	9.2	0.5	33
Dehar Power House, 1005-R-BEA-A	7.92	9.5	0.7	34
Mandi D/S, 1006-R-BEA-A	8.04	8.8	0.6	1600
Sujanpur D/S, 1007-R-BEA-A	7.71	8.3	2.0	240

Dehra D/S, 1008-R-BEA-A	7.82	7.9	2.4	920
Pong Dam D/S, 1009-R-BEA-A	8.14	7.2	1.0	140
Tatapani U/S, 1013-R-SAT-A	8.02	8.6	0.1	90
Slapper U/S, 1014-R-SAT-A	8.19	7.8	0.2	49
Slapper D/S, 1015-R-SAT-A	8.23	8.6	0.5	17
Bhakhra D/S, 1016-R-SAT-A	8.04	8.6	0.1	80
Rampur U/S, 1086-R-SAT-A	-	-	-	-
Rampur D/S, 1087-R-SAT-A	-	-	-	-
Madhopur H/W, 1088-R-RAV-A	7.88	7.6	1.1	34
Chamba U/S, 1089-R-RAV-A	7.63	9.4	1.2	240
Largi D/S, 1090-R-LAR-A	8.16	10.8	0.2	17
Bhunter Parvati, 1290-R-PAR-A	7.22	9.5	0.6	33
Bilaspur D/S, 1291-L-GOL-A	8.08	8.2	0.6	2400
Pong Dam U/S, 1292-L-PDL-A	8.31	7.0	1.4	33
Wangtu Bridge, 1389-R-SAT-A	-	-	-	-
Renuka Lake, 1429-L-REL-B	9.0	7.2	-	50
U/S Mandi, 1550-R-BEA-A	8.13	9.0	0.6	33
U/S Sirsa River before conf. of Sitomajri Nallah, 1551-R-SIRSA-A	8.03	7.8	0.1	60
D/S Nalagarh Bridge, 1552-R SIRSA-A	8.30	7.2	0.2	160
U/S Paonta Sahib, 1553-R-Yamuna-A	7.18	7.7	-	90
D/S Paonta Sahib, 1554-R-Yamuna-A	8.22	7.9	-	70
River Markanda at Paonta Sahib	8.62	7.8	-	30
River Satluj before confluence of River Spiti at Khab	-	-	-	-
D/S Nalagarh after meeting with Khad	8.24	7.4	0.2	190
D/s Parwanoo Town River Sukhna	7.30	6.2	1.0	300
October, 2005				
Location/ Station Code	pH	DO (mg/l)	BOD (mg/l)	TC (MPN/SPC/100ml)
Manali U/S, 1001-R-BEA-A	7.70	10.6	0.3	7
Kullu D/S, 1002-R-BEA-A	7.66	9.7	0.6	17
Aut D/S, 1003-R-BEA-A	7.66	10.3	0.2	9

Pandoh Dam U/S, 1004-R-BEA-A	7.52	10.0	0.3	17
Dehar Power House, 1005-R-BEA-A	8.06	9.8	0.3	17
Mandi D/S, 1006-R-BEA-A	8.02	9.0	0.8	34
Sujanpur D/S, 1007-R-BEA-A	7.42	8.4	0.5	70
Dehra D/S, 1008-R-BEA-A	7.84	7.9	0.7	220
Pong Dam D/S, 1009-R-BEA-A	7.67	8.1	0.5	70
Tatapani U/S, 1013-R-SAT-A	8.11	8.6	0.1	124
Slapper U/S, 1014-R-SAT-A	8.12	9.2	0.3	33
Slapper D/S, 1015-R-SAT-A	7.84	9.6	0.4	33
Bhakhra D/S, 1016-R-SAT-A	8.33	9.5	0.1	80
Rampur U/S, 1086-R-SAT-A	8.06	9.1	0.1	170
Rampur D/S, 1087-R-SAT-A	8.19	9.1	0.3	186
Madhopur H/W, 1088-R-RAV-A	7.64	7.2	0.6	34
Chamba U/S, 1089-R-RAV-A	8.08	10.8	0.4	14
Largi D/S, 1090-R-LAR-A	8.15	10.8	0.2	7
Bhunter Parvati, 1290-R-PAR-A	7.63	9.8	0.4	9
Bilaspur D/S, 1291-L-GOL-A	7.88	9.3	0.3	34
Pong Dam U/S, 1292-L-PDL-A	7.81	7.7	0.4	46
Wangtu Bridge, 1389-R-SAT-A	8.10	9.2	0.1	1
Renuka Lake, 1429-L-REL-B	8.54	6.7	1.4	20
U/S Mandi, 1550-R-BEA-A	7.84	9.3	0.3	17
U/S Sirsa River before conf. of Sitomajri Nallah, 1551-R-SIRSA-A	8.13	9.0	0.5	70
D/S Nalagarh Bridge, 1552-R SIRSA-A	8.12	9.2	2.0	220
U/S Paonta Sahib, 1553-R-Yamuna-A	8.44	6.7	2.0	32
D/S Paonta Sahib, 1554-R-Yamuna-A	8.36	8.2	2.2	28
River Markanda at Paonta Sahib	8.59	8.2	2.2	42
River Satluj before confluence of River Spiti at Khab	-	-	-	-
D/S Nalagarh after meeting with Khad	8.12	8.5	2.0	250
D/s Parwanoo Town River Sukhna	7.65	4.0	36.0	5600
January, 2006				
Location/ Station Code	pH	DO	BOD	TC

		(mg/l)	(mg/l)	(MPN/SPC/100ml)
Manali U/S, 1001-R-BEA-A	-	-	-	-
Kullu D/S, 1002-R-BEA-A	7.96	9.9	0.7	6
Aut D/S, 1003-R-BEA-A	7.86	10.4	0.3	4
Pandoh Dam U/S, 1004-R-BEA-A	7.62	10.0	0.4	9
Dehar Power House, 1005-R-BEA-A	7.91	10.3	0.5	2
Mandi D/S, 1006-R-BEA-A	7.91	8.3	1.0	17
Sujanpur D/S, 1007-R-BEA-A	8.08	7.8	1.0	26
Dehra D/S, 1008-R-BEA-A	8.19	7.5	1.2	70
Pong Dam D/S, 1009-R-BEA-A	8.24	7.5	1.0	280
Tatapani U/S, 1013-R-SAT-A	7.80	10.4	0.2	82
Slapper U/S, 1014-R-SAT-A	8.14	9.8	0.5	7
Slapper D/S, 1015-R-SAT-A	8.07	9.8	0.4	7
Bhakhra D/S, 1016-R-SAT-A	7.97	8.7	0.2	2
Rampur U/S, 1086-R-SAT-A	7.92	10.6	0.1	46
Rampur D/S, 1087-R-SAT-A	0.09	10.6	0.3	64
Madhopur H/W, 1088-R-RAV-A	8.01	8.1	0.9	17
Chamba U/S, 1089-R-RAV-A	8.14	10.2	1.0	11
Largi D/S, 1090-R-LAR-A	8.06	10.8	0.5	4
Bhunter Parvati, 1290-R-PAR-A	7.64	10.3	0.3	6
Bilaspur D/S, 1291-L-GOL-A	8.11	9.5	0.6	17
Pong Dam U/S, 1292-L-PDL-A	8.12	7.3	0.8	27
Wangtu Bridge, 1389-R-SAT-A	8.12	9.8	0.1	-
Renuka Lake, 1429-L-REL-B	8.10	6.5	3.0	10
U/S Mandi 1550-R-BEA-A	8.08	8.8	0.5	6
U/S Sirsa River before conf. of Sitomajri Nallah, 1551-R-SIRSA-A	8.13	10.9	0.1	82
D/S Nalagarh Bridge, 1552-R SIRSA-A	8.46	12.4	0.3	1280
U/S Paonta Sahib, 1553-R-Yamuna-A	8.90	7.4	6.0	12
D/S Paonta Sahib, 1554-R-Yamuna-A	8.94	7.6	5.0	18
River Markanda at Paonta Sahib	8.62	7.2	7.0	15
River Satluj before confluence of River Spiti at Khab	-	-	-	-

D/S Nalagarh after meeting with Khad	7.90	6.8	40.0	1210
D/s Parwanoo Town River Sukhna	8.04	6.5	68.0	3800

4.2.1 ACTION FOR IMPROVEMENT OF WATER QUALITY:

- (a) Continuous monitoring of river Sirsa has been started from 11/02/2005 & composite samples are drawn for 5-6 hours duration to assess changes in the river water quality.
- (b) No unit is operating without proper water pollution control system (ETP). The State Board ensures installation of Effluent Treatment Plants by the industries before Consent to Operate is granted. Also during the year 35 Effluent Treatment Plants were improved/upgraded in the already existed industries.
- (c) To check pollution due to Sewage, the State Board by intervention and constant persuasion of concerned authorities, got 16 numbers of Sewage Treatment Plants (STPs) commissioned and 20 numbers of STPs are under construction by I&PH Department. The Sewage Treatment Plants installed are leading to better water quality of the river system.
- (d) Industries having work force more than 100, STP or STP cum ETPs have been got installed.
- (e) The Sewage Treatment Plants are also installed in hotels above 25 rooms' capacity outside the municipal limit.

4.3 POLLUTION CONTROL, SURVEILLANCE & MONITORING NETWORK:

The State Board performs its functions bestowed on it under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981 and in discharge of mandate as per aforesaid Acts, the State Board ensures sustainable development with due regard to the environmental considerations.

This is achieved through a field network to exercise regular checks on the sources of pollution and regulation of the conditions of consent granted to the industries with the prime objective of controlling pollution at source.

4.3.1 CONSENT MECHANISM:

According to the provisions of the aforesaid Acts, Consent/ NOC of the State Board is required by all the development projects, the industrial units, tourism projects, hydel projects, mining units and sewage treatment systems. The consent mechanism encompasses permission to establish and/or operate any development project which is governed by the provisions of sections 24 and/or 21 of the Water (Prevention & Control of Pollution) Act, 1974 and/or Air (Prevention & Control of

Pollution) Act, 1981 respectively, as may be applicable to the development project under consideration. The different stages of the consent mechanism concurrent to the implementation of the projects are briefly discussed below:

Consent to Establish is granted to the industry after evaluation of the potential environmental pollution and after the examination of the engineering design and details of the systems proposed for controlling the pollution. The conditions consistent to control requirements are incorporated in Consent to Establish. These conditions are reviewed in terms of their compliance and 'Consent to Establish' is converted to 'Consent to Operate' after ensuring that the engineering systems for control of water and air pollution are fully implemented. The 'Consent to Operate' is usually valid for one year which is also granted subject to the condition that the control systems shall be so operated and maintained as to ensure compliance to the standards prescribed for emissions and/or effluents as the case may be. Consent to operate initially granted for one year and performance of the pollution control systems is regularly monitored. Actions are taken against the non-complying cases by issuing directions for suspension of production and disconnection of power supply till the unit improves the functioning of pollution control systems to comply norms. Depending upon the performance of the pollution control systems, renewal of consent is granted.

As part of the process of simplification, the State Board in its 53rd meeting held on February 15, 2006 has taken a decision to revise the period of validity of consent in respect of industries/development projects as per details already given in Chapter-3. With a view to further simplify the procedure and to promote use of information technology, State Board in the same meeting has also decided to allow the applicants use the prescribed application forms downloaded from the internet. These forms have been hosted by the Board on the internet.

The achievements made during 2005-06 in discharge of regulatory functions under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, Water (Prevention and Control of Pollution) Cess Act, 1977 and Air (Prevention and Control of Pollution) Act, 1981 are given hereunder in Table-4.

TABLE-4: CONSENT MANAGEMENT AT A GLANCE (2005-06)

S. NO.	PARTICULARS	GRANTED DURING THE YEAR 2005-06		REFUSED DURING THE YEAR 2005-06		CUMULATIVE AS ON 31.03.06
		At HQ	At ROS	At HQ	At ROS	
1.	Consent to Establish	0	120	-	-	1532
	(a) Water Act, 1974	0	35	-	-	609
	(b) Air Act, 1981	463	325	-	-	3156
	(c) Both Acts					
2.	Consent to Operate	0	153	-	-	1494
	(a) Water Act, 1974	0	47	-	-	557
	(b) Air Act, 1981	309	167	-	-	2949
	Both Acts					

S. NO.	PARTICULARS	GRANTED DURING THE YEAR 2005-06		REFUSED DURING THE YEAR 2005-06		CUMULATIVE AS ON 31.03.06	
3.	No objections to non-polluting / exempted categories of industries	0	94	-	-	880	
4.	Renewal of Consent (a) Water Act, 1974 (b) Air Act, 1981 (c) Both Acts	0 0 567	632 195 443	- - -	- - -	NA NA	NA NA
5.	Consent Fees (in Rs.)	96660836.00					
6.	Cess under Water Cess Act, 1977 (in Rs.)	Assessment	Realization	Remitted to Govt. of India		Received from Govt. of India	
		4688872.00	488758.00	5627658.00		2881877.00	
7.	Samples of industrial wastes, solid wastes, and stack/ dust emissions, ground and surface water other than those under MINARS and NAAQM collected during the year.	NUMBER OF SAMPLES COLLECTED					
		WATER/ EFFLUENT S	AIR / EMMISSION S	SOLID WASTES		VEHICLES CHECKED	
		1543	1373	105		3791	
8.	Surveillance and Inspections under Water & Air Acts & Hazardous Wastes (Management & Handling) Rules, 1998/2003.	Number of Industries		Actual Inspections done			
		5000		11140			
9.	Public complaints/ representations	Received		Attended			
		135		131			
10.	Notices & Directions:	Issued		Implemented/Complied			
	(i) Number of Notices issued.	319		142			
	(ii) Number of injunctions issued U/S 33-A and 31 A of Water & Air Acts respectively.	177		177			

The State Board in its pursuit to introduce transparency and accountability in its functioning has delegated powers to the Environmental Engineers and Assistant Environmental Engineers in the Regional Offices of the Board. This step has not only led to the prompt disposal of the cases of the existing and prospective entrepreneurs but also increased the efficiency of the routine surveillance and monitoring of the State Board.

4.3.2 SURVEILLANCE & MONITORING:

The operational and qualitative efficiency of the pollution control devices installed in different industries largely depends on regular surveillance and monitoring of the pollution control equipment. This activity is presently being conducted by a network of 11 Regional Offices of the Board headed by Environmental Engineers and Assistant Environmental Engineers. During the year 2005-06, the surveillance and monitoring was carried out and the salient achievements in the context are presented below:-

i)	Number of Water Pollution Control Systems (Cumulative):	1444
ii)	Number of Air Pollution Control System (Cumulative):	1520
iii)	Number of Inspections conducted in 2005-06:	11140
iv)	Number of Samples of Water, Waste Water and emission including ambient air & noise in 2005-06:	3021
v)	Number of vehicles checked:	3791

4.3.3 INDUSTRIAL POLLUTION CONTROL:

As a result of surveillance & monitoring activities, constant pressure is maintained on the polluting industries for operation and maintenance of the pollution control equipment. During the year, the State Board granted 1619 Consents under Water and Air Acts to Establish/ Operate new units after due examination of environmental impacts and management plans under Water and Air Acts Also during the year 607 new pollution control systems (air/water) were got installed in the new industries to whom consents to operate were granted during the year. Similarly improvements in the already existing control systems in respect of 116 industries were got incorporated including those, which were ordered closure for non-performance of the pollution control systems. In addition smooth functioning of the pollution control systems installed in the existing industries was ensured by exercising regular checks. The following schedule for regular checking of Red, Orange and Green categories of industries are followed.

Frequency	Category								
	RED			ORANGE			GREEN		
	L	M	S	L	M	S	L	M	S
Inspection	FN	M	BM	M	BM	Q	Q	HY	Y
Sampling	M	BM	Q	BM	Q	HY	HY	Y	Y

Abbreviations used: **L:** Large Scale Industry; **M:** Medium Scale Industry; **S:** Small Scale Industry.

Y: Yearly; **HY:** Half Yearly; **Q:** Quarterly; **BM:** Bi-monthly; **M:** Monthly; **FN:** Fortnightly

4.3.4 ENVIRONMENTAL IMPACT ASSESSMENT:

Although the potential environmental impacts due to any proposed developmental activity are evaluated and the environmental management plans are got formulated and implemented while processing the cases for consent to establish/operate or renewal thereof under the provisions of the Water Act, 1974 and /or Air Act, 1986, the Government of India has specifically made Environmental Impact Assessment (EIA) and Environmental Management Plans (EMP) mandatory in respect of 32 categories of projects. In view of the same Public Hearing of following three new proposals of large industrial units/development projects were conducted and examined with reference to the EIA notification under Environment (Protection) Act, 1986 during the year and referred to State Govt.

1. Rampur Hydroelectric Project.
2. Sorang Hydroelectric Project.
3. Budhil Hydroelectric Project.

In addition to this environmental clearance of the under mentioned projects were also received during the year.

1. Karchham Wangtu Hydroelectric Project.
2. Parvati –III Hydroelectric Project.
3. Malana –II Hydroelectric Project

4.3.5 ENVIRONMENTAL SURVEILLANCE AND MONITORING OF HYDROELECTRIC PROJECTS:

In view of the amount of work involved in the Environmental Monitoring of Hydroelectric Projects, the State Board has been finding it increasingly difficult to conduct the proper surveillance and monitoring of Hydroelectric Projects from its own resources in terms of manpower and mobility. At the same time in view of the public concerns and the requirement of mandatory provisions of the Water Act, 1974, Air Act, 1981 and Environmental Clearance; it is essential that the periodic monitoring is conducted and regular checks are exercised on the activities of Hydel Projects which have adverse impacts from Water & Air besides muck/debris management. In this regard the State Board at the time of evaluating the EIA/EMP of the proposed projects ensures that costs in respect of monitoring of Environmental Management Plan with reference to checking of muck management, restoration plan, water and air quality monitoring are in-built in the EIA/EMP. This approach has also been upheld and endorsed by the State Government. Four projects have been approved during 2005-06 namely: 1. Parbati (Stage-II) Hydroelectric Project, Distt. Kullu; 2. Kol Dam Hydroelectric Project, Distt. Bilspur; 3. Chamera (Stage-III) Hydroelectric Project, Distt. Chamba and; 4. Karcham Wangtu Hydroelectric Project, Distt. Kinnaur.

In addition to this the State Board is monitoring the hydro-electric projects and provision of muck dumping is integrated in the Environmental impact Assessment of a project which is prepared before any work on the project is started. It has been made mandatory for any hydel project to first prepare the muck dumping sites with proper protection before starting work on the project. In this regard 17 major and 42 Micro hydel projects under construction are being monitored by the State Board.

The State Government vide notifications No. PC-F(2)-1/2005 dated 16/07/2005 & 09/09/2005 has made it mandatory to release at least 15 % of minimum inflow observed in the river during lean season. Therefore, in order to ensure the minimum flow of 15 % in all the existing and upcoming hydel projects the State Board has monitored a total of 31 operational projects including 16 major and 15 micro categories for minimum flow requirement.

4.3.6 PUBLIC COMPLAINTS / REPRESENTATIONS:

The Regional Offices of the State Board are engaged not only in the activities of surveillance and monitoring of the industries, but also to maintain a constant vigil on the environmental quality and impact thereof on the people. The Regional Offices of the State Board not only keep liaison with the people but also take prompt action for mitigation of the public grievances. During the year 2005-06, the State Board took remedial action on 135 public complaints/representations that were received during the year.

4.3.7 MANAGEMENT OF SEWAGE:

The Water (Prevention & Control of Pollution) Act, 1974 provides for prevention & control of water pollution and maintaining or restoring wholesomeness of water thus requiring provision of pollution control measures i.e. sewerage schemes and sewage treatment plants at the end so as to check the entry of raw sewage in to recipient water bodies. As per Section 25/26 of the aforesaid Act, it is mandatory to obtain prior Consent of the Board to discharge any sewage/trade effluent.

Therefore, to check pollution due to sewage the State Board by intervention and constant persuasion of concerned authorities got commissioned 16 numbers of STPs up to 2005-06. 20 numbers of STPs are under construction as per district wise details given below:

District	No. and Location of STPs in operation (up to 31/03/2006)	No. and Location of STPs proposed/ under construction (up to 31/03/2006)
Bilaspur	2 [Ghumarwin, Naina Devi ji]	1 [Bilaspur]
Chamba	1 [Chamba]	----
Hamirpur	---	1 [Hamirpur]
Kullu	1 [Manali]	6 [BhootNath, Lanka Banker (Kullu), Mela Ground, Jard, Sharabai, Hati-Than (Bhunter)]
Kangra	1 [Palampur]	3 [Kangra, Jawalamukhi, Dharamshala]
Kinnaur	1 [Reckongpeo]	---
Lahaul & Spiti	---	1 [Keylong]
Mandi	2 [Khaliar, Raghunath Ka Padhar]	3 [Sunder Nagar, Sarkaghat, Neri Khadd (Joginder Nagar)]
Shimla	7 [Sanjauli, Lalpani North Disposal, Dhalli Summer Hill, Snowdown, Rohroo]	2 [Rampur, Jubbal]
Sirmour	---	1 [Paonta]
Una	1 [Una]	2 [Mehatpur, Santokhgarh]
Total	16	20

4.4 MANAGEMENT OF WATER CESS:

The Water (Prevention & Control of Pollution) Cess Act, 1977 provides for levy and collection of cess from the specified categories of projects based upon the water consumption. Although in Himachal Pradesh, the number of water intensive industries is far too less in comparison to the industrially developed states, the State Board has been enforcing this Act since its enactment by the Union Government. The main achievements of the Board with respect to this legislation in 2005-06 are as under:

Number of Assesses (Cumulative)		
(i)	Industrial	141
(ii)	Local Bodies	49
(iii)	Total	190
Amount of cess (In Rs. From 01.04.2005 to 31.3.2006)		
(i)	Assessed	4688872.00
(ii)	Collected	4887588.00
(iii)	Sent to Govt. of India	5627658.00
(iii)	Reimbursed from Govt. of India	2881877.00

4.5 MANAGEMENT OF SOLID WASTE UNDER THE ENVIRONMENT (PROTECTION) ACT, 1986:

4.5.1 BIO-MEDICAL WASTE (MANGEMENT & HANDLING) RULES, 1998/2000:

Till March 2006 in all 581 Govt. & 317 private health institutions have been identified. Out of these 898 health institutions, 350 have been exempted from seeking authorization under Rule-8 of the Bio-medical Waste (Management & Handling) Rules, 1998. 429 health institutions have applied for authorization and 194 have been granted authorization. 79 defaulting institutions have been served with show cause notice under the Bio-medical Waste (Management & Handling) Rules, 1998. Twelve incinerators have been installed by these health institutions. Incinerator installed by MC Shimla and MC Kullu being used as a Common Incineration Facility.

4.5.2 HAZARDOUS WASTE (MANGEMENT & HANDLING) RULES, 1989 AND AMENDMENT RULES, 2000/2003:

Till the year 2005-06, the Board has identified about 1078 units. Out of which 720 are operational upto March 2006 and responsible for generating waste falling in to the various categories of hazardous wastes listed in Schedule-I under Hazardous Waste (Management & Handling) Rules, 1989 and amendment Rules, 2000 & 2003. All such units are being asked to obtain the authorization of the State Board for onsite and secured storage of wastes. The State Board has also granted authorization to 686 units during the year.

4.5.3 IMPLEMENTATION STATUS OF MUNICIPAL SOLID WASTE (MANAGEMENT & HANDLING) RULES, 2000:

As required under the provisions of Municipal Solid Waste (Management & Handling) Rules, 2000, the State Board has prepared the annual report and submitted to the Central Pollution Control Board. As per status of municipal solid waste management practices in the State there are 56 numbers of Municipal Authorities and the compliance w.r.t collection / segregation / storage / transportation of MSW is partial. Only nine numbers of Municipal Authorities namely Shimla, Solan, Nahan, Kullu/ Bhunter, Manali, Una, Kangra/ Nagrota, Bilaspur/ Ghumarwin & Hamirpur have installed waste processing facility. But the performance of these treatment facilities is unsatisfactory. None of the Municipal Authorities in the State has so far been able to setup waste disposal facility as per the requirement of Municipal Solid Waste (Management & Handling) Rules, 2000. In view of the violation of provisions of Municipal Solid Waste (Management & Handling) Rules, notices are served to the Municipal Authorities for ensuring compliance of the provisions of the aforesaid rules. The Authorization Status for the year 2005-06 is as given below.

S. No	Municipal Authority	Total No.	Applications received		Authorizations status	
			Waste Processing Facility	Waste Disposal Facility	Setting up of waste processing facility	Setting up of waste disposal facility
1.	Municipal Corporation	1	1	1	Granted	Not granted
2.	Municipal Council	20	10	19	Granted to 10 MCs (Hamirpur, Nahan, Kangra, Dharamshala, Bilaspur, Una Parwanoo, Solan, Mandi & Dalhousie)	Granted to 14 MCs (Hamirpur, Nahan, Dharamshala, Bilaspur, Una, Theog, Dalhousie, Nurpur, Naina Devi, Paonta, Solan, Kangra, Mandi & Parwanoo)
3.	Nagar Panchayat	28	6	24	Granted to 5 NPs (Manali, Dehra, Ghumarwin, Nagrota & Bhunter)	Granted to 16 NPs (Chowari, Ghumarwin, Sujanpur, Gagret, Daulatpur, Sunni, Arki, Kotkhai, Jawalamukhi Nagrota, Dehra, Joginder Nagar, Talai,, Sarkaghat, Manali & Bhunter)
4.	Cantonment Board	7	3	5	Granted to 2 CBs (Dagshai & Subhathu)	Granted to 3 CBs (Dagshai, Subathu & Bakloh)

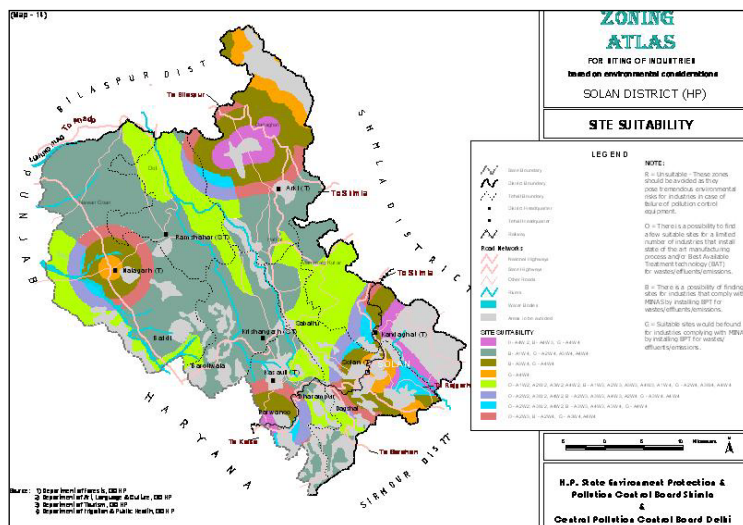
The State Board has also identified ground/ surface water monitoring locations in order to assess the likely impact of municipal solid wastes and regularly carryout the sampling of these monitoring locations. Beside this compost quality of operational processing facilities is also monitored as per the requirement. To facilitate implementation of the Municipal Solid Waste (Management & Handling) Rules 2000, the State Board undertook a project funded by Central Pollution Control Board to set up a Model facility at Mandi town to demonstrate implementation of various provisions of said Rules. The project aims at introduction of segregation at source by providing two bins to every household to segregate Bio-degradable and Non Biodegradable in separate bins, its collection by MC Mandi and further transportation in covered vehicles to different sites for processing/recycling respectively. The project is under implementation.

4.6 SPATIAL ENVIRONMENTAL PLANNING

The State Board has initiated several activities/programs on environment and development with the objective to protect and improve the quality of environment, prevention and control of pollution. A brief summery of activities undertaken by the Center during the year 2005-06 are as listed below.

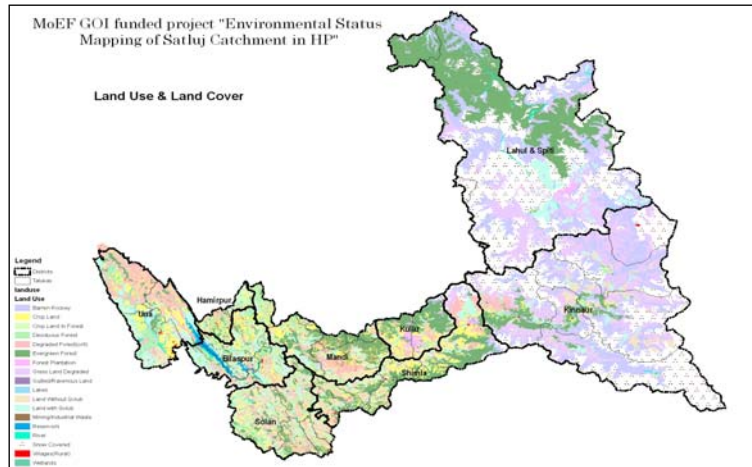
4.6.1 REVISION OF ZONING ATLAS FOR SITING OF INDUSTRIES

The State Board has revised all Zoning Atlas reports covering all 12 districts of the State and became the first State in the country to achieve this milestone. The State Board apprised Planning and Development Agencies such as Town & Country Planning, Industries and Forests Departments about the integration of outcome of these Zoning Atlas studies in the process of preparation of development plans and use of GIS in planning and resource management. The other users agencies such as District Administration, PWD, I&PH, and Urban Development departments etc are also being made more aware about the usefulness of this tool and their valuable inputs/suggestions are also taken in to consideration.



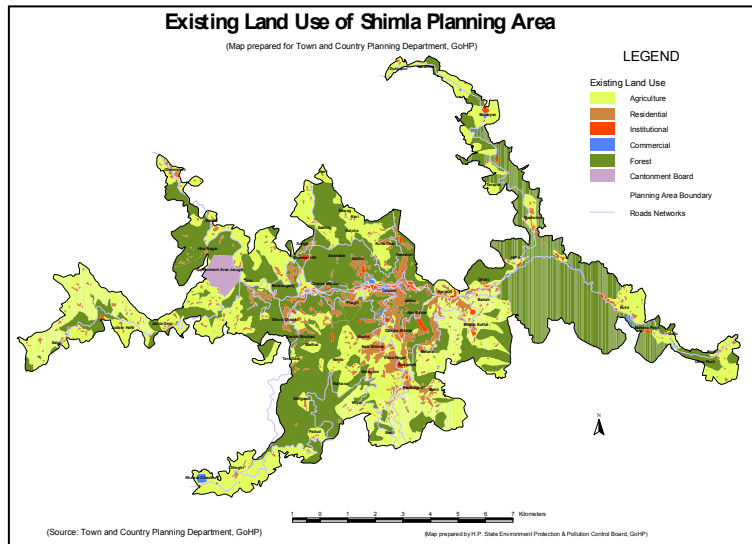
4.6.2 ENVIRONMENTAL STATUS MAPPING OF SATLUJ CATCHMENT IN HIMACHAL PRADESH. The Ministry of Environment and Forests, Government of India has sanctioned Rs. 26.74 lakhs for a project entitled “Environmental Status Mapping of Satluj Catchment In Himachal Pradesh” in view of increasing development activities especially the hydro power projects in the sensitive catchment of Satluj. The main objective of this study is to prepare an environmental status report of the Satluj catchment and to identify the environmental issues and conservation measures required for resolving these problems. Besides, the outcome of this environmental resource inventory/spatial environmental information database would be

helpful to the development agencies and user institutions of the State in their decision-making wherein, all aspects related to environment are considered in relation to the entire catchment system and to achieve the development targets which are compatible with the environmental setting of the catchment. This composite view of environmental status mapping and conservation priorities of the region/catchment would also be useful to the environmental regulators to have a neutral opinion in decision making while granting environmental clearances to the development projects at the State and MOEF level.



4.6.3 OTHER ACTIVITIES

INTEGRATION OF ENVIRONMENTAL CONCERNS IN SHIMLA DEVELOPMENT PLAN: The State Board extended environmental planning inputs to Town and Country Planning Department in preparation of Shimla Development Plan 2021 and prepared GIS based maps for Shimla Development Plan.



The State Board has also provided digital land use map & other maps to the IL&FS IDC in preparation of City Development Plan (CDP) of Shimla.

DISTRICT-WISE INDUSTRIAL SUITABLE SITES: The State Board has submitted suitable industrial sites report based on the outcome of Zoning Atlas studies to the Principal Secretary (Industries) to the GOHP & Director (Industries), for consideration in selection of future Industrial Area/Estate. In addition the State Board has submitted the revised Zoning Atlas report for Kangra, Una & Bilaspur to Department of Industries for consideration in selection of Special Economic Zones (SEZ) in the districts.

CHAPTER -5

PROSECUTIONS LAUNCHED AND CONVICITIONS SECURED FOR ENVIRONMENTAL POLLUTION CONTROL

The legal wing has been managing/looking after cases on behalf of the State Environment Protection & Pollution Control Board, pending in the different Courts in the State of H.P. and outside the State including Supreme Court of India. All kind of assistance is being extended to the standing counsels of the Board from time to time for preparing reply/written statement and to produce evidence/record as and when required in the cases. Besides this, legal notices/directions are drafted under the Pollution Control Acts and vetted to facilitate the concerned branches. Legal opinion/advice is rendered to the Regional Officers for the clearance of cases/matters involving legal implications.

Compliance from Industry has been sought through persuasive/consultative approach with encouraging results thereby, saving time, cost and efforts and legal compliance has increase significantly through this co – operative efforts jointly with the industries. However, with increasing awareness about environment and people's right to clean air and water the total workload has increased on account of increasing incidence of public interest litigation and judicial activism.

For resolution of conflicts and enviro-legal action, the Board has resorted to innovative approach, which includes opportunity of hearing through mediation of Board official to arrive at mutual agreed solution. Regular notices are issued to the offenders and as and when cognizance is taken, the hearings/opportunity are afforded to them by the Board, rather than immediate resort to filing of cases. The success rates of hearing have been phenomenal and resolutions have been possible in most of the cases.

Apart from this the legal wing prepared draft replies/gave comments to the State Govt. in cases involving environmental matters. Statistical indicators of court cases are as listed below: -

Name of the Courts	Pending as on 31/3/2005	New cases initiated during the year 2005-06	Total up to 31/3/2006	Decided during the year 2005-06	Total/cumulative i.e pending cases of previous years up to 31/3/2006
Supreme Court	4	1	5	Nil	5
High Court Cases/ PIL	82	31	113	14	99
District Courts	11	5	16	2	14
Human Right Commission	Nil	Nil	Nil	Nil	Nil
Administrative Tribunal	16	Nil	16	Nil	16

CHAPTER –6

FINANCE AND ACCOUNT OF THE STATE BOARD FOR THE YEAR 2005-06

- ❖ The accounting structure of H. P. State Environment Protection & Pollution Control Board is fully streamlined to the extent that the books of accounts shows position of cash, bank and short term deposit, balance on day to day basis.
- ❖ The accounts for the year 2003-2004 were prepared and got audited. The final account (Balance Sheet, Income & Expenditure Account and Receipt & Payment Account) is being placed before the Board. The accounts for the year 2004-2005 have also been compiled and are being got audited from Statutory Auditors.
- ❖ The total expenditure of the Board during 2005-2006 based upon un-audited accounts was 312.47 Lakhs (Including Projects) as against the receipts of Rs.1433.54 Lakhs (Including Projects), the details are given below:

Opening Balance	1253.44
Receipts (Board)	1375.32
Receipts (Projects)	58.22
Net Amount Available	2686.98
Less Expenditure (Board) during this year	262.88
Less Expenditure (Projects) during the year	49.59
Closing Balance	2374.51

The above figures have been worked out on the basis of un-audited accounts and figures are provisional and subject to change after the accounts are audited.

CHAPTER -7

ANY OTHER IMPORTANT MATTER DEALT WITH BY THE STATE BOARD

7.1) Environmental Training & Capacity Building:

Training is an important component for Human Resource Development of any organization. In the area of pollution control, which is an interdisciplinary subject, imparting training is an imperative activity. The following Board Officers/ Officials participated in various trainings/seminars/ conferences/ workshops during 2005-06.

S. No	Name of Participant	Designation	Name of Training Course	Place	Duration of Training
1	Dr. T.B. Singh	SSO	Water Quality Monitoring by Rapid Methods	Chandigarh	6/4/05
2	Er. D. K. Sharma	EE	Development of Hydro Power Project- A Prospective Challenge	Shimla	20-22/4/05
3	Mr. S.P. Vasudeva	MS	Colloquium on Strategic Planning for State Pollution Control Boards	EMC Mumbai	27-29/5/05
4	Dr. H. C. Sharma	SSO	Assessment of Dump Sites and Preparation of Rehabilitation Plans	IIC New Delhi	11-12/ 8/05
5	Mr. Anil Sharma	SO	Lake Conservation & Water Quality Restoration	PCRI Haridwar	26-30/9/05
6	Mrs. Daksha Gupta	SSO	Hydrological Aspects of Rejuvenation of Urban Lakes	Udaipur	20-21/10/05
7	Mr. Shashi Shekhar	EP	Enviromental Planning for Industrial disaster Management	DMI Bhopal	17-21/10/05
8	Mr. Hitender Sharma	JSO	Analysis of Pesticides& Other Organics	ITRC Lucknow	18-22/10/05
9	Mr. S.P. Vasudeva	MS	Changing Concept of Forestry in 21 st Century	Nauni, Solan	21-22/10/05
10	Dr. H. C. Sharma	SSO	Laboratory Quality System, Management and Internal Audit as per ISO/IEC 17025	NITS Noida	14-18/ 11/05
11	Mrs. Daksha Gupta Dr. Suresh K. Attri	SSO PC	Implementation of Montreal Protocol for Phasing out Ozone Depleting Substance for North Western Region	SCS&T Shimla	17-18/11/05
12	Er. A.K. Sharda	EE	Air Pollution & health Impacts	CNCI KolKata	24-26/11/ 05

S. No	Name of Participant	Designation	Name of Training Course	Place	Duration of Training
13	Er. S. Kumar	EE	Applying Cleaner Production for Implementation of Multilateral Environmental agreements (MEA's)	NCPC, Delhi	12-16/12/05
14	Er. Chetan Joshi Er. Ravinder Kumar	EE JRF	Clean technology & Waste Minimization for Prevention of Industrial Pollution	PSCST Chandigarh	19-23/12/05
15	Er. R.K. Nadda	EE	Operation & Management of Waste Water System	ESCI Hyderabad	03-07/1/06
16	Mrs. Daksha Gupta	SSO	National & International Legislations & Initiatives for Hazardous Waste Management	ETI, TNPCB, Chennai	9-11/1/2006
17	Dr. D.S. Sood Mr. Sanjeev Sharma	SSO JSO	Uncertainty Measurement in Chemical Testing	NITS Noida	9-11/1/2006
18	Mr. Anup Vaidya	SO	Environmental Data Interpretation, Compilation, Analysis, Presentation and Reporting	ISI New Delhi	30 Jan., - 3 Feb., 06
19	Dr. Indu Bala Gupta	SO	Sampling, Analysis and Characterization of Hazardous Waste & its Management	NEERI, Nagpur	30 Jan., - 3 Feb., 06
20	Er. Parveen Gupta	EE	Management of Electronic & Plastic Waste	TERI, Banglore	13-15/2/06
21	Dr. Suresh C. Attri	PC	Environment Impact Assessment –Method & Procedures	IIT Roorkee	27 Feb., - 3 March., 06
22	Dr. Madhu Soni	SPC	National Workshop on Municipal Solid Waste Management “Sharing of Experiences and Lessons Learnt”.	India International Centre, New Delhi	July 2005

7.2 Environmental Awareness:

In its unending crusade to combat the menace of pollution, the State Board focused its attention to the priority areas of water, air and soil quality. The State Board over the years has undergone a transient shift in its functioning from merely being a regulatory body to an inter active and participatory organization for attaining the objectives enshrined in the environmental legislation. In order to inculcate the environmental sensitization in masses the following activities were carried out.

- a) **World Environment Day 5th June, 2005:** On occasion of the World Environment Day, the State Board organized the following activities:

- (i) Vehicular monitoring in the major towns of the State.
 - (ii) Activities like quiz competition, drawing competition, slogan writing and debates were organized for the School children by field offices and laboratories. They have also participated in cleaning of natural springs (drinking water sources) campaign in their respective localities.
 - (iii) Rallies were taken out by the school children carrying banners and signboards on environmental slogans.
 - (iv) Distribution of pamphlets on vehicular pollution, air pollution and noise pollution amongst general public and students.
 - (v) The HPSEP&PCB Jassur office had launched a special campaign on ban on use of polythene bags in Kangra District. The District administration and State Board has actively participated in this special awareness drive.
- b) Awareness programs for Bio-Medical Waste Management and Disposal were organized for the health institutions of the State in Kangra, Solan, Hamirpur, Una, Mandi, Kullu and Sirmour Districts.
- c) **Advertisement and Publicity:** During the year 2005-06, the State Board intensified mass awareness campaign through publication of matter in the leading national, local newspapers, weekly & quarterly magazines.
- d) **Control of Noise Pollution:** Campaign against noise pollution due to firecrackers was also launched on the eve of Diwali festivals throughout the State by way of noise monitoring and advertisements in the newspapers
