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2015- 16

H.P. STATE POLLUTION CONTROL BOARD

HIM PARIVESH, PHASE-III, NEW SHIMLA

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CHAPTER –1

INTRODUCTION

The Himachal Pradesh State Pollution Control Board 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 Acts 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.

Himachal Pradesh State Pollution Control Board 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 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 Pollution Control Board:

1) Manufacture, Storage and Import of Hazardous Chemical Rules, 1989.
2) The Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008.
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, 2000.
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.

1.1 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 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.

1.2 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 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 pollution 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, 2006 for specified 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.

1.3 ADMINISTRATIVE STRUCTURE:

The Himachal Pradesh State Pollution Control Board 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 ten Regional Offices at Shimla, Parwanoo, Paonta Sahib, Baddi, Una, Rampur, Jassur, Chamba, Kullu and Bilaspur and one Sub Regional Offices located at Kala Amb 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 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 STATE BOARD

The Government of Himachal Pradesh vide Notification No. STE-A (1)-4/2001-Loose File dated 31.12.2012 appointed Shri Kuldeep Singh Pathania as Chairman of the State Pollution Control Board and also appointed non official members for a period of three years vide Notification No. STE-A (1)-4/2001-Loose File dated 20.05.2013 modified vide notification No. STE-A(1)-4/2001-I dated 03.10.2015 & also nominated the official member of the H.P. State Pollution Control Board for a period of three years vide Notification No. STE-A (1)-4/2001 –I-L dated 03.07.2014 Following are the members of the Board:-

2.1 OFFICIAL MEMBERS:

1)	The Principal Secretary (Env. &ST) to the Govt. of H.P.	Member
2)	The Principal Secretary (Finance) to the Govt. of H.P.	Member
3)	The Principal Secretary (MPP & Power) Govt. of H.P.	Member
4)	The Principal Secretary (UD), Govt. of H.P	Member
5)	The Principal Secretary (Industries) Govt. of H.P.	Member
6)	The Managing Director (HRTC), Shimla.	Member
7)	The Chief Executive Officer (HIMURJA), Shimla	Member

2.2 NON-OFFICIAL MEMBERS:

1)	Sh. Deepak Sood, President, M.C. Rampur, Distt. Shimla	Member
2)	Sh. Munish Sharma, Vice President, M.C. Kullu, H.P	Member
3)	Sh. Shiv Kumar, Saini, Councillor, M.C. Una, Distt. Una, H.P	Member
4)	Smt. Krishna Mahajan, President, M.C. Nurpur, Distt. Kangra, H.P.	Member
5)	Sh. Ishwar Dass Choowaru,Village, Diswani, P.O. Kaloti, Tehsil Chirgaon, Distt. Shimla, H.P.	Member
6)	Sh. Arvind Gupta, Shobha House, Solan, H.P.	Member
7)	Sh. Brij Mohan Soni, VPO Nadaun, Tehsil Nadaun, Distt. Hamirpur, H.P.	Member

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CHAPTER – 3

MEETINGS OF THE BOARD

The following major decisions were taken by the State Board in its 72nd, 73rd & 74th meetings and in the meetings of the Sub Committee on Service Matters during the year 2015-2016:

- ✓ One post of Principal Scientific Officer was created by up-gradation of one post of Sr. Scientific Officer by the Service Committee was approved by the BOD and further approved by the Government of H.P vide their letter No.- STE-B (2)-1/2010 dated 26-05-2015.
- ✓ Services of 13 contractual appointees of the State Board were regularized after completion of five years service as on 31.03.2015 as per instructions of Department of Personnel (AP-III) vide its letter No. PER (AP) C-B (2) -2/2015 dated 7th May, 2015 which was ratified by the Board.
- ✓ 10 posts of peon in the pay scale of Rs. 4,900-10,680/- +GP Rs. 1,300/- were approved by the BOD and further created by the Sub Committee on Service Matters subject to the conditions that out of these 10 posts 5 posts will be filled up by direct recruitment and 5 will be filled up by regularization from existing daily wager.
- ✓ Services of 05 daily wages workers of the State Board were regularized after completion of seven years service as on 31.03.2014 as per instructions of Department of Personnel (AP-III) vide its letter No. PER (AP) C-B (2) -1/2014 dated 28th June, 2014 which were further ratified by the Board.
- ✓ Remaining 05 posts of peon filled up by direct recruitment through open viva-voce as per the decision of the Service Committee.
- ✓ Emoluments of the contractual appointees engaged against the approved EMPs of various HEPs enhanced and brought at par with the contractual appointees against the sanctioned strength of the Board.

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CHAPTER – 4

STATUS OF AMBIENT AIR & RIVER WATER QUALITY IN HIMACHAL PRADESH

AMBIENT AIR QUALITY MONITORING:

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

1. To evaluate the general air quality conditions in the cities 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 programme for the cities.

The Respirable Suspended Particulate Matter (RSPM) is monitored with the help of Respirable Dust Sampler on the basis of three days per station per week for 24 hours at 11 Towns/Cities covering 22 nos. of locations in the State.

National ambient air quality standards (NAAQS) as notified in 18th November 2009 are given in Table-I

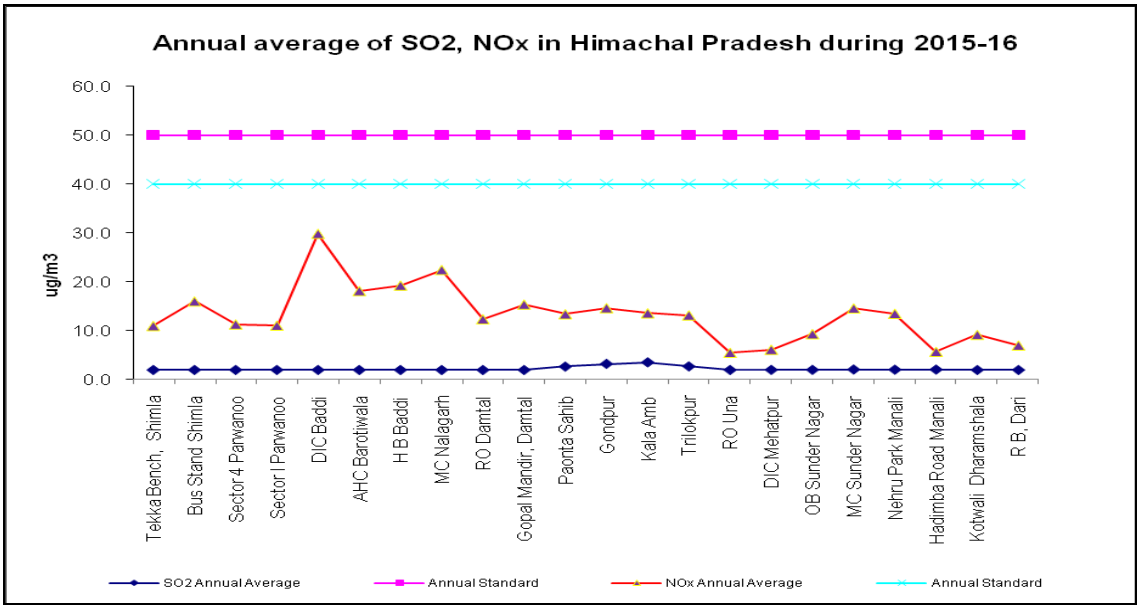
Sr. No.	Pollutant	Time Weighted Average	Concentration in Ambient air		
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (Notified by Central Govt.)	Method of Measurement
1	Sulphur Dioxide	Annual*	50 µg/m³	20 µg/m³	-Improved West and Gaeke -Ultraviolet fluorescence
		24hours**	80 µg/m³	80 µg/m³	
2	Nitrogen Dioxide	Annual*	40 µg/m³	30 µg/m³	-Modified Jacob and Hochheiser (Na-Arsenite) -Chemiluminescence
		24hours**	80 µg/m³	80 µg/m³	
3	Particulate Matter (PM_{10}) (size less than 10 micron)	Annual*	60 µg/m³	60 µg/m³	-Gravimetric -TOEM -Beta attenuation
		24hours**	100 µg/m³	100 µg/m³	
4	Particulate Matter ($PM_{2.5}$) (size less than 2.5 micron)	Annual*	40 µg/m³	40 µg/m³	-Gravimetric -TOEM -Beta attenuation
		24hours**	60 µg/m³	60 µg/m³	
5	Ozone (O_3)	8 hours**	100 µg/m³	100 µg/m³	-UV photometric -Chemiluminescence

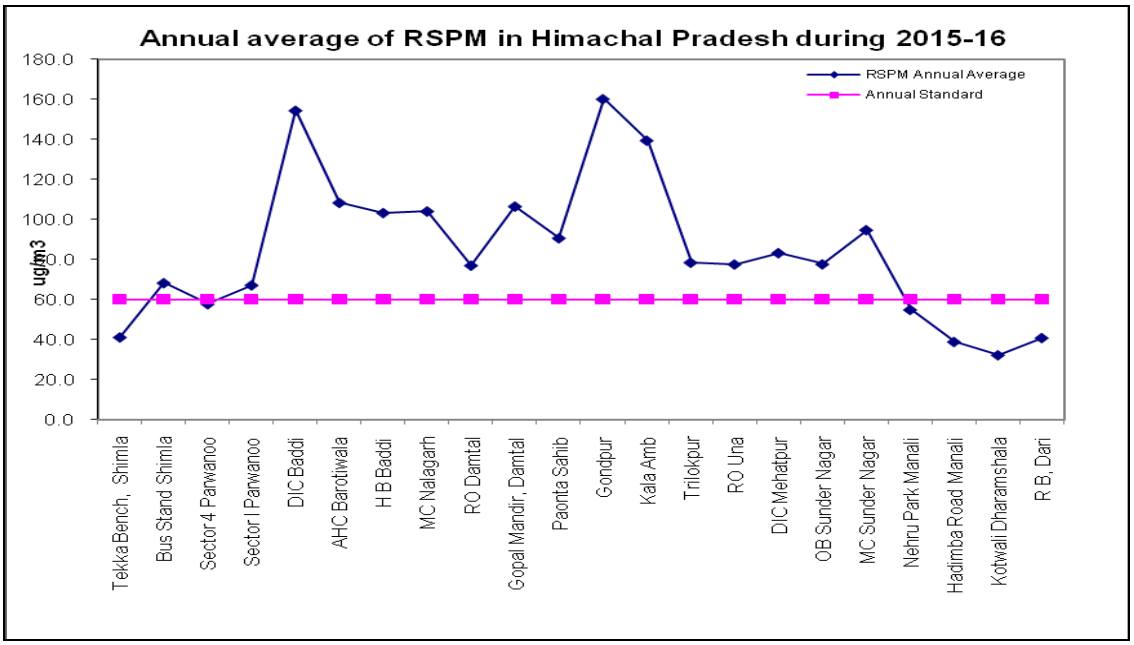
					-Chemical method
6	Lead (Pb)	Annual*	0.50 µg/m^3	0.50 µg/m^3	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper -ED-XRF using Teflon filter
		24hours**	1.0 µg/m^3	1.0 µg/m^3	
7	Carbon Monoxide (CO)	8 hours	2.0 mg/m^3	2.0 mg/m^3	-Non Dispersive Infra Red (NDIR) Spectroscopy
		1 hour	4.0 mg/m^3	4.0 mg/m^3	
8	Ammonia (NH_3)	Annual*	100 µg/m^3	100 µg/m^3	-Chemiluminescence -Indophenol blue method
		24hours**	400 µg/m^3	400 µg/m^3	
9	Benzene (C_6H_6)	Annual*	5.0 µg/m^3	5.0 µg/m^3	-Gas Chromatography based continuous analyzer -Adsorption and desorption followed By GC analysis
10	Benzo(a) Pyrene (BaP)-Particulate phase only	Annual*	1.0 ng/m^3	1.0 ng/m^3	-Solvent extraction followed by HPLC/GC analysis
11	Arsenic (As)	Annual*	6.0 ng/m^3	6.0 ng/m^3	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni)	Annual*	20.0 ng/m^3	20.0 ng/m^3	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

* Annual arithmetic mean of minimum of 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.
** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be compiled with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

(A) AMBIENT AIR QUALITY STATUS IN HIMACHAL PRADESH

Ambient air quality is being monitored in 11 towns/cities at Shimla, Parwanoo, Jassur, Paonta Sahib, Kala Amb, Baddi, Nalagarh, Sunder Nagar, Manali, Una and Dharamshala under National Ambient Air Quality Monitoring Program. Air quality standards fixed for 24 hour average is 100 µg/m^3 for RSPM and 80 µg/m^3 for SO_2 & NO_2 and annual average standard is 60 µg/m^{3}for RSPM, 50 µg/m^3 for SO_2 & 40 µg/m^3 for NO_2. The data collected of all the stations for the year 2015-16 scrutinized for the annual average and peak values for 22 locations and trends of annual average of SO_2, NO_2 and RSPM are shown below:





CONCLUSION:

Annual average values of SO_2 and NO_x at all the NAMP stations were observed well below the permissible limit for the annual average. The peak value of SO_2 was observed as high as 15.0 µg/m^3 at Bus Stand Shimla NAMP station and peak value of NOx was observed 111.0 µg/m^3 at Sector IV, Parwanoo NAMP Station.

The annual average values of RSPM of NAMP stations at Tekka Bench Shimla, Sector IV Parwanoo, Manali and Dharamshala were observed well below the permissible limits for the annual average. While for other stations at Bus Stand Shimla, Sector-I Parwanoo, DIC Baddi, AHC Barotiwala, MC Nalagarh, H.B. Baddi, Damtal-I, Damtal-II, Paonta Sahib, Gondpur, Kala Amb, Trilokpur, Una, Mehatpur, both the stations at Sunder Nagar was observed above the permissible limit for the annual average.

At the NAMP stations at Tekka Bench Shimla, Station-II Parwanoo, Station-II Damtal, Paonta Sahib, Kala Amb, Trilokpur and Station-I Sunder Nagar in comparison to previous year's data, decrease in the level of RSPM has been observed, however at NAMP stations Bus Stand Shimla, Station-I Parwanoo, DIC Baddi, AHC Barotiwala, MC Nalagarh, HB Baddi, Station-I Damtal, Gondpur, Station-II Sunder Nagar, Station-I & Station- II Manali, RO Una, DIC Mehatpur and Station-I, Dharamshala, there is increase in the level of RSPM in comparison to previous year's data.

Annual average of SO_2 and NO_x of all the NAMP Stations, H.P for the year 2015-16.

Table-I

Stations	SO_2 Annual Average	NO_x Annual Average
Shimla I	2.0	11.0
Shimla II	2.0	16.0
Parwanoo I	2.0	11.3
Parwanoo II	2.0	11.1
DIC Baddi	2.0	29.8
AHC Barotiwala	2.0	18.1
H B Baddi	2.0	19.2
MC Nalagarh	2.0	22.4
Damtal I	2.0	12.4
Damtal II	2.0	15.4
Paonta Sahib	2.7	13.4
Gondpur	3.2	14.6
Kala Amb	3.5	13.6
Trilokpur	2.7	13.2
RO Una	2.0	5.5
DIC Mehatpur	2.0	6.2
SNR-I	2.0	9.4
SNR-II	2.1	14.6
Manali-I	2.1	13.5
Manali-II	2.1	5.7
Kotwali Bazar, Dharamshala	2.0	9.2
HPSPCB, Residential Building, Daari, Dharamshala	2.0	7.0

Annual average of RSPM of all the NAMP Stations, H.P for the year 2015-16.

Table-II

Stations	RSPM Annual Average
Shimla I	41.2
Shimla II	68.3
Parwanoo I	57.8
Parwanoo II	67.2
DIC Baddi	154.4
AHC Barotiwala	108.3
H B Baddi	103.3
MC Nalagarh	104.1
Damtal I	77.0
Damtal II	106.5
Paonta Sahib	90.7
Gondpur	160.1
Kala Amb	139.4
Trilokpur	78.5
RO Una	77.6
DIC Mehatpur	83.3
SNR-I	77.7
SNR-II	94.8
Manali-I	54.9
Manali-II	38.9
Kotwali Bazar, Dharamshala	32.3
HPSPCB, Residential Building, Dari, Dharamshala	40.9

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 Programme, "Monitoring of National Aquatic Resources" (MINARS) is sponsoring the water quality monitoring of major rivers of the State. The monitoring has been carried out on monthly basis. In all, 263 points have been selected on major rivers i.e. Satluj, Beas, Ravi, Yamuna, Parvati, Sirsa, Markanda & Sukhna and their tributaries in the State.

TABLE B: PRIMARY WATER QUALITY CRITERIA		
Designated Best 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 Source after conventional treatment and disinfection	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 8.5. 2. Dissolved Oxygen 4 mg/l or more. 3. Free Ammonia (as N) 1.2 mg/l or less.
Irrigation, Industrial Cooling Controlled Waste Disposal	E	1. pH between 6.5 and 8.5. 2. Electrical Conductivity at 25°C micro mhos /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'		

The Samples are being analyzed for physico-chemical and bacteriological contents. The results are shown below;

A: WATER QUALITY OF MAJOR RIVERS IN HIMACHAL PARDESH MONITORED UNDER MINARS PROGRAMME DURING 2015-16

Results of Major Rivers (MINARS) Points from April 2015 to March 2016:

Name of location	Parameters	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
River Pabbar U/s Dhambari	pH	7.16	7.93	7.06	7.96	7.60	7.83	7.76	7.26	7.08	7.22	8.35	8.68
	D.O. mg/l	8.9	9.0	9.0	9.5	8.7	8.8	8.5	8.6	--	8.7	8.6	8.4
	BOD mg/l	0.1	0.1	0.4	0.4	1.0	0.5	0.2	0.2	0.4	0.1	0.1	0.4
	TC	8	18	14	16	2	16	<1.8	<1.8	<1.8	39	10	2.0
River Pabbar U/s Rohru	pH	7.96	7.24	7.11	8.35	7.36	7.65	7.39	7.35	7.20	7.21	7.65	8.50
	D.O. mg/l	9.5	8.8	8.8	9.4	8.9	8.7	8.3	8.5	--	8.5	8.0	8.5
	BOD mg/l	0.2	0.1	0.1	0.1	1.0	0.2	0.7	0.1	1.0	0.1	0.2	0.4
	TC	10	24	10	12	2	21	<1.8	<1.8	<1.8	10	14	6.1
River Pabbar at Snail D/s of TRT of Swara	pH	7.54	7.02	7.69	7.22	7.39	7.45	7.41	7.54	7.17	7.13	8.09	8.37
	D.O. mg/l	9.5	8.5	9.9	8.5	9.4	8.8	8.4	8.3	--	8.8	8.9	9.1
	BOD mg/l	0.1	0.2	0.3	5.0	0.9	2.0	0.7	0.1	0.2	0.2	0.1	0.2

Kuddu	**TC**	12	22	12	8	Nil	10	<1.8	<1.8	<1.8	9.3	17	8.2
River Tons at H.P. Boundary	**pH**	7.49	7.08	7.41	7.93	7.26	7.44	7.14	7.37	7.23	7.21	8.17	8.21
	D.O. mg/l	9.6	8.7	9.5	8.8	9.2	8.5	8.5	8.4	--	9.0	9.1	9.2
	BOD mg/l	0.2	0.2	0.4	2.0	1.0	0.4	0.8	1.0	0.1	0.2	0.1	0.2
	TC	22	12	12	16	5	18	<1.8	2	2	24	3.7	4
Ashwani khad U/s Yashwant Nagar	**pH**	7.54	7.27	7.81	7.73	7.44	7.67	7.95	--	7.24	7.30	8.56	8.91
	D.O. mg/l	8.0	9.0	7.2	8.2	7.0	8.1	8.0	--	7.9	7.8	8.7	8.2
	BOD mg/l	0.2	0.1	0.8	1.0	12.0	0.6	0.4	--	1.2	0.4	1.2	0.8
	TC	12	8	12	32	8	28	<1.8	--	<1.8	13	17	10
Giri river D/s Yashwant Nagar	**pH**	7.64	8.25	7.8	7.79	7.73	7.55	7.86	--	7.70	7.63	8.30	8.69
	D.O. mg/l	8.6	8.2	7.5	8.9	7.3	8.4	8.3	--	8.2	8.1	9.2	8.6
	BOD mg/l	0.1	0.3	1.1	4	8.0	0.4	1	--	0.8	0.4	0.8	1.0
	TC	22	12	6	8	12	36	<1.8	--	2	5.5	13	9.1
River Sukhna at Parwanoo	**pH**	8.17	8.82	7.72	8.36	7.84	7.60	7.53	--	6.97	7.33	8.16	7.95
	D.O. mg/l	1.9	3.1	2.4	7.4	6.2	5.9	4.9	--	5.5	2.5	3.2	3.0
	BOD mg/l	18	22.0	4.0	2.0	12.0	10.0	1.5	--	2.8	54.0	8.0	14.0
	TC	280	310	460	540	240	344	50	--	120	>1600	540	540
Lift Nala D/s MSW Processing Site, Shimla	**pH**	7.36	6.79	7.88	8.05	7.83	7.62	7.94	6.90	7.26	7.07	8.15	7.55
	D.O. mg/l	4.8	4.5	3.1	4.3	4.4	4.5	5.1	4.1	--	6.8	5.5	4.6
	BOD mg/l	10.0	16.0	7.6	4.0	8.0	8.0	3.2	3.2	3.0	4.5	4.0	6.0
	TC	38	120	124	62	68	168	14	22	22	150	110	48
River Sirsa U/s Sitomajri Nallah	**pH**	7.31	7.08	7.21	7.32	7.96	7.32	7.74	7.39	6.97	6.95	8.25	8.37
	D.O. mg/l	7.7	8.1	7.2	5.6	5.0	5.6	8.1	7.1	5.8	6.9	8.7	9.2
	BOD mg/l	2.2	1.8	1.6	18.0	10.0	18.0	1.0	0.8	1.6	0.8	1.2	0.8
	TC	28	48	_	170	130	170	26	17	17	20	12	8.1
River Sirsa D/s Nalagarh Bridge	**pH**	7.37	7.34	7.69	7.93	7.95	7.93	7.98	7.68	7.99	7.60	8.82	7.62
	D.O. mg/l	8.2	4.7	6.2	4.5	4.9	4.5	6.4	5.9	4.7	5.2	4.8	8.3
	BOD mg/l	2.0	2.2	1.8	10.0	10.0	10.0	2.0	1.4	1.2	0.3	4.0	1.2
	TC	62	32	_	220	140	220	60	50	50	170	26	25
River Sirsa D/s Nalaga	**pH**	7.20	6.90	7.06	7.82	7.92	7.82	8.30	7.56	7.16	7.77	8.55	7.89
	D.O. mg/l	8.8	5.3	5.8	5.1	5.2	5.1	6.1	6.5	5.2	4.9	5.0	8.7

rh Town	**BOD mg/l**	2.4	1.8	3.6	12.0	12.0	12.0	1.0	1.0	1.0	0.6	6.0	2.0
	TC	65	24	_	350	280	350	50	60	60	58	48	40
IPH Water Intake point below MSW dump site at Salogra	**pH**	8.01	7.74	7.78	7.49	7.80	7.54	7.84	--	7.03	7.51	8.25	8.72
	D.O. mg/l	7.5	7.8	6.8	8.3	7.9	7.8	8.1	--	7.5	8.9	8.1	8.3
	BOD mg/l	0.8	0.1	1.6	0.9	2.0	0.2	1.2	--	1.0	0.1	0.1	1.2
	TC	4	5	20	4	12	48	<1.8	--	<1.8	<1.8	1.8	1.8
River Yamuna U/s Paonta Sahib	**pH**	8.22	8.32	7.94	7.67	7.54	7.19	7.47	8.09	B	8.6	8.35	7.93
	DO	8.1	7.9	7.0	6.2	7.0	8.8	8.3	8.3	8.1	8.4	7.9	8.0
	BOD	1.0	0.8	1.2	1.2	2.4	1.2	1.2	1.0	1.2	1.2	1.2	1.0
	TC	26.0	21.0	18.0	20.0	18.0	22.0	18.0	16.0	14.0	17.0	15.0	20.0
River Yamuna D/s Paonta Sahib	**pH**	8.25	8.34	7.58	7.81	7.65	7.63	7.62	8.27	7.52	8.57	8.49	8.08
	DO	7.6	7.7	6.8	5.8	6.8	8.6	7.9	8.0	7.9	8.2	7.8	7.8
	BOD	1.2	1.2	1.6	1.4	1.6	1.4	1.6	1.2	1.6	1.6	1.4	1.6
	TC	25.0	22.0	21.0	22.0	20.0	18.0	20.0	18.0	16.0	21.0	21.0	24.0
River Bata U/s Kala Amb	**pH**	8.27	8.25	7.37	7.52	7.77	7.71	7.80	8.30	7.30	8.35	8.32	8.00
	DO	7.8	7.8	6.8	6.8	7.8	8.9	8.6	8.4	8.2	8.8	9.0	8.6
	BOD	1.2	1.0	1.4	1.2	1.0	1.4	1.2	0.8	1.2	0.8	0.8	1.2
	TC	16.0	26.0	26.0	22.0	16.0	19.0	16.0	18.0	18.0	21.0	21.0	24.0
River Bata at D/s of Kala Amb	**pH**	7.92	7.01	7.31	7.68	7.63	7.34	7.82	8.42	7.64	8.46	8.48	8.23
	DO	7.7	7.6	6.6	6.1	7.6	8.7	8.4	8.2	8.0	8.6	8.9	8.3
	BOD	1.4	1.4	1.6	1.6	1.2	1.6	1.4	1.0	1.6	1.2	1.0	1.6
	TC	20.0	28.0	30.0	24.0	14.0	20.0	13.0	20.0	20.0	17.0	24.0	27.0
River markand at Paonta Sahib	**pH**	8.20	7.89	7.69	7.99	7.82	7.14	7.42	8.12	7.45	8.46	8.39	8.06
	DO	7.4	7.7	7.0	5.8	8.0	8.4	7.9	8.2	8.2	8.2	7.5	7.7
	BOD	1.2	1.2	1.2	1.4	1.2	1.4	1.6	1.0	1.2	1.4	1.6	1.6
	TC	20.0	22.0	20.0	24.0	14.0	20.0	16.0	20.0	20.0	34.0	24.0	32.0
River Markanda U/s Kala Amb	**pH**	8.22	8.07	7.94	7.76	7.72	8.12	7.44	7.39	7.58	8.44	8.32	8.14
	DO	6.8	7.8	7.5	6.4	8.2	8.0	7.6	8.0	8.0	8.4	8.4	7.9
	BOD	1.6	1.2	1.2	1.0	1.0	1.6	1.8	1.2	1.6	1.2	1.2	1.2
	TC	24.0	26.0	22.0	20.0	20.0	18.0	20.0	20.0	18.0	26.0	25.0	34.0

River Markanda D/s Kalaamb	**pH**	8.27	8.30	7.93	7.68	7.74	7.37	7.87	8.20	7.69	8.46	8.44	8.09
	DO	6.6	7.5	7.3	6.3	8.8	7.8	7.5	7.9	7.8	8.4	8.2	7.5
	BOD	1.8	1.6	1.6	1.2	1.2	1.8	2.0	1.6	1.8	1.6	1.6	1.6
	TC	31.0	28.0	28.0	24.0	16.0	20.0	20.0	26.0	28.0	26.0	31.0	38.0
River Giri U/s of CCI Mines	**pH**	8.17	7.98	7.72	7.63	7.86	7.25	7.59	8.47	7.89	8.41	8.39	7.88
	DO	7.6	8.0	6.9	6.6	8.1	8.6	8.3	8.5	8.4	8.5	8.5	8.4
	BOD	1.4	1.2	1.4	0.8	0.8	1.2	1.2	0.8	1.2	1.2	1.2	1.2
	TC	15.0	19.0	24.0	16.0	16.0	20.0	18.0	18.0	16.0	26.0	10.0	31.0
River Giri D/s of Sataun	**pH**	7.86	8.15	7.18	7.89	7.95	7.46	7.66	8.3	7.96	8.43	8.33	8.06
	DO	7.4	5.8	6.8	6.5	8.0	8.3	8.0	8.3	8.2	8.2	8.2	8.1
	BOD	1.6	2.0	1.6	1.0	1.0	1.4	1.6	1.2	1.4	1.6	1.6	1.6
	TC	16.0	38.0	28.0	18.0	18.0	22.0	18.0	20.0	18.0	27.0	12.0	32.0
Renuka Lake	**pH**	8.18	8.15	8.00	7.97	7.29	8.14	7.81	7.11	7.92	8.34	8.34	7.96
	DO	6.4	5.8	5.2	5.6	7.0	6.9	6.2	4.0	4.4	5.9	6.2	6.4
	BOD	1.4	2.0	2.2	2.0	1.6	1.8	2.0	3.6	3.2	2.4	2.2	2.2
	TC	26.0	38.0	36.0	22.0	20.0	38.0	24.0	45.0	20.0	43.0	49.0	48.0
U/S Slapper, River Satluj	**pH**	7.65	7.60	7.46	7.81	7.71	8.14	8.06	7.85	7.80	7.75	8.65	7.44
	DO	9.1	8.5	8.9	8.7	6.0	8.0	9.0	--	--	9.1	8.8	9.7
	BOD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	140	280	240	240	210	280	170	280	170	94	110	150
D/S Slapper, Satluj River after Conf. with River Beas	**pH**	7.98	7.76	7.50	7.89	7.53	7.85	7.88	7.88	7.69	7.69	8.48	7.68
	DO	9.3	8.6	8.9	9.0	8.0	8.7	9.0	--	--	8.7	8.9	9.5
	BOD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	220	350	350	350	220	350	350	350	430	170	210	220
Exit of Dehar Power House, Beas River	**pH**	7.76	7.84	7.46	7.37	7.69	7.98	7.87	7.86	7.76	7.83	8.35	7.59
	DO	8.3	9.2	9.1	8.9	8.0	8.0	9.2	--	--	8.9	9.0	8.6
	BOD	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	94	180	280	220	240	210	280	240	350	210	170	170
D/s Bilaspur at Govind sagar	**pH**	8.04	7.81	7.44	7.91	7.66	8.45	7.95	7.95	7.54	7.57	8.70	7.75
	DO	8.9	8.8	8.7	8.9	7.9	8.2	8.9	--	--	9.1	8.7	9.3
	BOD	0.3	0.2	0.3	0.4	0.3	0.2	0.3	0.3	0.2	0.3	0.1	0.2

	TC	280	540	540	920	430	540	540	350	920	540	430	350
U/s Mandi, Beas River)	**pH**	7.54	7.09	7.04	7.52	7.23	7.57	7.51	7.77	8.03	8.06	7.68	7.77
	DO	7.1	9.7	8.6	9.2	9.0	8.4	9.7	8.1	10.0	8.7	11.5	9.3
	BOD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	280	49	920	350	540	1600	220	170	210	110	120	140
D/s Mandi, Beas River	**pH**	7.46	7.30	7.07	8.00	7.26	7.74	7.72	8.07	7.92	7.88	7.54	7.63
	DO	7.7	9.3	8.8	8.6	8.8	10.5	10.3	8.3	13.0	11.5	11.6	9.2
	BOD	0.1	0.3	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1
	TC	540	350	280	>1600	1600	>1600	540	≥1600	>1600	280	350	430
Rewalsar Lake	**pH**	7.40	7.07	6.84	7.42	7.20	7.07	7.36	7.35	7.56	7.82	7.20	7.82
	DO	2.0	1.7	2.0	1.2	3.5	108	4.5	5.4	6.3	2.1	4.9	2.0
	BOD	1.2	2.8	2.2	2.7	4.8	2.4	0.5	0.2	2.0	5.5	7.0	6.0
	TC	920	280	≥2400	430	33	>1600	1600	140	920	1600	1600	1600
D/s Mandi, Suketi Khudd (2607)	**pH**	8.35	7.48	7.55	7.63	7.50	7.74	7.75	7.88	7.99	8.06	7.88	7.98
	DO	9.1	9.8	9.3	6.2	8.0	8.8	8.5	7.1	11.3	11.7	10.5	9.4
	BOD	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2
	TC	350	240	≥2400	430	920	>1600	1600	≥1600	>1600	920	540	350
R.Beas, U/s Pandoh Dam	**pH**	7.39	7.18	7.00	7.45	7.30	7.59	7.25	8.01	8.02	7.78	7.56	7.62
	DO	9.3	9.7	9.8	9.8	9.4	9.6	9.1	8.2	10.7	10.2	10.7	9.4
	BOD	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	240	170	≥2400	210	920	1600	280	540	>1600	280	240	170
R.Beas, D/s Pandoh Dam	**pH**	7.70	7.22	7.09	7.39	7.20	7.60	7.23	7.81	7.76	7.91	7.36	7.64
	DO	8.6	9.2	10.3	8.3	9.0	8.9	9.9	7.9	10.9	12.8	10.1	9.8
	BOD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	280	180	280	430	13	>1600	430	920	540	350	280	240
R.Beas, D/s Aut	**pH**	7.52	7.03	7.53	7.36	7.33	7.30	7.36	7.74	7.58	7.68	8.04	7.42
	DO	9.2	10.8	10.5	9.5	8.8	8.6	9.6	9.0	8.8	9.4	9.0	9.0
	BOD	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	170	140	220	170	150	280	150	240	280	170	120	170
R.Sainj, D/s Largi	**pH**	7.72	7.0	7.49	7.19	7.29	7.29	7.78	7.75	7.55	7.65	4.24	7.10
	DO	9.7	11	11.0	9.7	8.9	8.8	9.7	8.9	9.0	9.6	8.7	8.7

	BOD	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	180	180	280	220	210	170	140	170	240	130	140	220
River Parvati, U/s Manikaran	**pH**	7.86	7.52	7.41	7.06	8.03	7.34	6.73	8.19	7.89	7.08	8.37	7.26
	DO	11.2	11.5	9.5	9.5	9.5	9.3	9.5	9.3	10.3	8.9	9.4	10.5
	BOD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	110	79	63	21	70	84	84	33	47	63	79	84
River Parvati, D/s Manikaran	**pH**	7.70	7.47	7.11	7.27	7.68	7.16	6.90	7.86	7.76	7.18	8.18	7.32
	DO	11.1	11.4	9.4	9.4	9.4	9.2	9.4	9.2	10.2	8.8	9.3	10.4
	BOD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	140	140	94	79	110	130	130	70	58	84	130	140
River Beas, U/s Manali	**pH**	7.52	7.78	7.49	7.68	7.64	7.38	8.35	7.54	7.56	7.44	8.16	7.46
	DO	10.3	10.3	10.2	9.9	9.9	9.2	9.8	9.6	9.9	9.8	9.9	9.8
	BOD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0..1	0.1	0.1	0.1
	TC	79	170	110	34	120	140	79	31	39	47	46	79
River Beas, D/s Manali	**pH**	7.72	7.35	7.23	7.74	7.40	7.61	8.04	7.59	7.48	7.49	7.94	7.13
	DO	10.2	9.0	9.9	9.9	9.6	8.9	9.8	9.5	9.8	9.8	9.8	9.7
	BOD	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1
	TC	180	350	350	220	350	430	220	70	84	94	84	120
River Beas, U/s Kullu	**pH**	8.14	7.21	7.36	7.36	7.25	7.38	7.68	7.59	7.86	7.22	7.78	7.79
	DO	9.4	11.2	9.8	8.9	9.1	9.2	9.3	9.3	10.2	8.9	9.6	9.4
	BOD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	240	280	280	170	170	350	280	180	170	150	140	220
River Beas, D/s Kullu	**pH**	7.40	7.11	7.48	7.35	7.26	7.28	7.67	7.71	7.72	7.24	8.17	7.78
	DO	9.3	11.2	9.6	8.8	9.0	8.9	9.2	9.0	10.2	8.8	9.3	9.3
	BOD	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1
	TC	540	540	350	280	350	540	430	280	210	170	350	350
Parvati River, before confluence to R. Beas at Bhuntar	**pH**	7.77	7.18	7.08	7.20	7.44	7.05	7.65	7.86	7.65	7.09	8.38	7.34
	DO	11.1	11	9.2	9.1	8.9	8.9	9.2	8.9	9.0	8.5	9.2	9.2
	BOD	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	280	240	240	240	240	430	170	130	140	120	220	170

River Satluj U/s Tattapani	**pH**	7.60	7.76	7.29	7.79	7.71	7.79	7.76	7.96	7.08	6.74	8.51	8.11
	DO	9.1	9.2	9.0	9.1	9.1	9.8	9.2	9.3	9.2	8.8	9.1	8.8
	BOD	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
	TC	--	--	--	--	--	--	--	--	--	--	--	--
River Satluj U/s Rampur	**pH**	7.68	7.80	7.30	7.84	7.81	7.74	7.91	7.89	7.22	7.36	7.52	7.36
	DO	9.2	9.4	9.3	9.2	9.2	9.3	9.4	9.5	9.6	9.0	9.1	9.2
	BOD	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	--	--	--	--	--	--	--	--	--	--	--	--
River Satluj D/s Rampur	**pH**	7.69	7.78	7.35	7.91	7.79	7.70	7.95	7.91	7.35	7.87	7.59	7.58
	DO	9.2	9.3	9.1	9.2	9.2	9.2	9.2	9.4	9.6	9.1	9.3	9.0
	BOD	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2
	TC	--	--	--	--	--	--	--	--	--	--	--	--
Wangtu Bridge (Satluj at Nathpa Jhakri)	**pH**	7.64	7.79	7.29	7.66	7.57	7.67	7.77	7.87	7.43	8.00	8.13	7.71
	DO	9.6	9.6	9.4	9.6	9.4	9.5	9.7	9.6	9.7	9.5	9.6	9.4
	BOD	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1
	TC	--	--	--	--	--	--	--	--	--	--	--	--
River Baspa U/s reservoir at Kuppa	**pH**	7.58	8.13	7.33	7.87	8.40	7.70	7.71	7.87	7.54	8.02	7.93	7.38
	DO	9.5	9.6	9.4	9.5	9.5	9.6	9.7	9.7	9.8	9.7	9.6	9.6
	BOD	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	--	--	--	--	--	--	--	--	--	--	--	--
River Satluj before conf. with River Spiti at Khab	**pH**	7.61	7.75	7.32	7.83	7.90	7.41	7.64	8.06	7.76	7.96	8.01	7.69
	DO	10.0	9.9	9.7	9.8	9.7	9.7	9.9	10.0	10.0	10.1	10.0	9.8
	BOD	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	--	--	--	--	--	--	--	--	--	--	--	--
River Spiti before conf. with River Satluj at Khab	**pH**	7.59	7.83	7.35	7.83	7.88	7.68	7.38	8.14	6.59	7.96	8.07	7.79
	DO	9.9	10.0	9.6	9.6	9.8	9.8	9.8	9.9	9.8	9.7	9.7	9.6
	BOD	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TC	--	--	--	--	--	--	--	--	--	--	--	--
River Satluj after conf. with	**pH**	7.62	7.77	7.38	7.98	7.92	7.70	7.28	8.13	7.28	7.90	8.06	8.04
	DO	10.1	9.9	9.6	9.8	9.6	9.7	9.9	10.1	10.0	10.1	9.9	9.8
	BOD	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

River Spiti at Khab	**TC**	--	--	--	--	--	--	--	--	--	--	--	--
River Ravi D/S Chamba	**pH**	8.02	8.00	7.81	6.78	7.59	6.75	7.98	7.03	7.86	7.31	7.64	7.22
	DO	8.7	8.7	8.6	8.6	8.5	8.5	8.6	8.8	8.7	8.2	8.6	8.6
	BOD	0.4	0.2	0.2	0.5	1.6	0.3	0.3	0.6	0.5	0.5	0.1	0.3
	TC	--	--	--	--	--	--	--	--	80	140	210	240
River Ravi U/S Chamba	**pH**	7.8	8.24	7.48	6.82	8.02	7.5	8	6.77	8.04	7.32	7.58	7.12
	DO	8.7	8.8	8.7	8.7	8.6	8.6	8.8	8.7	8.8	8.6	8.7	8.7
	BOD	0.6	0.4	0.3	0.4	0.7	0.2	0.2	0.4	0.6	1.4	0.2	0.3
	TC	--	--	--	--	--	--	--	--	60	110	170	210
River Siul D/S Surgani	**pH**	8.13	7.96	8.57	7.81	7.49	7.23	7.35	7.02	8.16	7.29	8.02	7.38
	DO	8.8	8.7	8.6	8.5	8.7	8.7	8.6	8.7	8.6	8.7	8.8	8.7
	BOD	0.2	0.3	0.3	1.6	0.7	0.2	0.2	0.2	0.4	0.1	0.3	0.5
	TC	--	--	--	--	--	--	--	--	80	110	220	220
River Ravi at Chamera Reservoir (2614)	**pH**	8.1	8.35	8.29	7.39	7.51	8.08	8.04	7.08	8.14	7.18	8.23	7.29
	DO	8.6	8.6	8.4	8.7	8.5	8.5	8.8	8.8	8.7	8.6	8.7	8.6
	BOD	0.3	0.4	0.3	0.5	0.5	0.2	0.8	0.3	0.2	0.2	0.2	0.4
	TC	--	--	--	--	--	--	--	--	110	90	280	240
Madhopur Head Works River Ravi	**pH**	8.01	7.91	8.24	6.28	7.09	7.47	7.55	7.01	8.12	8.17	7.45	6.98
	DO	7.9	7.9	8.3	8.1	8.0	8.6	7.9	8.5	8.1	8.6	8.2	8.1
	BOD	0.7	0.5	0.5	0.5	0.4	0.8	0.7	4.0	0.4	0.2	0.5	0.4
	TC	--	--	--	--	--	--	--	--	--	240	430	350
Khajiar Lake	**pH**	7.17	6.75	7.78	6.6	7.36	7.05	7.76	6.46	7.84	6.72	7.96	7.19
	DO	6.6	5.8	6.2	6.3	6.1	6.3	6.6	6.1	6.3	6.1	7.0	5.8
	BOD	5.8	65.0	34.0	7.5	21.0	18.0	7.5	18.0	3.0	60.0	14.0	1.0
	TC	--	--	--	--	--	--	--	--	240	500	1600	920
Pong Dam Lake at Pong Village	**pH**	8.32	8.12	7.05	8.33	7.27	8.04	7.58	7.31	8.03	8.03	8.2	7.46
	DO	8.1	8.5	7.2	8.5	8.7	8.5	7.9	8.4	7.4	7.1	7.6	8.3
	BOD	0.6	0.6	0.8	0.4	1.6	0.5	0.4	1.4	0.5	0.4	3.0	0.4
	TC	--	--	--	--	--	--	--	--	--	110	--	280
D/S Pong Dam R.	**pH**	8.32	8.42	7.16	7.96	7.44	8.04	7.2	7.36	8.1	7.82	7.51	7.35
	DO	8.2	8.6	6.9	8.7	8.9	8.6	8.1	8.5	6.9	7.3	8.3	8.6

Beas	**BOD**	0.2	0.4	0.4	0.2	0.8	0.3	0.5	1.0	0.2	0.2	0.5	0.3
	TC	--	--	--	--	--	--	--	--	--	130	--	170
D/S Dehra River Beas	**pH**	7.37	7.97	8.27	7.71	7.62	7.34	8.39	7.44	8.16	7.61	8.12	7.68
	DO	8.4	7.4	8.8	7.9	7.9	8.2	8.6	8.0	7.3	6.8	8.5	8.2
	BOD	0.3	0.8	0.3	0.8	0.4	0.7	0.5	1.8	0.4	6.0	0.4	2.0
	TC	--	--	--	--	--	--	--	--	--	130	--	280
D/S Jaisinghpur River Beas	**pH**	7.83	7.64	6.98	7.38	7.62	7.24	7.81	7.54	7.21	7.42	7.68	6.98
	DO	8.5	8.9	7.6	6.8	7.9	7.9	7.9	8.3	7.9	8.7	7.9	8.2
	BOD	1.0	1.2	0.8	0.9	1.0	0.6	0.7	0.6	2.0	2.0	0.5	0.5
	TC	--	--	--	--	--	--	--	--	--	170	--	280
D/S Alampur River Beas	**pH**	7.86	7.51	6.88	7.41	7.38	7.07	7.1	7.69	7.35	7.31	8.02	6.72
	DO	8.4	9.1	7.8	6.5	8.2	8.1	7.6	8.1	8.2	8.2	7.8	7.9
	BOD	1.0	1.2	0.8	0.5	1.4	0.6	0.9	0.7	1.6	0.5	0.5	0.5
	TC	--	--	--	--	--	--	--	--	--	140	--	220
D/S Thural Neugal Khad	**pH**	8.41	7.32	7.71	7.29	7.03	7.62	7.08	7.45	7.72	7.05	7.21	7.59
	DO	8.1	8.6	7.3	8.1	8.2	7.7	8.4	8.1	7.6	8.6	8.1	8.6
	BOD	0.4	0.4	1.8	0.3	0.2	0.3	0.3	0.6	0.2	0.4	0.3	0.3
	TC	--	--	--	--	--	--	--	--	--	110	--	350
D/S Binwa Baijnath Paprola	**pH**	7.51	7.35	7.67	7.12	7.05	7.67	7.14	7.52	8.07	7.09	7.79	6.84
	DO	8.5	8.2	8.2	8.4	9.1	8.6	7.6	7.5	7.2	8.4	7.3	8.0
	BOD	0.8	0.5	0.5	0.2	0.2	0.3	0.2	0.5	0.2	0.2	0.4	0.2
	TC	--	--	--	--	--	--	--	--	--	170	--	240
River Satluj D/s Bhakhra	**pH**	8.14	8.09	7.74	7.02	7.48	7.17	8.18	7.17	8.06	8.06	7.37	7.14
	DO	7.0	5.4	7.5	6.3	6.3	8.0	6.8	7.1	7.0	7.2	6.5	5.9
	BOD	0.3	0.2	0.2	0.4	0.3	0.2	0.3	0.5	0.3	0.3	0.3	0.2
	TC	--	--	--	--	--	--	33	--	130	280	540	350
River Swan D/s Santokhgarh	**pH**	7.99	7.69	7.42	6.78	7.88	7.38	7.68	7.26	8.27	8.31	7.5	7.38
	DO	5.5	5.2	7.8	5.8	5.8	6.0	5.6	6.5	5.6	6.5	5.0	5.6
	BOD	1.6	1.6	60.0	0.7	1.6	2.0	0.9	5.4	0.6	0.5	2.0	0.4
	TC	--	--	--	--	--	--	49	70	170	280	920	430
River Ravi D/S proposed	**pH**	8.08	8.03	7.78	6.99	7.44	6.44	7.26	6.96	8.07	7.43	7.79	7.27
	DO	8.6	8.6	8.7	8.5	8.6	8.6	8.7	8.9	8.8	8.6	8.8	8.8

dam of Chamera-III HEP	**BOD**	0.5	0.4	0.2	0.2	0.3	0.5	0.3	0.8	0.2	0.3	0.2	0.3
	TC	--	--	--	--	--	--	--	--	110	90	220	170

Name of location	Parameters	Apr-15	Oct-15
Well at Kala Amb	**pH**	8.03	7.58
	DO	--	--
	BOD	0.6	0.8
	TC	4.0	4.0
Well at Paonta Sahib	**pH**	7.85	6.96
	DO	--	--
	BOD	0.6	0.4
	TC	3.0	5
Well at Industrial Area Kala Amb	**pH**	7.94	7.36
	DO	--	--
	BOD	0.8	0.8
	TC	5.0	5.0
Well at Industrial Area Paonta Sahib	**pH**	8.06	7.7
	DO	--	--
	BOD	0.8	0.7
	TC	4.0	6.0
Hand Pump at Nahan	**pH**	7.70	6.76
	DO	--	--
	BOD	0.6	0.8
	TC	4.0	4.0
Hand Pump at Kala Amb	**pH**	7.85	7.11
	DO	--	--
	BOD	0.8	0.7
	TC	3.0	7.0

Results of State Water Quality Monitoring Points from April 2015 to March 2016:

Location	Parameter	Apr-15	Jul-15	Oct-15	Jan-16
Lift Nallah D/s Hotel Combermere, Shimla	**pH**	7.19	8.09	7.92	7.20
	DO	5.3	4.6	4.5	7.9
	BOD	6.0	4.0	4.0	9.6
	TC	12	110	14	350
Lift Nallah U/s Bridge at Bye Pass Road Near MC Waste Processing Site	**pH**	8.26	7.10	7.95	7.01
	DO	5.0	4.2	5.0	6.6
	BOD	1.8	6.0	4.8	8.2
	TC	14	82	17	120
U/s Lift Nallah before conf. to Ashwani Khad	**pH**	7.54	8.73	7.68	7.26
	DO	8.5	8.2	8.5	8.6
	BOD	0.3	1.0	0.4	0.2
	TC	18	28	17	22
D/s Ashwani Khad	**pH**	7.91	7.85	7.66	7.32
	DO	7.3	7.5	8.1	8.3
	BOD	0.1	2.0	0.8	0.1
	TC	27	24	11	48
River Pabbar D/s Chirgaon	**pH**	8.46	7.74	7.43	6.74
	DO	9.2	9.4	8.6	8.5
	BOD	0.1	0.3	0.1	0.2
	TC	15	9	<1.8	41
River Pabbar D/s Rohroo	**pH**	7.79	6.97	7.41	7.19
	DO	8.5	8.4	9.2	8.3
	BOD	0.2	1.0	0.8	0.1
	TC	13	16	4	25
River Pabbar U/s Hatkoti	**pH**	8.21	7.90	7.16	7.33
	DO	8.6	8.6	9.1	8.6
	BOD	0.4	3.0	0.8	0.1
	TC	11	8	<1.8	8
River Pabbar D/s Hatkoti	**pH**	7.76	7.76	7.39	7.35
	DO	9.3	8.5	9.1	8.4
	BOD	1.8	4.0	1.0	0.1
	TC	20	18	<1.8	15
River Pabbar U/s Chailla	**pH**	--	7.72	7.65	7.21
	DO	--	8.7	8.1	9.1
	BOD	--	3.0	0.6	0.1
	TC	--	14	<1.8	20
River Sirsa D/s Sitomajri Nallah	**pH**	7.24	7.10	7.48	6.89
	DO	6.2	5.3	6.8	5.5
	BOD	1.2	5.2	1.0	0.4
	TC	41	66	40	40
River Sirsa U/s Sandholi Nallah	**pH**	8.14	6.82	8.01	6.96
	DO	5.8	4.6	5.7	4.4
	BOD	12.0	10.0	1.0	1.2
	TC	58	50	40	140

Sandholi Nallah	**pH**	8.35	6.16	7.78	6.11
	DO	0.0	2.0	0.0	0.0
	BOD	450.0	16.0	18.0	460.0
	TC	512	380	350	>1600
River Sirsa D/s Sandholi Nallah	**pH**	8.43	7.06	7.85	7.56
	DO	4.4	4.9	5.9	4.6
	BOD	2.8	14.0	8.0	3.2
	TC	112	72	110	40
River Sirsa U/s Housing Board Nalla	**pH**	8.32	6.84	8.14	7.43
	DO	5.5	4.8	3.2	1.9
	BOD	3.6	12.5	4.0	2.8
	TC	62	86	40	120
Housing Board Nallah	**pH**	6.30	7.50	8.42	7.40
	DO	1.6	0.5	0.2	0.2
	BOD	12.0	10.5	14.0	15.0
	TC	110	420	60	>1600
River Sirsa D/s Housing Board Nalla	**pH**	8.39	7.01	7.15	5.91
	DO	6.4	4.8	4.5	3.2
	BOD	2.2	12.0	10.0	10.0
	TC	58	112	40	350
River Sirsa U/s River Ratta	**pH**	8.45	6.77	6.87	6.59
	DO	8.1	5.0	6.5	5.2
	BOD	2.0	6.5	1.0	8.0
	TC	24	32	22	41
River Ratta Before Conf. to River Sirsa	**pH**	7.62	6.94	6.70	7.29
	DO	7.2	5.2	7.2	5.9
	BOD	2.8	10.0	4.0	18.0
	TC	56	88	30	150
River Sirsa D/s River Ratta	**pH**	7.08	7.18	7.77	7.41
	DO	8.8	4.9	6.2	4.9
	BOD	8.0	15.0	2.0	12.0
	TC	40	32	33	280
River Bald U/s Land fill site at Baddi	**pH**	7.25	7.03	8.20	6.95
	DO	6.6	5.0	5.2	3.9
	BOD	1.0	7.5	1.2	1.8
	TC	52	68	50	32
River Bald D/s Landfill site at Baddi	**pH**	8.41	6.80	8.28	7.64
	DO	7.8	5.1	7.1	5.8
	BOD	1.8	12.0	4.0	2.2
	TC	68	72	50	79
Gullerwala Nallah	**pH**	--	6.89	8.17	7.00
	DO	--	5.0	5.5	4.2
	BOD	--	5.0	1.0	4.0
	TC	--	90	21	47
River Sirsa U/s Khera Nallah	**pH**	7.12	8.17	7.90	--
	DO	6.2	4.8	8.6	--
	BOD	0.2	4.5	2.0	--

	TC	58	38	40	--
Khera Nallah	**pH**	7.49	8.39	--	--
	DO	7.2	4.0	--	--
	BOD	1.8	6.0	--	--
	TC	38	58	--	--
River Sirsa D/s Khera Nallah	**pH**	7.34	8.04	8.14	--
	DO	7.8	4.8	5.9	--
	BOD	1.6	4.0	1.0	--
	TC	65	72	22	--
U/S Manpura Nallah	**pH**	7.98	6.55	7.94	7.55
	DO	6.4	4.5	6.1	4.8
	BOD	1.2	14.0	10.0	2.2
	TC	32	56	50	38
Manpura Nallah	**pH**	7.35	7.03	7.88	7.00
	DO	7.4	5.0	8.6	7.3
	BOD	0.2	7.0	10.0	14.0
	TC	34	68	34	120
River Sirsa D/s Manpura Nallah	**pH**	7.01	8.09	8.17	7.14
	DO	7.8	4.0	7.6	6.3
	BOD	2.2	8.0	8.0	4.8
	TC	44	110	22	150
Kaushlya River U/s Parwanoo Town	**pH**	8.52	8.29	8.11	6.9
	DO	7.4	7	7.4	7.2
	BOD	0.8	0.3	0.6	0.1
	TC	14	8	9	<1.8
Kaushlya River D/s Intake Channel of WSS	**pH**	8.58	8.12	8.13	7.47
	DO	8.9	6.8	6.4	6.8
	BOD	1	4	0.5	0.2
	TC	12	7	4	120
Sukhana Nallah U/s WSS Sector –4, Parwanoo	**pH**	8.44	8.23	--	7.43
	DO	7.7	7.3	--	5.9
	BOD	0.2	0.9	--	10
	TC	24	11	--	>1600
Sukhana Nallah U/S Sukhana Nallah Sec-V Parwanoo (Land fillsite)	**pH**	8.67	8.38	8.19	--
	DO	8.1	6.1	6.3	--
	BOD	1.8	0.5	0.4	--
	TC	28	28	12	--
Sukhana Nallah D/S Sukhana Nallah Sec-V Parwanoo (Land fillsite)	**pH**	6.54	8.44	7.55	--
	DO	5.1	5	5.6	--
	BOD	14	3	2	--
	TC	412	32	26	--
Masulkhana Nallah U/s Morepan Lab	**pH**	8.12	8.42	7.82	6.7
	DO	7.9	6.3	6.8	6.4
	BOD	0.6	3.5	1.6	0.1
	TC	6	22	4	<1.8
Masulkhana Nallah D/s Morepan Lab	**pH**	8.5	8.29	8.05	8.63
	DO	4.8	7.1	6.3	6.8

	BOD	120	2	2	16
	TC	410	160	110	>1600
Sukhana Nallah D/S WSS Kalka	**pH**	--	--	--	7.06
	DO	--	--	--	6.6
	BOD	--	--	--	110
	TC	--	--	--	>1600
U/s TSDF Site at Majra (Well)	**pH**	8.72		8.13	6.74
	DO	--	--	8.9	--
	BOD	0.4	--	1.2	1.0
	TC	8	--	6	<1.8
D/s TSDF Site at Majra (Well)	**pH**	8.68	--	8.04	7.32
	DO	--	--	6.5	--
	BOD	0.1	--	0.8	0.1
	TC	Nil	--	<1.8	<1.8
Well at house of Sh Gurudyal	**pH**	8.05	--	8.07	7.52
	DO	--	--	4.0	--
	BOD	0.1	--	1.0	0.1
	TC	Nil	--	<1.8	<1.8
Well at house of Sh Rana	**pH**	8.53	--	8.17	6.79
	DO	--	--	3.9	--
	BOD	0.1	--	0.2	0.1
	TC	Nil	--	<1.8	<1.8
Well of Sh Gurubaskh Vill Majra	**pH**	8.39	--	8.33	6.91
	DO	--	--	3.8	--
	BOD	0.1	--	0.4	0.1
	TC	Nil	--	<1.8	<1.8
Groundwater at Totu	**pH**	7.72	7.68	7.52	7.45
	DO	5.3	---	4.1	5.5
	BOD	0.1	0.1	0.2	0.1
	TC	Nil	Nil	<1.8	<1.8
Handpump Near Dhaggar, Market	**pH**	--	--	8.71	--
	DO	--	--	7.8	--
	BOD	--	--	0.4	--
	TC	--	--	<1.8	--
Handpump near Total Health Care, Parwanoo	**pH**	8.27	--	--	--
	DO	--	--	--	--
	BOD	0.1	--	--	--
	TC	<2	--	--	--
Handpump Sec-1 Near Shivalik Hotel	**pH**	8.18	--	8.94	7.6
	DO	--	--	7.9	8.3
	BOD	0.1	--	0.8	0.1
	TC	<2	--	<1.8	<1.8

D/s ACC Bar., Satluj River	**pH**	7.94	7.81	7.64	7.76
	DO	9.1	8.9	9	9.3
	BOD	0.2	0.3	0.2	0.1
	TC	220	350	350	150
R. Suketi U/s of conf. of dragger outfall of SNR Balancing reservoir	**pH**	8.15	7.57	8.05	8.36
	DO	7.9	7.1	8.5	10.6
	BOD	0.1	0.1	0.1	0.1
	TC	180	430	210	110
River Suketi at Dadour bridge	**pH**	8.2	7.46	7.4	8.19
	DO	11.7	6	9.5	13
	BOD	0.2	0.1	0.2	0.1
	TC	540	>1600	920	350
U/s Mandi, Suketi Khudd	**pH**	8.15	7.39	7.78	7.98
	DO	7.9	6.3	8.2	9.9
	BOD	0.1	0.1	0.1	0.1
	TC	280	1600	350	220
U/s Darang, Salt Mine	**pH**	6.08	8.38	8.8	8.38
	DO	7.3	7.4	7.7	8.9
	BOD	0.1	0.1	0.1	0.1
	TC	46	43	140	70
D/s Darang, Salt Mine	**pH**	8.22	8.42	8.17	8.51
	DO	7.4	7.1	7.9	8.3
	BOD	0.1	0.1	0.1	0.1
	TC	94	46	150	79
River Beas, U/s of conf. of envisaged TRT of UHL-III	**pH**	7.66	7.31	7.75	8.46
	DO	9.5	9	9.3	9.5
	BOD	0.1	0.1	0.1	0.1
	TC	170	63	170	170
River Beas, D/s of conf. of envisaged TRT of UHL-III	**pH**	7.71	7.09	8.86	8.7
	DO	9.1	8.8	9.4	9.4
	BOD	0.2	0.1	0.1	0.1
	TC	220	70	170	220
R.Beas, D/s of conf.of TRT of Largi HEP power house.	**pH**	7.6	7.5	6.78	7.63
	DO	9.4	9.7	9.8	9.5
	BOD	0.1	0.1	0.1	0.1
	TC	180	120	130	150
River Beas, U/s Fermenta Biodil.	**pH**	8.05	8.23	7.5	7.54
	DO	9.4	8.6	9.7	9.4
	BOD	0.1	0.1	0.1	0.1
	TC	240	170	280	170
River Beas, D/s Fermenta Biodil.	**pH**	7.91	7.16	7.36	7.65
	DO	9.4	8.6	9.7	9.3
	BOD	0.2	0.1	0.2	0.2
	TC	350	280	430	280
R. Parvati U/s of Dam site of Parvati-II at Pulga	**pH**	8	7.09	7.6	7.16
	DO	11.5	9.6	9.6	9.1
	BOD	0.1	0.1	0.1	0.1

	TC	49	46	63	47
R. Parvati D/s of Dam site of Parvati-II at	**pH**	7.17	7.16	7.47	7.24
	DO	11.5	9.6	9.6	9.1
	BOD	0.1	0.1	0.1	0.1
Pulga	**TC**	63	94	79	48
R.Beas, U/s Waste processing facility, Manali.	**pH**	7.61	7.69	7.89	7.07
	DO	9.9	9.6	9.5	9.6
	BOD	0.1	0.1	0.1	0.1
	TC	280	280	350	130
R.Beas, D/s Waste processing facility, Manali.	**pH**	7.6	7.42	7.72	7.03
	DO	9.9	9.6	9.5	9.6
	BOD	0.1	0.1	0.3	0.2
	TC	540	430	920	220
R.Beas, D/s of confluence with Allaign Nalla.	**pH**	7.27	7.28	7.53	7.01
	DO	9.9	9.6	9.5	9.6
	BOD	0.1	0.1	0.1	0.1
	TC	170	140	240	140
Allaign Nalla before confluence with R.Beas	**pH**	7.68	7.62	7.66	7.25
	DO	10.4	10	10	9.9
	BOD	0.1	0.1	0.1	0.1
	TC	79	70	140	70
R.Beas, D/s confluence with Duhangan Nalla.	**pH**	7.57	8.26	7.78	7.02
	DO	9.9	9.6	9.5	9.6
	BOD	0.1	0.1	0.1	0.1
	TC	180	170	280	130
Duhangan Nalla before confluence with R.Beas	**pH**	7.62	7.23	7.78	7.57
	DO	10.5	9.7	9.6	9.7
	BOD	0.1	0.1	0.1	0.1
	TC	49	79	170	63
R.Beas, U/s of confluence of R.Parvati	**pH**	7.73	7.4	7.52	7.6
	DO	9.1	8.5	9.2	9.4
	BOD	0.1	0.1	0.1	0.1
	TC	130	210	280	220
R.Beas, D/s of confluence of R.Parvati	**pH**	7.57	7.2	8.08	7.62
	DO	9.5	8.6	9.3	9.4
	BOD	0.1	0.1	0.1	0.1
	TC	140	220	350	280
R.Beas, U/s Waste processing facility Kullu.	**pH**	7.7	7.36	7.48	7.32
	DO	9.3	8.8	9.3	8.8
	BOD	0.1	0.1	0.1	0.1
	TC	280	350	350	110
R.Beas, D/s Waste processing facility Kullu.	**pH**	7.82	7.22	7.34	7.38
	DO	9.1	8.5	9.1	8.6
	BOD	0.3	0.3	0.2	0.2
	TC	540	430	920	350
R.Sainj, U/s envisaged power house site of	**pH**	7.22	7.25	7.68	8.11
	DO	9.4	9.8	9.9	9.8

Parvati-II.	**BOD**	0.1	0.1	0.1	0.1
	TC	63	79	220	79
R.Sainj, D/s envisaged power house site of Parvati-II.	**pH**	7.35	7.6	7.7	7.86
	DO	9.4	9.8	9.9	9.7
	BOD	0.1	0.1	0.1	0.1
	TC	130	94	240	170
R.Sainj, U/s envisaged power house site of Parvati - III.	**pH**	7.46	7.59	7.69	7.88
	DO	9.5	9.7	9.8	9.7
	BOD	0.1	0.2	0.1	0.1
	TC	70	110	240	110
R.Sainj,, D/s envisaged power house site of Parvati - III.	**pH**	7.68	6.7	7.76	7.86
	DO	9.5	9.7	9.8	9.7
	BOD	0.1	0.1	0.1	0.1
	TC	140	130	280	170
*** River Satluj U/s Landfill Site Rampur**	**pH**	7.58	7.82	7.57	7.94
	DO	9.4	9.3	9.4	9.2
	BOD	0.1	0.1	0.1	0.1
	TC	--	--	--	--
*** River Satluj D/s Landfill Site Rampur**	**pH**	7.63	7.99	7.58	7.91
	DO	9.4	9.3	9.4	9.2
	BOD	0.3	0.1	0.2	0.2
	TC	--	--	--	--
*** R. Satluj D/s Duttnagar, D/s envisaged conf. of TRT of RHEP**	**pH**	7.67	7.95	7.77	7.8
	DO	9.3	9.3	9.4	9.2
	BOD	0.1	0.1	0.1	0.2
	TC	--	--	--	--
*** River Satluj U/s TRT of Nathpa Jhakri Project**	**pH**	7.61	8	7.3	8.02
	DO	9.4	9.3	9.4	9.4
	BOD	0.1	0.1	0.1	0.1
	TC	--	--	--	--
*** River Satluj D/s TRT of Nathpa Jhakri Project**	**pH**	7.37	7.92	7.24	7.94
	DO	9.5	9.3	9.5	9.4
	BOD	0.1	0.1	0.1	0.1
	TC	---	--	--	--
*** River Satluj U/s confluence with Ganvi Khad**	**pH**	7.54	7.79	8.02	8.06
	DO	9.4	9.4	9.5	9.5
	BOD	0.1	0.1	0.1	0.1
	TC	--	--	--	--
*** River Satluj D/s confluence with Ganvi Khad**	**pH**	7.43	7.85	7.22	8.06
	DO	9.3	9.4	9.5	9.5
	BOD	0.1	0.1	0.1	0.1
	TC	--	--	--	--
*** Ganvi Khad before confluence to River Satluj**	**pH**	7.46	7.85	7.88	7.92
	DO	9.3	9.3	9.3	9.4
	BOD	0.1	0.1	0.1	0.1
	TC	--	--	--	--
*** River Satluj D/s NJPC**	**pH**	7.49	7.86	7.64	7.93

Dam Nathpa	**DO**	9.5	9.5	9.5	9.4
	BOD	0.2	0.2	0.1	0.1
	TC	---	--	--	--
*** River Satluj U/s confluence with Sorang Khad**	**pH**	7.53	7.77	7.41	7.87
	DO	9.4	9.5	9.5	9.5
	BOD	0.1	0.1	0.1	0.1
	TC	---	--	--	--
*** River Satluj D/s confluence with Sorang Khad**	**pH**	7.55	7.83	7.72	7.87
	DO	9.4	9.5	9.5	9.5
	BOD	0.1	0.1	0.1	0.1
	TC	--	--	--	--
*** River Sorang before confluence to River Satluj**	**pH**	7.57	7.86	7.78	8.01
	DO	9.3	9.4	--	9.7
	BOD	0.3	0.1	0.1	0.1
	TC	--	--	--	--
*** Karcham Dam**	**pH**	7.65	7.59	7.78	7.65
	DO	9.8	9.4	9.6	9.5
	BOD	0.3	0.2	0.2	0.1
	TC	--	--	--	--
*** Baspa River Baspa Project**	**pH**	7.68	7.66	7.87	7.91
	DO	9.3	9.3	9.5	9.6
	BOD	0.2	0.1	0.1	0.1
	TC	--	--	--	--
*** River Baspa D/s reservoir at Kuppa**	**pH**	7.58	7.79	7.67	8.1
	DO	9.4	9.5	9.7	9.6
	BOD	0.1	0.1	0.1	0.1
	TC	--	--	--	--
*** River Tidong before conf. to River Satluj**	**pH**	7.84	7.74	8.05	7.76
	DO	9.5	9.6	9.8	9.6
	BOD	0.1	0.1	0.1	0.1
	TC	--	--	--	--
*** River Satluj U/s conf. with River Tidong**	**pH**	7.58	7.62	7.86	7.98
	DO	9.7	9.7	9.7	9.8
	BOD	0.1	0.1	0.1	0.1
	TC	--	--	--	--
*** River Satluj D/s conf. with River Tidong**	**pH**	7.33	7.71	7.72	8.08
	DO	9.6	9.7	9.7	9.8
	BOD	0.2	0.2	0.1	0.1
	TC	--	--	--	--
Swan River D/S I.A. Gagret	**pH**	8.85	7.48	8.31	8.22
	DO	6.1	6.0	--	6.8
	BOD	0.8	0.7	5.5	2.6
	TC	--	--	43	500
Swan River U/S I.A. Gagret	**pH**	8.88	7.54	8.25	8.17
	DO	6.0	6.1	--	6.8
	BOD	0.4	0.2	0.4	0.8
	TC	--	--	34	350

River Ravi U/S Land Fill Site Chamba	**pH**	8.73	7.07	7.95	7.34
	DO	8.7	8.7	8.8	8.7
	BOD	0.5	0.8	0.2	0.4
	TC	--	--	--	140
River Ravi D/S Land Fill Site Chamba	**pH**	7.15	6.95	7.94	7.28
	DO	8.5	8.5	8.7	8.5
	BOD	0.8	1.4	0.3	1.6
	TC	--	--	--	170
River Ravi before conf. with River Baira	**pH**	7.6	7.1	7.76	7.85
	DO	8.6	8.8	8.7	8.6
	BOD	0.3	0.8	0.4	0.2
	TC	--	--	--	170
Bhiral Khad D/S STP Palampur	**pH**	7.27	7.01	6.91	**Sample not Collected**
	DO	7.1	7.7	8.1	
	BOD	0.8	2.5	0.6	
	TC	--	--	--	
Bhiral Khad U/S STP Palampur	**pH**	7.09	6.92	6.96	**Sample not Collected**
	DO	7.5	7.8	7.8	
	BOD	0.8	0.3	0.4	
	TC	--	--	--	
River Ravi after conf. with Baira River	**pH**	8.01	7.53	7.58	8.06
	DO	8.5	8.6	8.7	8.6
	BOD	0.3	0.2	0.5	0.2
	TC	--	--	--	240
River Ravi D/S Dam of Chamera-I HEP	**pH**	8.18	7.5	7.66	7.25
	DO	8.7	8.6	8.8	8.5
	BOD	0.4	3.5	0.2	0.2
	TC	--	--	--	220
River Ravi D/S TRT Power House -I HEP	**pH**	8.1	7.75	7.71	7.33
	DO	8.6	8.8	8.8	8.7
	BOD	0.5	1.4	0.4	0.2
	TC	--	--	--	280
River Baira before conf. with River Ravi	**pH**	8.12	7.7	7.37	8.02
	DO	8.7	8.7	8.6	8.7
	BOD	0.2	2.5	0.3	0.3
	TC	--	--	--	110
Chounch Khad D/s Ind. Area Bain Attarian	**pH**	7.59	6.63	7.28	8.19
	DO	6.2	7.5	7.3	7.1
	BOD	0.6	0.4	0.4	0.2
	TC	--	--	--	300
Chounch Khad U/s Ind. Area Bain Attarian	**pH**	7.98	6.86	7.19	8.36
	DO	6.7	7.8	6.9	7.2
	BOD	0.2	28	0.8	0.4
	TC	--	--	--	350
River Satluj U/S Bhakhra	**pH**	8.13	6.77	8.19	8.15
	DO	7.1	6.5	6.9	7.1
	BOD	0.3	0.4	0.2	0.2

	TC	--	--	31	170
River Swan U/S MSW landfill Santokhgarh	**pH**	8.14	7.21	7.88	8.34
	DO	6.1	6.0	5.5	6.9
	BOD	0.4	0.5	0.6	1.8
	TC	--	--	43	350
River Swan D/S MSW land fill Santokhgarh	**pH**	8.19	7.49	8	8.36
	DO	6.0	5.8	5.6	6.9
	BOD	0.5	0.3	0.5	1.0
	TC	--	--	46	500
River Baira U/S of Dam on Baira siul HEP	**pH**	7.96	7.57	7.38	7.23
	DO	8.7	8.8	8.7	8.5
	BOD	0.2	0.3	0.2	0.3
	TC	--	--	--	140
River Baira D/S Dam on Bairasiul HEP	**pH**	8.28	7.68	7.38	7.32
	DO	8.6	8.6	8.7	8.4
	BOD	0.2	0.2	0.2	0.3
	TC	--	--	--	130
River Siul U/S Dam of Siul for BSHEP	**pH**	8.17	7.75	8.06	7.39
	DO	8.8	8.7	8.9	8.7
	BOD	0.1	0.4	0.2	0.3
	TC	--	--	--	110
River Siul D/S Dam of Siul for BSHEP	**pH**	7.99	7.84	7.96	7.35
	DO	8.7	8.7	8.9	8.7
	BOD	0.2	0.2	0.4	1.0
	TC	--	--	--	110
Baled Khad U/S of Dam on Baled for BSHEP	**pH**	8.24	7.83	7.52	7.39
	DO	8.7	8.7	8.8	8.4
	BOD	0.2	0.2	0.2	0.5
	TC	--	--	--	170
Bhaled Khad D/S Dam on Baled for BSHEP	**pH**	8.1	7.82	7.63	7.43
	DO	8.7	8.6	8.7	8.4
	BOD	0.2	0.2	0.3	0.5
	TC	--	--	--	220
River Baira before conf. of TRT of BSHEP	**pH**	8.14	7.81	7.42	7.38
	DO	8.6	8.6	8.6	8.6
	BOD	0.2	0.3	0.2	3.0
	TC	--	--	--	170
River Baira after conf. of TRT of BSHEP	**pH**	8.11	7.8	7.09	7.58
	DO	8.6	8.7	8.7	8.5
	BOD	0.3	0.7	0.2	2.0
	TC	--	--	--	220
River Ravi U/S Chamera -II	**pH**	7.65	7.02	7.16	7.25
	DO	8.7	8.7	8.7	8.0
	BOD	0.3	0.4	0.2	0.3
	TC	--	--	--	130
River Ravi D/S Chamera -II	**pH**	7.99	7.21	7.2	7.18
	DO	8.6	8.5	8.6	8.3

	BOD	0.3	0.6	0.4	0.4
	TC	--	--	--	110
River Ravi U/S of Conf. of Budhil Nallah	**pH**	8.16	7.27	7.51	7.32
	DO	8.7	8.7	8.6	8.5
	BOD	0.3	0.8	0.2	0.5
	TC	--	--	--	110
Budhil Nallah U/S Dam of Budhil HEP	**pH**	8.09	7.33	7.85	7.28
	DO	8.8	8.5	8.7	8.4
	BOD	0.3	0.3	0.2	0.3
	TC	--	--	--	110
Budhil Nallah D/S Dam of Budhil HEP	**pH**	8.12	7.45	7.69	7.24
	DO	8.8	8.6	8.8	8.6
	BOD	0.2	0.2	0.4	0.3
	TC	--	--	--	170
River Ravi D/S TRT of proposed Budhil HEP	**pH**	8.12	7.4	7.71	7.3
	DO	8.7	8.6	8.7	8.7
	BOD	0.4	0.7	0.2	0.4
	TC	--	--	--	130
River Beas U/S Pong Dam	**pH**	8.37	8.2	7.24	8.18
	DO	8.0	8.5	7.9	7.1
	BOD	0.5	0.3	0.7	0.2
	TC	--	--	--	220
U/S Swan Khad IA Sansarpur Terrace	**pH**	8.86	8.33	7.64	7.32
	DO	7.0	7.5	7.0	6.9
	BOD	0.3	0.2	0.2	28.0
	TC	--	--	--	350
D/S Swan Khad IA Sansarpur Terrace	**pH**	7.85	7.95	7.65	8.07
	DO	6.9	7.1	7.0	6.9
	BOD	0.9	0.5	6.0	2.0
	TC	--	--	--	500
Lund Khad U/s STP Jawalamukhi	**pH**	7.56	8.26	7.99	7.48
	DO	6.7	7.2	7.4	6.9
	BOD	10.0	10.0	0.6	36.0
	TC	--	--	--	500
Lund Khad D/s STP Jawalamukhi	**pH**	7.05	7.93	8.2	8.02
	DO	6.6	7.0	7.1	7.1
	BOD	12.0	2.0	0.7	40.0
	TC	--	--	--	900
Baner Khad U/s STP TMC	**pH**	7.44	7.83	7.31	7.67
	DO	6.9	7.3	7.4	7.2
	BOD	0.5	0.2	0.2	1.0
	TC	--	--	--	280
Baner Khad D/s STP TMC	**pH**	7.42	7.56	7.34	7.99
	DO	7.2	7.1	7.3	7.5
	BOD	0.6	0.5	0.6	0.8
	TC	--	--	--	350
Charan Khad U/S STP	**pH**	6.7	7.22	7.78	7.87

Dharamshala	**DO**	7.4	7.1	7.2	7.1
	BOD	0.3	0.2	0.4	0.2
	TC	--	--	--	220
Charan Khad D/S STP Dharamshala	**pH**	6.4	7.48	7.93	7.81
	DO	7.3	7.0	7.3	7.3
	BOD	0.6	0.5	0.6	0.3
	TC	--	--	--	500
Dal Lake Naddi	**pH**	7.34	7.59	7.91	7.83
	DO	7.8	8.4	7.6	6.9
	BOD	0.4	2.8	0.4	2.2
	TC	--	--	--	500
River Yamuna U/S of Ranbaxy Paonta Sahib	**pH**	7.76	7.83	7.84	8.45
	DO	7.4	5.9	8.4	8.2
	BOD	1.4	1.6	1.2	1.2
	TC	20.0	18.0	22.0	22.0
River Yamuna D/S of Ranbaxy Paonta Sahib	**pH**	7.37	7.79	7.89	8.37
	DO	7.3	5.8	8.2	8.0
	BOD	1.6	1.6	1.6	1.6
	TC	22.0	20.0	18.0	26.0
River Yamuna U/S of landfill site Paonta Sahib	**pH**	8.25	7.33	7.77	8.48
	DO	7.2	5.5	8.0	8.0
	BOD	1.4	1.4	1.2	1.6
	TC	25.0	19.0	22.0	43.0
River Yamuna D/S of landfill site Paonta Sahib	**pH**	8.28	7.29	7.78	8.08
	DO	7.0	5.4	7.8	7.8
	BOD	1.6	1.8	1.6	1.6
	TC	20.0	20.0	20.0	46.0
River Markanda U/S of Markanda Bridge Kala Amb	**pH**	8.25	8.21	7.78	8.43
	DO	6.7	6.5	7.7	8.3
	BOD	1.6	1.2	1.5	1.2
	TC	30.0	22.0	18.0	27.0
River Markanda U/S of Jattanwala Nallah	**pH**	8.28	8.02	8.02	8.47
	DO	6.6	6.2	7.6	8.3
	BOD	1.6	1.6	1.6	1.2
	TC	32.0	24.0	24.0	27.0
Jattanwala Nallah	**pH**	7.21	7.18	7.03	7.84
	DO	Int.	2.8	NIL	NIL
	BOD	86.0	56.0	80.0	210.0
	TC	64.0	58.0	62.0	140.0
D/S Jattanwala Nallah	**pH**	7.96	7.9	6.92	7.44
	DO	2.1	5.0	1.9	1.5
	BOD	21.0	8.0	48.0	44.0
	TC	42.0	28.0	35.0	110.0

Following conclusion were drawn from the above studies:

In case of major rivers on the basis of Primary Water Quality Criteria, it can be concluded that water quality of rivers fall 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.

DETAIL OF SAMPLES ANALYSED IN THE STATE BOARD LABORATORIES:

The State board has 4 laboratories for carrying out analysis of water, waste water, solid waste, air and bio-monitoring samples collected by the Board's officers. One small laboratory for analysis of only SO2, NOx & RSPM in ambient air is at Shimla. The detail of samples analyzed by the laboratories during the year 2015-16 is as follows:

Sr. No.	Type of Samples		Number of Samples Analyzed in State Boards Laboratories			
			Parwanoo	**Paonta Sahib**	**Dharamshala**	**Sunder Nagar**
1.	Water & Waste Water	Trade Effluent	**996**	**402**	**379**	**220**
		RM/GW/ Study etc. water samples	**683**	**712**	**431**	**1007**
2.	Soil/Solid Waste		**23**	**1**	**1**	**1**
3.	Air Monitoring		**721**	**73**	**414**	**390**
4.	Commercial		**--**	**12**	**--**	**90**
5.	Complaint		**16**	**--**	**3**	**1**
6.	Bio-Monitoring		**--**	**--**	**--**	**--**
7.	Noise Monitoring		**--**	**--**	**--**	**88**
8.	Ambient Air Monitoring under NAMP project		SO_2 – 1538	SO_2 – 3254	SO_2 – 2399	SO_2 – 1437
			NOx – 1538	NOx – 3254	NOx– 2399	NOx –1437
			SPM – 775	SPM – 1648	SPM – 1226	SPM – 768
			RSPM– 775	RSPM – 1648	RSPM – 1226	RSPM – 768

Type of Samples	Number of Samples Analyzed in State Boards NAMP Laboratories			
	Shimla	**Baddi**	**Manali**	**Una**
Ambient Air Monitoring under NAMP project	SO_2 – 1225	SO_2 – 1644	SO_2 – 1313	SO_2 – 93
	NOx – 1225	NOx – 1644	NOx –1313	NOx – 93
	SPM – 624	SPM – 840	SPM – 688	SPM – 730
	RSPM– 624	RSPM –840	RSPM – 688	RSPM –730

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CHAPTER-5

POLLUTION CONTROL, SURVEILLANCE & MONITORING

The objectives and functions of the Board are defined in under section 17 of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981. In order to achieve the larger objectives of the aforesaid acts and yet maintain the pace of sustainable growth, the State Board ensures that development takes place in harmony with the environment. The State Board has a field network of Regional Offices 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.

MAJOR DECISIONS OF THE BOARD DURING 2015-16 RELATED TO WATER & AIR ACTS:

1. The State Board in its 74th meeting held on 19-03-2016 vide item No. 74.16 decided that 25% reduction in fees for green industry and 10% reduction in orange industry for consent to establish and also consent to renewal shall be admissible w.e.f. the financial year 2016-17.

2. The State Board in its 74th meeting held on 19-03-2016 vide item No. 74.17 decided that Green and orange category industries to be established in designated industrial areas and not requiring environmental clearances will be granted consent to establish on self certification without any prior inspection.

3. The State Board in its 74th meeting held on 19-03-2016 vide item No. 74.18 decided that no inspection shall be carried out for 3 years in case of startups and new enterprises in the State Industries without permission of the head of the department: however, sampling be carried out as prescribed frequency to ensure compliance to norms.

4. The State Board in its 74th meeting held on 19-03-2016 vide item No. 74.19 decided that the residential colonies located outside the boundary of Municipal bodies having more than 12 apartments and hotels having more than 25 double bed rooms located outside the boundary of municipal bodies shall have to provide sewage treatment plant.

5. The State Board in its 74th meeting held on 19-03-2016 vide item No. 74.20 decided to adopt the revised modified classification of industrial sectors according to the directions of Central Pollution Control board with immediate effect except in case of Hydro Electric Power Projects up to 25 MW.

All the above decisions of the Board are being implemented.

5.1 CONSENT MECHANISM:

According to the provisions of the aforesaid Acts, Consent of the State Board is required by the development projects, the industrial units, tourism projects, Hydel projects, mining units and sewage treatment systems.

The consent mechanism mandates the above mentioned development projects to obtain prior consent Under provisions of sections 25 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

(a) Establish or take any steps to establish any industry, operation or process, or any treatment and disposal system or an extension or addition thereto, which is likely to discharge sewage or trade effluent into a stream or well or sewer or on land (such discharge being hereafter in this section referred to as discharge of sewage); or

(b) Bring into use any new or altered outlets for the discharge of sewage; or

(c) Begin to make any new discharge of sewage;

(d) Establish or operate any industrial plant in an air pollution control area

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 pollution 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 Establish' 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 financial 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, further renewal of consent is granted.

The achievements made during 2015-16 in discharge of regulatory functions under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, and Air (Prevention and Control of Pollution) Act, 1981 are given hereunder:

Table: 5.1

CONSENT MANAGEMENT AT A GLANCE (2015-16)

S. NO.	PARTICULARS	GRANTED DURING THE YEAR 2015-16		REFUSED DURING THE YEAR 2015-16		CUMULATIVE AS ON 31.03.16	
		At HQ	At ROS	At HQ	At ROS		
1.	Consent to Establish (a) Water Act, 1974 (b) Air Act, 1981 (c) Both Acts	 13 4 289	 142 25 359	 1 0 3	 0 0 3	 2450 999 8796	
2.	Consent to Operate (a) Water Act, 1974 (b) Air Act, 1981 (c) Both Acts	 3 3 151	 136 27 230	 2 - 1	 2 - 1	 2300 872 7743	
3.	No objections to non-polluting / exempted categories of industries	0	0	-	-	1138	
4.	Renewal of Consent (a) Water Act, 1974 (b) Air Act, 1981 (c) Both Acts	 35 6 556	 171 47 563	 1 1 15	 1 - 2	 NA NA	 NA NA
5.	Consent Fees (in Rs.)	***16,24,42,397/-**					
6.	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.	No. of Samples Collected					
		WATER / EFFLUENTS	AIR / EMMISIONS	SOLID WASTES	VEHICLES CHECKED		
		2065	1534	337	1474		
7.	Surveillance and Inspections under Water & Air Acts & Hazardous Wastes (Management & Handling) Rules, 1998/2003.	Number of Industries			Actual Inspections done		
		10579			11444		
8.	Public complaints/ representations	Received			Attended		
		296			265		

9.	Notices & Directions:	Issued	Implemented/Complied
	(i) Number of Notices issued. (ii) Number of directions issued U/S 33-A and 31 A of Water & Air Acts respectively.	108 51	108 51
10.	Number of Industries which filed Environment Audit Reports	764	

*Provisional subject to reconciliation after Audit.

5.2 SURVEILLANCE & MONITORING:

The evaluation of 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. State Board has also taken initiative to start online real-time monitoring in the Cement Plants.

5.2.1 MONITORING OF INDUSTRIAL POLLUTION:

This activity is presently being conducted by a network of 10 Regional Offices of the Board headed by Environmental Engineers and Assistant Environmental Engineers. During the year 2015-16, 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):	3263
(ii)	Number of Air Pollution Control System (Cumulative):	2978
(iii)	Number of Inspections conducted in 2015-16:	11444
(iv)	Number of Samples of Water, Waste Water and emission including ambient air & noise in 2015-16:	3936
(v)	Number of vehicles checked:	1474

5.2.2. MONITORING OF HYDEL PROJECTS:

State Board has continued the photo monitoring of the Hydel Projects for reviewing and making required interventions in the management of muck. State Board has also initiated the process to get the Real time on-line Continuous Flow Measurement & Data logging device installed for flow measurement to monitor the mandatory 15 % release of water the operational hydel projects. Some projects have already installed the device and the others are being directed through persuasion by the State Board.

5.3 POLLUTION PREVENTION & CONTROL:

Consequent to regular surveillance & monitoring activities, constant pressure is maintained on the polluting industries for operation and maintenance of the pollution control equipment. During the year 142 new pollution control systems were got installed in the new industries to whom consents to operate were granted during the year. In addition to the three stages conventional treatment comprising of physico-chemical and biological treatment, State Board has also taken initiative to introduce tertiary level of treatment in the industrial units particularly those in Baddi-Barotiwala area.

Improvements in the already existing control systems in respect of 140 industries were also got incorporated including those, which were ordered disconnection of power due to 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 by the Regional Offices.

5.4 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 categories of projects specified in the Schedule of EIA Notification, 2006 issued by the Ministry of Environment and Forests, Government of India vide No.SO-1533(E) dated 14-09-2006 . Role of the State Board under this notification is to conduct the Public Hearing as part of the public consultation mechanism prescribed by the Government of India.

During the year 2015-16, the State Board granted 832 Consent to establish and 550 consent to operate including expansion under Water and Air Acts to the new units after due examination of environmental impacts and management plans under Water and Air Acts.

5.5 ENVIRONMENTAL MONITORING OF HYDEL 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.

At present twenty eight projects have been approved namely: 1. Parbati (Stage-II) Hydroelectric Project, Distt. Kullu; 2. Kol Dam Hydroelectric Project, Distt. Bilaspur; 3. Chamera (Stage-III) Hydroelectric Project, Distt. Chamba; 4. Karcham Wangtu Hydroelectric Project, Distt. Kinnaur; 5 Rampur Hydel Project, Distt. Shimla/Kullu; 6 M/s Budhil Hydrolelctric Project, Chamba; 7. Sawda-Kuddu Hydroelectric Project, Distt. Shimla, 8. M/s Sorang Hydrelectric Project, Distt. Kinnaur; 9. M/s Tidong Hydroelectric Project, Kinnaur 10. M/s Uhl Stage-III Hydroelectric Project, Distt. Mandi. 11. Tangnu Romai-I HEP, Rohroo, Distt. Shimla 12. Sainj HEP, Distt. Kullu 13.Kut HEP, Rampur, Distt. Shimla.14.Baragaon HEP, Distt. Kullu.15. Integrated Kashang, HEP, Distt. Kinnaur and 16. Shongtong Karcham, HEP, Distt. Kinnaur.17. Upper Nanti HEP, Distt. Shimla 18. Dhamwari Sunda HEP, Distt. Shimla. 19. Paudital Lassa HEP, Distt. Shimla. 20. Lower Nanti HEP, Distt. Shimla. 21. Sumez HEP, Distt. Shimla. 22. Jogini HEP, Distt. Shimla. 23. Roura HEP, Distt. Kinnaur. 24. Selti Musrang, Distt. Kinnaur.25. Wanger Homte HEP, Distt. Kinnaur. 26. Chanju-I HEP, Distt. Chamba. 27. Bajoli Holi, HEP, DIstt. Chamba. 28. Upper Joiner HEP, Distt. Chamba.

5.6 PUBLIC COMPLAINTS / REPRESENTATIONS:

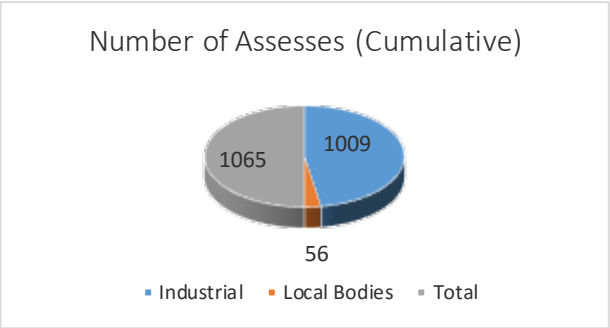
To maintain a constant vigil on the environmental quality and impact thereof on the people the Regional Offices of the State Board are engaged not only in the activities of surveillance and monitoring of the industries, keep liaison with the people but also take prompt action for mitigation of the public grievances. During the year 2015-16, the State Board took remedial action on 265 public complaints/representations that were received during the year.

5.7 MANAGEMENT OF WATER CESS:

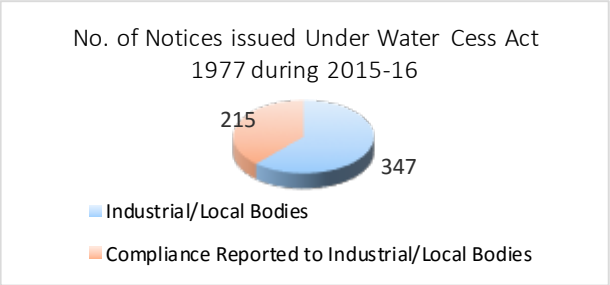
The Water (Prevention & Control of Pollution) Cess Act, 1977 provides for levy and collection of Cess from the specified categories of projects based upon the water consumption. Although in Himachal Pradesh, the number of water intensive industries is far too less in comparison to the industrially developed 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 2015-16 are as under *Table 5.2*:

TABLE-5.2

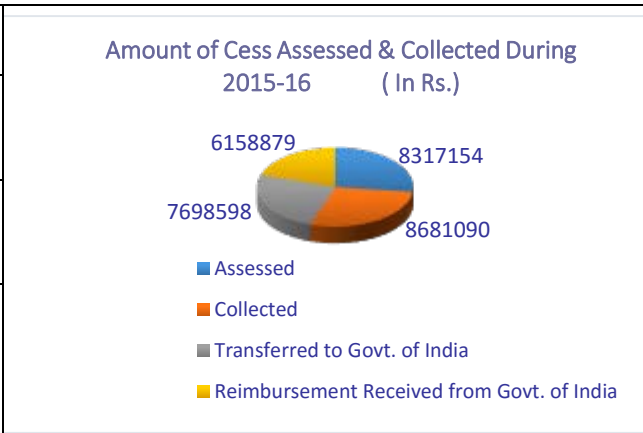
Number of Assesses (Cumulative)		
1	Industrial	1009
2	Local Bodies	56
3	Total	1065



No. of Notices issued Under Water Cess Act 1977 During 2015-16		
1	Industrial/Local Bodies	347
2	Compliance Reported to Industrial/Local Bodies	215



Amount of Cess Assessed & Collected During 2015-16(In Rs.)		
1	Assessed	83,17,154/-
2	Collected	86,81,090/-*
3	Transferred to Govt. of India	76,98,598/-
4	Reimbursement Received from Govt. of India	61,58,879/-



** Provisional subject to reconciliation after Audit.*

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

5.8.1 BIO-MEDICAL WASTE (MANGEMENT & HANDLING) RULES, 1998:

Till 31st March 2016, the State Board has inventoried and covered 764 Health Care Facilities under Biomedical Waste (Management & Handling) 1998 Rules. During 2015-16, 150 nos. of health care facilities have been granted authorization/renewal of authorization for the block year 2014-17.

5.8.2 HAZARDOUS WASTE (MANAGEMENT, HANDLING & TRANSBOUNDARY MOVEMENT) RULES, 2008.

Till the year 31st March, 2016, the Board has identified about 2888 units generating hazardous waste. Out of which 2506 are operational as on 31st March, 2016 and responsible for generating hazardous waste under Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008. All such units are required to obtain authorization under the said rules. The Board has granted authorization to 2506 units. The Common Treatment, Storage, Disposal Facility (TSDF) at Village Majra, Tehsil, Nalagarh, district Solan is operational since June, 2008 and is being used for scientific disposal of landfillable hazardous waste generated by the industries. A total of 109996 MT of landfillable hazardous waste has been disposed off in TSDF by various landfillable hazardous waste generating industries in the State till date and 16402 MT of landfillable hazardous waste has been disposed off in TSDF during the year 2015-16.

5.8.3 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 performed all its functions and ensured compliance of all the provisions entrusted to it under the said Rules. The Annual Report was prepared and forwarded to Central Pollution Control Board. As per the Annual Report, the implementation status of Municipal Solid Waste (Management & Handling) Rules was not found satisfactory. The compliance w.r.t collection / segregation / storage / transportation by all the 56 numbers of Municipal Authorities in the State of Himachal Pradesh was found partial. Although ten number of municipal authorities (covering 12 Municipal Authorities) namely Shimla, Solan, Nahan, Kullu/Bhunter, Manali, Una, Kangra,/Nagrota, Hamirpur, Dharamshala and Chamba had installed Waste Processing Facilities but the performance of these treatment facilities was also not found satisfactory.

The State Board had apprised concerned higher authorities like Pr. Secretary (Urban Development), Director, Urban Development, about the status of implementation of Municipal Solid Waste (Management & Handling) Rules, 2000 for their intervention. Besides this, the State Board is regularly issuing directions to Urban Local Bodies to comply with the provisions of these Rules.

During the period 2015-16 the State Board received 7 numbers of applications for setting up and operation of waste processing facility/disposal facility. The State Board processed all the applications received from various municipal authorities and granted all 7 numbers of Authorizations for setting up and operation of waste processing facility and disposal facility. The Authorization status for the year 2014-15 is detailed in Table-I.

Table-I

Authorization Status for 2015-16	
Applied for Waste Processing and Disposal facility	**Granted for Waste Processing and Disposal facility**
Total-7	**Total-7**
Kullu, Bhuntar, Naina Devi, Talai, Ghumarwin Jogindernagar, Mandi	**Kullu, Bhuntar, Naina Devi, Talai, Ghumarwin Jogindernagar, Mandi**

The remaining municipal authorities could not obtain authorization due to non submission of Authorization.

Implementation of the provisions of the Water (Prevention and Control of Pollution) Act, 1974

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 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 Sewage/trade effluent.

Provision of sewage management system is the fundamental responsibility Urban Development Department and I & PH Deptt. The State Board has only regulatory function with regard to monitoring the performance of operational STPs as well as sewage management systems. The concerned departments are required to obtain consent to establish/operate and renewal thereof prior to establishing/operating STPs/ Sewage management systems.

The State Board processed all the of cases received for Consent to Establish/ Consent to Operate/Renewal of Sewage Treatment Plants owned by I&PH Department and granted consents to 10 number of STPs. Besides this, the consent under the provisions of Water Act had also been granted to 4 Urban Local Bodies. The detail of Sewage Treatment Plants in H.P. is given in Table II

Table II

Existing Status of Sewage Management by I & PH Department			
Total No. of STPs /Septic tanks		63	Capacity MLD
Operational		40	87.339
With consent:		27	
Without consent:		13	
Under Construction		23	29.311
			116.65

Names of STPs in operation		**Names of STPs**	
		(Proposed or under construction)	
With Consent	**Without Consent**	**Without Consent/ NO COP**	With Consent
Manali-2016	Sundernagar	Sarkaghat	Suni
Rohroo Stage –I-2016	Palampur	Nagrota	Rewalsar
Jubbal -2016	Reckong-Peo	Zone-I, Kangra	Zone- A&B, Una
Mela ground, Bhunter 2016	Zone- III, Hamirpur	Zone II, Kangra	Zone-D,Una
Sharabhai, Bhunter-2016	Shitla Bridge, Chamba	Zone III, Kangra	STP Gagret 2016
Sanjauli-2016	Barga, Chamba	Dehra	STP THEOG
Lalpani-2016	Tanda Medical College	Zone-II, Paonta	Narkanda
North Disposal-2016		Zone-III, Paonta	Kunihar Arki
Dhalli-2016	Bhagot Chamba	Nurpur	
Snowden-2016	Zone-I, Paonta	Zone-II Sujanpur	
Summer Hill-2016	NiiT Hamirpur	Zone-II, Santokhgarh	
Khaliar-2016	Zone-I , Hamirpur-	Zone-I, Kotkhai	
Ragunat ka Padhar-2016	Zone- II, Hamirpur-	Zone-II, Kotkhai	
Naina Devi 2016	Zone-B, Solan	Bhagsunag	
Badah (Kullu) 2018		Mehatpur ABC	
BhootNath, Kullu 2018			
Ghumarwin 2015			
Rampur (Khopri) 2016			
Rampur (Chhuabha) 2016			
Zone-I , Sujanpur 2020			
Dharamsala 2018			
Nadaun 2020			
Joginder Nagar -2020			
Arki 2016			
Lanka Bekar, Kullu-2018			

Jard Kullu 2016			
Jawalamukhi 2018			
27	**13**	**15**	**8**

Water samples were collected from final outlets of the operational Sewage Treatment Plants during the year 2015-16. The district wise analysis results are detailed below in Table-III: Notices have been issued to I& PH Department to bring the effluent quality of the concerned STPs within the prescribed limits and to comply with all the provisions of Water (Prevention & Control of Pollution) Act, 1974.

Table -III

Monitoring Status of 2015-16							
District	**Name of the STP**	**Quarter and date of collection**	**Parameters**				
			Ph	**BOD**	**COD**	**TSS**	**Oil & grease**
			5.5-9.0	**30 mg/I**	**250 mg/I**	**100 mg/l**	**10mg/ I**
Kullu	**STP Manali**	11.05.2015	7.35	**45**	180	58	2
		24.06.2015	6.7	**72**	196	56	--
		10.12.2015	7.28	**16**	72	58	1.6
		28.01.2016	7.74	**60**	208	108	4.4
		04.02.2016	7.46	**25**	100	14	1.6
		10.02.2016	7.97	**25**	120	86	1.6
		18.02.2016	7.65	**15**	104	28	1.2
		26.02.2016	7.03	**20**	100	82	1.6
		05.03.2016	7.35	**7**	60	138	0.8
		09.03.2016	7.28	**6**	72	47	0.8
		18.03.2016	7.16	**4**	56	7	0.4
		30.03.2016	7.02	**20**	128	29	2.4
	STP Bhootnath	21.03.2015	6.77	10	76	10	0.8
		29.05.2015	7.01	**45**	**268**	**160**	4.8
		23.01.2016	7.29	**18**	**96**	**42**	1.2
		29.01.2016	7.48	**5**	**72**	**52**	1.2
		05.02.2016	7.44	**27**	**160**	**64**	2.4
		11.02.2016	8.03	**18**	**96**	**90**	1.6
		21.02.2016	7.87	**45**	**160**	**124**	2.4
		25.02.2016	7.63	**36**	**124**	**84**	2
		03.03.2016	8.04	**13**	**120**	**76**	2
		09.03.2016	7.45	**2**	**24**	**28**	Nil
		17.03.2016	7.4	**8**	**88**	**30**	1.2
		23.03.2016	7.51	**6**	**76**	**21**	1.2

	Badah	01.07.2015	7.21	12	68	74	1.2
		03.10.2015	6.89	20	116	15	0.8
		23.01.2016	7.04	**92**	**336**	**142**	6
		29.01.2016	7.19	**125**	**328**	**134**	8.8
		05.02.2016	7.27	**100**	**296**	92	9.6
		11.02.2016	5.2	**27**	**100**	92	2.4
		21.02.2016	7.96	**17**	**104**	54	2
		25.02.2016	7.47	**24**	**140**	58	2.4
		03.03.2016	7.51	**12**	**128**	44	1.6
		09.03.2016	7.69	8	84	31	1.2
		17.03.2016	8.08	3	52	15	0.4
		23.03.2016	6.78	2	92	18	0.8
		31.03.2016	7.68	5	40	23	0.8
	Lanka Baker	28.01.2015	8.17	**32**	144	**136**	7.6
		03.10.2015	7.45	26	144	56	3
		23.01.2016	7.26	**98**	**316**	**218**	10
		29.01.2016	7.09	**118**	**332**	**184**	8.4
		05.02.2016	7.34	**67**	196	86	6.4
		11.02.2016	1.91	**34**	108	152	2.5
		21.02.2016	7.44	**45**	124	96	2.4
		25.02.2016	7.49	**75**	256	140	5.6
		03.03.2016	7.6	**22**	180	84	2.8
		09.03.2016	7.22	3	36	19	0.4
		17.03.2016	8.01	5	68	48	0.8
		23.03.2016	7.43	3	60	23	0.8
		31.03.2016	7.33	7	64	11	0.8
	Mela Ground	28.01.2015	8.3	18	108	62	3.6
		21.03.2015	7.07	14	96	**15**	1.6
		3.10.2015	7.24	**60**	**324**	**183**	6.4
		23.01.2016	7.07	**102**	**348**	**164**	**14.8**
		29.01.2016	7.21	**120**	**316**	**178**	9.6
		05.02.2016	7.24	**85**	**252**	**114**	8.4
		11.02.2016	8.15	**38**	**100**	**122**	3.2
		22.02.2016	7.57	**14**	**89**	**92**	1.2
		25.02.2016	8.48	**8**	**112**	**216**	1.6
		03.03.2016	7.58	**10**	**92**	**68**	1.2
		09.03.2016	7.31	4	36	10	0.8
		17.03.2016	7.42	7	64	36	1.2
		21.03.2016	8.58	11	120	**667**	1.2
		31.03.2016	7.74	8	76	**111**	1.2
	Sharabhai	23.05.2015	7.74	25	228	87	2.4
		03.10.2015	7.38	**17**	68	21	1.2
		23.01.2016	7.37	**380**	**692**	**895**	**19.6**

		29.01.2016	7.4	**42**	184	**122**	4.4
		05.02.2016	7.3	**55**	200	82	5.6
		11.02.2016	8.14	**21**	116	90	1.6
		20.02.2016	7.43	**12**	80	82	1.2
		25.02.2016	7.94	**12**	96	60	1.2
		03.03.2016	7.78	**12**	104	32	1.2
		09.03.2016	7.74	4	44	39	0.8
		17.03.2016	7.77	11	84	47	1.6
		21.03.2016	7.97	22	128	54	2.8
		31.03.2016	7.95	12	108	42	2
	STP Jarad	25.05.2015	7.09	**150**	**496**	**160**	7.09
		29.01.2016	7.46	**84**	236	**130**	6.8
		23.01.2016	7.16	**68**	**264**	**162**	8.4
		05.02.2016	7.15	28	232	94	6.4
		11.02.2016	7.03	56	308	190	4.8
		20.02.2016	7.19	48	152	94	2.4
		25.02.2016	7.88	35	264	134	4.4
		03.03.2016	7.08	28	236	98	3.2
		09.03.2016	7.32	**48**	220	**124**	4
		17.03.2016	7.36	25	124	64	2.4
		21.03.2016	7.05	22	180	44	2.8
		31.03.2016	7.24	**65**	236	83	4.4
Mandi	STP Khaliar	16.01.2015	7.76	0.2	12	1	Nil
		12.07.2015	7.23	0.2	8	1	Nil
		28.11.2015	8.58	0.5	20	16	Nil
		02.02.2016	7.74	8	60	19	1.6
		10.02.2016	7.2	12	64	24	0.8
		18.02.2016	7.6	4	44	52	0.8
		25.02.2016	8.27	2	28	18	0.4
		03.03.2016	8.19	11	56	36	1.2
		03.03.2016	8.19	2	16	2	Nil
		10.03.2016	7.85	14	120	**172**	1.2
		16.03.2016	8.24	1	12	51	Nil
		23.03.2016	7.16	8	80	96	1.6
		29.03.2016	7.21	2	24	3	Nil
	STP Raghu Nath Ka Padhar	05.05.2015	7.64	0.3	16	3	Nil
		12.07.2015	6.36	4.8	32	19	Nil
		20.10.2015	6.75	4	28	6	0.8
		20.01.2016	6.67	22	108	62	1.2
		02.02.2016	7.24	**53**	176	61	2.8
		10.02.2016	7.38	**48**	184	84	2.8
		18.02.2016	6.56	**24**	156	74	2
		25.02.2016	7.04	**45**	256	198	5.6

		03.03.2016	7.98	**45**	236	**218**	4.4
		10.03.2016	6.08	23	204	**162**	3.2
		22.03.2016	6.02	14	176	**98**	2.8
		29.03.2016	5.88	14	188	**51**	2.8
	STP Sunder Nagar	23.04.2015	7.43	12	100	86	0.8
		09.07.2015	7.04	8	40	16	1.2
		18.11.2015	7.75	0.2	8	2	Nil
		02.01.2016	7.26	**80**	232	94	5.6
		24.01.2016	7.18	**64**	**256**	**186**	5.6
		02.02.2016	7.4	**112**	**288**	**236**	8
		10.02.2016	7.15	**107**	**316**	**178**	9.6
		15.02.2016	7.09	**87**	308	212	6.4
		25.02.2016	7.44	**90**	272	208	6.4
		10.03.2016	7.26	18	100	21	1.2
		16.03.2016	7.36	4	40	30	Nil
		22.03.2016	7.56	28	152	65	3.2
		29.03.2016	7.24	18	124	52	1.6
	Joginder nagar	11.05.2015	7.1	13	92	19	1.6
		09.09.2015	7.09	5	44	11	0.8
		28.11.2015	7.4	4	36	21	0.8
		02.02.2016	7.18	28	132	62	2
		10.02.2016	7.18	24	116	50	2.4
		19.02.2016	7.82	5	60	12	0.8
		25.02.2016	7.15	15	80	36	1.2
		03.03.2016	7.96	11	56	36	1.2
		09.03.2016	7.38	2	44	6	Nil
		16.03.2016	7.66	3	48	17	Nil
		22.03.2016	7.64	4	104	32	1.2
		29.03.2016	7.84	4	32	21	Nil
Bilaspur	STP Ghuamarwin	29.04.2015	7.3	38	128	93	9.6
		9.07.2015	7.37	14	36	34	1.2
		05.12.2015	7.54	0.7	28	32	Nil
		07.01.2016	7.19	12	76	38	1.6
		01.02.2016	8.84	**45**	192	**288**	3.2
		09.02.2016	7.29	**20**	116	**74**	1.6
		20.02.2016	7.72	**34**	124	**148**	2
		24.02.2016	7.95	**12**	184	**192**	2.8
		02.03.2016	7.91	12	80	96	1.2
		09.03.2016	7.53	8	76	42	0.8
		15.03.2016	5.68	12	80	54	1.2
		21.03.2016	8.96	8	136	**112**	1.6
		30.03.2016	9.13	6	88	**74**	1.2

	STP Naina Devi Ji	08.04.2015	7.48	12	84	94	1.6
		19.08.2015	7.09	4	28	2	Nil
		07.10.2015	7.23	0.2	4	16	Nil
		31.01.2016	7.55	56	6	18	1.2
		06.02.2016	8.8	11	92	68	0.8
		20.02.2016	7.42	28	120	88	1.2
		24.02.2016	8.22	8	100	12	1.2
		04.03.2016	7.61	2	12	3	Nil
		10.03.2016	8.35	18	184	52	1.6
		14.03.2016	7.58	5	40	14	Nil
		21.03.2016	8.74	4	56	8	0.8
		30.03.2016	7.88	6	68	17	0.8
Shimla	STP Sanjauli Malyana	23.05.2015	6.65	18	120	54	0.8
		25.09.2015	7.06	**36**	**108**	300	1.6
		18.12.2015	7.43	**36.7**	232	**134**	0.56
		20.01.2016	7.24	57.5	236	**112**	2.48
		23.01.2016	7.13	**31.3**	256	**144**	5
		24.01.2016	7.23	**57.5**	248	**146**	6.44
		25.01.2016	6.85	**54**	212	**116**	6.76
		26.01.2016	7.37	**54**	204	**98**	2
		27.01.2016	7.24	**54**	292	**108**	1.6
		28.01.2016	6.93	**39**	176	**112**	0.56
		29.01.2016	6.67	**185**	740	**388**	5.4
		30.01.2016	7.04	**55**	264	**88**	4.2
		31.01.2016	6.97	**51**	228	**80**	1.29
		01.02.2016	6.95	**50**	260	**88**	2.4
		02.02.2016	7.01	**41**	204	**84**	1.16
		03.02.2016	7.8	**58**	264	**84**	1.04
		04.02.2016	7.95	**86**	272	**92**	1.28
		05.02.2016	7.99	**124**	316	**136**	1.52
		06.02.2016	7.62	71	272	88	1.48
		07.02.2016	7.4	100	332	132	1.68
		08.02.2016	7.03	2400	9080	5760	14.16
		09.02.2016	7.86	122	300	128	1.68
		10.02.2016	7.6	64	252	108	1.72
		11.02.2016	7.99	140	512	96	1.6
		12.02.2016	7.58	130	316	325	1.96
		13.02.2016	7.71	91	312	144	1.64
		14.02.2016	7.56	109	400	495	1.8
		15.02.2016	7.89	125	388	140	1.32
		16.02.2016	7.72	127	380	172	0.32
		17.02.2016	7.64	117	300	116	1.88
		18.02.2016	7.74	89	308	156	1.96

		19.02.2016	7.73	158	428	308	2.08
		20.02.2016	7.56	195	436	300	2.16
		21.02.2016	7.74	160	444	150	1.08
		22.02.2016	7.98	165	492	180	1.68
		23.02.2016	7.76	192	430	150	1.88
		24.02.2016	7.98	205	520	312	2
		25.02.2016	7.89	155	308	108	1.4
		26.02.2016	7.99	62	352	380	2.24
		27.02.2016	7.38	90	384	292	2.08
		28.02.2016	7.32	100	488	304	2.76
		29.02.2016	7.72	100	404	112	2.16
		01.03.2016	7.49	74	384	128	3.12
		02.03.2016	7.49	100	428	220	3.2
		03.03.2016	7.51	120	400	240	3.12
		04.03.2016	7.48	120	436	210	3.08
		05.03.2016	7.25	120	412	170	4
		06.03.2016	7.3	89	376	248	3.24
		07.03.2016	7.39	90	388	312	4.2
		08.03.2016	7.46	85	360	120	4.48
		09.03.2016	7.43	110	436	245	5.12
		10.03.2016	7.75	120	332	132	2.4
		11.03.2016	7.36	**120**	**472**	**310**	4.48
		12.03.2016	7.47	**174**	**480**	**344**	6.68
		13.03.2016	7.21	**70**	**192**	**92**	1.24
		14.03.2016	7.81	**120**	**380**	**188**	4.04
		15.03.2016	7.56	**107.5**	**276**	82	4.64
		16.03.2016	7.42	**90**	**280**	86	2.96
		17.03.2016	7.45	**100**	**280**	92	2.64
		18.03.2016	7.49	**105**	**300**	**180**	2.72
		19.03.2016	7.7	**130**	**300**	88	5.4
		20.03.2016	7.35	**160**	**320**	**136**	5.52
		21.03.2016	7.36	**190**	**588**	**310**	4.4
		22.03.2016	12.68	**140**	**400**	**420**	2.08
		23.03.2016	7.7	**190**	**680**	**410**	3.52
		24.03.2016	7.5	**135**	**440**	**128**	3.44
		25.03.2016	7.89	**137.5**	**540**	**290**	2.64
		26.03.2016	7.84	**150**	**536**	**170**	3.92
		27.03.2016	7.98	**125**	**400**	**184**	2.24
		28.03.2016	7.38	**170**	**600**	**285**	3.64
		29.03.2016	8.25	**180**	**592**	**245**	3.56
		30.03.2016	7.5	**190**	**548**	**236**	3.92
		31.03.2016	8.25	**150**	**540**	**208**	3
	Dhalli	25.09.2015	6.89	20	76	39	0.16
		20.01.2016	7.18	20	168	46	0.52
		24.01.2016	7.58	**50**	**240**	54	0.4

		27.01.2016	7.98	**95**	**500**	**456**	**15.52**
		05.02.2016	7.8	**120**	**348**	**160**	**0.8**
		11.02.2016	7.6	**73.5**	**228**	**80**	**1.48**
		16.02.2016	11.03	**112**	**368**	**172**	**2**
		24.02.2016	7.82	**39**	**228**	**84**	**0.28**
		26.02.2016	8.15	**74**	**272**	**72**	**0.48**
		28.02.2016	8.22	**64**	**280**	**120**	**1.76**
		29.02.2016	7.88	**64**	**256**	**116**	**1.9**
		10.03.2016	7.51	**105**	**280**	**88**	**4.6**
		15.03.2016	7.48	**112**	**296**	**104**	**1.04**
		22.03.2016	8.42	**40**	84	16	3.12
		28.03.2016	7.94	**130**	**392**	**116**	2.84
	STP North Disposal, Shimla	20.05.2015	7.92	2.8	36	10	Nil
		25.09.2015	6.93	25	116	30	ND
		24.01.2016	7.2	**140**	**380**	**190**	7.52
		06.02.2016	7.22	**155**	**352**	**120**	2.56
		12.02.2016	7.41	**122**	**376**	**80**	1.04
		17.02.2016	7.55	**105**	**388**	**104**	1.8
		27.02.2016	7.76	**90**	**368**	**104**	1.28
		03.03.2016	7.61	**102.5**	**356**	**144**	3.28
		11.03.2016	7.49	**185**	**508**	**188**	2.2
		19.03.2016	8.04	**90**	248	**108**	2.24
		23.03.2016	8.16	**87.5**	248	80	2.88
	STP Snowdon	25.09.2015	8.89	**210**	**712**	26	0.96
		24.01.2016	8.26	8.6	64	20	0.6
		06.02.2016	7.63	3.6	20	16	Nil
		12.02.2016	7.94	3.8	40	12	0.44
		17.02.2016	8.34	3	52	12	0.2
		27.02.2016	7.8	16	60	22	Nil
		03.03.2016	7.62	13	92	30	1.12
		11.03.2016	8.03	7	68	20	1.32
		19.03.2016	7.74	11.3	48	12	Nil
		23.03.2016	7.68	11.3	48	16	Nil

	28.03.2016	7.65	22	64	16	0.36
STP Lalpani	25.09.2015	7.73	1.7	40	40	ND
	24.01.2016	7.5	22.4	80	16	1.32
	28.01.2016	7.12	**31.75**	80	20	0.16
	04.02.2016	7.56	**27.2**	60	12	0.56
	12.02.2016	7.5	**67**	204	88	0.84
	16.02.2016	8.13	**41**	108	32	0.36
	26.02.2016	8.16	**50**	224	168	1.2
	05.03.2016	7.77	**46**	208	84	2.08
	10.03.2016	7.52	**104**	292	208	3.08
	18.03.2016	8.18	**49**	128	52	2.08
	22.03.2016	7.89	**42**	168	46	1.76
	28.03.2016	7.96	**60**	192	92	1.2
STP Summer Hill	23.05.2015	6.55	2.2	28	14	
	24.01.2016	6.8	8.8	40	12	0.4
	06.02.2016	7.35	3.6	36	12	0.4
	26.01.2016	6.43	**73**	**320**	**138**	0.88
	13.02.2016	7.76	**2.5**	**48**	**16**	0.48
	17.02.2016	7.22	**15**	**64**	**16**	2.08
	22.02.2016	8.05	**18**	**96**	**20**	nil
	04.03.2016	7.45	**6**	**40**	**12**	1.8
	19.03.2016	7.73	19	44	16	Nil
	23.03.2016	8.5	9	48	12	1.52
	25.09.2015	7	25.6	80	26	0.52
STP Rohroo	22.05.2015	6.66	4	36	25	Nil
	25.09.2015	7.07	26	112	**195**	0.24
	26.11.2015	6.65	24	116	77	2.04
	26.01.2016	6.43	73	320	138	0.88
	06.02.2016	7.3	34	128	48	0.64
	28.02.2016	7.41	26	136	70	1.28
	29.02.2016	7.25	44	180	84	1.4
	09.03.2016	7.56	102	320	136	2.32
	17.03.2016	7.72	**74**	240	68	3.36
	22.03.2016	7.89	28	140	56	1.92
STP Jubbal	10.06.2015	7.28	3.8	48	72	Nil

		26.08.2015	8.8	22	160	**148**	0.92
		29.12.2015	6.6	17.2	120	44	2.56
		26.01.2016	6.61	25	108	42	0.48
		05.02.2016	7.41	18.5	92	40	0.72
		28.02.2016	7.29	22	112	60	0.88
		29.02.2016	7.81	22	104	46	0.8
		09.03.2016	6.99	35	164	52	0.84
		17.03.2016	7.14	**35**	108	56	1.68
		22.03.2016	7.34	28	104	25	2.04
	STP Rampur Khopri	02.05.2015	7.62	1.2	60	1	Nil
		04.08.2015	7.52	2	24	2	0.4
		02.11.2015	8.74	4	32	88	0.8
		24.01.2016	7.2	32	160	98	4.8
		28.01.2016	8.23	1	12	8	Nil
		19.02.2016	8.52	0.2	8	7	NIl
		26.02.2016	7.6	2	16	20	NIl
		02.03.2016	8.03	4	36	4	NIl
		16.03.2016	7.7	0.6	8	1	Nil
		22.03.2016	7.82	1	8	1	Nil
		29.03.2016	7.53	0.1	4	3	Nil
	STP Rampur (Chuhabag)	02.05.2015	7.7	0.1	4	1	Nil
		04.08.2015	7.25	0.6	8	5	Nil
		02.11.2015	9.18	2	16	92	Nil
		24.01.2016	7.35	**60**	232	**136**	8
		28.01.2016	8.05	2	36	2	0.4
		19.02.2016	8.49	0.1	4	6	Nil
		26.02.2016	7.62	1	16	20	Nil
		02.03.2016	8.37	6	40	16	0.8
		16.03.2016	7.85	1	16	1	Nil
		22.03.2016	7.28	0.2	4	1	Nil
		29.03.2016	7.43	0.2	8	5	nil
Kangra	STP Palampur	25.07.2015	6.43	**70**	176	30	1.72
		26.03.2015	7.12	**60**	**220**	62	1.88
		23.01.2016	**9.4**	**145**	**304**	**156**	4.96
		05.02.2016	**8.38**	**60**	**200**	38	2.28
		11.02.2016	**8.31**	**18**	**124**	20	1.28
		27.02.2016	**7.59**	**20**	**112**	41	1.32
		20.02.2016	**7.09**	**14**	**104**	27	1.64
		05.03.2016	**8.18**	**45**	**184**	44	1.96
		11.03.2016	8.27	**55**	196	47	2.16
		18.03.2016	8.16	**60**	208	**139**	5.08
		26.03.2016	6.8	**55**	200	68	3.32

	STP Jawalamukhi	21.03.2015	8.34	24	**116**	14.2	1.2
		21.07.2015	7.86	3.5	20	7	nil
		27.01.2016	7.62	**46**	172	70	3.36
		03.02.2016	8.72	**18**	88	147	0.88
		11.02.2016	8.42	**12**	72	43	0.64
		23.02.2016	8.17	**10**	56	24	0.88
		29.02.2016	7.81	**26**	120	83	1.96
		11.03.2016	7.34	14	88	**148**	1.04
		18.03.2016	7.12	24	124	**147**	2.04
		26.03.2016	7.33	10	68	18	1.28
Chamba	STP Sitla Bridge	15.05.2015	7.57	**39**	120	9	1.08
		04.02.2016	8.58	**145**	**316**	**106**	3.88
		11.02.2016	8.82	**9**	**48**	**44**	1.08
		25.02.2016	7.97	**18**	**96**	**61**	1.52
		04.03.2016	7.62	26	108	58	1.96
		15.03.2016	7.31	**35**	144	55	1.52
		22.03.2016	7.19	**380**	**912**	**459**	6.44
		29.03.2016	6.85	**130**	**380**	**242**	5.84
	STP Bhagot	15.05.2015	7.52	5	20	2	0.4
		26.01.2016	7.05	18	104	24	1.56
		04.02.2016	7.17	8	48	23	0.72
		25.02.2016	7.14	14	88	21	1.16
		04.03.2016	7.02	12	80	30	1.08
		22.03.2016	6.96	18	96	38	1.4
		29.03.2016	6.24	8	76	3	1.2
	STP Barga	15.05.2015	7.66	11	44	3	0.56
		26.01.2016	7.22	**38**	164	17	2.04
		11.02.2016	9.47	**90**	244	449	3.2
		04.02.2016	7.72	**46**	168	67	2.4
		25.02.2016	7.71	**16**	80	39	1.32
		04.03.2016	7.36	18	100	34	1.56
		22.03.2016	8.14	**60**	192	83	3.96
		29.03.2016	6.92	**50**	180	**127**	3.92
Hamirpur	STP Hamirpur Zone-I	16.06.2015	7.27	22	80	8	1.2
		27.01.2016	7.53	20	92	24	1.36
		02.02.2016	7.34	24	116	15	1.52
		09.02.2016	7.41	52	10	19	0.96
		18.02.2016	7.36	16	96	41	1.68

		03.03.2016	7.18	12	84	21	1.2
		10.03.2016	7.02	12	76	16	0.92
		16.03.2016	7.02	11	60	6	0.72
		22.03.2016	7.02	9	60	19	1.8
		28.03.2016	6.93	8	72	11	1.08
	Zone-II	27.05.2015	7.45	20	100	63	1
		27.01.2016	7.84	**95**	224	**125**	3.04
		02.02.2016	7.48	**75**	220	**106**	3.12
		09.02.2016	7.5	**14**	72	**51**	1.2
		18.02.2016	7.2	**180**	396	**240**	3.96
		25.02.2016	7.46	**86**	268	**124**	3.6
		03.03.2016	7.32	**170**	**344**	**202**	3.04
		10.03.2016	7.26	**110**	**264**	**223**	2.96
		16.03.2016	7.08	**80**	220	**145**	2.68
		22.03.2016	7.08	**85**	328	**127**	4.96
		28.03.2016	7.04	**95**	328	**111**	4.04
	Zone-III	16.03.2015	8.22	**150**	**404**	**386**	1.96
		16.06.2015	7.6	8	40	19	0.92
		27.01.2016	7.67	**115**	**280**	**113**	4.92
		02.02.2016	7.54	**26**	**108**	**83**	1.96
		09.02.2016	7.56	**20**	**92**	**65**	1.48
		18.02.2016	7.42	**210**	**432**	**324**	4.76
		25.02.2016	7.37	**110**	**300**	**302**	3.96
		03.03.2016	7.38	**105**	**276**	**191**	3.36
		22.03.2016	7.06	**55**	**248**	**114**	4.56
		28.03.2016	7.22	**80**	**272**	**89**	3.96
	NIIT Hamirpur	16.03.2015	7.97	**80**	**312**	**182**	1.84
		16.06.2015	7.52	24	88	13	1.16
		27.01.2016	7.83	25	120	44	2.16
		02.02.2016	7.53	55	188	97	2.8
		09.02.2016	7.39	80	204	77	2.92
		18.02.2016	7.32	115	272	171	3.36
		25.02.2016	7.23	170	412	219	4.48
		03.03.2016	7.24	**95**	236	**152**	2.88
		10.03.2016	7.12	**210**	**456**	**215**	3.92
		16.03.2016	7.06	**280**	**612**	**443**	4.12
		22.03.2016	7	**60**	**232**	**127**	4.32
		28.03.2016	7.83	25	120	**107**	2.16
	Sujanpur	16.06.2015	7.89	15	52	2	1.12

		27.01.2016	7.78	14	68	17	1.6
		09.02.2016	7.72	4	24	13	0.36
		18.02.2016	7.48	4	24	15	Nil
		03.03.2016	7.58	7	32	11	0.44
		16.03.2016	7.32	7	40	7	0.48
		22.03.2016	7.17	5	36	8	0.68
Solan	Solan ZoneB	25.04.2015	6.84	**170**		**160**	2.6
		27.01.2016	7.97	**90**	**292**	**110**	1.6
		05.02.2016	7.42	**34**	**152**	**40**	1.92
		10.02.2016	9.22	**46**	**192**	**144**	1.04
		17.02.2016	9.34	**36**	**176**	**270**	0.76
		26.02.2016	11.81	**48**	**232**	**192**	0.44
		02.03.2016	7.56	**30**	**140**	**60**	1.12
		09.03.2016	7.07	**20**	**92**	**29**	0.4
		17.03.2016	7.61	30	176	40	0.8
		22.03.2016	7.72	22	100	20	Nil
		29.03.2016	7.62	2.4	48	12	Nil
	Arki	7.10.2015	6.87	24	116	42	0.48
		10.06.2015	**10.48**	20	**180**	188	1.8
		29.01.2016	7.89	**54**	**288**	98	3.76
		02.02.2016	6.77	**42**	**148**	64	0.8
		11.02.2016	7.7	**88.75**	**376**	208	1.44
		19.02.2016	11.87	**48**	**208**	324	2.24
		27.02.2016	9.85	**48**	**212**	169	Nil
		04.03.2016	7.87	**13**	**48**	24	2.08
		10.03.2016	7.66	**20**	**92**	24	Nil
		15.03.2016	8.01	**38**	148	49	Nil
		21.03.2016	8.89	8	36	40	Nil
	Kunihar	10.06.2015	7.06	**40**	**160**	**120**	1.68
		06.08.2015	7.965	**238.42**	**421.28**	**123.85**	2.32
		29.01.2016	7.62	2.4	44	20	0.56
		02.02.2016	7.8	24	60	28	0.56
		11.02.2016	8.49	3.2	48	8	0.56
		19.02.2016	8.63	9	60	39	0.24
		27.02.2016	8.21	2.2	20	13	Nil
		04.03.2016	8.54	8	48	10	NIl
		10.03.2016	7.75	11	40	20	Nil
		15.03.2016	7.83	**33**	180	47	0.96
		21.03.2016	8.09	**42**	164	86	Nil
Kinnaur	Reckongpeo	02.05.2015	7.62	0.2	12	1	Nil
		04.08.2015	7.13	3	24	5	0.4
		02.11.2015	8.28	4	28	82	0.4
		24.01.2016	9.04	**36**	164	**316**	5.6
		01.02.2016	8.05	4	36	20	0.8

		18.02.2016	8.47	0.1	4	6	Nil
		25.02.2016	7.47	2	16	26	Nil
		01.03.2016	8	0.1	8	2	Nil
		15.03.2016	7.89	1	20	3	Nil
		21.03.2016	6.6	1	8	1	Nil
		31.03.2016	7.5	0.1	4	2	Nil
Sirmaur	Paonta Zone-I	23.01.2016	7.96	3.8	48	21	0.4
		30.01.2016	9.21	-	220	84	2
		06.02.2016	8.58	48	208	20	1.6
		13.02.2016	8.35	40	228	185	1.2
		24.02.2016	8.2	42	304	140	2.4
		03.03.2016	8.25	240	724	146	6.8
		10.03.2016	8.65	26	172	36	1.2
		21.03.2016	8.36	28	200	85	1.6
		29.03.2016	8.01	20	168	60	0.8

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CHAPTER-6

LITIGATION RELATED TO ENVIRONMENTAL POLLUTION AND ACHIEVEMENTS

The H.P. State Pollution Control Board has a Legal Wing comprising of one Law Officer, one Asstt-Law Officer and one Data Entry Operator. In view of increasing environmental litigation, the Standing Counsels have been engaged in High Court, District Courts, Supreme Court and NGT level for representing the Board's cases and counsel fee are paid as per schedule approved by the Board in its 60th Board meeting held on 6-01-2010. It has been proposed to strengthen the in house staff of legal wing.

All type of assistance is rendered to Standing Counsels from time to time for preparing replies/written statements and to produce evidence/record as and when required in the cases. Where necessary in important matters, cases are also attended in the courts by Legal staff. Besides this, follow up action for taking information from field/labs or seeking compliance to Courts order is taken. Legal notices/directions are drafted and vetted under the Pollution Control Acts to facilitate the concerned branches. Legal opinion/advice is rendered to the Regional Officers on the clearance of cases/matters involving legal implications.

Compliance from Industry has been sought through persuasive and regulatory action under Water /Air Acts and consultative approach with encouraging results thereby, saving time, cost and efforts and legal compliance has increased significantly through these efforts from 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.

Regular notices are issued to the offenders and regulatory action is taken under pollution control laws. Upon failure of samples or failure to comply the Board's direction or as and when violation is observed, power connection of offenders is got disconnected rather than immediate resort to filing of cases. For resolution of conflicts and enviro-legal action, the State Board has resorted to innovative approach, which includes opportunity of hearing through mediation of Board official. The success rates of compliance have been phenomenal and resolutions have been possible in most of the cases.

Apart from this, the legal wing also provides information/ comments to the State Government in Court cases involving environmental matters. Statistical indicators of court cases during 2015-16 are as listed below:-

Statistical Indicators of Court cases for the year -2015-16 (up to 31-3-2016)

Courts	Pending as on 31-3-15	New cases initiated during the year 2015-16	Total cases till 31-03-2016	Decided during the year 2015-16 (1-4-15 to 31-3-16)	Total/ Cumulative pending cases in the Year 2015-16
Supreme Court	**31**	3	34	**7**	**27**
National Green Tribunal (Delhi)	**14**	6	20	9	**11**
National Green Tribunal Circuit Bench at Shimla	**32**	18	50	20	**30**
High Court Cases	**55**	21	76	28	**48**
Appellate Tribunal For Electricity (APTEL) at Delhi	**0**	1	1	0	**1**
District Courts	**11**	2	13	3	**10**
Service matters / cases in High Court/HPAT	**20**	5	25	7	**18**

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CHAPTER –7

FINANCE AND ACCOUNT OF THE STATE BOARD FOR THE YEAR 2015-16

- The accounting structure of H. P. State Pollution Control Board is fully streamlined to the extent that the books of accounts shows position of cash, bank and short/long- term deposit, balance on day to day basis.

- The Audit account for the financial year 2014-15 has already been laid in budget session before the State Legislature on 07/04/2016 and accounts for the FY 2015-16 are under compilation.

- The total expenditure of the Board during 2015-2016 based upon unaudited accounts was Rs. 1810.41 Lakhs (Including Projects & Income Tax Paid) as against the receipts of Rs. 2941.78 Lakhs (Including Projects, Advance Receipts & Tax Refund) as detailed below:

	(Rs. In Lakhs)
Opening Balance	**10509.65**
Receipts (Board)	2684.18
Receipts (Projects)	257.60
Income Tax Refund	0.00
Net Amount Available	**13451.43**
Less Expenditure (Board) during this year **Less Expenditure (Projects) during the year** **Less Income Tax Paid**	1341.11 59.96 409.34
Closing Balance	**11641.02**

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

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CHAPTER -8

ANY OTHER IMPORTANT MATTER DEALT WITH BY THE STATE BOARD

8.1 ENVIRONMENTAL TRAINING & CAPACITY BUILDING:

Trainings/ Workshops Attended by the Officers/Officials of the Board during 2015-16

Sr. No.	Training Title	Duration	Training Institute	Trainee
1.	Compliance Monitoring and Enforcement	18 Days	Centre for Science and Environment	Sh Anil Kumar, Junior Env. Engineer HP State Pollution Control Board, Regional Office, Parwanoo.
2.	Waste Management: Policies, Issues, Challenges and Way Forward	12 Days	Centre for Science and Environment	Sh Atul Parmar, Assistant Env. Engineer HP State Pollution Control Board, Regional Office, Baddi.
3.	Collection Storage Handling and Disposal of Plastic Wastes	3 Days	Central Institute of Plastic Engineering and Technology, Chennai	Sh Sunil Sharma, JEE, HPSPCB, Head Office, Shimla
4.	Environment Impact Assessment-Method & Procedure	3 Days	Engineering Staff College of India, Hyderabad	Sh Lalit Kumar, AEE, HPSPCB, Regional Office, Rampur Sh Pawan Sharma, JEE, HPSPCB, Regional Office, Paonta
5.	Recent Trends in Environmental Monitoring & Control Strategies in Petroleum & Petrochemical Industries, References	3 Days	IIT- Roorkee	Dr T. B. Singh, PSO, HPSPCB Regional Laboratory, Paonta Sahib
6.	Ambient Air and Stack Monitoring Techniques- Hands on Training	3 Days	IITR, Lucknow	Sh Pradeep Modgil, Assistant Environmental Engineer, HPSPCB, Regional Office, Paonta Sahib (Kala Amb)
7.	Monitoring of PM 2.5 and other notified Air Pollutants as per revised NAAQS	5 Days	NEERI, Delhi	Dr Rama Kant Awasthi, Scientific Officer, HPSPCB, Regional Laboratory, Jassur
8.	Monitoring Techniques of Organic Pollutants (PAH and VOC)	3 Days	NGRI, Hyderabad	Sh Prakash Sharma, Senior Scientific Officer, HPSPCB, Central Laboratory, Parwanoo Sh. Hitender Sharma,

				Scientific Officer, HPSPCB, Head Office, Shimla
9.	National Ambient Noise Monitoring Network – Design, Implementation and Control Technique	3 Days	IIT- Roorkee	Sh Praveen Dhiman, Junior Environmental Engineer, HPSPCB, Regional Office, Chamba
10.	Batteries and Electronic Waste management – Rules and Practical Aspects	5 days	ESCI, Hyderabad	Sh D. K. Sharma, Senior Environmental Engineer, HPSPCB, Head Office, Shimla
11.	Laboratory Quality System, Management and Internal Audit as per ISO/IEC 17025:2005	5 Days	NITS, Noida	Dr T. B. Singh, PSO, HPSPCB Regional Laboratory, Paonta Sahib
12.	Clean Development Mechanism (CDM): CDM Project Implementation for Industrial Sector, Wasteland Sector, Mining Sector and Carbon Trading	3 Days	EPTRI, Hyderabad	Sh Ajeet Kumar Ravi, Senior Environmental Engineer, HPSPCB, Regional Office, Rampur Smt Anju Negi, Assistant Environmental Engineer, HPSPCB, Head Office, Shimla
13.	Four R's – Reduce, Reuse, Recycle and Recover – Case Studies	3 Days	VSI, Pune	Sh Anup Vaidya, Senior Scientific Officer, HPSPCB, Regional Laboratory, Sunder Nagar
14.	Environmental Legislations, Interpretation, Enforcement, Legal and Statutory Requirements – Case Studies	3 Days	NLSIU, Bangalore	Sh R. K. Nadda, Environmental Engineer, HPSPCB, Regional Office, Bilaspur
15.	Occupational Health & Safety Management System (OHSAS) 18001:2007	3 Days	PCRI, Haridwar	Sh Shasi Shekhar, Scientific Officer, HPSPCB, Head Office, Shimla Sh Vinay Kumar, Junior Environmental Engineer, HPSPCB, Regional Office, Jassur
16.	Online Forest Clearance/ Environmental Clearance Proposals	2 Days	MoEF, FRI, Dehradun	Sh Pawan Sharma, JEE, HPSPCB, Regional Office, Paonta

17.	Training on RTI	2 Days	HIPA Shimla	Sh A K Ravi, SEE Rampur Dr Sarwan Kumar, SEE, Una Sh Praveen Gupta, SEE Baddi Sh R K Nadda, EE Bilaspur Sh A K Sharda EE Paonta Sahib Sh S K Shandil, EE Shimla Sh S K Dhiman, AEE, Chamba Dr T B Singh, PSO Parwanoo Sh Anup Vaidya, SSO Sunder Nagar Sh Prakash Sharma, SSO Paonta Sahib Sh Hitender Sharma, SO, Head Office Shimla Sh T R Azad, AC (F&A) Head Office Shimla
18.	Office Procedure and Financial Administration	5 Days	HIPA, Shimla	Ms. Mamta Rohal, Jr. Assistant, HPSPCB, Head Office, Shimla Sh. Ashish Thakur, Clerk, HPSPCB, Head Office, Shimla

8.2 ENVIRONMENTAL AWARENESS:

a) Environment Campaign by the State Board:

The first step towards change is awareness. Keeping this in mind, the State Board undertakes environmental campaign at field level such as Regional Office/Laboratory to create awareness among public especially students. Mass awareness activity has become an important tool for the State Board to achieve effective compliance of various pollution control norms, which are expanding like never before. The following mechanisms can be fruitful to promote environmental awareness:

a) Generating public awareness and environmental education, particularly among targeted groups, about relevant laws, regulations and about their rights, interests, duties and responsibilities, as well as about the social, environmental and economic consequences of non-compliance.

b) Promoting responsible action in the community through the media by involving key public players, decision-makers and opinion-builders in such campaigns.

c) Organizing campaigns for fostering environmental awareness among communities, non-government organizations, the private sector and industrial and trade associations.

d) Inclusion of awareness and environment education programmes in schools and other educational establishments as part of education.

In Himachal Pradesh, considering the facts above, the State Board with active cooperation of various stakeholders of the state government had initiated various types of environmental awareness programmes targeting the people of all walks of life.

In order to make the general masses aware of the environmental issues the following activities were carried out during the year:

I. Display advertisements in newspapers, magazines and souvenirs on regular basis and particularly on important occasion such as World Environment Day;
II. Hoardings and banners on important environment issues established at 13 locations across the State. Major topics covered are
    - Discourage the use of plastic bags and encourage the use of jute bags;
    - Stop the burning of wastes;
    - Proper management of wastes;
    - Save water campaign;
III. The State Board got also established hoardings and banners in Shimla in association with HDFC Bank.
IV. Audio- advertisements issued to FM Radio on 'Don't burn wastes' and 'protect our ozone layer';
V. Workshops/seminars organized on waste management rules for the users.

Hoardings/banners displayed at various locations in the State

b) Celebration of World Environment Day on 5th June, 2015:

World Environment Day (WED) is celebrated every year on 5 June to raise global awareness to take positive environmental action to protect nature and the planet Earth. The State Board celebrated World Environment Day 2015 by organizing various activities to spread the message and create awareness on environment protection among the public. It also aims to identify issues related to environment and take corrective action.

The theme for World Environment Day 2015 was "**Seven Billion Dreams; One Planet; Consume with Care."**

The State Board through its field offices such as Regional Offices & Laboratories observed the day with great enthusiasm by organizing scores of activities with the support of schools and individuals. The programmes share the ideas to tackle environmental challenges that include natural disasters, global warming and toxic substances.

(i) School level declamation contests were organized at Regional Office level in different schools on 5th June 2015.

(ii) Vehicular monitoring in the major towns of the State.

(iii) Activities like drawing competition, slogan writing and debates were organized for the school students.

(iv) Environmental rallies were taken out by the school children carrying banners and signboards on environmental slogans at Regional Office/Laboratory level.

(v) Distribution of pamphlets on vehicular pollution, air pollution and noise pollution amongst general public and students.

Display advertisement in newspapers on the eve of WED-2015

Environmental campaigns at field level

Prize distribution ceremony at Bilaspur

Prize distribution ceremony at Sundernagar

Vehicle monitoring at Kullu

Children's activity at Sundernagar

Vehicle monitoring camp at Bilaspur

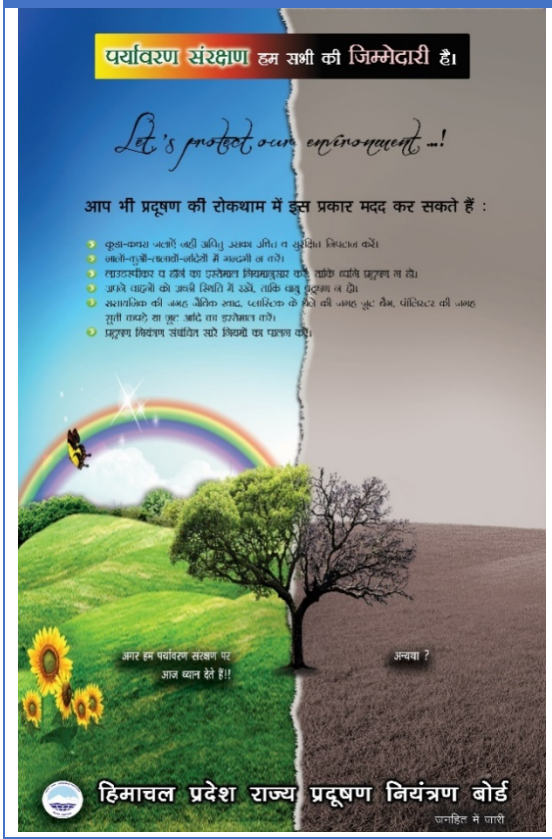
Plantation activity at Baddi

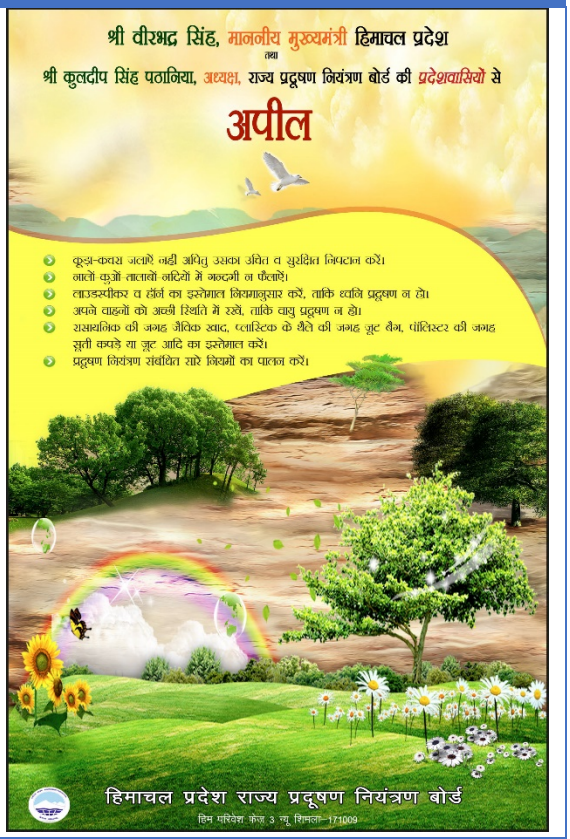
Mass awareness rally at Paonta Sahib

Painting competition at Parwanoo

b) Advertisement and Publicity: During the year 2015-16, the State Board intensified mass awareness campaign through publication of matter concerning environmental issues in the leading national, local newspapers, weekly & quarterly magazines.

Display advertisement





Display advertisements appeared in various newspapers, magazines etc., during the year 2015-16

c) 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.

Published on the eve of Diwali 2014

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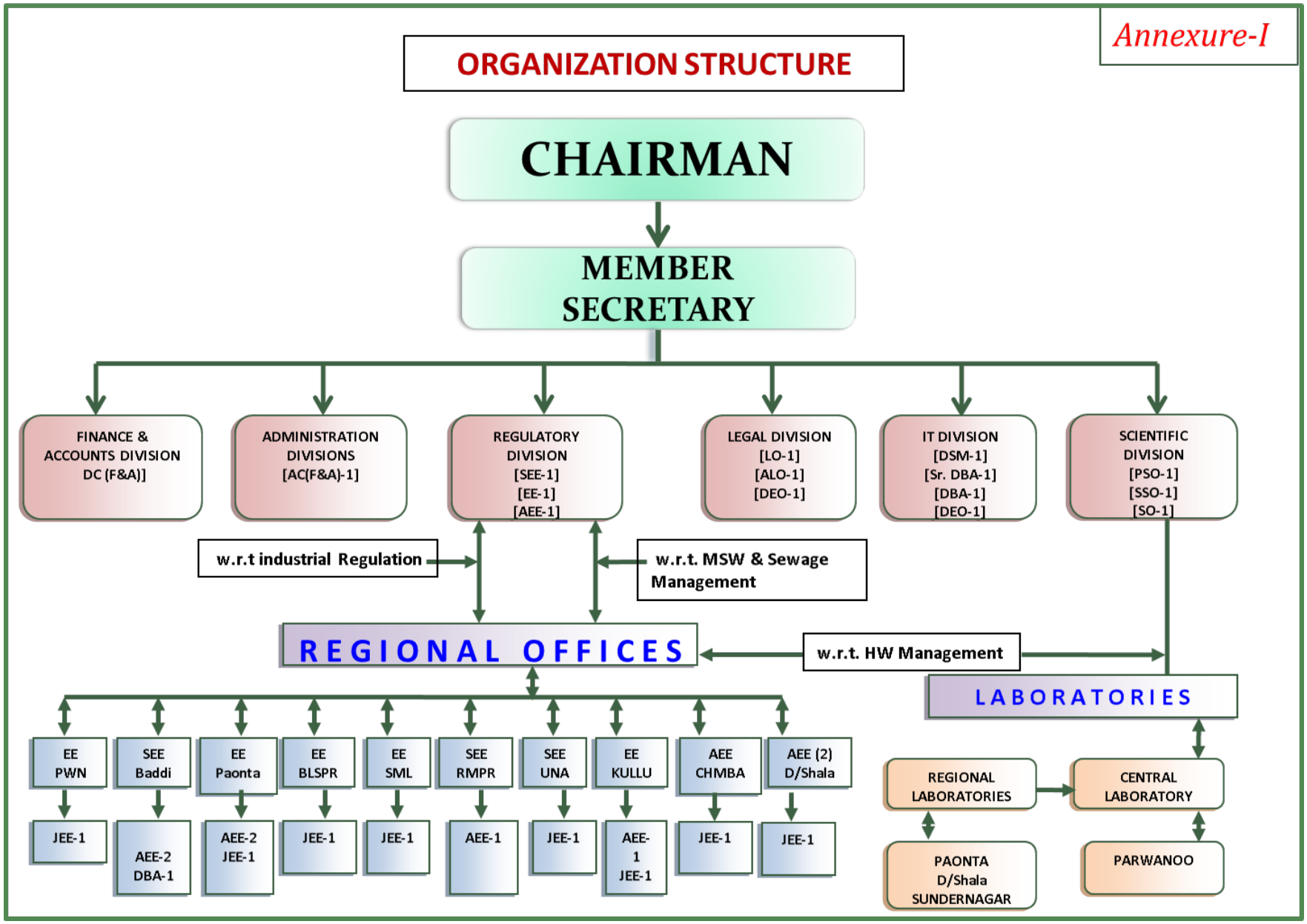
Annexure-I


ORGANIZATION STRUCTURE
CHAIRMAN
MEMBER SECRETARY
FINANCE & ACCOUNTS DIVISION DC (F&A)]
ADMINISTRATION DIVISIONS [AC(F&A)-1]
REGULATORY DIVISION [SEE-1] [EE-1] [AEE-1]
LEGAL DIVISION [LO-1] [ALO-1] [DEO-1]
IT DIVISION [DSM-1] [Sr. DBA-1] [DBA-1] [DEO-1]
SCIENTIFIC DIVISION [PSO-1] [SSO-1] [SO-1]
w.r.t industrial Regulation
w.r.t. MSW & Sewage Management
REGIONAL OFFICES
w.r.t. HW Management
LABORATORIES
EE PWN
SEE Baddi
EE Paonta
EE BLSPR
EE SML
SEE RMPR
SEE UNA
EE KULLU
AEE CHMBA
AEE (2) D/Shala
JEE-1
AEE-2 DBA-1
AEE-2 JEE-1
JEE-1
JEE-1
AEE-1
JEE-1
AEE-1 JEE-1
JEE-1
JEE-1
REGIONAL LABORATORIES
CENTRAL LABORATORY
PAONTA D/Shala SUNDERNAGAR
PARWANOO