

**Original Application. No. 673/2018 dated 20th September, 2018 19th
December, 2018 and 08th April, 2019**

**in the matter of
News Item published in “THE HINDU” titled
“More river stretches are now critically polluted: CPCB”**

Report

On

**Prevention and Control of Pollution in River Sirsa:
Revised Action Plan
For Rejuvenation of River Sirsa, Nalagarh, District- Solan, HP**

*(Submitted in compliance to the Hon’ble National Green Tribunal (NGT) order
Dated 20th September 2018, 19th December 2018 and 8th April, 2019)*



HP State Pollution Control Board

Him Parivesh, Phase – III, New Shimla - 171009

Contents

S. No.	Particulars	Page No.
1.	Background	
2.	About River Sirsa and its tributaries in the State of Himachal Pradesh.	
3.	Achievable Water Quality with quoted timelines	
4.	Aspects in compliance of Hon'ble NGT Order 20th September, 2018, 19 th December, 2018 and 08th April, 2019	
	Rain Water Harvesting/ Ground Water Recharge aspects	
	Maintaining E-Flows	
	Water Shed Management	
	Use of Treated Sewage	
	Good Irrigation Practice	
	Development of Bio-diversity parks	
05.	Budget Estimate from Pooling the Recourses from State Budget, Local Bodies, SPCBs and Central Schemes, if any for all Action Plans	
06.	Executive Summery	
07.	Action Plan wise definite timeline, implementing agencies & total budget estimates	

Comprehensive Report on Prevention and Control of Pollution in River Sirsa: Action Plan for Rejuvenation of River Sirsa at Baddi, District- Solan, HP

1.0 BACKGROUND:-Hon'ble National Green Tribunal passed the following orders in OA No. 673/2018 titled "More river stretches are now critically polluted: CPCB".

"This application has been registered on the basis of a news item dated 17.09.2019 in "The Hindu" under the heading "More river stretches are now critically polluted: CPCB". According to the news item, 351 polluted river stretches have been noted by the Central Pollution Control Board (CPCB). 117 such stretches are in the state of Assam, Gujarat, and Maharashtra. The CPCB has apprised the concerned States of the extent of the pollution in the rivers. According to the news item, most polluted stretches are from Powai and Dharavi – with Biochemical Oxygen Demand (BOD) 250 mg/L; the Godavari – from Someshwar to Rahed – with BOD from 4.0-147 mg/L; and the Hindon-Saharanpur to Ghazibad – with a BOD of 48-120 mg/L. The CPCB has programme to monitor the quality of rivers by measuring BOD. BOD greater than or equal to 30mg/L is termed as 'Priority I' while that between 3.1-6 mg/L is 'Priority V'. The CPCB considers a BOD less than 3mg/L an indicator of a healthy river. In its 2015 Report, the CPCB had identified 302 polluted stretches on 275 rivers, spanning 28 States and six Union Territories. The number of such stretches has now been found to be 351.

All States and Union Territories are directed to prepare action plans within two months for bringing all the polluted river stretches to be fit at least for bathing purposes (i.e BOD < 3 mg/L and FC < 500 MPN/100 ml) within six months from the date of finalization of the action plans.

The action plans may be prepared by four-member committee comprising Director Environment, Director Urban Development, Director Industries, Member Secretary, State Pollution Control Board of Concerned State. This committee will also be the Monitoring Committee for execution of the action plan. The Committee may be called "River Rejuvenation Committee" (RRC). The RRC will function under the overall supervision and coordination of Principal Secretary, Environment of the concerned State/Union Territory.

2.0 About River Sirsa and its Tributaries, activities thereof.

River Sirsa is the Tributary of River Satluj and it originates from the foothill of Kasauli near Kalka in Haryana having total length 54.00 km. After travelling 20.00 km in Haryana, it enters Himachal Pradesh near Baddi Town and after covering 28.00 km stretch in Himachal Pradesh and enters Punjab near Ghanauli and thereafter flowing 6.00 km in Punjab, it finally merges into River Satluj.

It is a Perennial River, having nearly 20 Nos of major tributaries & approximately 550.00 sq.km catchment area. The catchment area upto Himachal-Haryana boundry is 241.00 sq.km and upto HP-Punjab boundry is 521.11 sq.km. The discharge in the river is contributed by various streams of Kasauli & Ramshaher hills, Industrial Effluents of Kalka, Baddi-Nalagarh Area and Seasonal Rainfall. The average annual rainfall in the hilly and plain area is 1250.00 mm and 1022.00 mm respectively. The average slope of River Sirsa is 1 in 200 to 250, whereas tributaries having average 1 in 70 to 150. Mammoth floods in rainy

season and meandering nature of River Sirsa & its tributaries causes big losses to public properties, industrial establishments and to agricultural fields. The Drainage Map of River Sirsa catchment for Nalgarh Baddi region is shown in *Figure 1*.



Figure 1: Drainage Map showing Catchment Area of River Sirsa basin at Baddi-Nalagarh Area, Solan Area of Himachal Pradesh (Source: IPH Department, HP)

2.1. Total Pollution loads assessed in Drains and rivulets draining to the catchment of River Sirsa

The pollution load of various drains in the catchment of River Sirsa has been calculated on the basis of flow measurement by V-Notch apparatus. It can be inferred that the pollution load calculated is contributed from Sandholi, Housing Board Nallah and from outfall of CETP is contributing the high BOD Load of around 111.45 Kg/Day, 360 Kg/Day and 385 kg/Day. The Pollution loads coming out in abovementioned drains are basically from local habitation and Baddi Town and nearabout areas as stipulated in **Table**, and **Figure** - citing the sources of Pollution in River Sirsa Catchment. For this, Irrigation and Public Health Department has proposed a sewerage scheme for Baddi Town comprising of laying the Sewerage Lines and installation and commissioning of Sewage Treatment Plant (STP) within the premise of CETP, Baddi at Kenduwal, H.P. The Sanctioned cost for the project is Rs. 33.34 Crore considering the population of Design year 2048, i.e 57,522 Persons, with total area coverage of 6.96 Sq. Km under the jurisdiction of Muncipal Council, Baddi. Total length of distribution covers the area of MC, Baddi with capacity of STP is 5.5 MLD to be combined with CETP for further treatment.

The Pollution load of Housing Board Drain carrying the BOD Load of 120-138 Kg/Day and thereby degrading the Water Quality of River Sirsa, so the proposal has been submitted by Deputy Director Industries to connect these sewage tanks through tankers to CETP Baddi with an estimate of 32.5 Lacs and completion timeline of 02 months. Other drains are carrying minimal load of BOD ranging from 5-40 Kg/Day from habitations outside the jurisdiction of Minicipal Council, Baddi and Nalagarh. The local habitations have provided the septic tanks/ soak pits in individual house holds. The sources of these pollution loads have been shown in **Figure-**.



Figure- : Photographs Depicting Sandholi Nallah and Housing Board Nallah

Table : Domestic Sewage Pollution Load Various Rivulets and Drains joining the River Sirsa Catchment

Sr. No.	Name of Rivulet / Drain	Flow MLD	BOD (mg/l)	Load Kg/Day
1.	Balad Khadd	9.9	16	158.4
2.	Sandholi Nalla	7.34	56	411.04
3.	Housing Board Nalla	3.715	30	111.45
4.	Khera Nalla	0.5	10	5

5.	Manpura Nalla	5.5	8	44
6.	Ratta khad	0.2	14	2.8
7.	Chikni khad	10	2.8	28
8.	HPSIDC Drain	0.6	200-230	120-138
9.	Bagbania Khadd	Dry		
10.	Kanhan Khadd	Dry		
11.	CETP outfall	17.5	22	385

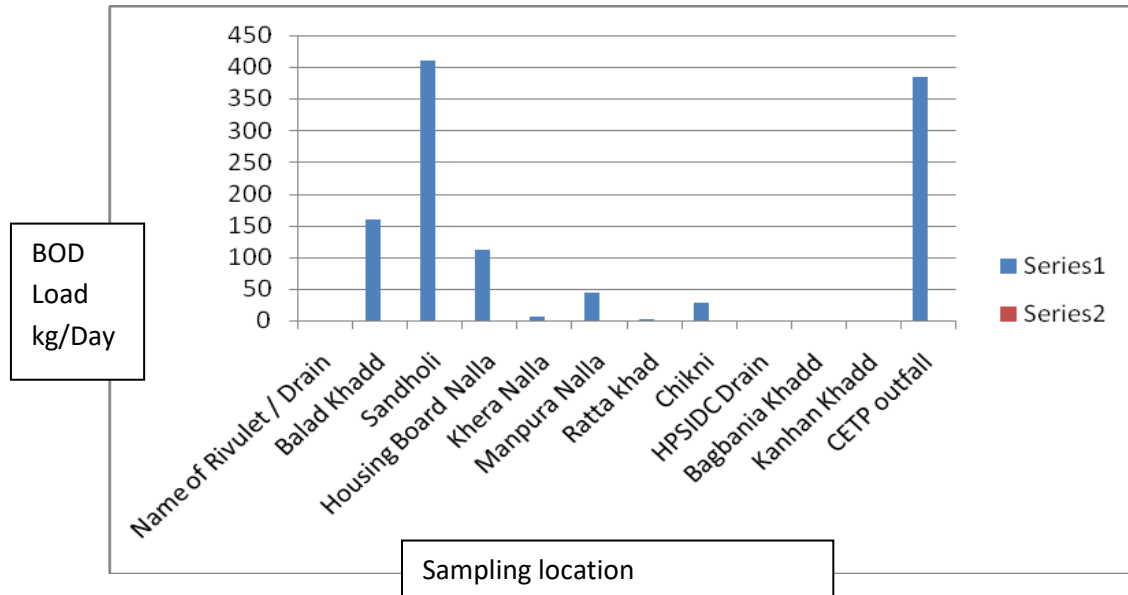


Figure- : Flow Chart Indicating the Pollution Load Level in River Sirsa

Domestic Sewage Pollution Load of major drains along the Sirsa River Stretch

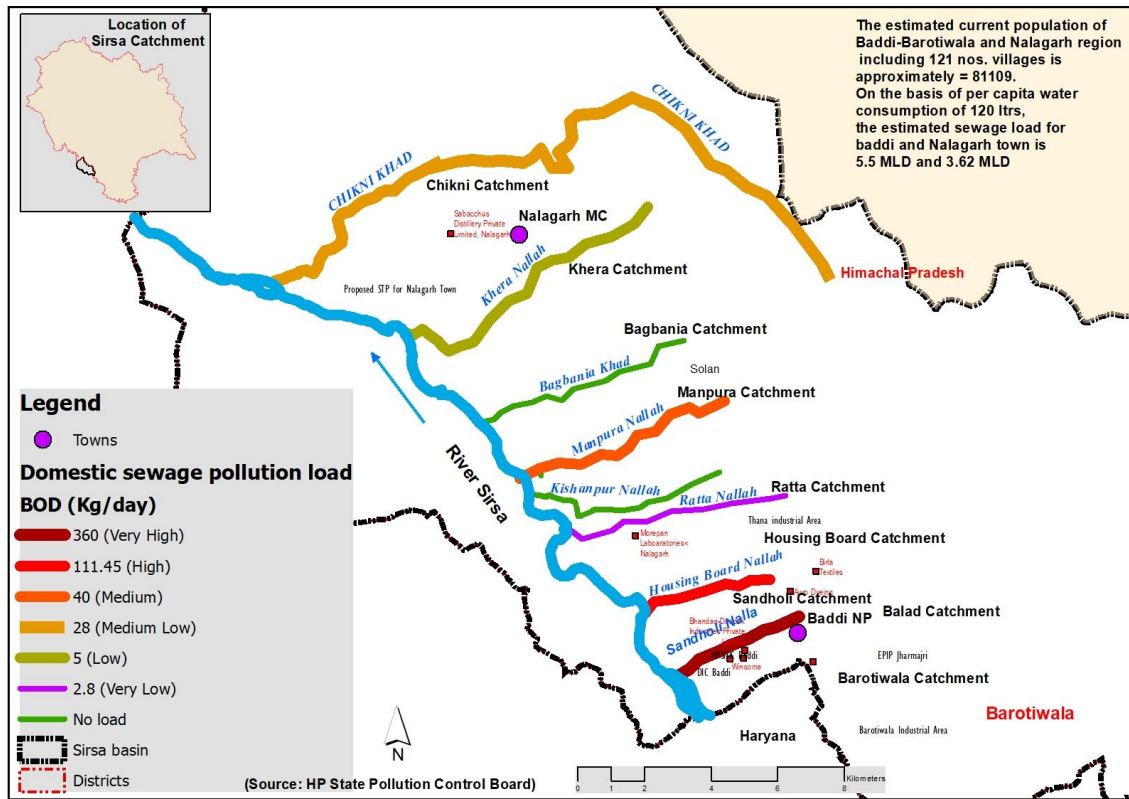


Figure: Digital Map showing Sources of Local Habitation, Sewage Generation, Proposed STPs, Drains contributing to Pollution Load in the Catchment Area of River Sirsa Basin at Baddi-Nalagarh Area, Solan, Himachal Pradesh.

3.0 Achievable Water Quality with quoted timelines as per the existing provisions, guidelines and specifications of Central Pollution Control Board (CPCB)

It is an important aspect for revival of River Sirsa in context of its utility as it is Perennial River. The ultimate goal for beneficial use of river will determine the level of actions to be taken for maintaining the water quality. Under the present circumstances, it appears that River Sirsa may serve the purpose of outdoor bathing (organized) and for this objective; generated domestic sewage should be treated to meet the outdoor bathing standards. Also, the industrial effluents generated from various industries in the catchment of River Sirsa, which are ultimately joining and contributing to the pollution load in River Sirsa should be treated to meet the effluent discharge standards stipulated under Schedule-VI of the Environment (Protection) Rules, 1986. **As per the court orders vide OA No. 673 of 2018, River Sirsa falls under Priority –III of designated criteria depending upon the level of Bio-chemical Oxygen Demand.**

Sr. No.	River Stretch	Priority -III	BOD (mg/L)
1	River Sirsa (Baddi-Nalagarh Region)	Nalagarh to Solan	08-16

The requirement of river water quality for outdoor bathing (organized) also requires more stringent

conditions and river water quality has to maintain adequate Dissolved Oxygen (DO) content. Suggested water quality criteria goal for outdoor bathing (organized) in River Sirsa are given in the following *Table - 1. As per Hon'ble NGT Directions, following quality to be achieved within 02 Years w.e.f 01st April, 2019.*

Table 1: Designated Water Quality Criteria for Outdoor Bathing of CPCB

Sr. No.	Parameters	Water Quality Criteria –for Outdoor Bathing (Organized)
1.	pH	6.5 to 8.5
2.	Dissolved Oxygen (DO)	5 mg/L or more
3.	Biochemical Oxygen Demand 5 days 20^oC	3 mg/L or less
4.	Faecal Coliform	MPN/100ml shall be 500 or less

4.0. Aspects in compliance of Hon'ble NGT Order 20th September 2018, 19th December 2018 and 08th April, 2019

4.1. Rain Water Harvesting/ Ground Water Recharge aspects:

A proposal for channelization of River Sirsa River is being prepared after getting the mathematical Model study conducted by CWPRS. Proposal for Rain water harvesting /Dam as main Sirsa river can be formulated after the DPR for channelization is finalized so as to have a compatibility between these two proposal. However, the IPH department has prepared a proposal for C/O Rain Water Harvesting Structure at 10 identified in Nalagarh area and the same stands approved by NABARD for funding Rs. 509.41 crore. Out of these 10 sites, 2 sites namely Kanganwal and Chikni Khad are tributaries of Sirsa river. The tenders for this work have been received and are under process. As per the scope of the tender, The contractor shall submit detailed design after investigation and it likely that entire work as per scope may not be completed with available funds. Additional amount of about is Rs. 2.00 crore shall be required to complete this work as per scope.

The area has already been notified under State Regulatory Authority under HP Ground Water Management and Regulation Act- 2005 to regulate the management and development of ground water resources. Besides the sampling of Ground water is being done time to time to keep a check water quality.

Besides, Baddi-Baroti walla-Nalagarh-Development-Authority has asked IPH Department to prepare proposal for c/o RWH structure at 2 locations which is likely to be funded by them. The department has accordingly awarded the work for consultancy services for investigation, Survey, design, drawing & DPRs from consultants within 6 months and requirement of funds shall be projected after considering the extent of funding from BBNDA.

4.2. Maintaining E-Flows:

The River Sirsa Catchment is receiving mainly the Industrial Trade Effluent and Sewage Load as depicted in the sources of Pollution. There are 414 industrial units falling under the catchment of CETP Baddi, located at Kenduwal, Baddi. The industrial units discharging their untreated partially treated effluent to CETP Baddi for further treatment. The treated water of CETP is discharged into River Sirsa.

Presently CETP, Baddi is receiving around 17 to 17.5 MLD of effluent through pipe-line mainly (95 %) & remaining 5% through tankers operating outside Baddi catchment area covering mainly Kishnapura, Manpura & some industries form Nalagarh area.

The Pollution load in Rivers Sirsa with CETP discharge at 17.5 MLD with Bio-Chemical Oxygen Demand (BOD) 5 Days 20⁰C (20 mg/l) is around 340 Kg/day. The lean season flow of River Sirsa as obtained from IPH Department is 36.17 MLD. The BOD value coming out after dilution at downstream is 6.9 mg/L whereas target of achieving the BOD value is less than 03 mg/l. This indicates improvement in the bio-logical treatment vis-a-vis the function of CETP Baddi is needed. After the completion of the modification proposed in CETP, as incorporated in Acrtion Plan, the E-flow will be maintained and BOD of River Sirsa shall be less than 03 mg/l.

4.3. Water Shed Management:

At present there is no proposal of Water shed management on the catchment of River Sirsa.

4.4. Re-Use of Treated Sewage:

In IPH Division, Nalagarh one number sewerage scheme amounting to Rs 1636.50 lakh for Nalagarh Town is under construction. 90% sewerage network and 305 of Sewage Treatment plant is completed. The effluent of the STP is proposed to be utilized for irrigation purpose for which a proposal amounting to Rs.147.90 lakh already stand approved by the Chief Engineer (SZ) IP[H Shimla letter No . IPH-BE-SZ-WA-II/446/2017-18-1391-98 dated 21-.4-2018. Under the proposal the adjoining village Bela is proposed to be covered under this irrigation scheme. This scheme is formulated as an outcome of PIL filled in Hon'ble High court by local residents objecting to setting up the STP. The AMICUS Curie appointed by the Hon'ble court has suggested such scheme based on specific demand of the beneficiaries. This scheme is proposed to be included in the supplementary budget for the year 2019-20. There is no budget provision for this scheme at present.

In addition to above providing Sewerage Scheme at Baddi Town amounting to Rs. 3334.34 lakh is already under construction under these division. 90% sewerage network has already been laid and work of construction of STP, is being carried out by Baddi infrastructure (a special purpose Vechicle) through M.C Baddi. The sewage will be treated with the equalization of existing CETP which is under the control of Baddi infrastructure. Further proposal to utilize the treated effluent for irrigation purpose can only be prepared by Baddi Infrastructure who shall be responsible for operation and maintenance of Baddi STP.

4.5. Good Irrigation Practice:

Good Irrigation Practices is being adopted by the IPH department. In place of open channel system for conveyance of irrigation water, closed conduits system are being introduced resulting in reduction of water losses. Micro irrigation system is also being introduced in the new system. In this system per hectare water requirement reduces and more area can be covered with availability water. Command area development scheme is being introduced which increases water

use efficiency and ensure water availability at the tail end. Water use Association has been constituted for effective management of irrigation schemes. Since there are no's of irrigation and water supply schemes constructed at River Sirsa and for maintaining the ecology of this river and its tributaries, it is proposed to undertake channelization work of this river from Sito-Majra to Saini Majra (85 kms) including main drains contributing to River Sirsa. An action plan to this effect stands already submitted. A DPR has been got prepared from the consultant after carrying out mathematical model study as per CWC guidelines and shall be put up before State Technical Advisory Committee of IPH Department for its approval to pose the same for funding.

There is one flow irrigation scheme Raj Khul where people are using water for irrigation from the stretch of River Sirsa having CCA 485.00 hectare.

In addition to above FIS, 9 Number Lift Irrigation Schemes (1) LIS Sirsa Mnjholi (2) Lis Handa Kundli (3) LIS Baddi Sitlapur (4) LIS Chunari (5) LIS Narsing Mandiyarpur (6) LIS Kenduwal (7) LIS Baddi Sitlapur (8) LIS Landewal Kalyanpur (9) LIS Khol Khas are also constructed on the River Sirsa covering total CCA of 870.00 hectare. As an initiative towards, Good irrigation practices, Command Area Development Works are being carried out in 2Nos, Schemes namely LIS Landewal Kalyanpur costing Rs. 14.81 lakh where 25% work has been completed and LIS Baddi Sitalpur for which A/A & E/S has been accorded for Rs. 19.08 lakh.

4.6. Development of Bio-diversity parks:

The forest to setup Nature Park Biodiversity park and proposed to spend Rs.57 lakh and completion time is 2022 the detailed break up of plantation is enclosed as **Annexure-I**.

It is not under the purview of IPH Department.

5.0. Budget Estimate from Pooling the Recourses from State Budget, Local Bodies, SPCBs and Central Schemes, if any for all Action Plans

Total Cost implication for the implementation of above Action Plan is Rs. 52.91Crore. The Chief Secretary has reviewed the proposal during meeting on 08th April, 2019 and directed the concerned department to complete the proposal from state government budget wherever applicable. The major PORTION OF Action Plan comprises of STP proposal for Baddi and Nalagarh is Rs. 49.7 Crore, the funds for which are already issued by the Municipal authority to I & PH. For the improvement in Function of existing **CETP at Baddi** w.r.t connecting the near about areas with Conveyance Pipeline (6,945 Meter Stretch) to treat the 1.10 MLD wastewater from Industries falling in River Sirsa Catchment, the fund amounting to Rs. 2.78 Crores has already been released by the Department of Industries to M/s Baddi Infrastructure. The mass awareness, Cleanliness drive is done from funds available with SPCBs. Utilization of Environmental Compensation as levied by RRC will be used rejuvenation of Rivers. Budget for Management of Solid Waste along the stretch of Sukhna Nallah will be done from local bodies or Urban Development Department. The details are elaborated in point no. 07.

6.0. Executive Summery

The Action Plan mainly comprising of Sewage Treatment Proposal, modification of existing Sewage Treatment Plants, Solid Waste Management, Plantation Proposal, Overhauling and maintenance of existing Septic tanks, STPs monitoring of river water quality. The Action Plan implementation shall be done within 02 years as directed by Hon'ble NGT vide order dated 08th April, 2019. In addition to this, Cleanliness drive has been launched by HP State Pollution Control Board of all the drains on dated 21st June, 2019 wherein approximately 70 MT of Waste along the drains have been collected and disposed. A plantation drive has also been done 25th May, 2019 wherein 1051 plant sapling have been planted along the stretch of River Sirsa.

7. Proposed Action Plans (Short, Medium and Long Term Plan) with time lines including the organization/agency responsible for its implementation for Rejuvenation of River Sirsa, Baddi-Nalagarh, District – Solan

Sr. No.	Action Plan for Rejuvenation of River Sirsa	Agency Responsible for Execution of Task	Time Line for Execution	Total Budget Estimate	Remarks
I	Industrial Effluent Management				
(a)	Inventorization of the Water Polluting Industries in the catchment of River Sirsa covering assessment on aspects relating to status of Consents under Water & Air Acts and Authorization, Effluent Generation, ETP Capacities and final mode of effluent discharge.	HPSPCB	Till 31.03.2019	Department own Budget	-
(b)	Action against the identified industries in operation without Consent under Water & Air Act /Authorization under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.	HPSPCB	Till 31.03.2019	Department own Budget	Action as per relevant provisions of Water Act, 1974 and Air Act, 1981 shall be taken against any unit found operating without mandatory consent of the HPSPCB.
(c)	Actions against the industries who have not installed ETPs or ETPs exist but not operating or treated effluent is not meeting the prescribed standards.	HPSPCB	Till 31.03.2019	Department own Budget	-

(d)	Prohibition of Disposal of Municipal Solid Waste, Plastic Waste, Bio-medical Waste, Hazardous Waste and Burning of any kind of Solid Waste.	BBNDA Municipal Council Baddi, Municipal Council, Nalagarh, District Administration	Till end of February 2019	Department own Budget	-
(e)	Improvement in Function of existing CETP at Baddi w.r.t connecting the near about areas with Conveyance Pipeline,	HPSPCB, Baddi Infrastructure (SVP)-CETP	Till 31.07.2020	Industry Department Budget	
(f)	Conducting Surprise inspections and Water Audit to reduce the Gap in Effluent generation and Treatment with CETP at Baddi.	HPSPCB	Till 31.07.2019	Department own Budget	
(g)	Detection of leakages in conveyance pipelines of CETP, Baddi.	HPSPCB, Baddi Infrastructure	Every 02 Months	Department own Budget	
(h)	Identification of industries falling in the catchment Zone of CETP, Baddi and not connected with CETP and Action to be taken thereafter.	HPSPCB	Till 31.03.2019	Department own Budget	
(i)	Proposal for improvement in functioning of CETP by modification in treatment process to improve the discharge effluent quality.	HPSPCB	Till 31.03.2019	Baddi Infrastructure Budget	
(j)	Installation of Real Time Online Effluent Monitoring System on category 17 units.	HPSPCB	Already installed	Baddi Infrastructure Budget	
(k)	Sludge Management from Industrial Effluent Treatment.	HPSPCB	Till 31.03.2019	Baddi Infrastructure Budget	

(i)	Estimation of industrial effluent generation and commissioning of CETP at Nalagarh.	State Govt., Deptt. of Industries, District Administration, BBNDA.	31.03.2021	Industry Department Budget	Codal formalities like preparation of Feasibility Report, Preparation of DPR, Land allotment, Environment clearance, land acquisition, Installation and Commissioning.
(j)	Setting up & operation of a Solid Waste Management facility at Kenduwal, Baddi	State Govt., Deptt. of Industries, District Administration, BBNDA and Deptt. of Urban Developmen	31.07.2019	Department Own Budget	
II Domestic Sewage Management					
(a)	Area-wise estimation of total population, water requirement, and sewage generation of Baddi-Nalagarh Area.	BBNDA, IPH, Department of Rural Development	28.02.2019	Department Own Budget	-
(b)	To undertake channelization of River Sirsa from Sitomajri to Sainimajra (Nalagarh) (85KM) including main drains contributing to River Sirsa.	BBNDA and I&PH	31.01.2021	Central Government Budget	The DPR for Channelization of River Sirsa will amount Rs. 1,085.00 Crore has been prepared by I&PH.
(c)	Measurement of Flow of Drains, Pollution Load contributing to River Sirsa.	IPH & HPSPCB	Till 28.02.2019	Department Own Budget	-
(d)	Execution of Project Proposal for Sewage Management through State of Art-Technology for Sewage Treatment Plant at Nalagarh.	I & PH	31.07.2019	Local Body Budget	
(c)	Installation of continuous Real Time Water Quality Monitoring Station on River Sirsa.	I & PH	31.07.2019	Baddi Infrastructure Budget	

(d)	Proper design, execution of sewerage Lines to be incorporated in proposed CETP at Baddi.	I&PH, Industry Department	31.07.2019	Department Own Budget	-
(e)	Sewage Management for Industrial Areas of Baddi, Jharmajri, Lodhimajra, Davni, & Thana.	HPSIDC, DIC	28.02.2019	Department Own Budget	-
(f)	Sewage/Septage management for of Rural Areas with low cost treatment technologies.	Rural Development/Block Development Office, Nalagarh.	31.10.2019	Department Own Budget	
III Ground Water Management					
(a)	Sampling of Tube wells, Bore wells, Hand Pumps in BBN area.	I&PH, HPSPCB	31.03.2019	Department Own Budget	-
(b)	Sampling and analysis of Drinking Water Supply Schemes in and around Baddi Nalagarh Area	I&PH	15.02.2019	Department Own Budget	-
(C)	Sealing of contaminated hand pumps and found to be unfit for drinking purpose by the public.	I&PH, HP GWA	30.04.2019	Department Own Budget	-
(d)	Carrying assessment of ground water survey for quality and to identify over exploited and critical areas.	I&PH, HP GWA	31.07.2019	Department Own Budget	-
(e)	To conduct periodic surprise inspection of the industries to rule-out any forceful injection of industrial effluents into ground water sources	HPSPCB	Every 15 Days	Department Own Budget	-
(f)	All the industries should be directed to obtain NOC from HPGWA/ CGWA and action against the units in operation without obtaining NOC from PGWA/ CGWA.	IPH	31.03.2019	Department Own Budget	-
(g)	Remedial measures for de-contamination of Highly Polluted Ground Water resources within Jurisdiction of Baddi – Nalagarh Area.	IPH & HPSPCB	31.07.2019	Department Own Budget	
IV Miscellaneous					
(a)	Regular monitoring and sampling of water quality of River Sirsa and various drains on monthly basis.	HPSPCB	Every 1 Month.	Department Own Budget	-
(b)	Impact of water pollution on health of public by organizing Health camp	State Health Deptt.	Every 3 Month	Department Own Budget	-

(c)	Plantation in Flood Plain Zone, Setting up of Bio-diversity Parks	Forest Department	Within 1.5 Year	Department Own Budget	-
(e)	Checking Encroachment in FPZ of River Sirsa by Notifying the Flood plain Area.	District Local Administration/ BBNDA/ IPH	31.07. 2019.	Department Own Budget	-
(f)	Maintaining the E-flow for having Ecological Balance in the River System	IPH	-	Department Own Budget	
(g)	Setting up of website for public participation.	HPSPCB	Completed.	Department Own Budget	
(h)	Monitoring of the Executing the Action Plans	BBNDA, HPSPCB	Continuous Process	Department Own Budget	
(J)	Cleanliness Drive along the Stretch of River Sirsa	HPSPCB, BBNDA, Ind. Deptt, Urban Local Body Rural Development, Industries Association and other stakeholders.	Every 01 Month	Department Own Budget	
V	Other Aspects as NGT Order dated 20.09.2018 and 19.12.2018				
(a)	Rain Water Harvesting/ Ground Water Recharge aspects	I & PH	31.03.2021	Central Government Budget (Rs. 509 Crore includes in Rs. 1085.00 Crore for Channelization Project	10 Sites identified, DPR preparation is under process. Implementation is subject to the availability of funds from the Central Government.
(b)	Maintaining E-Flows	I & PH	31.07.2020	State Government Budget	E-flow will be assessed after completion of modification in the existing CETP

.)	Water Shed Management	Forest and Rural Development, Department of Environment	-	-	No Scheme
(d)	Use of Treated Sewage	I & PH	After completion of 02 nos. of STPs proposal	State Government Budget	Proposal at Baddi and Nalagarh. In Nalagarh area, the treated sewage will be utilized for irrigation purpose.
(e)	Good Irrigation Practice	I & PH	Existing Schemes operational	Central Government Budget	Future proposal of Rs. 485.0 Crore included in channelization proposal
(f)	Development of Bio-diversity parks	Forest Department	31.03.2022	Department own Budget	Rs 57.00 Lakh proposal for setting up of Nature Park.



Director, Urban
Development

RRC Member



Director, Environment
Science and
Technology

RRC Member



Member Secretary, HP
State Pollution Control
Board

RRC Member



Director, Industry
Department

RRC Member