National Mission for Clean Ganga

Format for Submission of Monthly Progress Report by States/ UTs (Hon'ble NGT in the matter of OA. No. 673/2018 dated 06.12.2019)

Sr. No.	Activity to be monitored	Timeline	Submission of Progress by State/ UT- Compliance Status
1.	Ensure 100 % treatment of sewage at least in-situ remediation	31.03.2020	The site is identified for carrying out Phyto-remediation work for treatment of sewage at Samtel Nallah at Priority –I at Parwanoo along the catchment of Sukhna Nallah and Priority – II, Jatta Wala Nallah at Kala Amb on the Catchment of River Markanda.
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	31.03.2021	The Progress report for setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs for all Priority Stretches is enclosed as **Annexure –I.**
2.	Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning	31.03.2021	The Time line for completion of project is **31.03.2021** for all sewage proposals, although for Completion of all proposal pertaining to Priority –I (Sukhna Nallah at Parwanoo) and Priority-II (River Markanda at Kala Amb) the timeline is **31.12.2020.**
3.	Chief Secretaries may set up appropriate monitoring mechanism at State level		
	• Specifying accountability of nodal authorities not below the Secretary level.		The Administrative Secretaries of Industries Deptt., Urban Dev. Deptt., Rural Dev. Deptt., Irrigation & Public Health Deptt. Health Deptt. and Transport Deptt. have been made accountable at State level.
	• Chief Secretaries may have an accountable person attached in their office for this purpose.		The Environment Cell shall notified comprising of Member Secretary (HPSPCB), Director, Department of Environment Science and Technology and Joint Secretary (EST) to monitor the overall progress of action plan implementation.
	• Monitoring at State level must take place	Fortnightly Commencing 21.12.2019	Regular monitoring of the progress on implementation of Action Plans is being undertaken at Chief Secretary level. Last meeting held on **22.01.2020.**
4.	Progress report may be furnished by the States/ UTs to • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB	Monthly (preferably before 20th of every month)	The progress monitored by the Chief Secretary to the GoHP in last meeting held on 22.01.2020.The Latest Progress report is enclosed as **Annexure – II.** The progress will be sent to MOJS and CPCB for the month of February, 2020.

4.1	Progress Report may be comprised of details along with completion timelines on:		
(i)	Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment		The action plan of **Priority –I to V** are prepared based on following identified polluting sources : 1. Domestic Sewage generation and its treatment and proposed timeline to meet the gaps. 2. Industrial Wastewater generation and its treatment and proposed timeline to meet the gaps. 3. Existing solid wastes, bio-medical waste, hazardous waste, e-waste and other waste processing along the catchment of River stretches, gaps and proposed timeline to meet the gap.
(ii)	**Status of STPs, I&D and sewerage networks** Details of Existing Infrastructure, Gap Analysis, proposed along with completion timeline		Detailed Gap analysis for the approved action plan for Priority – I and Priority – II is enclosed as **Annexure –III.**
(iii)	**Status of CETPs** Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status		Detailed Gap analysis for the approved action plan for Priority – I and Priority – II is enclosed as **Annexure –III.**
(iv)	**Status of Solid Waste Management & Details of Processing Facilities** Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline		Detailed Gap analysis for the approved action plan for Priority – I and Priority – II is enclosed as **Annexure –III.**
(v)	Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;		The latest water quality of polluted rivers are enclosed as **Annexure – IV.**
(vi)	Preventing dumping of waste and scientific management including bio-medical wastes, plastic wastes and decentralizing waste processing, including waste generated from hotels, ashrams etc.		**Solid Waste Management** **Priority – I (Sukhna Nallah at Parwanoo)** • At Priority – I, (Sukhna at Parwanoo), total solid waste generation is 7-8 MT/Day. • The legacy waste has been recovered, and dumping site has been cleared. Domestic Hazardous waste Kiosk has been installed at Parwanoo. • The dry waste generated along the stretch of River Sukhna at Prawanoo has been regularly collected and further transported to the Waste processing site at Baddi

			• The wet waste is processed into Composting Pits constructed. **Priority – II (River Markanda at Kala Amb)** • Total solid waste generation is 3-4 MT/Day • The waste generated along the stretch of River Markanda at Kala Amb is disposed in the waste processing site at Nahan. • The Solid waste processing facility is proposed for Kal Amb which is to be completed by 31.12.2020. **Hazardous Waste Management :** **Priority – I (Sukhna Nallah at Parwanoo)** • There are 48 industrial units falling in the stretch of Sukhna Nallah out of which 06 units are closed. • Total Hazardous waste generation inform ETP Sludge is 97 MT. • There is no common TSDF site in Parwanoo area. • All hazardous waste is being collected by M/s Shivalik Solid Waste Management Ltd (TSDF), Village Dabhota, Tehsil: Nalagarh, District Solan by the TSDF GPS enabled vehicle and same is further treated and landfilled. • The industries have provided separate storage facilities under covered shed within their premises. • No incident/accident regarding illegally dumping of hazardous waste has ever been reported • The capacity of landfill site at Dhabota is 10 Lac MT, hence there is no Gaps in treatment of Industrial Hazardous Waste Treatment. **Priority – II (River Markanda at Kala Amb)** • There are 94 industrial units falling in the stretch of River Markanda. • Total Hazardous waste generation inform of ETP Sludge is 165 MT. • There is no common TSDF site in Kala Amb area. • All hazardous waste is being collected by M/s Shivalik Solid Waste Management Ltd (TSDF), Village Dabhota, Tehsil: Nalagarh, District Solan by the TSDF GPS enabled vehicle and same is further treated and landfilled. • The industries have provided separate storage facilities under covered shed within their premises. • No incident/accident regarding illegally dumping of hazardous waste has been reported yet. • The capacity of landfill capacity of Landfill site at Dhabota is 10 lacs MT, hence there is no Gaps in treatment of Industrial Hazardous Waste Generated by industrial units along River Markanda Stretch. **Bio-medical Waste Management:** **Priority – I (Sukhna Nallah at Parwanoo)** • The bio medical waste generated is being disposed to M/s Enviro Engineers, a Common Bio Medical Waste Disposal Facility having capacity 100 Kg/hr, located at Shalaghat, District - Solan (H.P).

			• One Hospital in the name and Style of ESIC Hospital, Parwanoo, and 03 private clinics which collectively generate 30 Kg/Day and disposes Bio-medical Waste at afore-mentioned site. **<u>Priority – II (River Markanda at Kala Amb)</u>** • The bio medical waste generated is being disposed to M/s Enviro Engineers, a Common Bio Medical Waste Disposal Facility having treatment capacity 100 Kg/hr, located at Shalaghat, District - Solan (H.P). • One Hospital in the name and Style of ESIC Hospital, Kala Amb and 01 clinic which collectively generate 05 Kg/Day and disposes Bio-medical Waste at afore-mentioned site. **<u>Plastic Waste Management:</u>** • **Buy back Policy:** The Government of Himachal Pradesh has notified a Policy regarding Buy-back of non-recyclable and Single Use Plastic Waste including plastic bags in the Himachal Pradesh from the Rag pickers and households, providing Minimum Support Price of **Rs. 75/- (Rupees Seventy Five)** only per kilogram. • **EPR Implementation:** Directions are issued to plastic waste Producers and Brand owners to set up waste collection system along Priority- I & II.
(vii)	Ground water regulation		The matter pertains to State Ground Water Authority and Irrigation and Public Health Departments.
(viii)	Adopting good irrigation practices,		The matter pertains to State Ground Water Authority and Irrigation and Public Health Departments.
(ix)	Protection and management of Flood Plain Zones (FPZ)		The matter pertains to Irrigation and Public Health Departments and District Administration.
(x)	Rain Water Harvesting,		The status report related to Rain Water Harvesting System of the H.P. State Pollution Control Board's infrastructure, is Annexed as **<u>Annexure-V</u>** and other departments have been directed to provide details.
(xi)	Maintaining minimum environmental flow of river		The **<u>following steps have</u>** been taken to maintain environmental flow in the river/ Nallah • The RTWQMS along with Radar system for water quality monitoring and flow measurement, respectively, have been installed in river Markanda near Viii Ogli, Kala Amb town. The system is being run on trial basis and calibration is being done. • The RTWQMS along with Radar system for water quality monitoring and flow measurement, respectively, has been installed in river Kaushalya near village Kamli. The parameters DO, BOD, TSS, pH, Temp and flow rate are being monitored and results of the same are being displayed at State Board server on real time basis.
(xii)	Plantation on both sides of the river	Completed	As per the latest progress on Plantation carried out at Priority – I and Priority – II is as below :-

			<u>Priority-I (Sukhna Nallah at Parwanoo)</u> 1. Total 2200 Plants are planted and as per the Action Plan, 100 % work is done. **<u>Priority-II (River Markanda at Kala Amb)</u>** **1.** Total 800 Plants are planted and as per the Action Plan 90 % work is completed.
(xiii)	Setting up of biodiversity parks on flood plains by removing encroachment		• As per the Action Plan of Priority I & II, Bio-diversity Park is proposed, however due to non-availability of Forest land work on setting up of Bio-diversity parks has not been started been started. **Forest Department was asked explore possibility of Setting of Bio-diversity parks.** • However, for the Setting up of Bio-diversity parks, for Priority-III the total financial targets estimated by the Department of Forests for the years 2019-20 and 2020-21 are 25.0 Lakh and 32.0 Lakh respectively. For the financial year 2019-20, total budget amounting to **Rs. 17.85 Lakh** has been spent for Setting up of Bio-diversity parks along all the polluted river stretches in HP.

Annexure-I

Sr.No.	Area & Priority	Proposal	Progress
1.	SUKHNA Nallah Stretch (Priority - I):- Parwanoo Town	Sewage Treatment Plant Proposal (2 No of 1 MLD capacity each including laying of sewerage lines in Zone-I and Zone-II in Parwanoo Town. The proposal of 49.82 Crore prepared by IPH Department. Completion time is 31st January, 2022.)	• At, Priority – I (Sukhna Nallah at Parwanoo), financial approval amounting Rs. 47.60 Crore has been accorded for the proposal of 02 STPs (01 MLD each), land has been finalised and tenders are opened on 21.01.2020.
2.	River MARKANDA Stretch (Priority II):	Kala Amb and Moginand Area: Laying of Sewerage Network and Pre-treatment of Sewage. The proposal is of Rs. 30.40 crore and completion time is 31st January, 2022.	• At, Priority – II (River Markanda at Kala Amb), financial approval amounting Rs. 20.90 Crore has been accorded for the proposal of laying of Sewerage Network and pre-treatment of Sewage of Kala Amb area (01 MLD). Financial Bid has been opened on 11.02.2020.
		Trilokpur Area: Laying of Sewerage Network & Setting up of Sewage Treatment Plants. The proposal is of Rs. 26.00 crores and completion time is 31st January, 2022.	• At, Priority – II (River Markanda at Kala Amb), financial approval amounting Rs. 14.51 Crore has been accorded for the proposal of laying of Sewerage Network and treatment of Sewage of Trilokpur and Kheri area (1.5 MLD). Financial Bid has been opened on 11.02.2020. Land has been identified.
3.	River SIRSA Stretch (Priority III):-	Execution of project proposal for sewage management by laying of pipelines and installation and commissioning of STP at Nalagarh. The cost is Rs. 16.36 crores and timeline was 31st July, 2019.	• At Priority –III (River Sirsa at Baddi - Nalagarh) at Sewerage network for Baddi area is completed. Construction of 5.5 MLD STP, Baddi is completed and commissioned. Sewage is also received from MC Baddi.
		Proper design, execution of Sewerage lines to be incorporated in proposed CETP at Baddi. The	• At Priority –III (River Sirsa at Baddi - Nalagarh), The work of

		cost is Rs. 33.34 crore and final timeline was 31st July, 2019.	Sewerage network of Nalagarh setting up of STP at Nalagarh have been completed and STP is commissioned.
4.	ASHWANI Stretch (Priority V):-	1. The up-gradation of existing 3 STPs by providing Sequencing Batch Reactor (SBR) technology. The proposal is of Rs. 45.76 crores and completion time is **31st March, 2021.** 2. Installation of a new STP of 2.0 MLD capacity for Panthagati area. The proposal is of Rs. 22 crore and completion time was **31st March, 2021.** 3. Proposal for Septage Management under AMRUT-mission for the management of faecal sludge and septage management including drains contributing sewage into Ashwani Khad. completion time was **31st August, 2020.**	1. The upgradation of existing STPs at Dhalli, Malyana and Lalpani have been sanctioned under AMRUT project. The work for up gradation of existing STPs with advanced Sequencing Batch Reactor (SBR) Technology approved by SLTC for 3 STPs namely Dhalli, Malyana, and Lalpani, which is adding effluent to Ashwani Khad. The tender of STP Dhalli has been uploaded. The work for STP Malyana has been awarded. The tender for Lalpani area has again been called on 27th January, 2020. The Work will be completed upto 31st March, 2021. 2. The tender has been recalled and is to be opened on 27th January, 2020. The work will be completed within timeline of 31st March, 2021. 3. The DPR for Septage Management under AMRUT Sub-Mission has been prepared and HPSPCB provided funds of Rs. 1.00 Crore and the work will take 12 months to be completed after receipt of funds.

5.	BEAS Stretch (Priority V) :-	**I.** Proposal for Sewerage Scheme in Rangri, Manali, District-Kullu. Time line for completion is 31.12.2023. **II.** Proposal for Sewerage Scheme in Marhi, District- Kullu. Time line for completion is 31.12.2023. **III.** Proposal for the expansion of existing STP in Manali, installation of New STPs in Manali. Time line for completion is 31.12.2023. **IV.** Proposal for Sewerage Scheme in Kullu Town, District-Kullu (Zone-I). Time line for completion is 31.12.2023. **V.** Proposal for Sewerage Scheme in Kullu Town, District- Kullu (Zone-II). Time line for completion is 31.12.2023. **VI.** Proposal for Sewerage Scheme in Kullu Town, District-Kullu (Zone-III). Time line for completion is 31.12.2023. **VII.** Proposal for Sewerage Scheme in Bhunter Town, District- Kullu (Zone-III) Time line for completion is 31.12.2023.	I. A/A and E/S stands accorded on 27.12.2019 for Rs. 162.78 crore. Tendering process is being done and shall be completed by 31.03.2020. II. Work of laying network is completed and work for setting up of STP is awarded and work is in progress which is held up due to snowfall and cold temperature and shall be resumed in June, 2020. III. Tender opened single tender as none of the bidder were found eligible. The process of evaluation is under progress. The funds amounting Rs. 3 Crore released by UD and Rs. 3 Crore by IPH. IV&V. The work for up-gradation of STP (Zone-I & Zone-II), Kullu has been awarded under AMRUT. The contractor has submitted the Hydraulic and process design as well as bearing capacity test report and same stands submitted to Circle office for approval. VI & VII. The STPs (Kullu Zone –III and Bhunter Zone-III) are functioning as prescribed norms of CPCB, hence, tertiary treatment is not required. Therefore, it has been proposed that upgradation of treatment plant may be done as directions of NGT OA No. 148/2018. The proposal for same is under process at Division Office. The

			work has not started due to non-availability of funds.
		Proposal for the expansion of existing STPs and installation of New STPs (District- Mandi).	• Financial Sanction has been accorded.
		Proposal for sewer connection and sewer line upgradation at Nadaun (District- Hamirpur).	• The work is completed and STP is commissioned and Trial run is in progress.
		Proposal for installation of STP at Dehra, District- Kangra.	• The work is completed and STP is commissioned and 90 % work of sewerage scheme is completed.
6.	GIRI Stretch (Priority V):-	Installation of three STPs in these areas i.e. one at Theog and two at Kotkhai. The timeline for completion was 31.12.2019.	• The work is completed and STP is commissioned and trial run is in progress.

1. SUKHNA Nallah Stretch (Priority - I):- Parwanoo Town

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage (%) of Work to be completed as on date against timeline.	Latest Status	Decision Taken
1.	**Irrigation and Public Health Department**	**Sewage Treatment Plant Proposal** (2 No of 1 MLD capacity each including laying of sewerage lines in Zone-I and Zone-II in Parwanoo Town. The proposal of 49.82 Crore prepared by IPH Department. Completion time is **31st January, 2022.)**	33.33%	• The budget to the tune of Rs. 5.00 crore has been allocated by government of H.P. • Tender has been called on 31.12.2019 and the date of opening is 31.01.2020. • For construction of one STP, land is available near dumping site in sector 5 Parwanoo, whereas for the second STP, which is to be located on forest land in Village Tipra, the forest land transfer case is in progress and land is yet to be handed over to IPH Department.	• The Director, UD and Engineer-in-Chief, IPH to jointly inspect the land and submit report within **next 2-3 days** to the Secretary (EST) after resolving the land transfer issue. • The Department of UD is directed to get the dry waste cleared from the identified site within next two days and hand it over to IPH Department. • The IPH shall award the tender for construction of STPs by **15.02.2020** by following all codal formalities. IPH shall lay down the sewerage network and commission the STPs by **31.12.2020.** • The IPH is also directed to expedite the issue of forest land transfer for second STP proposed and in no case it should go beyond **29.02.2020.**

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage (%) of Work to be completed as on date against timeline.	Latest Status	Decision Taken
					• MC Parwanoo to undertake phyto-remediation in Samtel Nallah. HPSPCB shall provide adequate funds to MC Parwanoo for the same.
		Installation of Continuous Water Quality Monitoring Station. The proposal of 0.3 crore and completion time was **31st July, 2019.**	100 %	The Online Continuous Water Quality Monitoring Station (OCWQMS) has been installed and online data has been connected to HPSPCB server.	The Chairman was satisfied with work.
		Radar system for depth and flow measurement.	100 %	The system has been provided by IPH and it is installed at River Kaushalya and is functioning properly.	The Chairman was satisfied with work.
2.	**HIMUDA, Municipal Council, Parwanoo**	Sewage Treatment Plant (1 No. of 70 KLD capacity in Sector - 5 Parwanoo) to cater to the additional load of Septic Tanks catering to the residential area. Cleaning and Overhauling of Septic Tanks.	100 %	• The Sewage Treatment Plant of 70 KLD capacity installed at Sector - 5, Parwanoo and also commissioned and is working properly. • The Cleaning and Overhauling is	• The Chairman directed that proper cleaning and overhauling of Septic Tanks may be done by HIMUDA by **29.02.2020.**

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage (%) of Work to be completed as on date against timeline.	Latest Status	Decision Taken
				done by MC Parwanoo. • The Engineer in Chief, IPH apprised that during his visit he observed that the septic tanks were overflowing and there were leakages too.	
3.	**Department of Urban Development**	Waste Recovery and Reprocessing of Existing Dumped Waste at Dumping site Sector 5, Parwanoo. Installation of Kiosk for Domestic Hazardous Waste Management.	100%	• The legacy waste has been recovered, and dumping site has been cleared. • Domestic Hazardous waste Kiosk has been installed at Parwanoo.	The Chairman was satisfied with work.
4	**BBNDA, MC Parwanoo & HPSPCB**	For collection, Transportation, Processing and disposal of fresh waste at Baddi Cluster.	100 %	As per the Concession agreement with M/s JBR, Technologies (P) Ltd. Ludhiana, the Solid Waste Management Plant will be established by 08-02-2020. The Concessionaire has started the door to door collection of Solid waste from 41 Gram Panchayats in BBN area with scientific	The chairman directed to complete the process by **29.02.2020** without fail.

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage (%) of Work to be completed as on date against timeline.	Latest Status	Decision Taken
				dumping at site. The Concessionaire has set up weigh bridge and CCTV Cameras at site. The work of erection of main shed and setting up of other machinery is in progress.	
5.	**Forest Department**	Plantation Proposal	33.33 %	2200 plants have been planted so far.	The Chairman was satisfied with the work and it was directed that the possibility of making biodiversity parks may be explored in the catchment of Kaushalya river and a report may be submitted **within a month** regarding the same.

1. <u>River MARKANDA Stretch (Priority II):</u>

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage (%) of Work to be completed as on date against timeline.	Existing Status	Decision
1.	**Irrigation and Public Health Department & Industries Department**	Kala Amb and Moginand Area: Laying of Sewerage Network and Pre-treatment of Sewage. The proposal is of Rs. 30.40 crore and	33.33 %	The budget provision of Rs. 3 crores have been provided. Tender has been called and shall be	The Chairman directed IPH to commission the STP **by 31.12.2020** and laying of sewerage network to be

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage (%) of Work to be completed as on date against timeline.	Existing Status	Decision
		completion time is **31st January, 2022.**		opened on 31.01.2020, work shall be awarded in the month of March and laying of sewerage network shall be done within six months after work has been awarded.	completed within six months after work has been awarded.
		Trilokpur Area: Laying of Sewerage Network & Setting up of Sewage Treatment Plants. The proposal is of Rs. 26.00 crores and completion time is **31st January, 2022.**	33.33%	• The Budget provision of Rs. 2.50 crores has been made by government of H.P. Tender has been called and the date of opening is 31-01-2020. Land has also been transferred. The A/A and E/S stands accorded for Rs. 14.51 crores only. • The DC, Sirmour apprised that a visit has been planned on 29-01-2020 to identify the site for setting up of STP.	• The Chairman directed IPH Department to commission the STP by **31.12.2020**. • DC Sirmour volunteered to release the funds of Rs. 2 crores to IPH Department in a phased manner towards laying of sewerage network & setting up of sewage treatment plants. It was decided that amount be released in three installments.

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage (%) of Work to be completed as on date against timeline.	Existing Status	Decision
2.	**Irrigation and Public Health Department**	Installation of Continuous Water Quality Monitoring Station	100 %	The Online Continuous Water Quality Monitoring Station (OCWQMS) has been installed.	The Chairman was satisfied with the work.
		To undertake channelization of Markanda River from Rukhri to Kala Amb.	33.33%	The DPR based on revised study from CWPRS Pune has been prepared having an estimated cost of Rs. 114.02 Crores.	The IPH department to pursue matter further with the Govt. of India and Director CWC, Shimla, especially for allocation of funds for this project.
3.	**Department of Industries.**	Kala Amb area : Proposal for setting up of CETP.	33.33%	• The Terms of Reference (TOR) for Environment Clearance were applied afresh to Ministry of Environment, Forest & Climate Change, New Delhi on 25-11-2019, but the Environment Appraisal Committee has rejected the proposal for construction of CETP at the proposed site as the same is located on high flood zone of River Markanda, within 50 meters along the bank of river**.** There is no other land is available and the Hon'ble NGT may be informed	• The Director, Industries will submit a report regarding setting up of CETP by **15th February, 2020** with clear cut facts/latest status to Secy. (EST). • The Chairman directed that in the meantime, the IPH department has to start the paper work for setting up of STP, if there is no other possibility of setting up of CETP.

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage (%) of Work to be completed as on date against timeline.	Existing Status	Decision
				accordingly. Hence, the Director, Industries suggested that a request may be made to the Chairman of Executive Committee (OA No. 138 and 139 of 2016) for writing to MoEF & CC to seek relaxation. • Another land may be identified for construction of STP instead of CETP incase the proposal of CETP is not finalized.	• The IPH Department will visit the Jattan Wala Nallah in the catchment of River Markanda and explore the site for phyto-remediation.
4.	**Special Area Development Authority, Kala Amb, District Administration, Rural Development Department.**	Proposal for setting up of Solid Waste Management Facility. Final timeline of completion is **31st January, 2022.** The cost of the project is Rs. 3.5 crores.	33.33%	The DC, Sirmour apprised that SADA shall run the Solid Waste Management Plant and panchayats shall be engaged in door to door collection of the waste.	The Chairman directed that DC Sirmour shall ensure that Solid Waste Management processing facility is fully established and operational **by 31.12.2020** as per Solid Waste Management Rules, 2016 to cater Kala Amb and Moginand area.
5.	**Forest Department**	Plantation Proposal	33.33 %	400 plants have been planted in	The Chairman was satisfied with the work and it was

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage (%) of Work to be completed as on date against timeline.	Existing Status	Decision
				Trilokpur Devini Area.	directed that the possibility of making biodiversity parks may be explored in the catchment of Markanda river and a report may be **submitted within a month**.

2. **River SIRSA Stretch (Priority III):-**

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage of Work to be completed as on date against timeline. (%)	Existing Status	Decision
1.	**Irrigation and Public Health Department and Urban Development Department**	Execution of project proposal for sewage management by laying of pipelines and installation and commissioning of STP at Nalagarh. The cost is Rs. 16.36 crores and timeline was **31st July, 2019.**	100%	The work of Sewerage network w.r.t Trunk sewer line, its network and setting up of STP have been completed as per the target date fixed. Matter for household connections has been taken up with MC Nalagarh. The testing network is in progress. The provision of tertiary unit was taken in	• The Chairman directed Director, UD to cooperate with IPH Department and direct MC Nalagarh to tie up with IPH in the matter to ensure that all the households are connected and the work is completed by **15.02.2020.** • The IPH and Forest Department may also explore the possibility of phyto-remediation in the

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage of Work to be completed as on date against timeline. (%)	Existing Status	Decision
				addition to improve the parameters of effluent which is under progress and will be completed by 31.01.2020.	catchment of River Sirsa.
		Proper design, execution of Sewerage lines to be incorporated in proposed CETP at Baddi. The cost is Rs. 33.34 crore and final timeline was **31st July, 2019.**	100%	Budget amounting Rs. 8.81 crores has been allotted by government of H.P. Sewerage network is completed. Construction of 5.5 MLD STP is completed. Sewage is to be received from MC Baddi.	• The Chairman directed Secretary IPH and UD to ensure that the project is made functional immediately. • Further the Chairman directed that inspection may be conducted by IPH, UD and M/s Baddi Infrastructure and it should be ensured that there are no choked sewerage lines. This whole exercise should be completed by **15.02.2020.** • Secretary IPH to resolve the issue related to pending bills of M/s Baddi Infrastructure.

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage of Work to be completed as on date against timeline. (%)	Existing Status	Decision
	Irrigation and Public Health Department	To undertake channelization of River Sirsa from Sitomajri to Sainimajra (Nalagarh) including main drains contributing to River Sirsa.	33.33%	The proposal for framing the DPR has been approved for Rs. 830.22 Cr. In 57th meeting of STAC on 14.06.2019. The DPR stands submitted to Chief Engineer (SZ) and as per observation of CWC, the DPR is under modification in Division office.	The matter be pursued further with the Govt. of India and Director CWC, Shimla, especially for allocation of funds for this project.
2.	**M/s Baddi Infrastructure (CETP) Baddi, Distt. Solan.**	Improvement in functioning of existing CETP at Baddi w.r.t. connecting the near about areas with conveyance pipeline to treat the 1.10 MLD wastewater from Industries falling in River Sirsa Catchment. The cost is 2.70 crore and final time of completion is **31st July, 2020.**	66%	The tender bids have already been opened on 21.06.2019, but work contract/tender could not be finalized due to non-receipt of NOC from NHAI, Shimla for granting permission for digging trenches along roadside berms for laying of conveyance system. ACS (Ind.) has written D.O letter on 26-11-2019 to Chairman	The Chairman directed the Director, Industries to hold a meeting with the RO, NHAI w.r.t. grant of NOC and furnish compliance by **31.01.2020.**

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage of Work to be completed as on date against timeline. (%)	Existing Status	Decision
				NHAI for granting approval.	
3.	**Department of Industries.**	Improvement in functioning of C.E.T.P Baddi. The final Timeline was **31st March, 2019.**	100%	• The C.E.T.P is not complying the discharge norms for last 1.5 years so technological improvement is required. Technological improvement will cost Rs. 10-12 crores. • It was apprised by M/s Baddi infrastructure that funds are required for technological improvement in the CETP. • The Director Industries apprised that inspection of the CETP has been conducted and an amount of Rs. 2.00 Crores has also been given to Baddi Infrastructure. It was apprised that the textile	• The Chairman directed HPSPCB to ensure that the effluent from industries should come to the CETP after treatment. • It was decided that ACS (Industries) shall immediately hold a meeting with all the stakeholders and submit action taken report by **15.02.2020.** • It was also decided that the M/s Baddi Infrastructure shall hold a joint meeting with all the stakeholders w.r.t. treatment of industrial waste and a meeting notice in this regard may be issued as soon as possible. The progress In this regard be shared with HPSPCB.

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage of Work to be completed as on date against timeline. (%)	Existing Status	Decision
				industries have agreed for in house treatment of the wastewater having high TDS load, but the time line requested by the these textile industries for treatment of such waste is 02 years.	
4.	**Department of Industries**	Cleaning of sewage tanks for industrial areas of Baddi, Jharmajri, Lodhimajra, Davni, Thana	100 %	All the sewerage tanks i.e. 15 nos. have been cleaned and hence, the work is complete.	The chairman was satisfied with the work.
5.	**BBNDA**	Setting up of Solid Waste Processing Plant at Baddi. The final timeline for completion **was 31st July, 2019.**	100%	As per the Concession agreement with M/s JBR, Technologies (P) Ltd. Ludhiana, the Solid Waste Management Plant will be established by 08-02-2020. It was apprised by the CEO, BBNDA that the earlier timeline of 8th Feb, 2020 cannot be met as there are few financial issues although the plant	The Chairman directed BBNDA to resolve the financial issues and make the Solid Waste processing plant functional by **29.02.2020.**

Sr. No.	Organization Responsible	Work proposed for Execution along with cost and final Timeline.	Percentage of Work to be completed as on date against timeline. (%)	Existing Status	Decision
				is being regularly monitored.	
5.	**Forest Department**	Plantation Proposal	66.66%	Total number of 8800 plants has been planted so far.	The Chairman was satisfied with work completed and directed forest department to explore the possibilities of phyto-remediation and a report may be submitted in this context by **31.01.2020.**

3. ASHWANI Stretch (Priority V):-					
Sr. No.	**Organization Responsible**	**Work proposed for Execution along with cost and final Timeline.**	**Percentage of Work to be completed as on date against timeline. (%)**	**Latest Status**	**Decision**
1.	**Shimla Jal Prabandhan Nigam Limited (SJPNL) & MC Shimla**	The up-gradation of existing 3 STPs by providing Sequencing Batch Reactor (SBR) technology. The proposal is of Rs. 45.76 crores and completion time is **31st March, 2021.**	33.33 %	The upgradation of existing STPs at Dhalli, Malyana and Lalpani have been sanctioned under AMRUT project. The work for up gradation of existing STPs with advanced Sequencing Batch Reactor (SBR) Technology approved by SLTC for 3 STPs namely Dhalli, Malyana, and Lalpani, which is adding effluent to Ashwani Khad. The tender of STP Dhalli has been uploaded. The work for STP Malyana has been awarded. The tender for Lalpani area has again been called on 27th January, 2020. The Work will be completed upto 31st March, 2021.	The chairman directed SJPNL to complete the work by **31st March, 2021.**

		Installation of a new STP of 2.0 MLD capacity for Panthagati area. The proposal is of Rs. 22 crore and completion time was **31st March, 2021.**	33.33 %	The tender has been recalled and is to be opened on 27th January, 2020. The work will be completed within timeline of 31st March, 2021.	The chairman directed SJPNL to complete the work by **31st March, 2021.**
		Proposal for Septage Management under AMRUT-mission for the management of faecal sludge and septage management including drains contributing sewage into Ashwani Khad. completion time was **31st August, 2020.**	50 %	The DPR for Septage Management under AMRUT Sub-Mission has been prepared and is now being sent to the Member Secretary, HPSPCB for providing funds of Rs. 1.00 Crore and the work will take 12 months to be completed after receipt of funds.	• The chairman directed SJPNL to complete the work by **31st August, 2020.** • It was also decided that HPSPCB shall provide funds in a phased manner to SJPNL for the said project.
		Proposal for improving the water quality of Ashwani Khad by installing various components, for the rejuvenation of water sources by improving the purity of water of Natural Nallahs by Phytorid Treatment at Ashwani Khad, Sanjuli-Malyana-Chamyana Khad, Shimla project. and completion time was **31st March, 2021.**	33.33 %	It was apprised by the SJPNL authorities that the phytorid treatment will not be required as after the installation of new STPs in the catchment of Ashwani Khad, the BOD level shall be reduced. Hence the proposal of phyto-remediation plant in Ashwani khad may be kept on hold and will be executed if required in the future after completion and up-gradation of STPs.	The chairman directed SJPNL to complete the work of installation of new STPs by **31st March, 2021**.

2.	**Forest Department**	Plantation proposal and Construction of Check Dams.	36.36 %	13,200 Plants have been planted so far. Construction of Check Dams on sub-catchment of Ashwani at Mansar ka Nallah, Jhokjri ka Nallah, Kurgal ka Nallah, Sewak Dhangil Nallah with amount of Rs. 4,55,000=00 stands completed.	The Chairman was satisfied with work.

5. <u>BEAS Stretch (Priority V) :-</u>

Sr. No.	Organization Responsible	Work proposed for Execution (In the Catchment Area)	Percentage of Work to be completed as on date against timeline. (%)	Latest Status		Decision
1.	**Irrigation and Public Health Department & Urban Development**	**I.** Proposal for Sewerage Scheme in Rangri, Manali, District- Kullu. Time line for completion is 31.12.2023.	33.33 %	162.0 Crore	**I.** A/A and E/S stands accorded on 27.12.2019 for Rs. 162.78 crore. Tendering process is being done and shall be completed by 31.03.2020.	• The Chairman directed that IPH shall complete all the works by **31.03.2021** as per the timelines laid down by Hon'ble NGT. • The Director, UD was directed to ensure that all the MCs where sewerage
		II. Proposal for Sewerage Scheme in Marhi, District- Kullu. Time line for completion is 31.12.2023.		1.14 Crore	**II.** Work of laying network is completed and work for setting up of STP is awarded and work is in progress which is held up due to snowfall and cold temperature and shall be resumed in June, 2020.	
		III. Proposal for the expansion of existing STP in Manali, installation of New STPs in Manali. Time line for completion is 31.12.2023.		6.17 Crore	**III.** Tender has been re-invited being single tender as none of the bidder were found eligible. The process of	

Sr. No.	Organization Responsible	Work proposed for Execution (In the Catchment Area)	Percentage of Work to be completed as on date against timeline. (%)	Latest Status		Decision
					evaluation is under progress. The funds amounting Rs. 3 Crore released by UD and Rs. 3 Crore by IPH.	networks & STPs are being established shall provide full cooperation to IPH Department.
		IV. Proposal for Sewerage Scheme in Kullu Town, District- Kullu (Zone-I). Time line for completion is 31.12.2023. **V.** Proposal for Sewerage Scheme in Kullu Town, District- Kullu (Zone-II). Time line for completion is 31.12.2023. **VI.** Proposal for Sewerage Scheme in Kullu Town, District- Kullu (Zone-III). Time line for completion is 31.12.2023. **VII.** Proposal for Sewerage Scheme in Bhunter Town, District-Kullu (Zone-III) Time line for completion is 31.12.2023.		1.88 Crore 3.05 Crore 2.25 Crore 3.35 Crore	**IV&V.** The work for up-gradation of STP (Zone-I & Zone-II), Kullu has been awarded under AMRUT. The contractor has submitted the Hydraulic and process design as well as bearing capacity test report and same stands submitted to Circle office for approval. **VI & VII.** The STPs (Kullu Zone –III and Bhunter Zone-III) are functioning as prescribed norms of CPCB, hence, tertiary treatment is not required. Therefore, it has been proposed that upgradation of	• The Chairman directed IPH Department to develop an incentive frame work for the contractors to encourage them to complete work before target dates w.r.t. proposals at Kullu and Mandi. The proposal for seeking funds wherever required may expedited by Secy (IPH).

Sr. No.	Organization Responsible	Work proposed for Execution (In the Catchment Area)	Percentage of Work to be completed as on date against timeline. (%)	Latest Status	Decision
				treatment plant may be done as directions of NGT OA No. 148/2018. The proposal for same is under process at Division Office. The work has not started due to non-availability of funds.	
		Proposal for the expansion of existing STPs and installation of New STPs (District-Mandi).	33.33 %	The A/A & E/S stands accorded for Rs. 68.57 crore and for technical sanction the estimate amounting to Rs. 61.00 crore has been submitted to CE (Mandi Zone).	The Chairman directed that the STPs should be commissioned by **31.03.2021.**
	Irrigation and Public Health Department (I&PH)	Proposal for sewer connection and sewer line upgradation at Nadaun (District- Hamirpur).	66.66 %	The expenditure has exceeded over the estimated cost, hence, the matter being urgent, it has been decided in the meeting on 29.06.2019 that IPH shall allocate Rs. 2.0 crore in advance subject to the condition that within one month revised A/A and E/S shall be obtained by Executive Engineer. The revised estimate for Rs. 1281.78 crore stands submitted for approval and received back with a few observations from Special Secretary, IPH. After rectifications the estimate will be submitted for approval. It was also apprised by the IPH Department that the STP has been constructed and further apprised that in most areas of Hamirpur and	• The chairman directed to complete the process within prescribed timelines. • The Chairman directed IPH and UD Department to conduct a meeting within **next 15 days** to resolve such issues for Hamirpur and

Sr. No.	Organization Responsible	Work proposed for Execution (In the Catchment Area)	Percentage of Work to be completed as on date against timeline. (%)	Latest Status	Decision
				Kangra, sewer line is far from residential houses.	Kangra areas.
		Proposal for installation of STP at Dehra, District-Kangra.	100 %	The STP has been commissioned.	The Chairman was satisfied with the work.
		Proposal for Channelization of River Beas from Palchan to Aut under HP Flood and River Management Project.	33%	The period for flood records of River Beas for designing Channelization works has been changed from 25 years to 50 years, hence to re-prepare the unit hydrograph, the CWPRS authorities want to re-visit the site.	The Chairman directed that the matter be pursued by Secy (IPH) with the Govt. of India for allocation of funds for this project and work should be started immediately upon the receipt of funds.
		Proposal for channelization of Suketi Khad in a stretch.	33%	The proposal for work under phase-II amounting to Rs. 817 crores is posed to the Govt. of India for funding in compliance to Hon'ble NGT orders.	
2.	**Urban Development Department Mandi.**	Proposal for upgradation of Solid Waste Management Facility for Mandi. The time line for completion is **31st March, 2020**.	66.66 %	The Director, UD apprised that Wet composting has been started, trommel, shredder and dewatering machine has been installed for cleaning legacy waste. Baling machine has also been installed for packing dry waste for co-processing in cement plants.	The Chairman directed to complete that the processing facility is fully functional by **31.03.2020** and legacy waste needs to be cleared immediately.
3.	**Department of Industries.**	Proposal for installation of STP (20 KLD) at Industrial	66.66 %	The matter of connecting the sewage of industrial area with Bhunter STP	The chairman directed

Sr. No.	Organization Responsible	Work proposed for Execution (In the Catchment Area)	Percentage of Work to be completed as on date against timeline. (%)	Latest Status	Decision
		area, Kullu. Completion date is **31st March, 2020.**		was taken up and discussed with SE IPH Kullu but IPH authorities did not agree to the request due to some technical reasons. Now, It has been decided that the work of proposed STP of 40 KLD at IA, Shamshi will be executed through HPSIDC Ltd. The SDO, HPSIDC Ltd. along with JE concerned inspected the proposed site on 19.11.2019. The Estimate for the same is under preparation and the sanction shall be done by the competent authority.	Director (Industries) to get the work started immediately and complete the same by **31st March, 2020.**
		De-sludging of Septic Tanks for Industrial Area, Mandi (District- Mandi).	66.66 %	The work has been completed	The Chairman was satisfied with work completed.
3.	**Forest Department**	➢ Proposal for Plantation (Kullu) by Forest Department ➢ Proposal for Soil Conservation and Plantation (District- Mandi). ➢ Proposal for Plantation (District- Hamirpur) ➢ Proposal for Plantation (District- Kangra)	33.33 %	➢ A total of 19,300 plants have been planted till date. ➢ Total amount Rs. 17,50, 853.00 has been spent on construction of Check Dam works in Beas stretch Mandi Zone.	The chairman was satisfied with the work progress.

6. GIRI Stretch (Priority V) :-

Sr. No.	Organization Responsible	Work proposed for Execution (In the Catchment Area)	Percentage of Work to be completed as on date against timeline. (%)	Existing Status	Decision
1.	**IPH Department**	Installation of three STPs in these areas i.e. one at Theog and two at Kotkhai. The timeline for completion was 31.12.2019.	91.67 %	**STP Theog:** ➢ The testing of main sewer line from Janog-ghat to Rahi-Ghat has been done, however, the testing of main sewer line remains to be done as the permission for digging of road is awaited from EE, NH Division, Theog. ➢ The points for final disposal of treated water have been identified and tender for the same is in process. ➢ SOP has been provided by HPSEBL Theog and electrical connection has been provided. ➢ The contractor has been asked to make household connections and run the STP on trial basis. ➢ The matter has been consistently taken up with NH authorities to allow digging of road for testing of sewer lines along the National Highway. **STP Kotkhai:** ➢ In Zone-I (Septic Tank) and Zone-II (STP capacity -	• The Chairman directed to complete the commissioning of STPs by **15.02.2020.** • Director, UD shall ensure that all MCs and Nagar Panchayats in these areas fully cooperate with IPH Department w.r.t. taking sewer connections.

Sr. No.	Organization Responsible	Work proposed for Execution (In the Catchment Area)	Percentage of Work to be completed as on date against timeline. (%)	Existing Status	Decision
				0.305 MLD) - 95% work completed. ➢ In Zone-III (STP capacity - 0.163 MLD) - 80% work is completed. ➢ Transformer has been installed in both zones (IInd and IIIrd) in zone IIIrd connection is yet to be released. The timeline for completion has been extended upto 31.03.2020.	
2.	**Forest Department**	Plantation proposal. The proposal is of 0.73 crore and completion **date is 31st March, 2022.**	33.33 %	Plantation of total 3300 plants is completed in Theog region.	The Chairman was satisfied with work completed.

7. PABBAR Stretch (Priority V) :-

Sr. No.	Organization Responsible	Work proposed for Execution (In the Catchment Area)	Percentage of Work to be completed as on date against timeline. (%)	Existing Status	Decision
1.	**Department of Urban Development.**	Proposed facility for setting up of common SWM facility for areas Rohroo, Jubbal, Hatkoti and other areas.	50 %	The land parcel for setting up of SWM facility at Rohroo is under transfer. MC Rohroo has constructed 02 large pits for wet waste processing till land transfer case is pending. Composting pits (8 Nos.) have been constructed by NP	The chairman directed Department of UD to complete the work by **15.02.2020.**

Sr. No.	Organization Responsible	Work proposed for Execution (In the Catchment Area)	Percentage of Work to be completed as on date against timeline. (%)	Existing Status	Decision
				Jubbal for wet waste processing. It was apprised that no bid was received hence, decentralized processing of waste is being done at present. A baling machine has also been installed at Jubbal and Rohroo for packing of dry waste for its disposal to cement plant at Darlaghat and wet waste is being processed in composting pits.	
2.	**Forest Department**	Plantation proposal.	100 %	Plantation of total 3300 plants is completed in Theog region.	The chairman was satisfied with the work.

Seven stretches from HP have been identified as critically Polluted River Stretches.

Sr. No.	River Name	River Stretch	BOD range/ max value (mg/l)	Priority
1.	Sukhna	Sukhna to Parwanoo District – Solan	54.0	I
2.	Markanda	Kala Amb to Narayanpur District - Sirmour	3.2 - 24	II
3.	Sirsa	Nalagarh to Solan District – Solan (Baddi-Nalagarh)	8 - 16	III
4.	Ashwani	Along Yashwant Nagar District – Shimla / Sirmour	3.2	V
5.	Beas	Kullu to Dehragopipur Disrict- Kullu, Mandi, Hamirpur, Kangra	6.0	V
6.	Giri	Along Sainj , District- Shimla	4.4-6	V
7.	Pabbar	Along Rohru, District- Shimla	3.6-4	V

Polluted River Stretch Priority-I
(Sukhna at Parwanoo Town, District –Solan, H.P)

(iv) Total Water Consumption and Wastewater generation by Industries

Sr. No.	No of Units at Sukhna Nallah Stretch	Water Consumption, KLD	Wastewater Generation, KLD
1.	48	542.2	479.8

(v) No of Industries having captive ETPs and the Treatment capacity

Sr. No.	Type of Unit	Number of the units	Waste Water Generation in KLD	ETP (KLD)	STP (KLD)
1	Pharmaceutical Formulation	14	31.2	81.3	0.0
2	Cosmetics	2	3	15.0	0.0
3	**Electroplating**	**6**	**153**	**158.0**	**20.0**
4	**Phosphating**	**5**	**10.5**	**16.0**	**5.0**
5	Engineering	9	221.2	141.0	125.0
6	Electrical &Electronics	6	28.5	0.0	40.0
7	Ink Printing	1	3.3	5.0	0.0
8	Confectionary	1	9	3.0	10.0
9	Pesticide Formulation	1	0.1	1.0	0.0
10	LPG Stoves	1	5	0.0	8.0
11	Fruit Processing	1	15	1000.0	0.0
12	Iron & Steel	1	0	0	10
Total		**48**	**479.8**	**1420.3**	**218.0**
Grand Total				**1638.3**	

Polluted River Stretch Priority-II

(River Markanda at Kala Amb, District –Sirmour, H.P)

(iv) Total Water Consumption and Wastewater generation by Industries

Sr. No.	No of Units at River Markanda Stretch	Water Consumption, KLD	Wastewater Generation, KLD
1.	94	9491	5540.4

(v) No of Industries having captive ETPs and the Treatment capacity

Sr. No.	Type of unit	Number of units	Effluent generated in KLD	ETP capacity provided in KLD
1	Cosmetic	4	7	28
2	Food Products	3	70	165
3	Glass unit	3	2.5	10
4	Katha Factory	1	5	10
5	Lime and chemicals	2	35	45
6	**Metal Finishing**	**18**	**50**	**163.25**
7	Miscellaneous Chemical	5	31	112
8	Pharmaceutical Formulation only	49	89.9	262.75
9	**Pulp & Paper**	**2**	**5000**	**6000**
10	**Spinning & Dying Products**	**1**	**200**	**300**
11	STP	6	50	100
Total		**94**	**5540.4**	**7196**

Gap Analysis and the Proposed Action Points as per submitted Action Plans : (P-I & II stretches)

Details		Generation	Existing Capacity	Gap	Proposed Treatment facilities
Sewage Management	Sukhna Nallah	(Residing & Floating) 1357.414 KLD	• 29 Captive ETP cum STPs • 16 Common Septic tanks • 70 KLD STP	499.41 KLD	➢ 02 STPs proposed of 01 MLD each.
	River Markanda	(Residing & Floating) 1146.24 KLD	• 06 Captive STPs • Local Household inadequate Designed Septic Tanks.	1046.24 KLD	➢ 02 STPs proposed of Kala Amb and Trilokpur Area having capacity 1 MLD and 1.5 MLD respectively.
Industrial Effluent Management	Sukhna Nallah	48 industries (479.8 KLD)	(1638.3 KLD) 19 Captive ETPs 29 Captive ETP cum STPs,	No Gap	➢ NO CETP proposed.
	River Markanda	94 Industries 5540.4 KLD	7196 KLD (78 ETPs, 06 STPs)	No Gap	➢ 01 CETP Proposed of 05 MLD
Solid Waste Management	Sukhna Nallah	07-08 MTD	Nil	07-08 MTD	➢ Composting is Started for Wet Waste.
	River Markanda	3-4 MTD	Nil	3-4 MTD	➢ SWPF is proposed at Kala Amb.

Polluted River Stretch Priority-I

(Sukhna at Parwanoo Town, District –Solan, H.P)

Polluted River Stretch Priority-I

(Sukhna at Parwanoo Town, District –Solan, H.P)

Latest Water Quality as per Assessment Targeted (Characteristics of River and major Drains)

1. **Sukhna Nallah upstream of Parwanoo Town at Shivloti Temple, Village - Ambota**

Month/Year	pH	D.O. mg/l	BOD mg/l	FC MPN /100ml	TC MPN /100ml
January, 2019	7.8	8.0	1.2	2.0	32.0
April, 2019	7.08	8.0	0.2	<1.8	2.0
July, 2019	7.45	7.2	0.3	6.8	17
October, 2019	7.94	7.2	0.1	<1.8	6.1

2. Sukhna Nallah D/s Water Quality at Kalka Barrier.

Month/Year	pH	D.O. mg/l	BOD mg/l	FC MPN /100ml	TC MPN /100ml
Jan., 2019	8.16	4.0	52.0	350	1600
Feb., 2019	7.74	6.3	12.0	26	140
March, 2019	7.69	5.0	72.0	920	>1600
April, 2019	7.55	5.2	16.0	17	47
May, 2019	7.92	4.2	25.0	220	920
June, 2019	7.93	2.5	32.0	240	540
July, 2019	7.60	6.1	2.8	33	70
August, 2019	7.78	6.2	2.8	170	920
Sept., 2019	7.51	5.9	2.2	94	170
Oct., 2019	7.91	5.2	1.6	22	70
Nov., 2019	7.15	4.9	1.8	26	94
Dec., 2019	7.25	5.8	2.8	27	170

Characteristics of major drains contributing to Pollution:

Sector IV Nallah

Month/Year	pH	D.O. mg/l	BOD mg/l	FC MPN /100ml	TC MPN /100ml
October, 2019	7.80	3.0	1.0	20	38
November, 2019	8.06	5.9	1.2	17	40

Samtel Nallah

Month/Year	pH	D.O. mg/l	BOD mg/l	FC MPN /100ml	TC MPN /100ml
October, 2019	7.46	2.5	0.6	4	48
November, 2019	7.03	6.4	1	21	48

Polluted River Stretch Priority-II
(River Markanda at Kala Amb, District –Sirmour, H.P.)

Characteristics of River and Major Drains: Water Quality of River Markanda Upstream Kala Amb

Month	Year	pH (6.5-8.5)	DO (in mg/L), 05 Mg/L or more	BOD (in mg/L), 03 Mg/L or less	TC (MPN) -
January	**2019**	**8.01**	**8.9**	**1.7**	**47.0**
February	**2019**	**8.24**	**8.4**	**0.9**	**63.0**
March	**2019**	**8.05**	**7.4**	**0.7**	**79**
April	**2019**	**8.14**	**7.7**	**0.9**	**79**
May	**2019**	**8.24**	**7**	**0.7**	**110**
June	**2019**	**7.98**	**6**	**0.7**	**63**
July	**2019**	**7.85**	**6.8**	**0.8**	**63**
August	**2019**	**7.87**	**6.5**	**0.6**	**140**
September	**2019**	**7.64**	**6**	**0.9**	**70**
October	**2019**	**7.43**	**8.7**	**0.7**	**48**
November	**2019**	**7.63**	**9.2**	**0.5**	**32.0**
December	**2019**	**7.07**	**8.9**	**0.4**	**26**

Characteristics of River and Major Drains: Water Quality of River Markanda Downstream Kala Amb

Month	Year				
		pH	DO (in mg/L)	BOD (in mg/L)	TC (MPN)
January	2019	8.04	9.6	1.8	48.0
February	2019	8.25	9.1	0.8	70.0
March	2019	8.06	8.5	0.9	58
April	2019	8.19	7.4	0.9	84
May	2019	8.29	6.7	0.8	140
June	2019	Source Dry			
July	2019	7.88	6.6	0.9	70
August	2019	7.13	6.4	0.7	220
September	2019	7.77	6.5	0.9	84
October	2019	7.65	8.6	0.8	49
November	2019	7.68	9.1	0.7	41.0
December	2019	7.6	8.8	0.6	34.0

Water Quality of River Markanda D/s Jattan Wala Nallah at Sadhora					
Month	**Year**	**Parameters**			
		pH	**DO (in mg/L)**	**BOD (in mg/L)**	**FC (MPN)**
January	**2019**	**7.78**	**6.4**	**5**	**>1600**
April	**2019**	**Source dried**			
July	**2019**	**Source dried**			
October	**2019**	7.4	7.5	2	79

Characteristics of major drains contributing to pollution

Water Quality of Jattan Wala Nallah					
Month	**Year**	**Parameters**			
		pH	**DO (in mg/L)**	**BOD (in mg/L)**	**FC (MPN)**
January	**2019**	7.39	0.5	85	>1600
April	**2019**	7.76	0.3	27	70000
July	**2019**	7.24	Nil	45	72000
October	**2019**	7.92	0.5	32	14000

Water Quality of Salani Nallah (Salani Khad Near Bridge NH-7 Moginand Kala Amb) , a tributary of River Markanda

Month	Year	pH (6.5-8.5)	DO (in mg/L), 05 Mg/L or more	BOD (in mg/L), 03 Mg/L or less	TC (MPN) -
January	**2019**	8.0	8.5	1.5	41.0
February	**2019**	7.99	7.8	1.3	63.0
March	**2019**	8.11	8.9	0.7	46
April	**2019**	8.2	7.8	0.8	58
May	**2019**	SOURCE DRIED			
June	**2019**	SOURCE DRIED			
July	**2019**	SOURCE DRIED			
August	**2019**	7.72	6.5	0.6	120
September	**2019**	7.65	6.5	0.6	47
October	**2019**	7.65	8	0.5	43
November	**2019**	7.60	8.5	0.8	39.0
December	**2019**	6.96	7	0.6	33

Water Quality of Roon Nallah (Roon Nallah Near Meerpur Kotla, Gurudwara), a tributary of River Markanda

Month	Year	Parameters			
		pH (6.5-8.5)	**DO (in mg/L), 05 Mg/L or more**	**BOD (in mg/L), 03 Mg/L or less**	**TC (MPN) -**
January	**2019**	Sample not received			
February	**2019**	8.21	8.3	1.2	58.0
March	**2019**	8.11	8.5	0.4	49
April	**2019**	Source Dried			
May	**2019**	Source Dried			
June	**2019**	Source Dried			
July	**2019**	Source Dried			
August	**2019**	7.19	6.7	0.8	58
September	**2019**	7.87	6.5	0.7	46
October	**2019**	7.6	7	0.7	39
November	**2019**	7.74	8.0	0.8	43.0
December	**2019**	6.79	5	0.9	31

Annexure-V

Status report of Roof Top Rain Water Harvesting System in the HP State Pollution Control Board's Buildings

Sr. No.	Name of the Office	Status of Roof Top Rain Water Harvesting System in the Board's Buildings.
1.	Regional Office Dharamshala including Lab	Roof Top Rain Water Harvesting System has been installed.
2.	Regional Office Chamba	-do-
3.	Regional Office Paonta Sahib including Lab	-do-
4.	Regional Office Bilaspur	-do-
5.	Head Office Shimla Including RO Shimla & Lab	The work for installation of Roof Top Rain Water Harvesting System has been awarded to the HIMUDA vide order no. 27441-42 dated 20.12.2019 (Copy enclosed).
6.	Regional Office Parwanoo including Central Lab	Renovation of the office building is in progress & rain water harvesting system will be installed as soon as renovation work is completed.
7.	Regional Office Baddi	The State Board has purchased some portion of the 3rd floor of the building from HIMUDA for office purpose. As such Roof Top RWH System is to be provided by the HIMUDA.
8.	Regional Office Kullu	The State Board has purchased some portion of the 1st floor of the building from HIMUDA for office purpose. As such Roof Top RWH System is to be provided by the HIMUDA
9.	Regional Lab Sunder Nagar	Building is under construction & provision for Roof Top RWH system has been made.
10..	Regional Office Una	The office being run in rented private building.
11.	Regional Office Rampur	The office being run in rented private building.
12.	Sub Regional Office Kala Amb	-do-
13.	Sub Regional Office Nurpur	-do-