2nd Report of the

Executive Committee constituted by

Hon'ble National Green Tribunal

in OA No. 138 of 2016
&
OA No. 139 of 2016

in the matter of

"Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto Case)" and Yogender Kumar vide order dated 7.8.2018

14th June, 2019

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1.0 Constitution of the Executive Committee

The Hon'ble National Green Tribunal in order dated 7.8.2018 had constituted an Executive Committee for executing the orders of the Hon'ble NGT in OA No. 138 of 2016 & OA No. 139 of 2016 in the matter of "Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto Case)" and Yogender Kumar. As per said order of Hon'ble Tribunal, the Executive Committee comprised of the following members :

Sr. No.	Name & Designation	Designation in the Executive Committee
1.	Justice Pritam Pal, Former Judge, Punjab and Haryana High Court	Chairman
2.	Senior Scientist of Ministry of Environment, Forest & Climate Change (MoEF & CC)	Member
3.	Senior Scientist of CPCB	Member

In pursuance to the Hon'ble NGT order dated 07.08.2018, Central Pollution Control Board (CPCB) has nominated Shri Chandra Babu, Presently Scientist 'E' as a member and Ministry of Environment, Forest and Climate Change (MoEF&CC) has nominated Dr.V.K.Hatwal, Joint Director as a member. Thereafter, in consultation with the Hon'ble Chairman, National Green Tribunal, New Delhi, Dr. Babu Ram, former Member Secretary, Punjab Pollution Control Board, who is Member in the Monitoring Committee constituted in OA No. 916 of 2018 in the matter of Sobha Singh Vs. State of Punjab and others, was also taken as a Member of the Executive Committee and thereafter, the Hon'ble Tribunal vide its order dated 21.5.2019 has included him as a Member of the Executive Committee in OA No. 138 of 2016 & OA No. 139 of 2016 in the matter of "Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto Case)" and Yogender Kumar. Now, the structure of the Executive Committee is as under:

Sr. No.	Name & Designation	Designation in the Executive Committee
1.	Justice Pritam Pal, Former Judge, Punjab and Haryana High Court	Chairman
2.	Sh. J.C. Babu, Senior Scientist, CPCB,	Member
3.	Dr. V.K. Hatwal, Ministry of Environment Forest & Climate Change (MoEF & CC)	Member
4.	Dr. Babu Ram, Former Member Secretary, Punjab Pollution Control Board	Member

2.0 The Directions of the Hon'ble NGT vide order dated 7.8.2018:

Hon'ble National Green Tribunal in its order dated 07.08.2018 has passed the detailed order which are enclosed herewith as per **Annexure-1.** The main directions of the Hon'ble NGT in the said orders are as under:

- Chief Secretaries of the States of Himachal Pradesh, Haryana, Punjab and also the Administrator of UT Chandigarh, are required to constitute 'Special Task Force (STFs), within one month from the date of 07.08.2018, to identify persons responsible for violation of law so that action can be taken and the STF comprising of District Magistrate, Superintendent of Police, Regional Officer of the State Pollution Control Boards in concerned District and one person to be nominated by the District Judge in every District in his capacity of Head of the District Legal Services Authority.
- At State Level, Chief Secretary, Environment Secretary, Secretary of Urban Development and Secretary of Local Bodies shall be the members of the State Level STF.
- The District Level STFs shall submit a monthly Action Taken Report to the State STFs and the State STFs shall furnish a 3 monthly Action Taken Report to the Central Pollution Control Board
- Reports of STFs be uploaded on the websites of State Pollution Control Boards as well as the Environment Department of the States.
- An action plan with firm timelines is required to be prepared for preventing discharge of untreated effluents in the river Ghaggar by setting up appropriate anti-pollution device such as STP/ETP/CETP or any other such instruments, for ensuring compliance to the laid down standards within the targeted time, by involving civil society.
- The Committee may also consider need for getting organized health camps and need for providing clean drinking water for the affected inhabitants.
- The sampling of ground water may also be done apart from sampling of the river water periodically.

In compliance of the order dated 7.8.2018 of Hon'ble NGT, the Executive Committee under the chairmanship of Justice Pritam Pal, former Judge, Punjab & Haryana High Court held monthly meetings with the officers of the State Governments namely Punjab, Haryana, Himachal Pradesh and U.T. Chandigarh to monitor the progress made regarding installation of Sewage Treatment Plants and common effluent treatment plants for the towns and industries, respectively, located in the catchment area of river Ghaggar, inspection of the industries discharging their wastewater directly or indirectly into river Ghaggar and action taken against the violating

industries under the provisions of the Water Act, 1974 and ground water sampling and their reports. From the months March, 2019 to May, 2019, the Executive Committee held three meetings with the State of Punjab, Haryana, Himachal Pradesh and U.T. Chandigarh.

The report of the Executive Committee on the various activities conducted with regard to control of pollution in river Ghaggar and to comply with the orders of the Hon'ble NGT in the said matter is mentioned as under:

3.0 Meeting of the Executive Committee with the Nodal Officers of the three States and U.T. Chandigarh on 29.3.2019:

It was apprised in the meeting that the District Level Special Task Force is required to submit a monthly Action Taken Report to the State Level Special Task Force and the State Level Special Task Force is to submit three monthly Action Taken Report to CPCB including uploading of the same on the website of SPCB as well as environment department of the State. Action Taken Report submitted by the Nodal Officers of the State of Punjab, Haryana, Himachal Pradesh and U.T. Chandigarh is annexed herewith as per **Annexure-2.**

After detailed deliberation, the following decisions were taken:

1. **Nodal Officers shall ensure that the District Level Special Task Forces constituted in the respective States must submit its monthly Action Taken Report to State Level Special Task Force and quarterly Action Taken Report must be submitted to CPCB by the respective State Level Special Task Force. The status of monthly reports shall also be uploaded on the website of the respective SPCB and whereas quarterly reports be uploaded on the website of the CPCB .**
2. **The District Level Special Task Force be asked to carry out the spot and surprise inspection of the industries for identifying the violating industries and action to be taken against the violating industries must be recommended to the State Pollution Control Board. The concerned State Pollution Control Board must ensure that the stern legal action including closure of the violating industries is taken in a time bound manner.**
3. **Concrete action including closure of the non-complying industries i.e. found discharging untreated industrial effluent directly / indirectly into the drain / nallah / choe / river must be taken in a weeks' time and action taken report be apprised in the next meeting of the Executive Committee.**
4. **The ground water samples along the River Ghaggar upto the transverse distance of 500 m on both sides (Banks) of the river**

Ghaggar and after every 5 km along the River must be collected by each State Pollution Control Board/ Committee on quarterly basis and report be submitted in the monthly meeting of the Executive Committee. Wherever, the ground water samples are found to be non-complying to the BIS drinking water norms prescribed under IS: 10500-2012, the particular ground water source must be sealed/ capped and display board mentioning 'water is not fit for drinking' may be placed at all such point sources. The concerned Government agency like Water Supply & Sanitation and / or Local Bodies be directed to supply the safe drinking water to the inhabitants / villagers / towns whose point source has been sealed.

5. **Drain-wise list of the industries located on the catchment area of River Ghaggar must be prepared and these industries must be checked surprisingly to ascertain as to whether these industries have their discharge into River Ghaggar directly / indirectly and legal action under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 must be taken soon after inspection of the violating industries. The surveillance squads must be formed by the States and these squads be directed to visit the industries even on the public holidays also.**

6. **Health camps for the towns / villagers / inhabitants located along River Ghaggar must be organized in each District of the State, where the river Ghaggar passes. Big Private Hospitals must also be directed to organize such health camps under CSR activities. Prior intimation with regard to organizing health camps also be intimated to the Chairman of the Executing Committee besides submission of the report of these health camps to the Executive Committee before the next meeting.**

7. **The quality of river Ghaggar must be checked before and after confluence of the point sources with respect to parameter as per the river water quality criteria prescribed by CPCB. The concerned State Pollution Control Boards shall ensure that there is visible improvement in the quality of river water at ground with the time series.**

The minutes of the meeting were sent to the State Pollution Control Boards and CPCC, Chandigarh vide Executive Committee letter dated 4-04-2019 **(Annexure-3)**.

4.0 Visit to District Fatehabad and Sirsa, Haryana on 3.4.2019 and 4.4.2019 by the Executive Committee:

After the arrival of the Executive Committee in District Fatehabad, the Committee visited the Health Camp organized at village Talwari. Thereafter, the following point sources/drain falling into river Ghaggar were visited.

4.1 Drain carrying surface run off and sewage of Ratia Town.

The outlet of the drain has been closed and now the sewage of Ratia Town has been diverted to STP Ratia town. No discharge of sewage was observed through this drain into River Ghaggar.

4.2 Sewage of sullage of Talwari and Talwara villages

It was observed that there was low discharge from village Talwari. For the treatment of sewage of village Talwara, STP of capacity 5 MLD shall be installed.

Photograph showing outlet of village Talwari into River Ghaggar

4.3 STP Kalania to treat part of the sewage of Sirsa Town.

For the treatment of sewage of Sirsa town, STP of capacity 15 MLD has been installed at Village Kalania. Two more STPs of capacity 5 MLD each, located at Nattar-1 & 2 based on MBBR Technology, are also in operation. 20 MLD STP based on SBR technology is under planning.

The Executive Committee is of the view that Public Health Engineering Department of Haryana Government must install additional STPs to cater whole of the discharge of Sirsa Town. This may be done in a time bound manner.

4.4 Ottu Barrage

The Committee also visited Ottu Barrage, which exists in about 1000 acres of land. Presently, the reservoir of Ottu Barrage is full of water hyacinth. However, seepage of the barrage is being discharged in the downstream of the River. Two canals are also originating from this barrage to carry the River Ghaggar water to irrigate the fields of some of the areas of Haryana and Rajasthan.

4.5 Meeting of the Executive Committee with the District level Special Task force of District Fatehabad and District Sirsa, Haryana on 04-04-2019.

Meeting was held with the officers of various departments at District Fatehabad and District Sirsa, Haryana on 4/4/2019, wherein the monthly Action Taken Report of District level Special Task Force (STF) and three monthly Action Taken Report of State Level Special Task Force to be submitted to CPCB were discussed. The matter regarding Identification of pollution sources in River Ghaggar, steps taken to install STPs and action taken against the defaulters were also deliberated. The Minutes of meeting have been circulated among the officers of various departments, (copy enclosed as per **Annexure-4**). The photograph showing meeting with the officers of various departments is given as under:

Meeting held at Mini Secretariat Sirsa with the officers of various Departments of District Fatehabad and District Sirsa

4.6 Visit on 04.04.2019 by the Executive Committee

The Executive Committee visited the Health camp organized at Village Mallewal, Distt. Sirsa and area along River Ghaggar in Sardulgarh belt of State of Punjab on 04.04.2019. Brief report on these points is submitted as under:

4.6.1 Health camp at Village Mallewal, Distt. Sirsa.

Health camp was organized by the Health Department of Haryana on 04.04.2019 at village Mallewal, Distt. Sirsa. Total 372 patients were examined and found suffering from various types of diseases. As per the opinion of the team of doctors, these types of illnesses are found commonly in any given population.

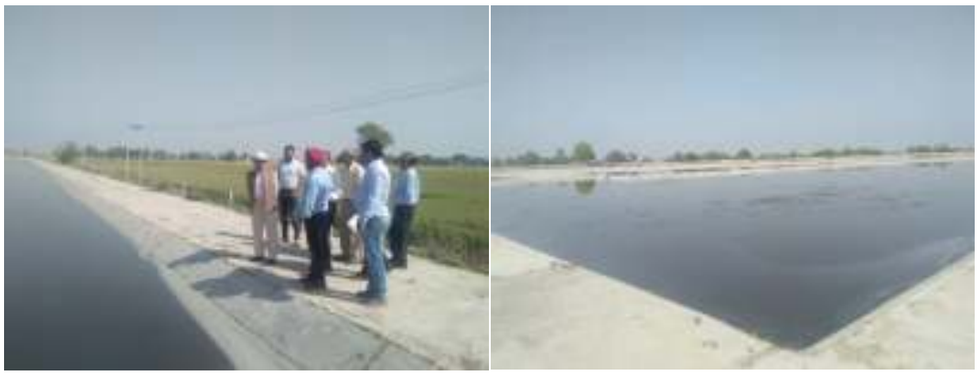
However, they were of the view that these illnesses could not be attributed to the polluted underground water of River Ghaggar. Photograph showing the health camp organized at village Mallewal is given as under:

Health camp at Village Mallewal, Distt. Sirsa

4.6.2 Visit of area along River Ghaggar in Sardulgarh Belt of State of Punjab.

(i) STP Sardulgarh :

The discharge of sewage of the Sardulgarh town is about 3 MLD. Punjab Water Supply & Sewerage Board has installed STP of capacity 4 MLD based on WSP technology. Irrigation network has been laid in the fields adjoining to the STP. However, at the time of visit, the treated sewage was being discharged into River Ghaggar because due to no demand period, there was no requirement of water for the irrigation of the wheat crops. Photograph showing the STP at Sardulgarh is as under:



STP, Sardulgarh

(ii) Sirhind Choe

The Executive Committee alongwith officers of Punjab Pollution Control Board visited the Sirhind Choe before its confluence to River Ghaggar. The physical appearance of water flowing in Sirhind Choe indicated that the quality of water was low polluted. The towns existing in the catchment area of Sirhind Choe are Sunam, Sangrur, Nabha, Mandi Gobindgarh and Sirhind. The water quality of Sirhind Choe has been checked by collecting sample of said choe. The analysis results indicate that the values of parameters namely pH, TSS, COD, BOD, total coliform and fecal coliform

were observed as 8.94, BDL, 24mg/l, 5mg/l, 1200 MPN/100ml and 370 MPN/100ml, respectively.

5.0 Meeting of the Executive Committee held with the State of Punjab, Haryana, Himachal Pradesh and U.T., Chandigarh on 12.4.2019

Action taken / being taken by the State of Punjab, Haryana, Himachal Pradesh and U.T. Chandigarh with regard to installation of STPs, monitoring of STP of the towns and ETPs of the industries, located on the catchment area of drains leading to River Ghaggar and quality of water of the drains leading to river Ghaggar were presented by the each State and the decisions taken by the Executive Committee with respect to each State and UT Chandigarh are mentioned as under:

5.1 Himachal Pradesh

The following decisions were taken by the Executive Committee in the said meeting:

1. **The State Government/ State Pollution Control Board shall seal the contaminated source of drinking water supply not meeting the standards of BIS: 10500 : 2012 and put up a display board stating that the source is not fit for drinking purposes.**
2. **The monthly and quarterly Action Taken Report should be uploaded on the website of HPPSCB and CPCB soon after the meeting of District and State Level Special Task Forces.**
3. **H.P. Pollution Control Board shall expedite the process of installation of Online Effluent Monitoring System on the remaining STPs immediately.**
4. **Irrigation & Public Health (IPH) Department of the State will implement the long term proposal of laying sewerage lines and setting the 02 No's of STPs in the Parwanoo area. The Principal Secretary (UD) shall hold a meeting with the concerned officers immediately to decide about availability of necessary funds for the project and its early execution.**
5. **The Department of Rural Development shall quantify the wastewater generated from the rural areas of Parwanoo so as to treat the same under the scheme of IPH for sewage treatment.**
6. **Director, Health Department shall ensure that the Health Camps are organized on monthly basis.**
7. **The Department of Rural Development shall take immediate steps to manage the Solid Waste in rural Area.**
8. **The H.P. State Pollution Control Board shall formulate the surveillance squads to visit the industries including surprise visits**

and even on holidays and stringent action must be taken against the polluting industries.

9. **The State Government shall formulate "Monitoring Committee" in the State to review the progress of Action Plan implementation. All the STPs must be designed in such a way that the treated sewage must achieve the BOD level less than 10 mg/l.**

5.2 U.T., Chandigarh

The latest status w.r.t stoppage of discharge of wastewater into Sukhna Choe, N-Choe leading to River Ghaggar and management of the BMW, E-waste, MSW, Hazardous waste was presented in the meeting. Detailed deliberation on all the issues was made and following decisions were taken:-

1. **Municipal Corporation, Chandigarh alongwith the Officers /Officials of Chandigarh Pollution Control Committee shall do the surprise visits and check the plugged/un-plugged points of Sukhna-Choe and N-Choe from time to time.**

2. **The constructions of new STPs and up-gradation of existing STPs should be completed by 01.01.2021 and if there is any delay, the justification in this regard be submitted in form of an affidavit before the Hon'ble NGT, New Delhi.**

3. **Environment Compensation on the basis of "Polluter Pays Principal" should be implemented on all the erring industries and the polluting agencies as per the order of Hon'ble NGT dated 19.02.2019 in the matter of Paryavaran Suraksha Samiti & Anrs. Vs. Union of India & OA No. 593/2017.**

   Environment Compensation should also be imposed on Municipal Corporation for the STPs not complying with the norms.

4. **The Incinerators which are not as per latest Bio-Medical Waste Rules/CPCB guidelines, suitable action for their closure shall be taken accordingly.**

5. **All the STPs must be designed in such a way that the treated sewage must achieve the BOD level less than 10mg/l.**

6. **Atleast 10% of water polluting industries must be inspected and sample should be collected to verify the fact, whether effluent is meeting with the prescribed norms or not and necessary action should be taken against the violators.**

5.3 State of Punjab

Action taken report submitted by the State of Punjab in the meeting is summarized as under:

A) Status of STPs

- Out of 43 STPs to be installed in 30 towns, the status is as under:
  - 20 STPs have been installed and are in operation.
  - 23 STPs shall be installed by 31/12/2020.

B) Treatment of Sewage/ Sullage of Villages

- The treatment system for villages having discharge :
  - More than 0.3 MLD shall be installed by 31.1.2020.
  - For discharge of 0.1 to 0.3 MLD, treatment systems shall be installed by 31.1.2021.
  - For discharge below 0.1 MLD treatment systems to be installed by 31.1.2022.

C) Irrigation Schemes of utilization of treated sewage for irrigation of agriculture fields

Irrigation projects for utilization of treated sewage of 9 STP has already been commissioned, wherein 47 MLD treated sewage will be consumed, which shall cater 1309 hectares of land. The upcoming schemes shall be completed within 14 to 20 months.

D) Inspection of Water Polluting Industries

1. Out of 48 water polluting industries, 13 industries were found violating and notices u/s 33-A of the Water Act, 1974 have been issued to them.
2. During January to March, 2019, 18 industries were inspected, of which 2 were found violating the norms and action against them has been initiated.

After detailed deliberation, the following decisions were taken by the Chairman of the Executive Committee:

1. **District Level Special Task Force shall identify the culprits who may be throwing their waste into the sewerage network of STP, Zirakpur. The matter may be taken with the concerned Deputy Commissioner and PWSSB will write to the Deputy Commissioner to identify such miscreants and to take legal action against the violators according to the law.**
2. **The matter regarding installed of STP, Lalru, where the local residents are not allowing any activity at site, PWSSB shall take up the matter with Deputy Commissioner, SAS Nagar to ensure that no hindrance is created by any locals in the construction activity of the said STP. Further, an application for early hearing be filed in the Court where the case in pending.**

3. **Sewage Treatment Plants for treatment of sullage / sewage of the villages must be installed in a time frame as mentioned in the Action Plan.**
4. **The farmers surrounding the STPs must be encouraged to utilize the treated sewage to the maximum and the benefits of utilization of the treated sewage for irrigation purposes shall be propagated among them.**
5. **All the STPs must be designed in such a way that the treated sewage must achieve the BOD level less than 10 mg/l.**
6. **PPCB must continue the surprise checking of the industries and also support their activities with data analysis along OCEMS to identify the violations.**
7. **PPCB shall take up the matter with the Haryana Pollution Control Board regarding issue of sudden rise in the BOD level in Ghaggar after the confluence of Sagar Para drain coming from Haryana. The officers both the State Pollution Control Boards shall make efforts for improvement in the quality of the river Ghaggar water.**
8. **OCEMS for remaining 12 industries must be installed as per time schedule given to these industries.**
9. **Monthly and quarterly Action Taken Report must be uploaded on the PPCB and CPCB website soon after the meetings of the District Level Special Task Force and State Level Special Task Force.**
10. **District Level Special Task Force will visit the industries on surprise basis, where huge violations are suspected.**
11. **PPCB shall carry out ground water sampling on six monthly basis from both the sides of River Ghaggar at every 10 km stretch and submit the analysis results to the Executive Committee.**

5.4 State of Haryana

It was apprised in the meeting that20 STPs with 109 MLD capacity are being constructed in Haryana and sewers are being laid in the towns along river Ghaggar. These activities shall be completed by August, 2020. All the STPs are based on SBR technology, which shall treat sewage upto BOD standards of 10 mg/l. Detailed discussion on OCEMS, inspection of industries, monitoring of drains, creation of storage systems for water, treatment of sullage / sewage of villages was held in the meeting and after detailed discussion, the following decisions were taken:

1. **Monthly and quarterly Action Taken Report should be uploaded on the website of Haryana State Pollution Control Board and CPCB soon after the meetings of District and State Level Task Force.**
2. **HSPCB shall expedite the process of installation of OCEMS on the remaining STPs immediately.**

3. **All the STPs must be designed in such a way that the treated sewage must achieve the BOD level less than 10 mg/l.**
4. **Haryana Pollution Control Board shall carry out the surprise checking of the industries through special surveillance team. Further, the Board shall carry out inspections of those industries, which have their discharge into sewer leading to STPs.**
5. **HSPCB shall carry out ground water sampling on six monthly basis from both sides of River Ghaggar at every 10 km stretch and submit the analysis results to the Executive Committee.**
6. **HSPCB shall install GPS system on the tankers used for carrying sewage for towns / areas, which have not access to sewerage system leading to STPs for tracking their locations.**
7. **The Board shall carryout analysis for leachability test and presence of heavy metal in the sullage samples before deciding the method of disposal of the sullage.**
8. **STPs for treatment of sullage / sewage of villages must be installed in a time bound manner as submitted in the Action Plan.**
9. **The Board shall submit performance guarantee as decided in case of OA No. 673 of 2018 by the Hon'ble NGT.**
10. **The Board shall take up the matter with CPCB to seek clarification regarding Environmental Compensation to be charged from the violators.**

6.0 Visit to the industries of Pehowa area, Distt. Kurukshetra, Haryana on 29.4.2019 by the Executive Committee.

The Executive Committee visited the industries of Pehowa area, which are located in the catchment area of River Ghaggar on 29.4.2019. The copy of the report is enclosed as per **Annexure-5**. The brief of the report is mentioned as under:

6.1 M/s Sainsons Paper & Board Mill, Plot No. 5, Vill-Bakhli, Tehsil Pehowa, District- Kurukshetra

The Executive Committee made the following observations during its visit to the industry on 29.4.2019.

1. Lot of floating matter was observed in the primary clarifier which indicates ineffective functioning of the clarifier.
2. The industry has provided two aeration tanks namely aeration tank -1 and aeration tank-2. In one of the aeration tank, two aerators were lying defunct and dead pockets without air were observed in both the aeration tanks. Therefore, in these tanks the concentration of biomass was found very poor resulting in poor efficiency of the aerobic biological treatment system.
3. The analysis results of the effluent samples collected at the outlet of the primary clarifier and at the outlet of secondary clarifier indicate that the

treatment efficiency in terms of removal of TSS, COD and BOD was almost negligible which indicate that the aerobic biological treatment units has become almost non-functional.

4. The values of TSS, COD and BOD in the effluent sample collected from manhole provided above the pipeline leading to Saraswati drain and further leading to river Ghaggar were observed as 640 mg/l, 1130 mg/l and 480 mg/l, respectively, which indicate that the industry does not operate its effluent treatment plant. Moreover, the industry needs to upgrade its treatment system especially aeration tank-1 and aeration tank-2 with proper diffuser system and nutrients dosing mechanism to maintain the desired value of dissolved oxygen varying between 2-3 mg/l and desired value of MLSS and MLVSS as 3000-4000 mg/l and 2500-3500 mg/l, respectively.

5. During visit to the industry, the Committee also inspected the "Online Continuous Effluent Monitoring System" (OCEMS) installed by it. The values shown by the system were TSS: 2.74 mg/l, COD: 105.36 mg/l, BOD: 10.80 mg/l and pH: 7.01. The photograph indicating these values by OCEMS is mentioned as per **Plate-3**:

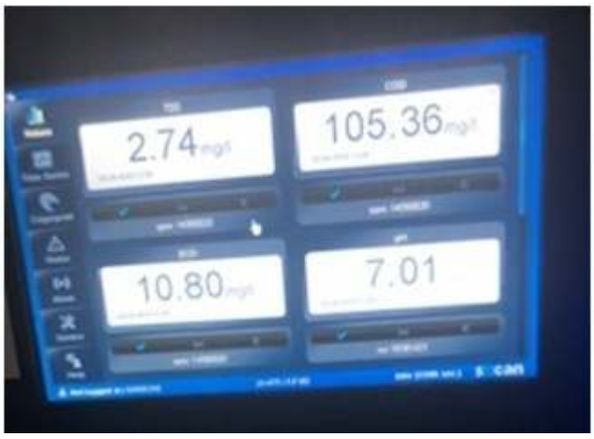


Plate-3: "Online Continuous Effluent Monitoring System" (OCEMS) showing the values of the parameters namely TSS, COD, BOD and pH.

6. In order to check the authenticity of OCEMS, a sample from secondary clarifier outlet was collected and it was mixed with small quantity of treated wastewater and this mixed wastewater was put into a container and the monitoring probe of the OCEMS was inserted in the container. The values as indicated by the OCEMS were observed as TSS: 62.79 mg/l, BOD: 58.99 mg/l, pH: 8.51 and COD was out of range. This mixed effluent was also analysed manually in the laboratory of PPCB and the values of the parameters were observed as TSS: 1030 mg/l, BOD: 530 mg/l and COD 1490 mg/l. **Thus, there is large difference between the values as shown by OCEMS and manually analysed in the laboratory.** These facts indicate that the values of the various parameters mentioned on the

Online Continuous Effluent Monitoring System have been adjusted and manipulated to show the results always within the permissible limits.

7. The industry discharges its untreated effluent into Saraswati drain, which further leads to river Ghaggar and thus contaminate the quality of river water by way of contributing high concentration of pollutants i.e. TSS: 640 mg/l, COD:1130 mg/l and BOD 480 mg/l in the Saraswati drain further leading to river Ghaggar.

Based on the said observations, the following recommendations were made by the committee:

1. **HSPCB be asked to issue directions under Section 33-A of the Water Act, 1974 for closure of the industry.**
2. **HSPCB be asked to impose Environmental compensation on the industry amounting to Rs. 50 lac. This amount shall be spent on the rejuvenation of the quality of water of Saraswati drain and to maintain flora and fauna in the drain leading to river Ghaggar.**
3. **HSPCB be asked to get the performance guarantee of the industry amounting to Rs. 50 lacs to ensure that the upgradation to be made in the treatment system alongwith other components shall function effectively to achieve the various parameters of the treated effluent.**
4. **The industry shall disconnect its outlet from Saraswati drain.**
5. **HSPCB shall visit the industry surprisingly from time to time in odd hours and ensure that the industry should not discharge its treated/untreated effluent into Saraswati drain.**
6. **Haryana State Pollution Control Board (HSPCB) to ask the industry to upgrade its effluent treatment plant by installing appropriate technology / equipment or modification of the components of the treatment system to achieve the prescribed limits w.r.t. all the parameters.**
7. **The industry shall develop adequate land for disposal of treated effluent for irrigation or plantation or it shall make agreements with farmers having adequate land nearby the industry to ensure that the whole of the treated effluent is utilized for plantation or irrigation purposes.**
8. **The industry shall get analyze the quality of ground water and soil samples from different locations nearby the industry every year.**
9. **Online continuous effluent monitoring system should be got calibrated on quarterly basis from the vendor and it shall be ensured that no manual intervention may be made in the system.**

10. **The industry in consultation with HSPCB officers shall install CCTV cameras on all the important components of ETP, outlet of ETP and OCEMS.**
11. **Irrigation management plan for use of treated effluent should be prepared by the industry in consultation with Deptt. of Soil & Water Conservation.**

6.2 M/s Nishat Paper (P) Ltd., Arunai Road, Vill-Sainsa, Tehsil-Pehowa, District-Kurukshetra.

During visit to the industries, the Executive Committee made the following observations:

6.2.1. Observations

1. The industry doesn't operate its recirculation system, as such, it has maintained its bypass outlet through pipeline under the road to discharge its untreated effluent directly into Saraswati River.

2. The values of various parameters namely TSS, COD and BOD in the untreated effluent entering into Saraswati drain are much beyond the permissible limits.

3. Solid waste in the form of dump exists on the bank of the Saraswati drain.

4. The industry has not provided any flow measuring device at the ground water source and at final outlet leading to Saraswati drain.

Based on the said observations, the committee made the following recommendations:

6.2.2. Recommendations:

1. **HSPCB be asked to issue directions under the provisions of the Water Act, 1974 for its closure and revoke the consent under the provisions of the said Act.**
2. **The industry shall upgrade its existing system of recirculation so as to ensure that no effluent is discharged into Saraswati drain at any time.**
3. **The industry shall submit environment compensation of Rs. 25 lakhs to the Board and the amount so collected may be used for rejuvenation of Saraswati drain and floura & fauna.**
4. **The industry shall submit performance guarantee amounting to Rs. 25 lakh to the Board for upgradation / modification, if any, to be made to ensure that no effluent is discharged into Saraswati drain**
5. **The industry shall dismantle its pipeline carrying untreated effluent into Saraswati drain.**
6. **The industry shall get permission from Central Groundwater Authority for abstraction of groundwater.**

6.3 M/s Shiv Paper Board Mill, Arunai Road, Vill-Dhanirampura, Tehsil-Pehowa, District-Kurukshetra

After visit to the industry, the Executive Committee made the following observations and recommendations:

1. **HSPCB be asked to issue directions under the provisions of the Water Act, 1974 for its closure and revoke the consent under the provisions of the said Act.**
2. **The industry shall upgrade its existing system of recirculation so as to ensure that no effluent is discharged into Saraswati drain at any time.**
3. **The industry shall submit environment compensation of Rs. 25 lakhs to the Board and the amount so collected may be used for rejuvenation of Saraswati drain and floura & fauna.**
4. **The industry shall submit performance guarantee amounting to Rs. 25 lakh to the Board for upgradation / modification, if any, to be made to ensure that no effluent is discharged into Saraswati drain**
5. **The industry shall dismantle its pipeline carrying untreated effluent into Saraswati drain.**
6. **The industry shall get permission from Central Groundwater Authority for abstraction of groundwater.**

6.4 M/s Kailash Paper Board Mill, Arunai Road, Vill-Saraswati Khera, Tehsil-Pehowa, District-Kurukshetra.

After visit to the industry, the Executive Committee made the following observations and recommendations:

1. **HSPCB be asked to issue directions under the provisions of the Water Act, 1974 for its closure and revoke the consent under the provisions of the said Act.**
2. **The industry shall upgrade its existing system of recirculation so as to ensure that no effluent is discharged into Saraswati drain at any time.**
3. **The industry shall submit environment compensation of Rs. 25 lakhs to the Board and the amount so collected may be used for rejuvenation of Saraswati drain and floura & fauna.**
4. **The industry shall submit performance guarantee amounting to Rs. 25 lakh to the Board for upgradation / modification, if any, to be made to ensure that no effluent is discharged into Saraswati drain**
5. **The industry shall dismantle its pipeline carrying untreated effluent into Saraswati drain.**
6. **The industry shall get permission from Central Groundwater Authority for abstraction of groundwater.**

6.5 M/s Sunrise Paper Board Mill, Vill-Guldhera, Tehsil-Pehowa, District-Kurukshetra

After visit to the industry, the Executive Committee made the recommendations as under:

Since the industry is lying closed and no information in this regard is available in the record of Regional Officer. Therefore, the Committee recommends that the power connection of the industry shall be disconcerted by the Haryana State Electricity Board and the consents, if, granted to the industry under the provisions of the Water Act, 1974 and Air Act, 1981 be revoked.

The report of the Executive Committee w.r.t. visit to the visit to the industries of Pehowa area was sent to Chairman, HSPCB and Principal Secretary to Govt. of Haryana, Deptt. of Irrigation vide Executive Committee letter no. CEC/2019/123-124 dated 21-05-2019**(copy enclosed as per Annexure-6)** for compliance on the observations and recommendations made by the committee.

7.0 Meeting of the Executive Committee held on 13.5.2019 under the Chairmanship of Justice Pritam Pal, Former Judge, Punjab & Haryana High Court.

The activities completed / being completed / proposed with regard to installation of STPs, monitoring of STPs of the towns and ETPs of the industries located on the catchment area of River Ghaggar were presented by the State of Himachal Pradesh, Haryana and U.T. Chandigarh in the meeting of the Executive Committee held on 13.5.2019. The decisions taken by the chairman of the Executive Committee w.r.t. each State / U.T. are mentioned as under:

7.1 State of Himachal Pradesh

After detailed deliberation, the Chairman of the Executive Committee decided as under:

1. **HPSPCB should take stringent action under the provisions of Water Act, 1974 against the industries found bye-passing the untreated effluent and violating the norms. Power connection of such industries should be disconnected immediately.**
2. **The Board should also organize more activities of public participation by organizing workshops, displaying hoarding & playing jingles.**
3. **All the STPs must be installed and commissioned strictly as per the time schedule mentioned in the Action Plan.**
4. **CETP for Kala Amb area to treat the industrial wastewater must be setup in the time bound manner.**

5. **The State of Himachal Pradesh shall ensure that water shed management for the entire State must be carried out to ensure sufficient dilution into River during lean period.**
6. **Holding tanks of sufficient capacity must be constructed at the proposed STPs sites during shut down period.**
7. **Tertiary treatment in the existing / proposed STPs must be provided to improve the quality of treated sewage before its discharge.**
8. **The Deptt. of Health, shall conduct detailed health study in September, 2019.**

7.2 State of Haryana

After detailed deliberation, the Chairman of the Executive Committee decided as under:

1. **HSPCB should take stringent action under the provisions of Water Act, 1974 against the industries found bye-passing the untreated effluent and violating the norms. Power connection of such industries should be disconnected immediately.**
2. **All the STPs must be installed and commissioned strictly as per the time schedule mentioned in the Action Plan.**
3. **Member Secretary Haryana State Pollution Control Board shall visit the area near Sukhna Nallah and plan for plantation of trees by forest department in the jurisdiction of Haryana on the pattern of Himachal Pradesh.**
4. **HSPCB shall carry out analysis including leachability test and the presence of heavy metals be got done for sludge samples by the concerned departments before reaching any conclusion on disposal of sludge.**
5. **Online continuous effluent monitoring system (OCEMS) shall be installed on each STP as per the time schedule mentioned in the action plan.**
6. **HSPCB shall install OCEMS on the drains joining river Ghaggar within the firm time schedule.**
7. **Surprise inspection of the industries shall be carried out during odd hours and stringent action must be taken against the industries which are found not operating their effluent treatment plants or bypassing the effluent and discharging into drains/rivers.**

7.3 U.T. Chandigarh

After detailed deliberation, the Chairman of the Executive Committee decided as under:

1. **All the ETPs of electroplating units should be inspected and list of the inspected units along with action taken report should be provided to Executive Committee.**
2. **CPCC shall submit action taken report on two electroplating industries which were earlier inspected by the executive committee and these industries were found not operating their ETP's**
3. **CPCC should involve Industries Associations/Chamber of Commerce to generate awareness among industries owners on running of ETP units.**
4. **In case even after such awareness campaign, the units fail to run the ETP, action under the provisions of the Water Act,1974 shall be taken by CPCC.**
5. **All the discharge points in the drain should be plugged and action plan for the same with clear timelines like calling of tender, allotment and construction etc. shall be provided to Executive Committee.**
6. **Director of Factories should be invited in the next meeting of Executive Committee to explain why no action is being taken against the units where working conditions are very shabby and employees are working in unhealthy conditions.**

8.0 Visit to STP Zirakpur for treatment of sewage of Zirakpur town by the Executive Committee on 25.5.2019

For the treatment of sewage of Zirakpur Town, STP based on SBR technology has been installed by PWSSB in the year 2013. This STP was visited by the Executive Committee on 25.5.2019 and the committee made the following observations:

8.1 Observations:

1. Though, both the screen chamber and grit chamber were in operation but the effluent at the outlet of these components was found containing lot of solid

particles **(shown in Plate-I)** which were quite visible and these were further entering into the system.

Plate-I: Effluent after screening and grit chamber containing lot of solid particles.

2. The physical appearance of the effluent, which was in aeration mode in SBR tank, indicated that the aerated effluent was black in colour **(shown in Plate-2)** which indicated that the concentration of biomass in the aeration tank may be poor. During visit, Sh. Pradeep Singh, the chemist and incharge of STP informed that the STP was under repair and maintenance for 15 days and it has recently been restarted just 10 days ago and it will take about 10 days more for its stabilization.

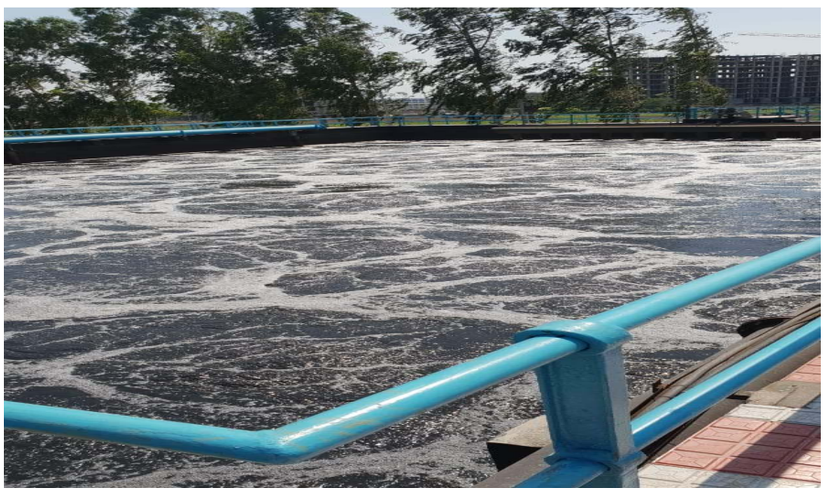


Plate-2: Effluent in aeration chamber black in colour

3. No chlorine was being added in the chlorine dosing tank, as such, the bacterial contamination in terms of fecal coliform may be very high in the final treated effluent.
4. The physical appearance of the effluent at the final outlet of ETP indicates that the quality of effluent was turbid (shown in Plate-3) which cannot be expected from such treatment system. It was quite possible that the final treated effluent was not meeting with the prescribed standards.

5. The representative of the company, operating the treatment plant informed that sometime a layer of oil & grease is observed in the collection chamber and it affects the performance of STP.

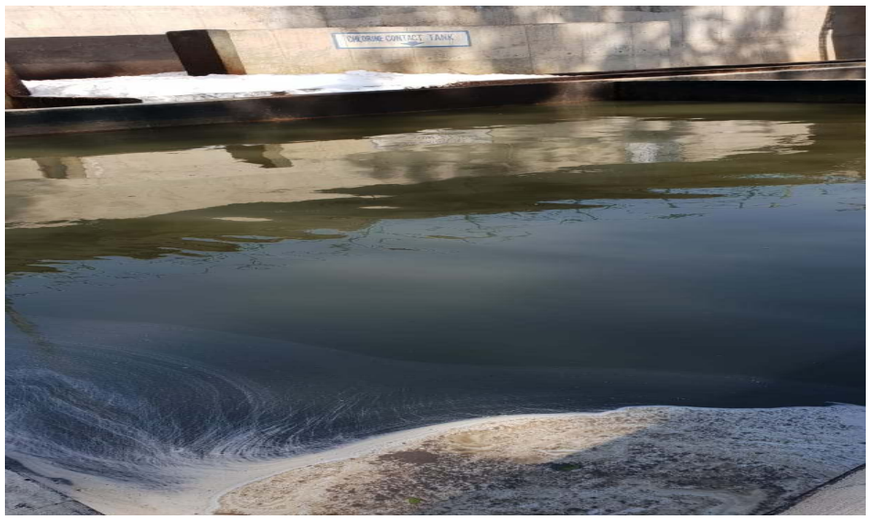


Plate-3: Turbidity in the final treated effluent

Based on the observations made by the Executive Committee, the following recommendations were made:

8.2 Recommendations:

1) The officials of PWSSB shall intimate to PPCB at its office at Mohali about the occurrence of the oil and grease in the collection chamber, at any time. PPCB shall immediately collect the effluent sample and in case concentration of oil and grease is more than the prescribed limits, both the agencies i.e. PPCB and PWSSB shall jointly visit the area and identify the industries/processing units responsible for discharge of oil and grease into ETP system. PPCB shall take legal action under the provisions of the Water Act 1974 against the violating industries/ processing units.

2) Since the chlorine dosing system was not being operated deliberately by the contractor, therefore, PWSSB shall impose penalty of suitable amount on the contractor as per the terms and conditions of the agreement made with the contractor.

3) PWSSB shall issue necessary instructions to the contractor to whom the contract has been given for the operation of the ETP to ensure the operation of chlorine dosing system at all the times so as to reduce the bacterial contamination in the treated waste water.

4) PWSSB shall direct the contractor, operating the treatment plant, to operate the same effectively and efficiently so as to meet with the standards prescribed by the Board.

5) **PPCB shall collect the effluent samples of the STP at its inlet and outlet after 15 days to assess the effectiveness of the treatment system.**

6) **The necessary report on the above observations/recommendations be submitted to the executive committee by PPCB and PWSSB within one month.**

The report of the Executive Committee w.r.t. visit to the STP, Zirakpur has been sent to Chairman, PPCB and CEO, PWSSB vide Executive Committee letter no. CEC/2019/155-157 dated 30-05-2019 for compliance on the observations and recommendations made by the committee (copy enclosed as per **Annexure-7**).

9.0 Status of sewage treatment plants (STP's) for treatment of sewage of towns

9.1 State of Punjab

9.1.1 Performance status of 20 existing STPs

Sr. No.	Name of the STPs	Capacity of STPs (MLD)	Operating Agency	Monitoring carried out on		
				March, 2019	April, 2019	May, 2019
1	Banur	4	PWSSB	Complying	Complying	Non-Com plying
2	**Baretta**	**3**	**PWSSB**	**Non-Com plying**	**Non-Com plying**	**Non-Com plying**
3	**Bhikhi**	**3**	**PWSSB**	**Non-Com plying**	**Non-Com plying**	**Non-Com plying**
4	**Budhlada**	**6.5**	**PWSSB**	**Non-Com plying**	**Non-Com plying**	**Non-Com plying**
5	Khanouri	3	PWSSB	Complying	Complying	Complying
6	Lehragaga	4	PWSSB	Complying	Complying	Complying
7	MandiGobind garh	25	PWSSB	Complying	Complying	Complying
8	Moonak	3	PWSSB	Complying	Complying	Complying
9	Patran	4	PWSSB	Complying	Complying	Complying
10	Samana	10	PWSSB	Complying	Non-Com plying	Complying
11	**Sardhulgarh**	**4**	**PWSSB**	**Non-Com plying**	**Non-Com plying**	**Non-complying**
12	Sunam	8	PWSSB	Complying	Complying	Complying
13	**Zirakpur**	**17**	**PWSSB**	**Non-Com plying**	**Complying**	**Non-Com plying**
14	Rajpura-1	7	PWSSB	Complying	Non-Com plying	Complying
15	Rajpura-2	10	PWSSB	Complying	Complying	Complying
16	**Mohali**	**45.4**	**GMADA**	**Non-Com plying**	**Non-Com plying**	**Non-Com plying**
17	**Lalru**	**1.5**	**GMADA**	**Non-Com plying**	**Complying**	**Non-Com plying**
18	Patiala -1	46	MC, Patiala	Non-Com plying	Complying	Complying
19	Patiala -2	10	MC, Patiala	Complying	Complying	Complying
20	Patiala -3	13	PUDA	Complying	Complying	Complying

The above data indicate that the STP's for the towns namely Baretta, Bhikhi ,Budlada, Sardulgarh, Zirakpur, Mohali and Lalru are not meeting with the standards.

9.1.2. Status of proposed 23 STPs to be installed w.r.t timelines

Sr. No.	Name of the Town	STPs required	Installed	Proposed	Timelines proposed as per Action Plan
1.	Ghanour	01	-	2 MLD	• DPR-Approved. • Tendering BY 31/7/2019 • Commissioning - 31/10/2020
2.	Sanour	01	-	4 MLD	• Land yet to be identified
3.	Bhadson	01	-	3 MLD	• DPR Prepared
4.	Nabha	01	-	12 MLD	• DPR approved
5.	Sangrur	02	-	4 MLD	• 31/07/2020
6.				11 MLD	• 31/12/2020
7.	Dhuri	02	-	5 MLD	• 31/12/2020
8.				6 MLD	• 31/12/2020
9.	Longowal	01	-	3 MLD	31/10/2020
10.	Cheema	01	-	2 MLD	31/10/2020
11.	Gholumajra Village	01	-	0.3 MLD	31/12/2020
12.	Chaundhari&Samalheri Village	01	-	0.3 MLD	31/12/2020
13.	Sirhind	03	-	2 MLD, 4 MLD & 5 MLD	31/07/2020
14.	Lalru	03	01	1 MLD at Daparlalru	31/10/2020
15.				1.5 MLD at LalruMandi	Under legal litigation for change of land.
16.	Issapur and Mirpur Village	01	-	2 MLD	31/10/2020
17.	Mubarkpur Village	01	-	2 MLD	31/10/2020
18.	Amloh	01	-	3 MLD	31/12/2020
19.	Bassi Pathana	01	-	3 MLD	31/07/2020
20.	Cheema	01	-	2 MLD	31/10/2020
21.	Boha	01	-	2 MLD	31/07/2020

9.1.3 Up-gradation of existing STPs

Sr. No.	Name of the Town	STPs required	Installed	Timelines for up gradation
1	Patiala	3	3	Up-gradation of 46 MLD STP to 61 MLD by 31.01.2021
2	Baretta	1	1	31/12/2020
3	Bhikhi	1	1	31/12/2020
4	Sardhulgarh	1	1	31/12/2020

9.1.4 Inspection of industries (March to May, 2019)

Sr. No.	Month	No. industries inspected	No. industries violating the norms	Action taken against the industries
1	March	8	Nil	-
2	April	10	1	Refusal of consent recommended to the higher authorities
3	May	2	Nil	-

9.1.5 Action taken on the decisions taken by the Chairman of the Executive Committee in the meeting held on 29.03.2019 and 12.04.2019

1.0 Action taken on the decisions taken by the Chairman of the Executive Committee in the meeting held on 29.03.2019		
Sr. No.	**Decisions Taken**	**Action Taken Report**
1.	Nodal Officers shall ensure that the District Level Special Task Forces constituted in the respective States must submit its monthly Action Taken Report to State Level Special Task Force and quarterly Action Taken Report must be submitted to CPCB by the respective State Level Special Task Force. The status of monthly reports shall also be uploaded on the website of the respective SPCB and whereas quarterly reports be uploaded on the website of the CPCB.	Until now three meetings of the district level special task force constituted at Mohali, Sangrur, Bathinda and Patiala were held and the proceedings/ action taken reports of all the meetings were uploaded on the website of Punjab Pollution Control Board i.e. www.ppcb.gov.in.
2.	The District Level Special Task Force be asked to carry out the spot and surprise inspection of the industries for identifying the violating industries and action to be taken against the violating industries must be recommended to the State Pollution Control Board. The concerned State Pollution Control Board must ensure that the stern legal action including closure of the violating industries is taken in a time bound manner.	During the month of April & May, 2019, the entire District Administration was engaged in conducting the Lok Sabha Elections, 2019 and many officers of the Board were also on deputation with the election commission for performing election duties. Therefore, joint visit could not be carried out. However, the Board officers have visited 20 water polluting industries falling on the catchment area of river Ghaggar during the last 3 months and carried out monitoring of the 20 installed STPs every month.
3.	Concrete action including closure of the non-complying industries i.e. found discharging untreated industrial effluent directly / indirectly into the drain / nallah / choe / river must be taken in a weeks' time and action taken report be apprised in the next meeting of the Executive Committee.	No industry found discharging untreated industrial effluent directly / indirectly into the drain / nallah / choe / river during the last 3 months period. Further, as per the Board's policy, no industry is allowed to discharge the untreated/treated wastewater into any drain/nallan/choe. However, if any industry found discharging effluent into any river/rivulet/drain, stern action under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 Act 1974 will be taken against the said unit.
4.	The ground water samples along the River Ghaggar upto the transverse distance of 500 m on both sides (Banks) of the river Ghaggar and after every 5 km along the River must be collected by each State Pollution Control Board / Committee on quarterly basis and report be submitted in the monthly meeting of the Executive Committee. Wherever, the ground water samples are found to be non-complying to the BIS drinking water norms prescribed under IS: 10500-2012, the particular ground water source must be sealed/ capped and display board mentioning 'water is not fit for drinking' may be placed at all such point sources. The concerned Government agency like Water Supply & Sanitation and / or Local Bodies be directed to supply the safe drinking water to the inhabitants / villagers / towns whose point source has been sealed.	Sample could not be collected due to practical problems like shortage of manpower & engagement of existing manpower in election duties, stubble burning etc. However, the same will be complied with in accordance with Decision No. 11 of the meeting held on 12.04.2019 of the Executive Committee.

5.	Drain-wise list of the industries located on the catchment area of River Ghaggar must be prepared and these industries must be checked surprisingly to ascertain as to whether these industries have their discharge into River Ghaggar directly / indirectly. Legal action under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 must be taken soon after inspection of the violating industries. The surveillance squads must be formed by the States and these squads be directed to visit the industries even on the public holidays also.	The drain-wise list of industries has already been prepared and submitted to the Executive Committee. The monitoring of industries falling on the catchment area of river Ghaggar is being carried out surprisingly during odd hours as well as on holidays.
6.	Health camps for the towns / villagers / inhabitants located along River Ghaggar must be organized in each District of the State, where the river Ghaggar passes. Big Private Hospitals must also be directed to organize such health camps under CSR activities. Prior intimation with regard to organizing health camps also be intimated to the Chairman of the Executing Committee besides submission of the report of these health camps to the Executive Committee before the next meeting.	Health check-up camps are organized on monthly basis in the Districts of the State, where the river Ghaggar Passes.
7	The quality of river Ghaggar must be checked before and after confluence of the point sources with respect to parameter as per the river water quality criteria prescribed by CPCB. The concerned State Pollution Control Board shall ensure that there is visible improvement in the quality of river water at ground with the time series.	The Board is carrying out sampling from upstream and downstream after confluence point of drains falling into River Ghaggar every month under NWMP scheme. A comparison data of the samples collected in the month of March, April and May, 2019 compared to the Avg. Values of Year 2018-19 reveals that the concentration of BOD and T.Coli has decreased over time.
2.0 Action taken on the decisions taken by the Chairman of the Executive Committee in the meeting held on 12.04.2019		
Sr. No.	**Decisions Taken**	**Action Taken Report**
1.	District level Special Task Force shall identify the culprits who may be throwing their waste into the sewerage network of STP, Zirakpur. The matter may be taken up with the concerned Deputy Commissioner and PWSSB will write to the Deputy Commissioner to identify such miscreants and to take legal action against the violators according to the law.	The matter was discussed telephonically with the Executive Engineer, PWSSB and it was confirmed that no further progress has been made yet in this regard. However, the PWSSB will write to the DC, SAS Nagar for compliance of the same. **The Executive Committee has recommended disciplinary action against the erring officers for not complying with the directions of the Executive Committee.**
2.	The matter regarding installation of STP Lalru, where the local residents are not allowing any activity at site, PWSSB shall take up the matter with Deputy Commissioner, SAS Nagar to ensure that no hindrance is created by any locals in the construction activity of the said STP. Further, an application for early hearing be filed in the court where the case is pending.	The matter was discussed telephonically with the Executive Engineer, PWSSB and it was confirmed that no further progress has been made yet in this regard. However, the PWSSB will write to the DC, SAS Nagar for compliance of the same. **The Executive Committee has recommended disciplinary action against the erring officers for not complying with the directions of the Executive Committee.**

3.	Sewage treatment plants for treatment of Sullage/Sewage of Villages must be installed in a time frame as mentioned in the Action Plan.	The proposed STPs are being installed within the stipulated timelines as mentioned at point no 9.1.2.
4.	The farmers surrounding of the STP's must be encouraged to utilize the treated sewage to the maximum and the benefits of utilization of the treated sewage for irrigation purposes shall be propagated among them.	The Department of Soil & Water Conservation has already laid down the irrigation network for the utilization of treated domestic effluent in STPs of town Baretta, Bhikhi, Moonak, Patran, Lehragagga, Sunam and Sardulgarh and the farmers around the STPs are reusing this treated water for irrigation as per their demand. However, the same is a continuous matter and the field officers/ officials of the Board and Agriculture Department are guiding the farmers to utilize the treated water of the STP. Notably, the treated effluent from the other STPs on the catchment area of river Ghaggar is being directly/ indirectly discharged into river Ghaggar. It is worth to mention here that the Department of Water Resources has installed Gauges to measure the flow of river Ghaggar at Bhankarpur and Sarala Village. As per the data provided by the Deptt., the flow of river Ghaggar decrease from 1062 cusec at Bhankarpur point to merely 364 cusec at Sarala point in the month of May, 2019, which indicates that the farmers are utilizing the water from river Ghaggar for irrigation purposes.
5.	All the STPs must be designed in such a way that the treated sewage must achieve the BOD level less than10mg/l.	Currently, the STP are being monitored in accordance with the standard of 30 mg/l. However, the proposed STPs will be designed to achieve the BOD level less than 10 mg/l.
6.	PPCB must continue the surprise checking of industries and also support their activities with data analysis from OCEMS. The CPCB will also carry out the data analysis of OCEMS to identify the violations.	Out of the 48 industries located in the catchment area of river Ghaggar, 26 industries are required to install OCEMS. 14 industries have already installed OCEMS and the remaining 12 industries have been given timeline to install OCEMS before 31.07.2019.
7	Punjab Pollution Control Board shall take up the matter with Haryana Pollution Control Board regarding the issue of sudden rise in the BOD level in Ghaggar after the confluence of Sagarpara drain coming from Haryana. The officers of both the State Pollution Control Board shall make efforts for improvement in quality of River Ghaggar water.	The officers of HSPCB and PPCB has carried out joint sampling of Sagrapara Drain and towards u/s & d/s from the river Ghaggar to adjudge the contribution of drain in river Ghaggar and the results indicate that no visible improvement in the quality of BOD level in the river Ghaggar after its convergence has been observed. **The chairman of the executive committee has written demi official letter to both the chairmen of Punjab Pollution Control Board and Haryana Pollution Control Board to make efforts to improve the quality of river Ghaggar water at this location.**
8	Online Continuous Effluent Monitoring System for the remaining 12 industries must be installed as per the time schedule given to these industries.	Out of the 48 industries located in the catchment area of river Ghaggar, 26 industries are required to install OCEMS. 14 industries have already installed OCEMS and the remaining 12 industries have been given timeline to install OCEMS before 31.07.2019.

9	Monthly and quarterly action taken reports must be uploaded on PPCB and CPCB website soon after the meetings of District Level Special Task Force and State Level Special Task Force.	Monthly meetings of DLSTF conducted at Regional Office level i.e. for District Patiala, Sangrur, Bathinda and SAS Nagar. Uptill now three no. of the meetings of the district level special task force constituted at Mohali, Sangrur, Bathinda and Patiala were held and the proceedings/ action taken reports of all the meetings were uploaded on the website of Punjab Pollution Control Board i.e. www.ppcb.gov.in
10	The District Level Special Task Force will visit the industries on surprise basis where grave/ huge violations are suspected.	During the month of April & May, 2019, the entire District Administration was engaged in conducting the Lok Sabha Elections, 2019 and many officers of the Board were also on deputation with the election commission for performing election duties. Therefore, joint visit could not be carried out. However, the Board officers have visited 20 water polluting industries falling on the catchment area of river Ghaggar during the last 3 months and carried out monitoring of the 20 installed STPs every month.
11	Punjab Pollution Control Board shall carry out ground water sampling on six monthly basis from both sides of River Ghaggar at every 10km stretch and submit the analysis results to the Executive Committee.	Sample could not be collected due to practical problems like shortage of manpower & engagement of existing manpower in election duties, stubble burning etc. However, the same will be complied with.

9.1.6 Monitoring of water quality of drains leading to River Ghaggar

Analysis results for Major Drains directly discharging into River Ghaggar for the month of April, 2019

S.N.	Point of Sample Collection	pH	DO mg/l	Cond µs/Cm	BOD mg/l	T.Coli MPN/ 100ml	FColi MPN/ 100ml	Boron mg/l
1	Sukhna Choe	7.1	BDL	968	210	430000	210000	0.13
2	Dera Bassi Choe	7.2	BDL	1612	55	110000	46000	0.16
3	Jharmal Choe	7.5	BDL	6430	48	46000	17000	0.25
4	Basauli Drain	7.9	BDL	5560	31	35000	13000	0.11
5	Bagna Drain	Bagna drain was found dry at the time of sample collection						
6	Pachisdara Drain (Dankansu Choe)	7.5	BDL	1292	17	28000	9400	0.19
7	Patiala Nadi	7.7	BDL	1903	44	47000	14000	0.36
8	Sagarpara Drain	7.8	BDL	2787	288	41000	13000	0.30
9	Kaithal Drain	8.0	BDL	2184	46	40000	15000	0.39
10	Jhambowali Choe	7.9	BDL	1868	25	33000	12000	0.44

11	**Lehragaga Main**	7.4	BDL	1437	19	28000	11000	0.36
12	**Sirhind Choe**	7.9	4.3	708	3	1400	450	0.34
13	**Miranpur Choe**	8.1	2.4	1830	18	35000	12000	0.35

The data indicate that the quality of waste water flowing in these drains is of class E as per water quality criteria prescribed by CPCB

Analysis results for Major Drains directly discharging into River Ghaggar for the month of May, 2019								
S.N.	**Point of Sample Collection**	**pH**	**DO mg/l**	**Cond µs/Cm**	**BOD mg/l**	**T.Coli MPN/ 100ml**	**FColi MPN/ 100ml**	**Boron mg/l**
1	**Sukhna Choe**	7.3	BDL	920	53	210000	110000	0.08
2	**Dera Bassi Choe**	7.1	BDL	2122	102	28000	17000	0.06
3	**Jharmal Choe**	7.9	BDL	4042	36	35000	11000	0.26
4	**Basauli Drain**	7.4	BDL	6336	35	43000	15000	0.31
5	**Bagna Drain**	**Bagna drain was found dry at the time of sample collection**						
6	**Pachisdara Drain (Dankansu Choe)**	7.6	BDL	807	22	35000	7900	BDL
7	**Patiala Nadi**	7.6	BDL	1779	25	35000	12000	0.33
8	**Sagarpara Drain**	7.5	BDL	1520	98	35000	9400	0.24
9	**Kaithal Drain**	8.0	BDL	2224	91	63000	26000	0.42
10	**Jhambowali Choe**	7.9	BDL	1050	20	28000	8400	0.38
11	**Lehragaga Main**	7.6	1.8	1365	13	22000	7000	0.38
12	**Sirhind Choe**	7.9	4.8	1712	26	6300	1200	0.60
13	**Miranpur Choe**	**Miranpur drain was found dry at the time of sample collection**						

The data indicate that the quality of waste water flowing in these drains is of class E as per water quality criteria prescribed by CPCB

9.1.7 Comparison of the analysis results of River Ghaggar water

Sr. No.	**Point of sample collection**	**Average data 2018-19**			**Data for the month of May, 2019**			**Remarks**
		DO (mg/l)	**BOD (mg/l)**	**TC (MPN/ 100ml)**	**DO (mg/l)**	**BOD (mg/l)**	**TC (MPN/ 100ml)**	
1.	**Mubarikpur Rest house**	**4.8**	**10.3**	**21000**	**5.3**	**13**	**24000**	**No improvement except DO.**

2.	**Bhankarpu**	**3.9**	**21.8**	**27667**	**3.3**	**18**	**35000**	**No improvement**
3.	**Chattbir**	**3.4**	**17.5**	**24333**	**2.9**	**19**	**28000**	**No improvement**
4.	U/S JharmalNadi	3.6	12.8	20833	4.1	12	17000	Improvement w.r.t. all parameters
5.	**D/S JharmalNadi**	**2.7**	**18.8**	**24583**	**3**	**22**	**28000**	**No improvement**
6.	**U/s Dhakanshu Nallah**	**3.6**	**11.7**	**16750**	**4.3**	**12**	**21000**	**No improvement**
7.	**D/S Dhakanshu Nallah**	**3.1**	**14**	**22417**	**3.2**	**17**	**28000**	**No improvement**
8.	Rattanheri	2.4	37.9	29833	3.8	15	21000	Improvement w.r.t. all parameters
9.	U/S Sagarpara Drain	3.3	20.7	23636	4.1	13	21000	Improvement w.r.t. all parameters
10	D/S Sagarpara Drain	2.2	37.5	29545	2.9	30	28000	Improvement w.r.t. all parameters
11	Khanauri	2.3	37.5	28250	3.2	23	21000	Improvement w.r.t. all parameters
12	**Moonak**	**2.4**	**30.8**	**26333**	**2.3**	**30**	**28000**	**No improvement**
13	U/S Sardulgarh	2.7	23.9	20867	3.5	9	15000	Improvement w.r.t. all parameters
14	D/S Sardulgarh	2.5	26.9	25000	2.9	13	22000	Improvement w.r.t. all parameters

9.1.8 Health Check-Up Camps

The detail of health camps organized during the last three months is as under:

Month	**No. of camps**
March	7
April	11
May	13

9.2 State of Himachal Pradesh

9.2.1 Performance status of existing STPs

- No STP exists in Kala Amb and Parwanoo area which are located on catchment area of River Ghaggar.

9.2.2. Status of proposed 3 STPs to be installed w.r.t timelines

Sr. No.	Name of the Town	STPs required	Installed	Proposed	Timelines proposed as per Action Plan	Remarks
1	Kala Amb	CETP-cum-STP	-	5 MLD	31/01/2022	-
2	Parwanoo	2	-	1 MLD each		•Land for one STP identified. • No identification for second STP.

9.2.3 Inspection of industries (March to May, 2019)

Sr. No.	No. industries inspected during the last three months	No. industries violating the norms	Action taken against the industries
1	51 industries located on catchment of SukhnaNallah	03	Disconnection of power supply in case of two industries and action against one industry is under process.
2	104 industries located on catchment of River Markanda	09	Notices have been issued to the violating industries.

9.2.4 Action taken on the decisions taken by the Chairman of the Executive Committee in the meeting held on 29.03.2019 and 12.04.2019

Sr. No.	Directions	Action taken report
1.	Uploading of Monthly Action Taken Report	Uploaded upto April, 2019. Next report to be uploaded in the second week of June, 2019
2.	Spot and surprise inspection of industries	155
3.	Legal action against the industries	Prosecution sanction sought against 1 Government industry i.e. ESIC, Parwanoo for not installing STP. Orders for disconnection of organization of HRTC Workshop and Ms.Satol Chemicals Unit-II Parwanoo.
4.	Surface Water Quality Monitoring	Regularly being carried out.
5.	Drain-wise list of industries.	List made available
6.	Health Camps Status	10 Health Camps organized both at Parwanoo and Kala Amb

7.	Status Of Real Time Water Quality Monitoring system	Online Water Quality Monitoring System shall be installed in July, 2019 at Parwanoo and Kala Amb
8.	Formation of Monitoring Committee at District Level	Monitoring Committee notification done at Sub Divisional Level on 10.5.2019.
9.	Organising the workshops, displaying hoardings, cleanliness drive	Plantation drive was done on 25.5.2019, wherein 1000 plants were planted at the stretch of Sukhna Choe.

9.2.5 Monitoring of water quality of Sukhna Nallah at the exit point of Himachal Pradesh

Month/ Year	pH	D.O. mg/l	COD mg/l	BOD mg/l	F.C. MPN/ 100ml	T.C. MPN/ 100 ml	DBU
July, 2018	6.64	3.2	76	12	49	350	The water quality of Sukhna Nallah has been found Class-E with respect to BOD and DO parameters.
Sep, 2018	8.06	2.5	68	8.4	46	170	
Oct,2018	7.86	3.2	76	10	33	110	
Nov, 2018	7.12	3.5	88	12	23	110	
Dec, 2018	8.23	3.8	96	28	47	920	
Jan, 2019	8.16	4	280	52	350	1600	
Feb, 2019	8.24	6.5	8	0.6	1.8	6	
Mar, 2019	7.69	5	264	72**	920	>1600	
Apr, 2019	7.42	5.2	248	58	920	>1600	
May, 2019	8.29	5.2	--	14.8	17	130	

9.2.6 Groundwater sample collection

- Ground water sampling has been carried out in two rounds. No ground water contamination has been observed in two rounds of sampling.
- Third round of ground water sampling shall be carried out in this month.
- 17 samples from industrial bore well of different industries have been collected and all the parameters of these samples were with the permissible limits.

9.2.7 Health Check-Up Camps

Catchment Area of	No. of camps
Sukhna Nallah	Five health check up camps were organized in May, 2019
River Markanda	Five camps from Dec, 2018 to April, 2019. In the month of May, 2019, 200 patients were examined of which 26 were of water-borne disease and 43 were of air-borne diseases and 155 were from others.

9.3 UT Chandigarh

9.3.1 Performance status of 5 existing STPs

Sr. No.	Name of the STPs	Capacity of STPS (in MLD)	Operating Agency	March, 2019	April, 2019	May, 2019
1	Diggian	136.2 MLD	Municipal Corporation	non-complying	non-complying	non-complying
2	3BRD	49.94 MLD	Municipal Corporation	Complying	Complying	Complying

3	**Raipur kalan**	**22.7 MLD**	**Municipal Corporation**	**non-complying**	**non-complying**	**non-complying**
4	**Raipur Khurd**	**5.675 MLD**	**Municipal Corporation**	**non-complying**	**non-complying**	**non-complying**
5	Dhanas	7.26 MLD	Municipal Corporation	Complying	Complying	Complying

9.3.2. Status of proposed 2 STPs to be installed w.r.t timelines

Sr. No.	Name of the Town	Proposed	Timelines proposed as per Action Plan
1.	Raipur Kalan	9 MLD	30/06/2019
2.	Kishangarh	1.8 MLD	30/11/2021

9.3.3 Inspection of industries (March to May, 2019)

Sr. No.	Month	No. industries inspected	No. industries violating the norms	Action taken against the industries	Remarks
1	March	11	1	**Unit closed its electroplating section itself.**	**-**
2	April	-	-	-	No industry visited
3	May	90	8	SCN issued to one industry and directions issued to 7 industries.	Analysis results of effluent samples of 60 industries are awaited. Action against the industries, not achieving the prescribed norms, shall be taken later on.

9.3.4 Action taken on the decisions taken by the Chairman of the Executive Committee in the meeting held on 29.03.2019 and 12.04.2019.

Sr. No.	Decision taken in the meeting	Action Taken Report	Decision taken in the meeting	Action Taken Report
	29.3.2019		**12.4.2019**	
1.	Uploading of monthly Action Taken Report of DSTF and SLSTF	Monthly action taken report are being uploaded on website of CPCB	Surprise visit and checking of plugged/unplugged points of Sukhna choe	Surprise visit and checking of outlet made and observed that out of total 11 outlets into Sukhna

				Choe, 5 have been plugged, remaining 6 are still in operation for which suitable action is being taken.
2.	Spot and surprise inspection of the industries	DLSTF started visiting industries and action is under process	Checking of TSDF Nimbua, Derabassi and Bharat Oil, Gaziabad to verify about the waste management	Yet to be done.
3.	Concrete action against the non-complying industries	In March, 2019, 11 industries were inspected, of which 10 were found complying and 1 was not complying the norms. Similarly, in May, 2019, total industries inspected were 90 of which 30 were found complying and analysis results of remaining 60 industries are awaited.	Construction of new STP and upgradation of existing STP by January, 2021.	Existing STP shall be upgraded by November, 2021 and new STP to be set up by Nov., 2021.
4.	Ground water sampling along river Ghaggar	River Ghaggar does not pass through Chandigarh. As such, no sampling was done.	Implementation of environment compensation on erring units.	Matter is under consideration.
5.	Drain wise list of industries and their surprise inspections	Surveillance squad has been formulated	Incinerator not meeting with BMW Rules, 2016 to be closed.	Such incinerator have been closed.
6.	Status of Health Camps	Being organized	Designing of new STPs to achieve BOD level less than 10 mg/l.	Existing and new STPs shall be set up as per these norms
7.	Quality of river Ghaggar water	Being checked on monthly basis and quality of Sukhna Choe, Attawa Choe, and river Ghaggar is 'E'-class	Inspection of 10% water polluting industries	Inspection process has been started.

9.3.5 Monitoring of water quality of River Ghaggar

Month/ Year	pH	D.O. mg/l	COD mg/l	BOD mg/l	F.C. MPN/ 100ml	T.C. MPN/ 100 ml	DBU
Mar, 2019	7.7	5.8	56	23	-	-	E
Apr, 2019	7.8	5.2	83	20	-	-	E
May, 2019	7.6	4.9	107	28	9,50,000	14,10,000	E

9.3.6 Groundwater sample collection

- Ground water sampling has been carried out by CPCC in 7 locations of Chandigarh area.
- All the parameters are within the norm except total alkalinity, hardness, calcium and magnesium which may be due to geogenic reasons.
- These ground water sources are not used for drinking purposes, whereas these are used for commercial activities.

9.3.7 Health Check-Up Camps

- Being organized on monthly basis.

9.4 State of Haryana

9.4.1 Performance status of 63 existing STPs

Sr. No.	Name of the district	Name of the town/ city	Deptt.	Existing STP and Capacity (MLD)	Date of 3rd last report & Compliance Status	Date of 2nd last report & Compliance Status	Date of Last report & Compliance Status
1	Ambala	Naya Gaon, Unit-I, Ambala City	PHED	3.25	09.08.2018 Complying	26.10.2018 Complying	04.02.2019 Complying
2	Ambala	Naya gaon, Unit-II, Ambala City	PHED	3.25	09.08.2018 Complying	26.10.2018 Complying	04.02.2019 Complying
3	Ambala	Baldev Nagar, Unit-I, Ambala City	PHED	5	09.08.2018 Complying	26.10.2018 Complying	04.02.2019 Complying
4	Ambala	Baldev Nagar, Unit-II, Ambala City	PHED	3.25	09.08.2018 Complying	26.10.2018 Complying	04.02.2019 Complying
5	Ambala	Moti Nagar, Unit-I, Ambala City	PHED	5	09.08.2018 Complying	26.10.2018 Complying	04.02.2019 Complying
6	Ambala	Moti Nagar, Unit-II, Ambala City	PHED	5	09.08.2018 Complying	26.10.2018 Complying	04.02.2019 Complying
7	Ambala	Modal Town, Ambala City	PHED	6	09.08.2018 Complying	26.10.2018 Complying	04.02.2019 Complying
8	Ambala	Nasirpur, Ambala City	PHED	3.25	09.08.2018 Complying	26.10.2018 Complying	04.02.2019 Complying
9	Ambala	Sadopur	PHED	0.25	09.08.2018 Complying	26.10.2018 Complying	04.02.2019 Complying
10	Ambala	Devi Nagar, Ambala City	PHED	3.25	09.08.2018 Complying	26.10.2018 Complying	04.02.2019 Complying
11	Ambala	Naraingarh	PHED	3	09.08.2018 Complying	12.11.2018 Complying	11.02.2019 Complying
12	Kurukshetra	Thanesar	PHED	25	Commissioned on 31.05.2019 & is under Trial run		
13	Kurukshetra	Modal Town, Pehowa	PHED	8	01.08.2018 Complying	31.10.2018 Complying	16.01.2019 Complying
14	Kurukshetra	Ladwa Road, Shahbad	PHED	11.5	01.08.2018 Complying	31.10.2018 Complying	16.01.2019 Complying
15	Kurukshetra	Indri Road, Ladwa	PHED	7	01.08.2018 Complying	31.10.2018 Complying	16.01.2019 Complying
16	Panchkula	Kalka	PHED	4.5	18.07.2018 Complying	05.11.2018 Complying	11.01.2019 Complying
17	Panchkula	Kalka	PHED	0.25	23.07.2018 Complying	05.11.2018 Complying	11.02.2019 Complying
18	Panchkula	Nalagarh Road, Pinjore	PHED	5	18.07.2018 Complying	05.11.2018 Complying	21.01.2019 Complying
19	Jind	Jind	PHED	15	14.08.2018	18.12.2018	28.2.2019

Sr. No.	Name of the district	Name of the town/ city	Deptt.	Existing STP and Capacity (MLD)	Date of 3rd last report & Compliance Status	Date of 2nd last report & Compliance Status	Date of Last report & Compliance Status
					Complying	Complying	Complying
20	Jind	Narwana	PHED	3.5	14.08.2018 Complying	18.12.2018 Complying	06.3.2019 Complying
21	Jind	Narwana	PHED	3.75	14.08.2018 Complying	18.12.2018 Complying	06.3.2019 Complying
22	Jind	Narwana	PHED	2.6	14.08.2018 Complying	18.12.2018 Complying	06.3.2019 Complying
23	Jind	Uchana	PHED	2	14.08.2018 Complying	18.12.2018 Complying	06.3.2019 Complying
24	Jind	Uchana	PHED	1.5	14.08.2018 Complying	18.12.2018 Complying	06.3.2019 Complying
25	Jind	Jind	PHED	5	14.08.2018 Complying	18.12.2018 Complying	28.2.2019 Complying
26	Jind	Safidon	PHED	9	26.02.2018 Complying	18.12.2018 Complying	06.3.2019 Complying
27	Jind	Julana	PHED	4	14.08.2018 Complying	18.12.2018 Complying	06.3.2019 Complying
28	Kaithal	Cheeka	PHED	10	09.08.2018 Complying	26.11.2018 Complying	20.3.2019 Complying
29	Kaithal	Jind Road, Kaithal	PHED	10	09.08.2018 Complying	26.11.2018 Complying	20.3.2019 Complying
30	Kaithal	Manas Road, Kaithal	PHED	10	09.08.2018 Complying	26.11.2018 Complying	20.3.2019 Complying
31	Kaithal	Manas Road, Kaithal	PHED	10	09.08.2018 Complying	26.11.2018 Complying	20.3.2019 Complying
32	Kaithal	Kalayat	PHED	5	09.08.2018 Complying	26.11.2018 Complying	20.3.2019 Complying
33	Kaithal	Pundri	PHED	3.5	09.08.2018 Complying	26.11.2018 Complying	20.3.2019 Complying
34	**Hisar**	**Dhani Kushal, Bhiwani Road, Hansi**	**PHED**	**5**	**11.10.2018 Complying**	**31.12.2018 Complying**	**03.03.2019 Non-Complying**
35	**Hisar**	**Lalpura- Jind Road, Hansi**	**PHED**	**7.5**	**11.10.2018 Complying**	**31.12.2018 Complying**	**03.03.2019 Non-Complying**
36	Hisar	Dhani Gram, Barwala	PHED	6	03.10.2018 Complying	31.12.2018 Complying	22.3.2019 Complying
37	Hisar	Azad Nagar, Rajgarh Road Hisar	PHED	15	03.10.2018 Complying	18.12.2018 Complying	28.2.2019 Complying
38	Hisar	Rishi Nagar, Hisar	PHED	40	14.09.2018 Complying	18.12.2018 Complying	12.03.2019 Complying
39	Hisar	Hisar	PHED	4			22.03.2019 Complying
40	Hisar	Narnaund	PHED	4		31.12.2018 Complying	03.03.2019 Complying
41	Hisar	Hansi	PHED	6.5	Commissioned on 31.05.2019 & is under Trial run		
42	Hisar	Uklana	PHED	6.5	03.10.2018 complying	31.12.2018 Complying	22.03.2019 Complying

Sr. No.	Name of the district	Name of the town/ city	Deptt.	Existing STP and Capacity (MLD)	Date of 3rd last report & Compliance Status	Date of 2nd last report & Compliance Status	Date of Last report & Compliance Status
43	**Sirsa**	**Chautala Road, Dabwali**	**PHED**	**16.5**	**05.06.2018 Complying**	**11.10.2018 Non Complying**	**18.12.2019 Complying**
44	**Sirsa**	**Shamsabad patti, Kalania Road, Sirsa**	**PHED**	**15**	**3.10.2018 Complying**	**18.12.2018 Non Complying**	**22.01.2019 Complying**
45	**Sirsa**	**Vill. Nattar 1, Sirsa**	**PHED**	**5**	**3.10.2018 Complying**	**18.12.2018 Non Complying**	**22.01.2019 Complying**
46	**Sirsa**	**Vill. Nattar 2, Sirsa**	**PHED**	**5**	**3.10.2018 Complying**	**18.12.2018 Non Complying**	**22.01.2019 Complying**
47	Sirsa	Daddu Road, Kalanwali	PHED	9.5	5.6.2018 Complying	3.10.2018 Complying	11.01.2019 Complying
48	Sirsa	Ellenabad	PHED	7.5	3.10.2018 Complying	18.12.2018 Complying	12.2.2019 Complying
49	Sirsa	Rania	PHED	6	3.10.2018 Complying	18.12.2018 Complying	28.02.2019 Complying
50	Fatehabad	Vill. Bhodia Khera, Bhattu Road, Fatehabad	PHED	10	21.09.2018 Complying	30.11.2018 Complying	12.02.2019 Complying
51	Fatehabad	Fatehabad	PHED	5		11.01.2019 Complying	12.02.2019 Complying
52	Fatehabad	Vill.Amani, Tohana,	PHED	10	21.09.2018 Complying	30.11.2018 Complying	12.02.2019 Complying
53	Fatehabad	Ratia	PHED	6.5	21.09.2018 Complying	30.11.2018 Complying	12.02.2019 Complying
	HSVP						
54	Ambala	Sec-7, Urban Estate, Ambala City	HSVP	2	09.08.2018 Complying	11.12.2018 Complying	11.02.2019 Complying
55	Panchkula	Sec-20, Panchkula	HSVP	18	18 07.2018 Complying	05.11.2018 Complying	17.01.2019 Complying
56	Panchkula	Sec-20, Panchkula	HSVP	39	18 07.2018 Complying	05.11.2018 Complying	17.01.2019 Complying
57	Panchkula	Sec-28, Panchkula	HSVP	15	18 07.2018 Complying	05.11.2018 Complying	23.01.2019 Complying
58	Jind	Jind	HSVP	10	14.08.2018 Complying	18.12.2018 Complying	28.2.2019 Complying
59	Kaithal	Kaithal	HSVP	7.5	09.08.2018 Complying	26.11.2018 Complying	20.03.2019 Complying
60	Hisar	Dabara Tosham Road, Hisar	HSVP	15	14.09.2018 Complying	18.12.2018 Complying	28.02.2019 Complying
61	Fatehbad	Village Majra	HSVP	10	21.09.2018 Complying	30.11.2018 Complying	12.02.2019 Complying
		Total		**503.6**			

9.4.2. Status of proposed 14 STPs to be installed w.r.t timelines

Sr. No.	Name of the Town	Proposed STP (in MLD)	Timelines proposed as per Action Plan
1.	Barara	4	31.10.2019
2.	Jind	7	30.11.2019
3.	Sec-6, Urban Estate, Thanesar	15	31.03.2020
4.	Sec-21 Urban Estate, Ambala City	5	31.12.2019
5.	12 Cross Road	12	30.11.2019
6.	Village Nagal	12	30.11.2019
7.	Khagesara & Taka	0.5	31.12.2019
8.	Nangal & Allipur	0.5	31.12.2019
9.	Khatoli	0.75	31.12.2019
10.	Kot	0.75	31.12.2019
11.	Sukhdarshanapur	0.75	31.12.2019
12.	Ramgarh	1	31.12.2019
13.	Tipra (Khanguwala)	1	31.12.2019
14.	Village Dabra	8	31.03.2020

9.4.3 Inspection of industries (March to May, 2019)

Sr. No.	Month	No. industries inspected	No. of industries violating the norms	Action taken against the industries
1	March	17	8	• 7 industries has been recommended for closure. • Against one industry, prosecution under process.
2	April	3	3	• 3 industries were closed and prosecution under process
3	May	2	2	• Action yet to be taken.

9.4.4 Action taken on the decisions taken by the Chairman of the Executive Committee in the meeting held on 29.03.2019 and 12.04.2019

1.0 Action taken on the decisions taken by the Chairman of the Executive Committee in the meeting held on 29.03.2019		
Sr. No.	**Decisions Taken**	**Action Taken Report**
1	Nodal Officers shall ensure that the District Level Special Task Forces constituted in the respective States must submit its monthly Action Taken Report to State Level Special Task Force and quarterly Action Taken Report must be submitted to CPCB by the respective State Level Special Task Force. The status of monthly reports shall also be uploaded on the website of the respective SPCB and whereas quarterly reports be uploaded on the website of the CPCB	The monthly status has been uploaded on website.

2	The District Level Special Task Force be asked to carry out the spot and surprise inspection of the industries for identifying the violating industries and action to be taken against the violating industries must be recommended to the State Pollution Control Board. The concerned State Pollution Control Board must ensure that the stern legal action including closure of the violating industries is taken in a time bound manner	The department level task force is not making surprise inspection. However, the offices of HSPCB are making surprise inspections.
3	Concrete action including closure of the non-complying industries i.e. found discharging untreated industrial effluent directly / indirectly into the drain / nallah / choe / river must be taken in a weeks' time and action taken report be apprised in the next meeting of the Executive Committee.	The closure action are being taken.
4	The ground water samples along the River Ghaggar upto the transverse distance of 500 m on both sides (Banks) of the river Ghaggar and after every 5 km along the River must be collected by each State Pollution Control Board / Committee on quarterly basis and report be submitted in the monthly meeting of the Executive Committee. Wherever, the ground water samples are found to be non-complying to the BIS drinking water norms prescribed under IS: 10500-2012, the particular ground water source must be sealed/ capped and display board mentioning 'water is not fit for drinking'may be placed at all such point sources. The concerned Government agency like Water Supply & Sanitation and / or Local Bodies be directed to supply the safe drinking water to the inhabitants / villagers / towns whose point source has been sealed.	In Hisar area, the grounded sample have been collected upto April, 2019 but in the area of Jind, the grounded sample have been collected upto February, 2019 .
5	Drain-wise list of the industries located on the catchment area of River Ghaggar must be prepared and these industries must be checked surprisingly to ascertain as to whether these industries have their discharge into River Ghaggar directly / indirectly. Legal action under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 must be taken soon after inspection of the violating industries. The surveillance squads must be formed by the States and these squads be directed to visit the industries even on the public holidays also.	List prepared and submitted to Executive committee.
6	Health camps for the towns / villagers / inhabitants located along River Ghaggar must be organized in each District of the State, where the river Ghaggar passes. Big Private Hospitals must also be directed to	Govt. Hospitals have organised Health Camp. The private Hospitals have not organised any health camp. **The Executive Committee has written letter to the Chairman Haryana Pollution Control**

	organize such health camps under CSR activities. Prior intimation with regard to organizing health camps also be intimated to the Chairman of the Executing Committee besides submission of the report of these health camps to the Executive Committee before the next meeting.	**Board to ask big Private Hospitals to carry out Health Check up camps under CSR activities.**
7	The quality of river Ghaggar must be checked before and after confluence of the point sources with respect to parameter as per the river water quality criteria prescribed by CPCB. The concerned State Pollution Control Boardsshall ensure that there is visible improvement in the quality of river water at ground with the time series.	The samples are enclosed.
2.0 Action taken on the decisions taken by the Chairman of the Executive Committee in the meeting held on 12.04.2019		
Sr No.	**Decisions Taken**	**Action Taken Report**
1	The monthly and Quarterly Action Taken Report should be uploaded on the website of Haryana Pollution Control Board and CPCB soon after the meetings of Distt. and State Special Task Forces.	The monthly status and Quarterly ATR has been uploaded on the website of Board.
2	HPCB shall expedite the process of installation of Online Effluent monitoring system on the remaining STPs, immediately	The matter is being taken in monthly RRC meetings to expedite the process.
3	All the STPs must be designed in such a way that the treated sewage must achieve the BOD level less than 10mg/l.	Direction given to concerned stakeholders to upgrade the existing STPs and to propose new STPs with design to treat the sewage upto BOD level less than /10mg/l. Departments were asked to submit their Action Plan for same.
4	Solid Waste Management Plants shall be established in the State of Haryana for scientific disposal of Municipal solid waste in a time bound manner.	Noted for compliance.
5	Haryana Pollution Control Board shall carry out the surprise checking of industries through special surveillance teams. Further, the Board shall carry out inspection of those industries which have their discharge into sewer leading to STPs.	Board carried out inspection by Surveillance Squad:- Two no. industries inspected. 1. M/s Vishal Diary, Panchkula. 2. M/s Paramount Paper Mills, Panchkula. The action is under process.
6	Haryana State Pollution Control Board shall carry out ground water sampling on Six monthly basis from both sides of River Ghaggar at every 10 km stretch and submit the analysis results to the Executive Committee.	The RO Hisar has collected samples. RO, Panchkula and Jind have not collected samples. **The Executive Committee has recommended disciplinary action against the concerned officers of Panchkula and Jind for not complying with the directions of the Executive Committee.**
7	HSPCB shall install GPS system on the tankers used for carrying sewage for towns/areas, which have not access to sewerage system leading to STPs for tracking their locations.	The disposal of sewage is being done in Hisar, Pehowa, Cheeka, Kaithal and Thanesar. MCG is doing the disposal of sewage through tankers in Gurugram and the monitoring through QR codes is started manually.
8	The Board shall carry out analysis for leachability test and presence of	Conveyed to Scientific Service Cell of Board for development of Leachability test. Heavy metal

	heavy metals in the sludge samples before deciding the method of disposal of the sludge.	being done.
9	Sewage treatment plants for treatment of Sullage/Sewage of Village must be installed in a time frame as submitted in the Action Plan.	The villages have been found discharging into drains leading to River Ghaggar. The Panchayat Department has submitted the plan for villages.
10	The Board shall submit performance guarantee as decided in case of OA No. 673 of 2018 by the Hon'ble NGT.	The file has been submitted to finance Departments for submission of performance guarantee of Rs. 5.00 crore as decided in case of OA No. 673 of 2018 by Hon'ble NGT.
11	The Board shall take up the matter with CPCB to seek clarification regarding environment compensation to be charged from the violators.	The NGT has desired that the Environmental compensation be collected from the violators on the "polluters pay principle". The Board has issued policy order on 29.4.2019 for levying Environmental Compensation on the polluting units based on polluter pays principal and to use the same for restoration of Environmental damages. The compensation shall be recovered from the industries as per the guidelines prepared by the Central Pollution Control Board.

9.4.5 Monitoring of water quality of River Ghaggar

1	**Ghaggar river before meeting discharge of STP Sec-28 at Kakrali, Punjab.**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	30.01.2019	7.56	7	43.2	77	ND	ND	
	13.03.2019	8.04	8	37.6	36			
	18.04.2019	8.18	9	4	1708			
2	**Ghaggar river after meeting discharge of STP Sec-28 at Kakrali, Punjab.**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	30.01.2019	7.54	7	36	88	ND		
	13.03.2019	7.39	14	46.4	16			
	18.04.2019	8.19	6	24.8	1740			
3	**Discharge of STP, Sec-28, Panchkula at Vill- Kakrali, Punjab.**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	30.01.2019	7.05	8	49.6	27	ND		
	13.03.2019	7.82	12	43.2	20			
	18.04.2019	7.8	8	38.4	14			
4	**Ghail drain at Rampur, Ambala**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	29.01.2019	6.97	13	57.6	26	-		
	26.02.2019	7.04	14	51.2	40	-		
	27.03.2019	7.27	89.6	2.5	213			
	18.04.2019	7.47	24	153.6	172			
5	**Ghaggar River after mixing Ghail Drain at Rampur (Ambala)**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	29.01.2019	6.98	8	28.4	12	-		
	26.02.2019	7.55	10	37.6	104			
	27.03.2019	7.17	80	307.	4358			

				2				
	18.04.2019	7.97	16	68.8	1506			
6	**Ghaggar River before mixing Ghail drain at Rampur (Ambala)**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	29.01.2019	6.95	8	39.2	15	-		
	26.02.2019	7.56	6	26.4	206			
	27.03.2019	41	10	59.2	41			
	18.04.2019	8.25	8	43.2	1612			
7	**Ghaggar River after meeting Sukhna Choe at Vill- Bhankarpur, Punjab**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	30.01.2019	7.6	9	65.6	90	ND		
	13.03.2019	7.33	40	130.4	64			
	18.04.2019	7.91	46	164	1786			
8	**Sukhna choe at Vill- Bhankarpur, Punjab**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	30.01.2019	6.9	120	398.4	222	26.32		
	13.03.2019	7.08	160	549.6	432			
	18.04.2019	7.32	70	263.2	36			
9	**Ghaggar River before meeting Sukhna Choe at Vill- Bhankarpur, Punjab**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	30.01.2019	7.57	7	35.2	50	ND		
	13.03.2019	7.52	6	32.8	7			
	18.04.2019	7.9	7	41.6	1798			
10	**Ghaggar River before meeting Derabassi Drain near Vill- Bakkarpur (Punjab) (Upstream)**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	8.14	6	47.2	1680			
11	**Derabassi drain near Vill- Bakkarpur (Punjab).**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	7.47	23	85.6	74			
12	**Ghaggar River after meeting Derabassi near Vill- Bakkarpur (Punjab).**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	8.13	12	69.6	1668			
13	**Ghaggar River before meeting Basauli Choe at Vill- Tepla (Punjab)**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	8.08	7	40.8	1714			
14	**Bassauli Choe at vill.Tepla (Punjab)**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	7.57	24	121.	82			

				6				
15	**Ghaggar River after meeting Basauli Choe at Vill- Tepla (Punjab)**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	16.04.2016	8.03	17	58.4	1668			
16	**Ghaggar river before meeting Jharmal Choe at Vill- Tiwana (Punjab)**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	8.16	6.5	48.8	1662			
17	**Jharmal Choe at Vill- Tiwana (Punjab)**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	7.47	18	90.4	58			
18	**Ghaggar River after mixing Jharmal Choe, At- Vill- Tiwana, (Punjab)**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	8.03	10	43.2	1616			
19	**Ghaggar River after mixing Pachis Dara drain at Saralakhurd (Patiala).**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	29.01.2019	7.72	14	62.4	23	-		
	26.02.2019	7.38	17	72.8	181			
	27.03.2019	7.18	12	39.2	49			
	18.04.2019	7.68	18	103.2	2390			
20	**Pachis Draha drain at Vill- SaralaKhurd (Patiala).**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	29.01.2019	7.12	11	37.2	16	-		
	26.02.2019	7.35	21	88.8	51			
	27.03.2019	7.37	32	88	509			
	18.04.2019	7.46	23	93.6	64			
21	**Ghaggar River before mixing Pachis Draha drain at Vill- SaralaKhurd (Patiala).**							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	29.01.2019	7.12	24	94.4	36	-		
	26.02.2019	7.5	7	29.6	52			
	27.03.2019	7.19	10	37.6	32			
	18.04.2019	8.14	6	29.6	1824			
22	**Ghaggar River before meeting river Markanda at Village Chiali. (Longitude $76^0$25.974' and Latitude $30^0$07.695')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.17	10	30.4	17			
	12.02.19	7.08	12	37.6	16			
	12.03.2019	7.29	7	28.8	38			
23	**MarkandaRiver Bhagal Bridge. (Longitude $76^0$26.218' and Latitude $30^0$05.025')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.45	9	42.8	13			
	12.02.19	7.43	10	36.4	14			
	12.03.2019	7.59	12.00	53.6	52			

24	Ghaggar River after mixing Markanda River at village Dhandota. (Longitude 76^{0}22.571' and Latitude 30^{0}05.410')							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.07	8	30.8	20			
	12.02.19	7.29	13	49.2	16			
	12.03.2019	7.45	28.00	92.0	29			
25	**Ghaggar River before mixing, Patiala Nadi at Vill. Bhatia. (Longitude 76^{0}14.696' and Latitude 30^{0}04.717')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.2	11	34.4	12			
	12.02.19	7.4	7	31.2	12			
	12.03.2019	7.39	60	242.2	110			
26	**Patiala River before mixing River Ghaggar at Village Saparheri.(Longitude 76^{0}14.610' and Latitude 30^{0}04.759')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.01	58	252	67			
	12.02.19	7.31	58	238.4	82			
	12.03.2019	7.37	110	508.8	180			
27	**Ghaggar River after mixing of Patiala Nadi at VillageRatanheri. (Longitude 76^{0}14.542' and Latitude 30^{0}04.645')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.1	22	80.4	33			
	12.02.19	7.28	23	92.4	34			
	12.03.2019	7.37	90	427.2	164			
28	**Ghaggar River before mixingSagar Para Drain at Village Rasoli. (Longitude 76^{0}10.173' and Latitude 29^{0}54.305')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.03	16	56.4	30			
	12.02.19	7.09	32	120.4	36			
	12.03.2019	7.42	18	99.8	72			
29	**Sagar Para Drain before mixing in Ghaghar river, Village Sagra. (Longitude 76^{0}11.249' and Latitude 29^{0}52.976')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	6.86	170	701.6	210			
	12.02.19	7.4	46	178.4	64			
	12.03.2019	7.41	40.00	188.8	32			
30	**Ghaggar River after mixing of Sagar Para Drain at Village Rasoli. (Longitude 76^{0}10.135' and Latitude 29^{0}53.548')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7	90	294.4	128			

	12.02.19	7.14	38	148.4	42			
	12.03.2019	7.38	22.00	116.0	50			
31	**River Ghaggar before mixing Kaithal drain at Khanauri. (Longitude $75^0$00.061' and Latitude $29^0$50.754')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	6.98	26	101.2	32			
	12.02.19	7.57	13	49.6	16			
	12.03.2019	7.39	44	188.8	70			
32	**Kaithal drain before mixing River Ghaggar at Khanauri. (Longitude $76^0$06.831' and Latitude $29^0$50.731')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.02	36	117.6	52			
	12.02.19	7.39	15	66.8	20			
	12.03.2019	17	114.4	7.56	42			
33	**River Ghaggar before mixing point of Khanauri drain**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	6.99	24	109.2	62			
	12.02.19	7.25	15	65.6	17			
	12.03.2019	7.47	13	74.4	82			
34	**Discharge of Khanauri Town in River Ghaghar. (Longitude $76^0$06.674' and Latitude $29^0$50.681')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7	38	137.6	41			
	12.02.19	7.37	32	136.4	40			
	12.03.2019	7.08	42.00	187.2	36			
35								
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.07	36	130.4	50			
	12.02.19	7.28	24	85.2	31			
	12.03.2019	7.45	9	52.8	34			
36	**River Ghaggar before meeting discharge of Moonak Town. (Longitude $75^0$53.763' and Latitude $29^0$48.503')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.05	30	108.4	40			
	12.02.19	6.85	32	122.8	42			
	12.03.2019	7.41	10.00	61.6	27			
37	**Discharge of Moonak Town into River Ghaggar. (Longitude $75^0$53.729' and Latitude $29^0$48.510')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**

	22.01.19	7.05	28	119.6	43			
	12.02.19	7.15	80	296.8	86			
	12.03.2019	7.37	12	67.2	40			
38	**River Ghaggar after meeting discharge of Moonak Town with River Ghaggar. (Longitude $75^0$53.702' and Latitude $29^0$48.515')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.05	32	123.6	41			
	12.02.19	6.97	28	138.4	58			
	12.03.2019	7.36	14	69.6	34			
39	**River Ghaghar before meeting Jhambuwali Choe at Village Chandu. (Longitude $75^0$00.100' and Latitude $29^0$49.736')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.06	12	45.2	20			
	12.02.19	7.09	23	76.8	24			
	12.03.2019	7.38	44	190.4	64			
40	**Discharge of Jhambuwali Choe at Village Chandu. (Longitude $75^0$00.061' and Latitude $29^0$49.794')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.04	46	156.4	50			
	12.02.19	7.19	52	206.4	68			
	12.03.2019	7.45	24.00	80.0	23			
41	**River Ghaghar after meeting Jhambuwali Choe at Village Chandu. (Longitude $75^0$59.989' and Latitude $29^0$49.717')**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.1	17	81.2	23			
	12.02.19	7.34	30	129.6	48			
	12.03.2019	7.45	60.00	271.2	45			
42	**Water sample from point between mixing point of Kaithal drain and mixing point of discharge of khanuri**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	22.01.19	7.03	17	60.4	24			
	12.02.19	7.3	12	56.4	20			
	12.03.2019	7.5	6	33.6	39			
43	**River Ghaggar before meeting discharge of Ratia.**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**
	29.01.19	8.7	34	72	75		-	-
	28.02.19	8.4	38	112	70		26800	340000
44	**Discharge of Ratia Town through drain (Longitude 29.711468 and Latitude 75.551894)**							
	Date of sample collection	**PH**	**BOD mg/l**	**COD mg/l**	**TSS mg/l**	**DO mg/l**	**Faecal Coliform**	**Total Coliform**

	29.01.19	8.8	16	32	22		-	-
45	River Ghaggar after meeting of discharge of Ratia.							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	29.01.19	8.8	36	64	70		-	-
	28.02.19	8.5	34	96	65		29800	310000
46	River Ghaggar before meeting discharge of Vill. Bhunder							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	13.06.18	7.8	20	32	130			
	30.10.18	7.9	18	32	110			
47	Discharge of point of wastewater from Vill. Bhunder							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	13.06.18	7.8	10	24	16			
	30.10.18	8	12	40	20			
48	River Ghaggar after meeting dishcarge of vill. Bhunder							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	13.06.18	7.8	22	32	120			
	30.10.18	7.9	20	40	120			
49	River Ghaggar before meeting discharge of Sardulgarh town							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	29.01.19	8.6	44	104	120		-	-
	28.02.19	8.5	42	192	90		26400	437000
50	Discharge of Sardulgarh town							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	29.01.19	8.5	24	64	22		-	-
	28.02.19	8.4	18	96	24		8300	122000
51	River Ghaggar after meeting discharge of Sardulgarh town							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	29.01.19	8.7	42	56	130		-	-
	28.02.19	8.4	46	104	110		32700	538000
52	Ghaggar GH-1 at road bridge, Sirsa- Dabwali Road							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	02.01.19	8.6	22	64	120	3.9	-	-
	13.02.19	8.2	24	96	80	3.7	18000	243000
53	Ghaggar Ottu Barrage							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	29.01.19	8.8	28	72	110			
54	Ghaggar GH-2 at ChandpurSyphen							
	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	02.01.19	8.2	16	48	90	3.2	-	-
	13.02.19	8.3	18	40	80	3	13000	189000
55	Ghaggar before ottu Barrage (before mixing with Satluj canal water)							

	Date of sample collection	PH	BOD mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	02.01.19	8	18			3.7	-	-
	13.02.19	8.2	16			3.2	11000	202000

The above data indicates that the water quality of river Ghaggar at various locations is 'E' Class as per the water quality criteria prescribed by CPCB.

9.4.6 Groundwater sample collection

The Analysis results of the ground water samples are enclosed at **Annexure-8.**

The analysis results indicate that the parameters in the ground water samples are within the norms prescribed as per BIS 10500:2012.

9.4.7 Comparison of the analysis results of drains joining river Ghaggar

		BOD Value (mg/l)			Remarks
Sr. No.	**Drain Joining River Ghaggar**	**2017**	**2018**	**2019**	
1	SukhnaNallah at Parwanoo Barrier(H.P) near Kalka Haryana	_____	80	80	No improvement
2	JattanWalaNallah coming from Himachal Pradesh Industries near Kala Amb	610	320	220	Improvement w.r.t BOD parameter
3	Drain carrying discharge of STP, Sec-28, Panchkula at Vill-Kakrali, Punjab	18	24	8	Improvement w.r.t BOD parameter
4	MDC Drain before meeting manimajra domestic effluent, Sector-18, Panchkula	_____	1300	60	-
5	Sukhna choe at Vill-Bhankarpur, Punjab	50	1900	120	-
6	Ambala Drain near Motor Market, Ambala City		56	80	No improvement
7	Ghail drain at Rampur, Ambala	19	10	14	No improvement
8	Sagar Para Drain before mixing in Ghaghar river, Village Sagra.	160	1168	170	No improvement
9	Markanda River before mixing River Ghaggar at Bhagal Bridge.	17	21	10	Improvement w.r.t BOD parameter
10	Kaithal drain before mixing River Ghaggar at Khanauri.	72	56	36	Improvement w.r.t BOD parameter
11	Discharge of MC Ratia Town through Drain	46	18	16	Improvement w.r.t BOD parameter

9.4.8 Health Check-Up Camps

The detail of health camps organized during the last three months is as under:

Month	No. of camps
March	6
April	6
May	15
Total	27

Dr V.K. Hatwal **J.C. Babu** **Dr. Babu Ram**

Justice Pritam Pal
Former Judge
Punjab & Haryana High Court

Annexure-1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No.138 of 2016 (T_{NHRC})
(Case No. 559/19/11/14)
And
Original Application No. 139 of 2016 (T_{NHRC})
(Case No. 600/19/11/14)

IN THE MATTER OF:

Stench Grips Mansa's Sacred Ghaggar River (Suo-Motu Case)
And
Yogender Kumar

CORAM : HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE DR. JUSTICE JAWAD RAHIM, JUDICIAL MEMBER
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

Present: Amicus Curiae **Ms. Katyayni, Adv. (Amicus Curae)**

Respondents: **Mr. Anil Grover, AAG and Mr. Rahul Khurana Adv. for State of Haryana and HSPCB**
Mr. Rajkumar, Adv.for Central Pollution Control Board
Mr. Shiv Mangal, Sharma, AAG alongwith Mr. Saurabh Rajpal, Adv., Mr. Adhiraj Singh, Adv. for State of Rajasthan.
Mr. Gaurav M. Liberhan, AAG, Punjab
Mr. Ashish Negi and Ms. Richa Kapoor, Advs. for PPCB
Mr. Shubham Bhalla and Mr. Roopam Rai, Advs.
Mr. Manish Kumar, Adv. for State of HP

	Date and Remarks	**Orders of the Tribunal**
	Item Nos. 07& 08 **August 07, 2018** **R & A**	1. Proceedings in this matter were initiated before this Tribunal on a reference received from the National Human Rights Commission (NHRC). The NHRC took Suo-Motu action on the basis of a news item appearing in 'The Tribute' dated 12.05.2014 under the caption "*Stench Grips Mansa's Sacred Ghaggar River*" to the effect that the river Ghaggar had turned into a polluted water body on account of discharge of effluents - industrial as well as municipal. 2. The NHRC considered the matter in the light of reports from the States of Punjab and Haryana as well as the State of Himachal Pradesh. Vide letter dated 17.03.2016, the NHRC sent the record of the matter to this Tribunal.

	Item Nos. 07 & 08 **August 07, 2018** **R & A**	3. Pursuant to the order of this Tribunal dated 09.12.2016, a joint inspection has been carried out by the representatives of the Central Pollution Control Board, Punjab State Pollution Control Board, Haryana Pollution Control Board, Himachal Pradesh State Pollution Control Board.Officials of Union Territory, Chandigarh also joined the said inspection team. Ms. Katyani, Advocate was appointed as Amicus Curiae to assist the Tribunal. We record our appreciation for the assistance rendered by Ld. Amicus Curiae. Ld. Amicus has also undertaken personal visit to some of the affected areas and filed her report dated 08.05.2017. 4. We have perused the reports submitted by the concerned Pollution Control Boards to the NHRC as well as Minutes of the meetings on various dates in which the respective States participated. The joint analysis report of the joint monitoring of river Ghaggar samples has also been filed. 5. The Environment (Protection) Rules, 1986 provides for standards for the emission for the discharge of the pollutants. For different industries, the standards are laid down in Schedule I. The findings of the joint inspection report are that values of various parameters such as BOD, TSS, Feacal Coliform, Lead and Iron were beyond permissible limits at most of the locations in Himachal Pradesh, Haryana, Punjab and Chandigarh. It is, thus, fully established that there is failure on the part of the statutory authorities specially the Pollution Control Boards to perform their duties. Under the statutory scheme, the Pollution Control Boards are required to

	Item Nos. 07 & 08 **August 07, 2018** **R & A**	prosecute all those who may be responsible for discharging effluents beyond standards and also to close all commercial establishments which are discharging such effluents apart from other penal measures required to be taken. They have,failed to uphold the rule of law in spite of adequate powers given to them. It is high time that their composition and manning is considered by the higher Authorities and their accountability fixed by taking civil and criminal action against not only violations of law but all those responsible for failure of their duties in taking action or shielding the culprits and thereby adversely affecting the environment and health of the inhabitants. 6. In view of above disappointing scenario and utter failure of the Authorities in spite of pendency of these proceedings for the last 4 years and clean violation of law, there is no evidence of action taken against persons for responsible for the violation of law at large scale,we accordingly direct the Chief Secretaries of the States of Himachal Pradesh, Haryana, Punjab and also the Administrator of UT Chandigarh to constitute Special Task Force (STFs) comprising of District Magistrate, Superintendent of Police, Regional Officer of the State Pollution Control Boards in concerned District and one person to be nominated by the District Judge in every District in his capacity of Head of the District Legal Services Authority. Such STF may identify persons responsible for violation of law so that action can be taken. At the State level, the STF will comprise of the Chief Secretary, the Environment Secretary, the Secretary

	Item Nos. 07 & 08 **August 07, 2018** **R & A**	of Urban Development and Secretary of Local Bodies. The District level STFs will submit a monthly action taken report to the State STFs and the State STFs will furnish a 3 monthly report or the action taken to the Central Pollution Control Board. Such reports be uploaded on the websites of State Pollution Control Boards as well as the Environment Department of the States. Such STFs may be constituted within one month from today. 7. Having regard to the alarming situation depicted in the joint inspection report apart from perusal action as above, an action plan with firm timelines is required to be prepared for preventing discharge of untreated effluents in the river by setting up appropriate anti-pollution device such as STP/ETP/CETP or any other such instruments. Wherever required polluting units have to be closed. The action plan must be realistic and provide for speedy mechanism. The funds can be generated as per applicable schemes for STP/CETP. The objective of the action plan must be to ensure that the testing of the sample of the water is found to be consistent with the laid down standards within the targeted time. We are also of the view that it is necessary to involve civil society and not to leave the matter to be dealt with by the concerned officers alone. 8. With view to ensure execution of our order, we constitute following committee as "Executing Committee" for executing the orders of this Tribunal under Section 25 of the National Green Tribunal Act, 2010: 1) Justice Pritam Pal, Former Judge, Punjab and Haryana High Court. (Phone No. 09463122333) –

	Item Nos. 07 & 08 **August 07, 2018** **R & A**	Chairman. 2) Senior Scientist from Ministry of Environment, Forest and Climate Change. 3) Senior Engineer/Scientist from Central Pollution Control Board. 9. The Committee will be entitled to issue appropriate directions to concerned authorities for ensuring compliance with the order of the Tribunal. The target of the Committee will be to restore the standard of water quality in the river to the prescribed level. The CPCB will be the Nodal agency for this project. The Committee may carry out personal visits, if necessary or call for information or reports. It may set up its website to furnish and receive information. All logistic support may be provided by the Chief Secretary, Punjab. 10. The said oversight body to execute the order of this Tribunal constituted hereinabove will constantly monitor the progress in the matter at least on fortnightly basis and give an interim report to this Tribunal on or before 31.01.2019 by e-mail at *filing.ngt@gmail.com*. The said oversight body will be paid such remuneration as may be determined by the Chief Secretary, Punjab in consultation with the Chief Secretaries Haryana, Himachal Pradesh and also in consultation with the Chairman of the said oversight body constituted by the Tribunal. The said oversight body may start working within one month. 11. The Committee may also consider need for getting organised health camps and need for providing clean drinking water for the affected inhabitants. The sampling of ground water may also be done apart from the sampling

	Item Nos. 07 & 08 **August 07, 2018** **R & A**	of the river water periodically. Copy of this order be sent to all concerned by E-mail. 12. We also direct that Learned Amicus may be paid Rs. 2 Lakhs as honorarium of the services rendered to this Tribunal to be shared equally by the Punjab State Pollution Control Board and Haryana Pollution Control Board. The payment will be made within one month from today. 13. All Authorities concerned with the matter in the States of Himachal Pradesh, Haryana, Punjab and UT Chandigarh will cooperate and co-ordinate with "Executing Committee". The "Executing Committee" can seek any scientific and technical assistance as may be required from any relevant authority. 14. The Registry is directed to send a copy of this order to the Chief Secretaries of Himachal Pradesh, Punjab, Haryana and Administrator UT Chandigarh and the Members of the "Executing Committee" by E-mail. 15. With the above directions, the application is disposed of. List for consideration of the report of the Committee on 05th March, 2019. ……., CP (Adarsh Kumar Goel) ……., JM (Dr. Jawad Rahim) ……,JM (S.P. Wangdi)

	Item Nos. 07 & 08 **August 07, 2018** **R & A**	.....,EM (Dr. Nagin Nanda) 07.08.2018

Annexure-2

Annexure-2

ACTION TAKEN REPORT ON THE POINTS RELATING TO OA NO.138-39- CONTROL OF POLLUTION IN RIVER GHAGGAR.

Sr.No.	State/ UT	Status of Action Plan	Approval of Action plan	Submission of report by DSSTF to SLSTF	Status of monthly reports to be uploaded on websites	Submission of 3 monthly report to CPCB/EC	Violations identified and legal action taken	Status of ground water samples taken along river Ghaggar	Organizing Health Camps	Analysis of parameters along pollution sources
		1	2	3	4	5	6	7	8	9
1.	Punjab	Prepared	Yes	No report. Wrongly mentioned in the reply sent to EC	No	No report submitted	Out of 13, action against 5 initiated by issuing a notice. No action against 8 non-complying industries	Sample taken from 79 locations, of which 71 samples were found confirming to the standard and in 8 samples, where the parameters were beyond the limit	9 Health camps have been organized	Analysis received but no concrete reasons for low worst quality of effluent mentioned.
2.	Haryana	Prepared	Yes	No report submitted	Yes	Yes	53 industries inspected, 29 complying, 24 non-complying, 6 recommended for closure, Prosecution sanctioned against 2, 11 prosecution cases under process.	Yes. 8 samples collected and found complying drinking water standards.	12 Health camps organized	11 samples collected, results awaited.
3.	H.P.	Prepared	Yes	Yes report submitted.	Mentioned as uploaded but actually not uploaded	ATR report submitted to CPCB, no intimation to EC	155 water polluted industries, 69 samples collected, 5 industries found violating the norms and notices issued. (no concrete action/report submitted).	15 samples collected. Results complying with the norms	Only one Health camp organized. Information is confusing and not related to month of Feb.	No concrete report submitted.
4.	Chandigarh	Prepared	Yes	No report submitted	No report submitted	No report submitted	2 unit found violating the norms, action is under process	7 samples collected, results awaited.	No camp organized.	Report submitted but no conclusion drawn.

Annexure-3

Minutes of 10th Meeting of the Executing Committee held under the Chairmanship of Justice Pritam Pal, Former Judge, Hon'ble Punjab & Haryana High Court, Chandigarh on 29.03.2019 in the Room of Executive Committee, 4th Floor, 5th Tower, Forest Complex, Mohali in compliance of the order dated 7.8.2018 in the matter of OA No. 138 / 139 of 2016 titled Stench Grips Mansa's Sacred Ghaggar River V/s Joginder Kumar.

Justice Pritam Pal, Former Judge, Hon'ble Punjab & Haryana High Court, Chandigarh welcomed all the members of the Executing Committee and the officials attended the meeting. The list of the participants is as per Annexure-1.

It was apprised that the Hon'ble National Green Tribunal vide its order dated 07.08.2018 in matter of OA No. 138 / 139 of 2016 titled Stench Grips Mansa's Sacred Ghaggar River V/s Joginder Kumar while considering the case and reports of the various agencies of the State Government of Punjab, Himachal Pradesh, Haryana and U.T., Chandigarh has shown its disappointment and failure of the authorities for not taking action against the persons responsible for the violation of the law at large and accordingly, the Chief Secretaries of the Himachal Pradesh, Haryana, Punjab and Administration Chandigarh were directed to constitute District Level Special Task Forces (STF) comprising of District Magistrate, Superintendent of Police, Regional Offices of the State Pollution Control Board in concerned District and one person to be nominated by District Judge in every District. The Special Task Force may identify persons responsible for violation of law so that action can be taken. At State level, the STF will comprise of the Chief Secretary, the Environment Secretary, the Secretary of Urban Development and Secretary of the Local Bodies. The District level STFs is required to submit a monthly action taken report to the State Level STFsand State STFs will furnish 3 monthly Action Taken Report to the Central Pollution Control Board and such reports also be uploaded on the websites of the State Pollution Control Boards as well as the Environment Department of the respective State.

The Chairman, Executive Committee further informed that Dr. Babu Ram, Former Member Secretary, PPCB now appointed as Member in the matter of Sobha Singh Vs State of Punjab by the Hon'ble National Green Tribunal, regarding cleaning of River Sutlej and Beas has also been nominated as special invitee in the matter of OA No. 138 / 139 of 2016 titled Stench Grips Mansa's Sacred Ghaggar River Vs Joginder Kumar.

The Nodal officers of the State Government, Punjab, Haryana, Himachal Pradesh and UT Chandigarh, who attended the meeting, submitted their Action Taken Report with respect to activities to be carried out with regard to control of pollution in River Ghaggar as per the order dated 07.08.2018 of the Hon'ble Tribunal. The Action Taken Reports submitted by these nodal officers have been summarized and the same is annexed at **Annexure-2**.

Upon detailed deliberations on the various points of the Action Taken Report submitted by these States / UT, the following decisions were taken:

1. Nodal Officers shall ensure that the District Level Special Task Forcesconstituted in the respective States must submit its monthly Action Taken Report to State Level Special Task Force and quarterly Action Taken Report must be submitted to CPCB by the respective State Level Special Task Force. The status of monthly reports shall also be uploaded on the website of the respective SPCB and whereas quarterly reports be uploaded on the website of the CPCB .
2. The District Level Special Task Force be asked to carry out the spot and surprise inspection of the industries for identifying the violating industries and action to be taken against the violating industries must be recommended to the State Pollution Control Board. The concerned State Pollution Control Board must ensure that the stern legal action including closure of the violating industries is taken in a time bound manner.
3. Concrete action including closure of the non-complying industries i.e. found discharging untreated industrial effluent directly / indirectly into the drain / nallah

/ choe / river must be taken in a weeks' time and action taken report be apprised in the next meeting of the Executive Committee.

4. The ground water samples along the River Ghaggar upto the transverse distance of 500 m on both sides (Banks) of the river Ghaggar and after every 5 km along the River must be collected by each State Pollution Control Board / Committee on quarterly basis and report be submitted in the monthly meeting of the Executive Committee. Wherever, the ground water samples are found to be non-complying to the BIS drinking water norms prescribed under IS: 10500-2012, the particular ground water source must be sealed/ capped and display board mentioning 'water is not fit for drinking'may be placed at all such point sources. The concerned Government agency like Water Supply & Sanitation and / or Local Bodies be directed to supply the safe drinking water to the inhabitants / villagers / towns whose point source has been sealed.

5. Drain-wise list of the industries located on the catchment area of River Ghaggar must be prepared and these industries must be checked surprisingly to ascertain as to whether these industries have their discharge into River Ghaggar directly / indirectly. Legal action under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 must be taken soon after inspection of the violating industries. The surveillance squads must be formed by the States and these squads be directed to visit the industries even on the public holidays also.

6. Health camps for the towns / villagers / inhabitants located along River Ghaggar must be organized in each District of the State, where the river Ghaggar passes. Big Private Hospitals must also be directed to organize such health camps under CSR activities. Prior intimation with regard to organizing health camps also be intimated to the Chairman of the Executing Committee besides submission of the report of these health camps to the Executive Committee before the next meeting.

7. The quality of river Ghaggar must be checked before and after confluence of the point sources with respect to parameter as per the river water quality criteria

prescribed by CPCB. The concerned State Pollution Control Boardsshall ensure that there is visible improvement in the quality of river water at ground with the time series.

8. In the next meetings of the Executive Committee in the matter of OA No. 138 / 139 of 2016 titled Stench Grips Mansa's Sacred Ghaggar River V/s Joginder Kumar, the following officers from Punjab, Haryana, Himachal Pradesh States and Chandigarh UT shall be called:

i) Principal Secretary / Secretary, Deptt. of Science, Technology and Environment.

ii) Principal Secretary / Secretary of Urban Development.

iii) Principal Secretary / Secretary, Deptt. of Local Government.

iv) Principal Secretary, Deptt. of Health & Family Welfare.

v) Chairman, State Pollution Control Boards.

vi) Member Secretary, State Pollution Control Boards.

vii) Engineering-In-Chief / Chief Engineer, Deptt. of Local Government.

viii) Engineering-In-Chief / Chief Engineer, Water Supply & Sewerage Board / Public Health Engineer Department.

It was further decided that the meetings of the Executive Committee shall be held on 2nd Friday of every month. Principal Secretary / Secretary, Deptt. of Science, Technology & Environment of the respective State shall give digital presentation mentioning the progress of each department with regard to activities to be carried out / carried out to control the pollution in River Ghaggar.

The meeting ended with vote of thanks to the Chair.

*****

Annexure-1

LIST OF PARTICIPANTS

Sr. No.	Name of participant alongwith designation
1.	Dr. Vimal K. Hatwal, Joint Director, MOEFCC
2.	Sh. J. Chandra Babu, Addl. Director CPCB
3.	Dr. Babu Ram, Former, MS, PPCB (Special Invitee)
4.	Sh. S.K. Shandil, EE, HPPCB
5.	Sh. J.P. Singh, EE, Haryanaz SPCB
6.	Sh. Vivek Pandey, St 'B' CPCC
7.	Sh. Jitin Joshi, AEE, PPCB/DECC

Annexure-2

ACTION TAKEN REPORT ON THE POINTS RELATING TO OA NO.138-39- CONTROL OF POLLUTION IN RIVER GHAGGAR.

Sr.No.	State/ UT	Status of Action Plan	Approval of Action plan	Submission of report by DSSTF to SLSTF	Status of monthly reports to be uploaded on websites	Submission of 3 monthly report to CPCB/EC	Violations identified and legal action taken	Status of ground water samples taken along river Ghaggar	Organizing Health Camps	Analysis of parameters along pollution sources
		1	2	3	4	5	6	7	8	9
1.	Punjab	Prepared	Yes	No report. Wrongly mentioned in the reply sent to EC	No	No report submitted	Out of 13, action against 5 initiated by issuing a notice. No action against 8 non-complying industries	Sample taken from 79 locations, of which 71 samples were found confirming to the standard and in 8 samples, where the parameters were beyond the limit	9 Health camps have been organized	Analysis received but no concrete reasons for low worst quality of effluent mentioned.
2.	Haryana	Prepared	Yes	No report submitted	Yes	Yes	53 industries inspected, 29 complying, 24 non-complying, 6 recommended for closure, Prosecution sanctioned against 2, 11 prosecution cases under process.	Yes. 8 samples collected and found complying drinking water standards.	12 Health camps organized	11 samples collected, results awaited.
3.	H.P.	Prepared	Yes	Yes report submitted.	Mentioned as uploaded but actually not uploaded	ATR report submitted to CPCB, no intimation to EC	155 water polluted industries, 69 samples collected, 5 industries found violating the norms and notices issued. (no concrete action/report submitted).	15 samples collected. Results complying with the norms	Only one Health camp organized. Information is confusing and not related to month of Feb.	No concrete report submitted.
4.	Chandigarh	Prepared	Yes	No report submitted	No report submitted	No report submitted	2 unit found violating the norms, action is under process	7 samples collected, results awaited.	No camp organized.	Report submitted but no conclusion drawn.

Annexure-4

Minutes of the meeting held under the Chairmanship of Justice Pritam Pal Former Judge Hon'ble Punjab & Haryana High Court Chandigarh on 04.04.2019 with the District Level Special Task Force of Districts Fatehabad and Sirsa at Mini Secretariat, Sirsa in compliance of the order dated 07.08.2018 in the matter of OA no. 138/139 of 2016 titled Stench Grips Mansa's Sacred Ghaggar River V/s Joginder Kumar.

The list of the participants as per **Annexure-1**.

Deputy Commissioner, Sirsa welcomed Justice Pritam Pal Former Judge Hon'ble Punjab & Haryana High Court Chandigarh, members of the Executive Committee and officers of District Level Special Task Force of Districts Fatehabad and Sirsa.

Justice Pritam Pal Former Judge Hon'ble Punjab & Haryana High Court Chandigarh apprised the District Level Special Task Force of District Fatehabad and Sirsa apprised that the Hon'ble National Green Tribunal vide its order dated 07.08.2018 in matter of OA No. 138 / 139 of 2016 titled Stench Grips Mansa's Sacred Ghaggar River V/s Joginder Kumar while considering the case and reports of the various agencies of the State Government of Punjab, Himachal Pradesh, Haryana and U.T., Chandigarh has directed the Chief Secretaries of the Himachal Pradesh, Haryana, Punjab and Administration Chandigarh to constitute District Level Special Task Forces (STF) comprising of District Magistrate, Superintendent of Police, Regional Offices of the State Pollution Control Board in concerned District and one person to be nominated by District Judge in every District. The Special Task Force may identify persons responsible for violation of law so that action can be taken. At State level, the STF will comprise of the Chief Secretary, the Environment Secretary, the Secretary of Urban Development and Secretary of the Local Bodies. The District level STFs is required to submit a monthly action taken report to the State Level STFs and State STFs will furnish 3 monthly Action Taken Report to the Central Pollution Control Board and such reports also be uploaded on the websites of the State Pollution Control Boards as well as the Environment Department of the respective State. He

also informed that in the second order dated 16.01.2019 relating to compliance of the Municipal Solid Management Rules, 2016 has also directed to monitor the activities carried out by the State Governments of Punjab & Haryana with regard to the management of the municipal solid waste. He emphasized that effective steps must be taken to make the States plastic free States so as to get rid of the problems being faced by the society in terms of its long term effect on the Environment. He stressed that the District Authorities and Local Government must take concrete steps to impose fine on the defaulting persons and at least 15-20 challans must be issued in each town of the State to have effective control on the use of plastic carry bags and other such containers.

Deputy Commissioner, Fatehbad apprised that the District Level Special Task Force (STF) is holding regular monthly meetings. In the month of January and February 2019, two meetings were held, wherein, the progress with regard to identification of pollution sources into river Ghaggar, action taken regarding analyzing the quality of effluent flowing into drains joining river Ghaggar, action taken against the defaulting persons/ agencies and steps taken to treat the sewage/ effluent before discharging into river Ghaggar was discussed. 11 drains joining to river Ghaggar, were identified and these were analyzed for the various parameters. He assured that with effective monitoring by the District Level Special Task Force, the quality of water in river Ghaggar shall be improved.

Thereafter, the agenda of the meeting was taken for discussion.

1. Status of monthly report of District Level Special Task Force

It was informed that regular monthly meetings of District Level Special Task Force is being conducted in District Fatehabad and Sirsa and these monthly reports are uploaded on the website. These reports are also sent to the State Level Special Task Force.

2. Status of submission of three monthly report to the CPCB

The State Level Special Task Force also submit their action taken report to CPCB. Last report was submitted in the month of January, 2019 and next report will be submitted in the month of April, 2019.

3. Identification of the pollution sources in to river Ghaggar, steps taken to install STPs and action taken against the defaulters

It was apprised that in District Fatehabad and District Sirsa, no industry exists, as such, there is no discharge from the industries into river Ghaggar. However, in District Fatehabad, 11 drains/ point sources, as mentioned in **Annexure-2**, have been identified and these have been properly earmarked with proper latitude and longitude. The status of construction of pond system on these drains is mentioned as per **Annexure-3**. The effluent flow and quality of BOD have also been measured/ analyzed. The status of Sewage treatment plants for the towns of district Fatehabad is mentioned as per **Annexure-4.**

Similarly, in District Sirsa, regular monthly meetings of the District Level Task Force are held and progress of each Department with regard to identification of pollution sources, analysis of the wastewater flowing into the drains and entering into the river, steps taken to control these sources is monitored. In the month of the February, 06 no. drains/ pollution sources, as mentioned in **Annexure-5,** have been identified and samples of these drains have been analyzed for the parameters pH, Oil & Grease, Suspended Solid, BOD and COD. The details of the STPs installed/being installed for various towns of District Sirsa are given in **Annexure-6**. Action against the defaulting persons/ authorities is taken as per the provisions of the Water (Prevention & Control of Pollution) Act, 1974.

Chairperson informed that during the survey along river Ghaggar, it has been observed that at number of places the farmers are lifting the river Ghaggar water for utilizing the same for irrigation of their crops, therefore, he directed that the Ghaggar river water must be analyzed for the parameters organic, inorganic, heavy metals and faecal coliform.

4. Organizing Health Camps in the catchment area of river Ghaggar

It was informed that in both the Districts, health camps are organized in each month in the villages/localities residing along the catchment area of river Ghaggar. In the month of January and February 2019, four health camps have been organized in these districts and 222 patients have been examined. During the day of visit of the Executive Committee on 4/4/2019 to the Health Camp organized at village Mallewal, 372 patients were found examined and same were suffering from various types of illnesses which are found commonly in any given population. The team of the doctors were of the opinion that these illnesses could not be attributed to the polluted underground water of Ghaggar river.

5. Analysis of Groundwater samples

It was apprised that the groundwater samples are being collected. In the month of January and February, 2019, 06 samples of groundwater in each month have been collected and these have been analyzed for the parameters pH, Suspended Solids, BOD, COD, calcium and magnesium.

The chairperson directed the District Level Special Task Force to analyze the quality of groundwater for the organic, inorganic, heavy metal and fecal Coliform so as to get the realistic data with regard to quality of drinking water.

Further, the villagers of Mallewal (Sirsa) village informed that Ghaggar water is being mixed into raw water of water works installed by Public Health Engineering Department. It was also

apprised by them that some farmers puncture the raw water supply pipeline and these puncture results in entry of Ghaggar water into water supply pipeline. The place was visited by the Executive Committee and the officers of concerned department were asked to examine the matter and submit the report alongwith recommendations to the Head of the Department under intimation to the Executive Committee

After detailed deliberation, the following decisions were taken:

1) Monthly action taken reports of the District Level Special Task Force of each District and three monthly action taken report of the State Level Special Task Force must be submitted to State Level Special Task Force and CPCB, respectively well in time. This action taken reports must be uploaded on the website of CPCB.
2) District Level Special Task Force shall carry out detailed survey of each drain every month to check as to whether the discharge from these drains has been stopped entering into river Ghaggar. The progress with regard to installation of sewage treatment plant/ low cost sewage treatment plant must be monitored every month to ensure that these STPs are installed and commissioned in a time bound manner as mentioned in the Action Plan for clean river Ghaggar.
3) Online effluent monitoring system must be installed at the outlet of each STP as per the time schedule mentioned in the Action Plan. The system must have its connectivity with PPCB and CPCB.
4) The treated sewage of existing STPs, must be analyzed for the parameters organic, inorganic and fecal coliform.
5) The irrigation scheme for utilization of treated sewage of each town must be prepared and the treated sewage, conforming to the standards for irrigation, be utilized for irrigation and no effluent will be allowed to discharge into river Ghaggar.

6) No industry should be allowed to discharge their treated/ untreated/ partially treated effluent into river Ghaggar.

7) Monthly monitoring of each drain joining river Ghaggar must be carried out and be analyzed for the parameters organic, inorganic, heavy metal and fecal coliform. A comparative sheet mentioning the analysis results of 06 months must be prepared to check as to whether there is any improvement in the quality of water of river Ghaggar

8) The groundwater samples of the villages/ inhabitants residing within the vicinity of 500 m on both sides of the river must be analyzed for the parameters organic, inorganic, heavy metals and fecal coliform.

9) Health camps in the villages/ inhabitants residing within the vicinity of 500 meters on both sides of the river must be organized in every month and these reports be submitted to the District Level Special Task Force under intimation to the Executive Committee.

10) Compliance of the Municipal Solid Waste Management Rules, 2016 must be made strictly as per the directions of the Hon'ble National Green Tribunal. Door to door collection of waste and their segregation at source must be encouraged so as to treat these waste easily at the integrated waste management facility or solid waste collection facility.

Annexure-1

LIST OF PARTICIPANTS

Sr. No.	Name of participant alongwith designation	Department
Member of the Executive Committee		
1.	Justice Pritam Pal, Former Judge, Punjab & Haryana High Court.	Chairman, Executive Committee
2.	Dr. Babu Ram, Former Member Secretary, PPCB.	Special Invitee, Member, Executive Committee
Deputy Commissioner		
1.	Sh. Prabhjot Singh, IAS,	Deputy Commissioner, Sirsa
2.	Sh. Dhirendra Khadgata, IAS,	Deputy Commissioner, Fatehabad
Officers of the various Departments		
1.	Sh. Pardeep Kumar, SE	Department of Public Health
2.	Sh. Rajesh Kumar, SE	Department of Irrigation
3.	Sh. Om Prakash, SE BWS	Department of Irrigation, Fatehabad
4.	Sh. Dhoop Singh, Executive Engineer	Department of Irrigation
5.	Sh. Iqbal Singh Saini, Executive Engineer	Department of Irrigation, Fatehabad
6.	Sh. Sandeep Solanki, Secretary	MC, Kalanwali
7.	Sh. Sukhmander Singh, SE	MC, Sirsa
8.	Sh. Surender Singh, Executive Engineer	MC, Fatehabad
9.	Sh. Anukhav Mehta, BDPO	Department of Panchayat, Fatehabad
10.	Sh. Kulvir Verma, Executive Engineer, Panchayati Raj	Department of Panchayat, Fatehabad
11.	Sh. Virender Godra, RFO	Department of Forest, Fatehabad
12.	Sh. Rakesh Kumar, RO	Haryana State Pollution Control Board, Hisar

13.	Dr. Sunil Sheoran, Scientist 'B'	Haryana State Pollution Control Board, Hisar
14.	Sh. K.P. Pilania, nominee of District Session Judge	District Session Judge, Sirsa
15.	Sh. Vedpal Singh, BDPO	Department of Panchayat
16.	Sh. Amit Nairan, SDO	IWRD, Ghaggar
17.	Sh. Surender Kumar, Secretary	MC, Ratia Bhuna
18.	Sh. Rurukesh, Secretary	MC, Rania
19.	Sh. Surender Kumar, Secretary	MC
20.	Dr. Manish Bansal, Civil Surgeon	Department of Health, Fatehabad
21.	Dr. Govind Gupta, Civil Surgeon	Department of Health, Sirsa
22.	Dr. Budh Ram, Dy. Civil Surgeon	Department of Health, Sirsa
23.	Sh. Aman Dhanda, Executive Officer	MC, Sirsa
24.	Sh. Bharat Singh, Executive Engineer	PR, Sirsa
25.	Sh. Ved Bhushan Bansal, DDPO	Department of Panchayat, Sirsa
26.	Sh. Manoj Khatri, SDM	SDM, Kalarwali
27.	Smt. Navdeep Kaur, ADC	ADC, Sirsa
28.	Dr. Aparnesh Kaushik, Scientist-'B'	Haryana State Pollution Control Board
29.	Sh. Makhan Singh, Assistant	DPRO
30.	Sh. R.V. Sharma, Executive Engineer (P-2)	Public Health
31.	Sh. N.R. Rana, Executive Engineer	PHED, Fatehabad
32.	Sh. Adarsh Singla, Executive Engineer	PHED, Tohana
33.	Smt. Davinder Kaur, CSI	MC, Sirsa

Annexure-2

Drains entering into River Ghaggar in District Fatehbad

Sr. No.	Name of nearest location of Drain Joining in Ghaggar River.	Latitude	Longitude	State	Quality BOD mg/l	Quantum of flow MLD
1.	Near Vill Narail	29.78137	75.8274	Haryana	22	0.25
2.	Vill. Talwara	29.77787	75.80132	Haryana	16	0.4
3.	Vill. Talwari	29.78217	75.78749	Haryana	28	0.2
4.	Talwari Dhani	29.78155	75.78721	Haryana	-	Nil
5.	Near Vill Chandpura	29.780768	75.750962	Haryana	-	Nil
6.	Vill. Kanwalgarh	29.69715	75.63314	Haryana	20	0.4
7.	Vill. Bhiwani Khera	29.687247	75.639772	Haryana	-	Nil
8.	Near Vill Kherpur	29.73564	75.4759	Haryana	34	0.01
9.	Sadhanwas, Tohana	29.78469	75.77132	Haryana	16	0.2
10.	Town Ratia	29.692043	75.5788	Haryana	24	0.4
11.	Town Ratia	29.69114	75.58167	Haryana	16	0.2

Annexure-3

Status of construction of pond system on the drains falling into River Ghaggar in District Fatehbad

Sr. No.	Name of nearest location of Drain Joining in Ghaggar River.	Pond System Constructed / Proposed
1.	Near Vill Chandpura	Constructed
2.	Vill. Bhiwani Khera	Constructed
3.	Near Vill. Kherpur	Constructed
4.	Near Malwala	Constructed
5.	Near Vill. Narail	Proposed
6.	Vill. Talwara	Proposed
7.	Vill. Talwari	Proposed
8.	Vill. Talwari Dhani	Proposed
9.	Vill. Kanwalgarh	Proposed
10.	Sadhanwas, Tohana	Proposed

Annexure-4

Sewage Treatment Plant (STP) installed in Distt. Fatehbad

STP Commissioned

1. 10 MLD STP at Village Kharati Khera, Bhattu Road, Fatehabd by PHED.
2. 10 MLD STP Vill Amani, Tohana, Distt. Fatehabad by PHED.
3. 6.5 MLD STP Lahri Road, Ratia, Fatehabad by PHED.
4. 10 MLD STP majra Road, Fatehabad by HUDA.
5. 5 MLD STP Kharai Khera Road, Fatehabad by PHED.

STP Under construction

1. 5 MLD STP at Jakhal by PHED.

Annexure-5

Drain falling into River Ghaggar in District Sirsa

1. Mallewala Drain, Vill. Mallewala.
2. Rania Link Drain
3. Hisar-Ghaggar Drain
4. Rori-Ghaggar Drain
5. Discharge of PHED STP, Ellenabad, 7.5 MLD Budhimedi Drain, Near Vill. Budhimedi.
6. Discharge of PHED STP, 15 MLD, Kelnia Drain, Kalnia Sirsa.

Annexure-6

Details of STP in Distt. Sirsa

Sr. No.	Capacity of STP (in MLD)	Location of STP	Technology of STP
1.	6	Rania	SBR Technology
2.	15	Kalnia Road	MBBR Technology
3.	5	Nattar-1	MBBR Technology
4.	5	Nattar-2	MBBR Technology
5.	7.5	Ellenabad	MBBR Technology
6.	16.5	Dabwali	SBR Technology
7.	9.5	Kalanwali	SBR Technology
8.	20	Kalnia Road	SBR Technology

Annexure-5

Report on visit to the industries of Pehowa area, District-Kurukshetra, Haryana on 29.4.2019 by the Executive Committee constituted by the Hon'ble National Green Tribunal vide order dated 7.8.2018 in O.A. no.139-139 of 2016 in the matter of "Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto case)

The following were present during the visit:-

a) Members of the Executive Committee: -

Sr. No.	Name and Designation	Designation in the Committee.
1.	Justice Pritam Pal, Former Judge, Punjab and Haryana High Court, Chandigarh.	Chairman
2.	Dr. V.K Hatwal, Additional Director, MOEF, Chandigarh.	Member
3.	Dr. Babu Ram, Former Member Secretary, PPCB	Member (Special Invitee)

b) Officers of State Pollution Control Board:-

Sr. No.	Name and Designation
1	Sh. S.S Matharu, Environmental Engineer, Punjab Pollution Control Board.
2	Sh. J.P. Singh, Environmental Engineer, HSPCB (HQ).
3	Sh. Rajinder Sharma, Regional Officer, HSPCB, Panchkula Region
4	Sh. Naresh Sharma, AEE, HSPCB, Panchkula Region.
5.	Sh. Jaswinder Singh, Assist ant Scientific Officer, Punjab Pollution Control Board.

1.0 Inspection of industries:

1.1 M/s Sainsons Paper Industries Pvt. Ltd., Plot No. 5, Vill-Bakhli, Tehsil Pehowa, District- Kurukshetra, Haryana :

M/s Sainsons Paper Industries Pvt. Ltd; Pehowa was commissioned in the year 1993 and its production was 10 TPD as kraft-paper. After making extension at different stages, now it is manufacturing 200 TPD kraft-paper using wheat straw, baggasse, rice straw and waste paper as raw material. The manufacturing processes of the industry are pulping, washing, refining, mixing and craft paper making. The quantity of effluent generated by the industry is about 4000 m^3/day. For the treatment of effluent, the industry has installed an effluent treatment plant consisting of primary clarifier, aeration tank 1 and aeration tank no. 2, secondary clarifier, chemical dozing system so called tertiary treatment and microfiltration system. The effluent after treatment is discharged into underground pipe line leading to Saraswati drain. The industry has also provided online monitoring system which is connected to the CPCB/HSPCB servers.

1.1.1 Collection of effluent samples:

The samples of the effluent of the industry were collected from outlet of primary clarifier, secondary clarifier, final outlet of ETP. Since, the aeration system of the

industry was not working properly because in one of the aeration tank (two aeration tanks namely aeration tank-1 and aeration tank-2 have been provided), two aerators out of five aerators were not functioning. Within the aeration tanks, there were dead pockets without air and poor concentration of bio-mass (MLSS & MLVSS) which indicated that the aeration tanks were not working properly. The photograph showing dead pockets in the aerator tank is as per plate-1:

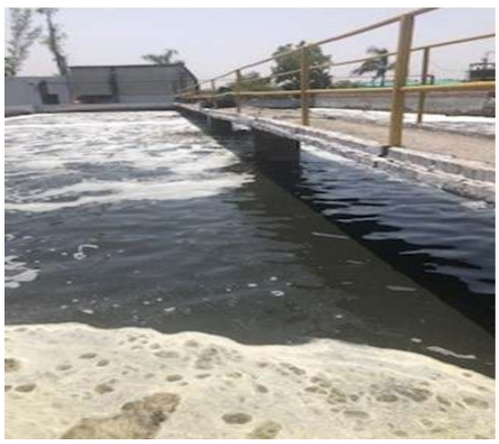


Plate-1: Photograph showing dead pocket in the aeration tank

During the visit, it was observed by the Committee that the industry had increased the quantity of chemicals to the maximum level so that clear effluent may come out of final discharge. Further, the committee has its apprehension that the industry might be maintaining some hidden mechanism through which it is managing the analysis results to be within the norms. Accordingly, the Committee in the evening hours again visited the pipeline of the industry which carries its effluent from the industry and falls into Saraswati drain. The committee in the presence of representative of the industry, collected the effluent sample from the manhole provided on the way of the pipeline falling into Saraswati drain to check the quality of effluent w.r.t. various parameters. Photograph showing the manhole from which the effluent sample was collected is as per **Plate-2**:

Plate-2: Photograph showing the manhole provided on the drain leading to Saraswati river.

Further, in order to check the contribution of pollution potential in Saraswati drain due to discharge of effluent of the industry, the effluent samples of the Saraswati drain from

upstream and downstream of discharge point of Sainsons Paper Industries Pvt. Ltd., Pehowa were also collected.

The analysis results of all above mentioned points are given in Table-1 mentioned below:

Table-1: Analysis results of the effluent samples collected from various points of Ms. Sainsons Paper Industries Pvt. Ltd; Pehowa;

S.N.	Point of sample collection	Parameters (mg/l except pH)						
		pH	TSS	TDS	COD	BOD	MLSS	MLVSS
1	Aeration tank 1	--	--	--	--	--	1100	690
2	Aeration tank 2	--	--	--	--	--	970	610
3	Primary clarifier outlet	7.8	440	2720	494	105	--	--
4	Secondary clarifier outlet	7.9	312	2760	482	102	--	
5	Final outlet	7.2	29	3534	255	22	--	--
6	Secondary Clarifier outlet mixing with small quantity of treated waste water	7.3	1030	3610	1490	530	--	
7	Upstream of the Saraswati drain before the confluence point	7.4	74	528	86	19		
8	From the manhole provided on the pipeline laid to carry effluent into Saraswati drain	6.6	640	3350	1130	480		
9	Downstream of the Saraswati drain before the confluence point	7.2	122	1016	241	60		

1.1.2. Discussion on the analysis results:

The analysis results indicate that the values of TSS, TDS, COD and BOD at the outlet of primary clarifier were observed as 440 mg/l, 2720 mg/l, 494 mg/l and 105 mg/l. The value of MLSS and MLVSS in aeration tank No. 1 and Aeration Tank No.2 were observed as 1100 mg/l, 690 mg/l and 970 mg/l, 610 mg/l, respectively. The values of MLSS & MLVSS in the aeration tanks were quite low as compared to the desired values i.e. MLSS: 3000-4000 mg/l and MLVSS: 2500-3500 mg/l for effective functioning of aeration system.

The values of the parameters namely pH, TSS, TDS, COD and BOD at the outlet of secondary clarifier were observed as 7.9, 312 mg/l, 2760 mg/l, 482 mg/l and 102 mg/l. The treatment efficiency of biological treatment system in terms of removal of TSS, COD and BOD has been observed as 29%, 2.4% and 2.8% which is almost negligible in such type of treatment system. The treatment efficiency indicates that the functioning of aeration tanks is very poor.

After the aerobic biological treatment system, the industry has made mechanism of chemical treatment and microfiltration system but it appears that the industry might have provided some hidden mechanism so that it may manage the analysis results to

be within the norms during the visit by any team / committee. Therefore, even with the worst functioning of aeration tanks, the values of TSS, COD and BOD at the outlet were observed as 29 mg/l, 255 mg/l and 22 mg/l, respectively. Though, these parameters except slight higher value of COD (255 mg/l) were within the permissible limits of 1000 mg/l, 250 mg/l and 30 mg/l but the treatment efficiency of chemical treatment unit indicates the removal of TSS, COD and BOD as 90.7%, 47% and 78.4%, respectively. Such treatment efficiency in terms of removal of COD & BOD cannot be achieved through chemical treatment system. **Had the industry provided such an effective system in the industry, then why the analysis results of the manhole samples were exorbitantly high?** This indicates that the industry discharges its untreated effluent into its pipeline leading to Saraswati drain and contaminates the quality of water of the drain leading to rive Ghaggar.

In order to check the quality of water of Saraswati drain after the addition of effluent of the industry, the samples were also collected from upstream and downstream of the discharge point of the industry and point source and the analysis results indicate that the values of TSS, COD and BOD at upstream were observed as 74 mg/l, 86 mg/l and 19 mg/l, respectively. These values at the downstream of the point source were observed as 122 mg/l, 241 mg/l and 60 mg/l. The values of these parameters at the downstream of the river are much higher and these have contaminated the quality of water of Saraswati drain ultimately leading to River Ghaggar.

1.1.3 Observations of the team:

1. Lot of floating matter was observed in the primary clarifier which indicates ineffective functioning of the clarifier.
2. The industry has provided two aeration tanks namely aeration tank -1 and aeration tank-2. In one of the aeration tank, two aerators were lying defunct and dead pockets without air were observed in both the aeration tanks. Therefore, in these tanks, the concentration of biomass was found very poor resulting in poor efficiency of the aerobic biological treatment system.
3. The weir of secondary clarifier was submerged and had become non-functional resulting in poor separation of sludge and effluent.
4. The analysis results of the effluent samples collected at the outlet of the primary clarifier and at the outlet of secondary clarifier indicate that the treatment efficiency in terms of removal of TSS, COD and BOD was almost negligible which indicate that the aerobic biological unit has become almost non-functional.
5. The values of TSS, COD and BOD in the effluent sample collected from manhole provided above the pipeline leading to Saraswati drain and further leading to river Ghaggar were observed as 640 mg/l, 1130 mg/l and 480 mg/l which indicate that the industry does not operate its treatment plant. Moreover, the industry needs to upgrade its treatment system especially aeration tank-1 and

aeration tank-2 with proper diffuser system and nutrients dosing mechanism to maintain the desired value of dissolved oxygen varying between 2-3 mg/l and desired value of MLSS and MLVSS as 3000-4000 mg/l and 2500-3500 mg/l, respectively and operation of secondary clarifier with appropriate surface loading rate to separate the sludge and effluent.

6. During visit to the industry, the Committee also inspected the "Online Continuous Effluent Monitoring System" (OCEMS) installed by it. The values shown by the system were TSS:2.74 mg/l, COD: 105.36 mg/l, BOD 10.80 mg/l and pH:7.01. The photograph indicating these values by OCEMS is mentioned as per **Plate-3**:

Plate-3: "Online Continuous Effluent Monitoring System" (OCEMS) showing the values of the parameters namely TSS, COD, BOD and pH.

7. In order to check its authenticity of OCEMS, a sample from secondary clarifier outlet was collected and it was mixed with small quantity of treated wastewater and this mixed wastewater was put into a container and the monitoring probe of the OCEMS was inserted in the container. The values as indicated by the OCEMS were observed as TSS: 62.79 mg/l, BOD:58.99 mg/l, pH: 8.51 and COD were out of range. This mixed effluent was also analysed manually in the laboratory of PPCB and the values of the parameter were observed as TSS: 1030 mg/l, BOD: 530 mg/l and COD 1490 mg/l. **Thus, there is large difference between the values as shown by OCEMS and manually analysed in the laboratory.** These facts indicate that the values of the various parameters mentioned on the Online Continuous Effluent Monitoring System have been adjusted and manipulated to show the results always within the permissible limits.

8. The industry discharges its untreated effluent into Saraswati drain, which further leads to river Ghaggar and thus contaminate the quality of river water by way of contributing high concentration of pollutants i.e. TSS: 640 mg/l, COD:1130 mg/l and BOD 480 mg/l in the Saraswati drain further leading to river Ghaggar.

1.1.4 Recommendations of the Committee:

Keeping in view the analysis profile of effluent samples of the industry as discussed in para 1.1.2 and observations of the Committee as mentioned in para 1.1.3, the Committee recommends as under: -

1. HSPCB shall issue closure order under the provisions of the Water Act, 1974.
2. HSPCB shall impose Environmental compensation on the industry amounting to Rs.50 lakh. This amount shall be spent on the rejuvenation of the quality of water of Saraswati drain and subsequently the quality of river Ghaggar and maintain flora and fauna in the drain.
3. HSPCB shall be asked to get the performance guarantee of the industry amounting to Rs.50 lakh to ensure that the upgradation to be made in the treatment system alongwith other components shall function effectively to achieve the various parameters of the treated effluent.
4. HSPCB shall file prosecution case under the provisions of the Water Act, 1974 against the industry, its Managing Director and other responsible persons for violating the provisions of the said Act.
5. The industry shall disconnect its outlet maintained in the Saraswati drain.
6. HSPCB shall visit the industry surprisingly from time to time in odd hours and ensure that the industry should not discharge its treated/untreated effluent into Saraswati drain.
7. Haryana State Pollution Control Board (HSPCB) shall ask the industry to upgrade its effluent treatment plant by installing appropriate technology / equipment or modification of the components of the treatment system to achieve the prescribed limits w.r.t. all the parameters.
8. The industry shall develop adequate land for disposal of treated effluent for irrigation or plantation or it shall make agreements with farmers having adequate land nearby the industry to ensure that the whole of the treated effluent is utilized for plantation or irrigation purposes.
9. The industry shall get analyze the quality of ground water and soil samples from different locations nearby the industry every year.
10. Online continuous effluent monitoring system should be got calibrated on quarterly basis from the vendor and it shall be ensured that no manual intervention may be made in the system.
11. The industry in consultation with HSPCB officers shall install CCTV cameras on all the important components of ETP, outlet of ETP and OCEMS.
12. Irrigation management plan for use of treated effluent should be prepared by the industry in consultation with Deptt. of Soil & Water Conservation and same shall be submitted to HSPCB.

2.0. M/s Nishat Paper (P) Ltd., Arunai Road, Vill-Sainsa, Tehsil-Pehowa, District-Kurukshetra.

2.1 Background

The industry is engaged in manufacturing of straw board using paddy straw as raw material. The manufacturing processes of industry are shredding, digestion, mechanical beating, machining and straw board. The industry discharges its effluent about 100 KLD into Saraswati drain, whereas, as per the record of Haryana State Pollution Control Board, the industry has been granted Consent under Water Act 1974 granted for recirculation of whole of the effluent.

2.2 Visit to the industry

The following were present during the visit:

c) Members of the Executive Committee: -

Sr. No.	Name and Designation	Designation in the Committee.
1.	Justice Pritam Pal, Former Judge, Punjab and Haryana High Court, Chandigarh.	Chairman
2.	Dr. V.K Hatwal, Additional Director, MOEF.	Member
3.	Dr. Babu Ram, Former Member Secretary, PPCB	Member (Special Invitee)

d) Officers of State Pollution Control Board:-

Sr. No.	Name and Designation
1	Sh. S.S Matharu, Environmental Engineer, Punjab Pollution Control Board.
2	Sh. J.P. Singh, Environmental Engineer, HSPCB (HQ).
3	Sh. Rajinder Sharma, Regional Officer, HSPCB, Panchkula Region
4	Sh. Naresh Sharma, AEE, HSPCB, Panchkula Region.
5	Sh. Jaswinder Singh, Assist ant Scientific Officer, Punjab Pollution Control Board.

2.3 Collection of Effluent Sample

During visit, it was observed that the industry discharges its untreated effluent into pipeline leading to Saraswati drain. The physical condition of the effluent flowing into drain indicated that lot of sludge was entering into Saraswati drain. The photographs

showing the entry of untreated effluent into Saraswati drain are mentioned as per Plate-4 and Plate-5.

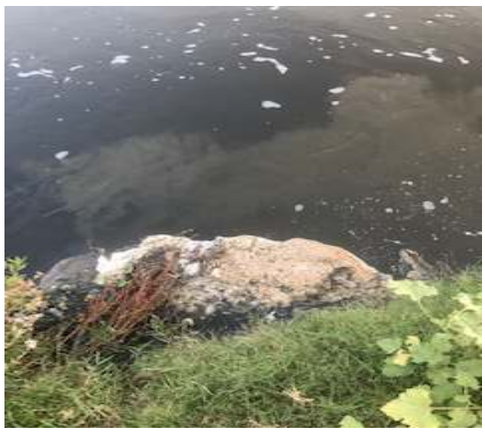


Plate No. 4: Photographs showing sludge on the bank of river Saraswati

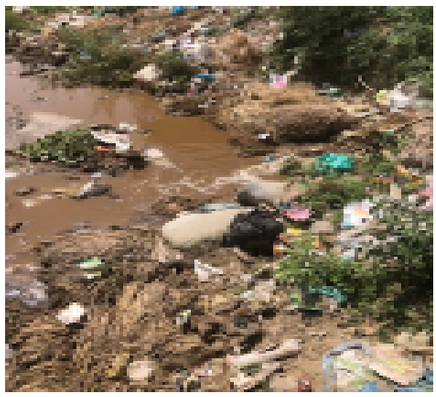


Plate No. 5 : Photographs showing the entry of effluent alongwith sludge of the industry into Saraswati drain

The effluent sample from the outlet of pipeline carrying untreated effluent into Saraswati drain was collected and the analysis results are mentioned as per Table 2 given blow:

Table-2: Analysis results of untreated effluent entering into Saraswati drain

Sr. No	Parameters (mg/l except pH)	Bye Pass of the industry into Saraswati Drain
1	PH	7.63
2	TSS mg/I	1020
3	TDS mg/I	1572
4	COD mg/I	1396
5	BOD mg/I	445
6	Sodium Absorption Ratio (SAR)	1.3
7	Residual Sodium Carbonate meq/l	0.1

2.4 Discussion on the analysis results

The analysis results of the effluent sample collected from the outlet of pipeline carrying untreated effluent into Saraswati drain indicate that the values of parameters namely TSS, COD and BOD were observed as 1020 mg/l, 1396 mg/l and 445 mg/l, which are much beyond the permissible limits of TSS=100mg/l, COD=250mg/l and BOD=30mg/l.

2.5 Observations of the Committee:

1. The industry doesn't operate its recirculation system, as such, it has maintained its bypass outlet through pipeline under the road to discharge its untreated effluent directly into Saraswati River.

2. The values of various parameters namely TSS, COD and BOD in the untreated effluent, entering into Saraswati drain, are much beyond the permissible limits.

3. Solid waste in the form of dump site exists on the bank of the Saraswati drain.

4. The industry has not provided any flow measuring device at the ground water source and at final outlet leading to Saraswati drain.

2.6 Recommendations of the Committee

1. HSPCB shall issue closure order to the industry under the provisions of the Water Act, 1974 and shall also revoke the consent granted under the provisions of the said Act.

2. The industry shall upgrade its existing system of recirculation so as to ensure that no effluent is discharged into Saraswati drain at any time.

3. HSPCB shall impose Environmental compensation on the industry amounting to Rs. 20 lakh. This amount shall be spent on the rejuvenation of the quality of water of Saraswati drain and subsequently the quality of river Ghaggar and maintain flora and fauna in the drain.

4. HSPCB shall be asked to get the performance guarantee of the industry amounting to Rs.20 lakh to ensure that the upgradation to be made in the treatment system alongwith other components shall function effectively to achieve the various parameters of the treated effluent.

5. HSPCB shall file prosecution case under the provisions of the Water Act, 1974 against the industry, its Managing Director/Managing Partner and other responsible persons for violating the provisions of the said Act.

6. The industry shall dismantle its pipeline carrying untreated effluent into Saraswati drain.

7. The industry shall get permission from Central Groundwater Authority for abstraction of groundwater.

8. HSPCB shall take up the matter with the Department of Irrigation for removal of Solid Waste Dump Site exists on the bank of Saraswati drain and near the industry.

3.0. M/s Shiv Paper Board Mill, Arunai Road, Vill-Dhanirampura, Tehsil-Pehowa, District-Kurukshetra.

3.1 Background

The industry is engaged in manufacturing of straw board using paddy straw as raw material. The production capacity of the said unit is 5 TPD. The manufacturing

processing of industry are shredding, digestion, mechanical beating, machining and straw board. The industry discharges about 50 KLD affluent into Saraswati drain, whereas the Consent granted to the industry under Water Act, 1974 is for recirculation of whole of the effluent.

3.2 Collection of Effluent Sample

During visit, the effluent sample of the industry was collected from the underground pipeline leading to Saraswati drain. The analysis results are mentioned in Table-3:-

Table-3: Analysis results of the untreated effluent entering into Saraswati drain

Sr. No	Parameters (mg/l except pH)	Bye Pass of the industry into Saraswati Drain
1	PH	7.09
2	TSS	358
3	TDS	-
4	COD	956
5	BOD	320
6	Oil & Grease	12

3.3. Discussion on the Analysis Result

The analysis results of the effluent sample collected from the outlet of the pipeline discharging untreated effluent into Saraswati drain indicate that the values of TSS, COD, BOD and oil and grease were observed as 358 mg/l, 956mg/l, 320mg/l, and 12 mg/l, respectively, these values are much higher than the permissible limits of 100,250, 30mg/l and 10 mg/l, respectively.

3.4. Observation and Recommendations of the Committee

1. HSPCB shall issue closure order to the industry under the provisions of the Water Act, 1974 revoke the consent under the provisions of the said Act.
2. The industry shall upgrade its existing system of recirculation so as to ensure that no effluent is discharged into Saraswati drain at any time.
3. HSPCB shall impose Environmental compensation on the industry amounting to Rs.20 lakh This amount shall be spent on the rejuvenation of the quality of water of Saraswati drain and subsequently the quality of river Ghaggar and maintain flora and fauna in the drain.
4. HSPCB shall be asked to get the performance guarantee of the industry amounting to Rs.20 lakh to ensure that the upgradation to be made in the treatment system alongwith other components shall function effectively to achieve the various parameters of the treated effluent.
5. HSPCB shall file prosecution case under the provisions of the Water Act, 1974 against the industry, its Managing Director/Managing Partner and other responsible persons for violating the provisions of the said Act.

6. The industry shall dismantle its pipeline carrying untreated effluent into Saraswati drain.
7. The industry shall get permission from Central Groundwater Authority for abstraction of groundwater.

4.0. M/s Kailash Paper Board Mill, Arunai Road, Vill-Saraswati Khera, Tehsil-Pehowa, District-Kurukshetra.

4.1.0 Background

The Committee conducted its duty till late evening hours on 29.4.2019 and could not carry the further inspection due to start of night hours, therefore, it directed the Regional Officer of Haryana State Pollution Control Board to visit the remaining industries in the vicinity to verify the treatment System provided by the industry to treat its effluent and the disposal of the treated effluent. Accordingly, the Regional Officer of HSPCB visited the industry 30.04.2019 and submitted his report as under:-

The industry is engaged in manufacturing of straw board using paddy straw as raw material. The production capacity of the said unit is 2 TPD. The manufacturing processing of industry are shredding, digestion, mechanical beating, machining and straw board making. The industry discharges about 50 KLD effluent into Saraswati drain, whereas, the Consent granted to the industry under water Act, 1974 is for recirculation of whole of the effluent.

4.2 Collection of Effluent Sample

The effluent sample of the industry was collected from the underground pipeline leading to Saraswati drain. The analysis results are mentioned in Table-4 given below:-

Table 4: Analysis Result of the effluent sample collected from underground pipeline leading to Saraswati drain

Sr. No	Parameters (mg/l except pH)	Bye Pass of the industry into Saraswati Drain
1	pH	7
2	TSS	750
3	TDS	-
4	COD	2492
5	BOD	660
6	Oil & Grease	16.5

4.3 Discussion on the Analysis Result

1. The analysis results of the effluent sample collected from outlet of underground pipeline leading to Saraswati drain indicate that the value of TSS, COD, BOD and oil and grease were observed as 750 mg/l, 2492 mg/l, 660 mg/l and 16.5 Mg/l, respectively. These values are much higher than the permissible limits of 100 mg/l, 250 mg/l, 30 mg/l and 10 mg/l, respectively.

4.4 Observation and Recommendations of the Committee

1. HSPCB shall issue closure order under the provisions of the Water Act, 1974 and revoke the consent under the provisions of the said Act.

2. The industry shall upgrade its existing system of recirculation so as to ensure that no effluent is discharged into Saraswati drain at any time.
3. The industry shall submit environment compensation of Rs.20 lakh to HSPCB and amount so collected may be used for rejuvenation of Saraswati drain and floura & fauna and rejuvenation of river Ghaggar water.
4. The industry shall submit performance guarantee amounting to Rs. 20 lakh to the Board for upgradation / modification, if any to be made in the recycling system to ensure that no effluent is discharged into Saraswati drain
5. HSPCB shall file prosecution case under the provisions of the Water Act, 1974 against the industry, its Managing Director/Managing Partner and other responsible persons for violating the provisions of the said Act.
6. The industry shall dismantle its pipeline carrying untreated effluent into Saraswati drain.
7. The industry shall get permission from Central Groundwater Authority for abstraction of groundwater.

5.0. M/s Sunrise Paper Board Mill, Vill-Guldhera, Tehsil-Pehowa, District-Kurukshetra.

The industry namely M/s Sunrise Paper Board Mill, Vill-Guldhera, Tehsil-Pehowa, District-Kurukshetra was visited by the Regional Officer of HSPCB on 30.04.2019 as per the directions of Executive Committee. During visit, it was observed that the unit is lying closed since long as informed by nearby residents. Photograph, showing the industry in dismantled condition, is as per **Plate-6**.

Plate-6- Photographs showing industry in dismantled condition

5.1 Recommendations

Since the industry is lying closed and no information in this regard is available in the record of Regional Officer of HSPCB. Therefore, the Committee recommends that the power connection of the industry shall be disconcerted by the Haryana State Electricity Board and the consents, if, granted to the industry by HSPCB under the provisions of the Water Act, 1974 and Air Act, 1981 be revoked.

6.0 Recommendations on other issues:

i) Haryana State Pollution Control Board shall take disciplinary action against the concerned officers who have not visited these industries and not reported about non-operation of effluent treatment plants/recycling system and other non-compliances for such a long time by the industries and disposing of their untreated effluent into Saraswati drain. Moreover, these industries were never asked to disconnect their discharge from Saraswati drain and disposed off the same on to land for irrigation/plantation or recycling.

ii) Haryana State Pollution Control Board shall take up the issue regarding lifting of Solid Waste Dump Site existing on the bank of Saraswati drain and near to the industry namely M/s Nishant Papers Pvt. Ltd. with the department of irrigation and get removed the solid waste from the said site within 10 days.

iii) Department of Irrigation, Government of Haryana, who is the custodian of the drain/river of the State, shall take disciplinary action against the officers who had not reported about the discharge of untreated effluent of these industries into Saraswati drain and by these officers had not brought the matter into the knowledge of the Haryana State Pollution Control Board authorities and why these industries were not disallowed to discharge their wastewater into Saraswati drain.

(Dr. V.K. Hatwal)

(Dr. Babu Ram)

(Justice Pritam Pal)
Former Judge,
Punjab and Haryana
High Court

Annexure-6

REGISTERED POST

OFFICE OF THE EXECUTIVE COMMITTEE

Constituted by the Hon'ble National Green Tribunal in Original Application no.138 and 139 of 2016, OA No.916/2018 (earlier OA No.101 of 2014) OA No.606 of 2018 and OA No.1040 of 2018

(Official Address: Tower No.5, 4th Floor, Forest Complex, Sector 68, SAS Nagar) Tel. No. 0172-2298091
Email: cecghaggar@gmail.com

To

The Chairman,
Haryana State Pollution Control Board,
Panchkula

No. CEC/2019/123
Dated: 21.5.19

Subject: **Report on visit to the industries of Pehowa area, District-Kurukshetra, Haryana on 29.4.2019 by the Executive Committee constituted by the Hon'ble National Green Tribunal vide order dated 7.8.2018 in O.A. no.139-139 of 2016 in the matter of "Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto case)**

It is intimated that the Executive Committee constituted by the Hon'ble National Green Tribunal vide order dated 7.8.2018 in O.A. no.138-139 of 2016 in the matter of "Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto case) has visited the following industries of Pehowa area, District Kurukshetra (Haryana) on 29.4.2019: -

1. M/s Sainsons Paper Industries Pvt. Ltd., Plot No. 5, Vill-Bakhli, Tehsil Pehowa, District- Kurukshetra, Haryana
2. M/s Nishat Paper (P) Ltd., Arunai Road, Vill-Sainsa, Tehsil-Pehowa, District-Kurukshetra
3. M/s Shiv Paper Board Mill, Arunai Road, Vill-Dhanirampura, Tehsil-Pehowa, District-Kurukshetra
4. M/s Kailash Paper Board Mill, Arunai Road, Vill-Saraswati Khera, Tehsil-Pehowa, District-Kurukshetra
5. M/s Sunrise Paper Board Mill, Vill-Guldhera, Tehsil-Pehowa, District-Kurukshetra

The Committee has prepared its report and the same is enclosed herewith. In the report, the Committee has made recommendations with respect to all the industries. Kindly peruse the same.

It is requested that necessary action on the recommendations made by the Committee be taken immediately and action taken report be submitted to this office within 15 days.

DA/As above

(Justice Pritam Pal)
Former Judge,
Punjab & Haryana High Court
now as Chairman,
Executive Committee

No. CEC/2019/124

Dated: 21.05.2019

A copy of the above is forwarded to the Additional Chief Secretary to Government of Haryana, Department of Environment and Climate Change, Room No.39, 7th Floor, Haryana Civil Secretariat, Sector-1, Chandigarh for information and necessary action.

(Justice Pritam Pal)

No. CEC/2019/125

Dated: 21.05.2019

A copy of the above is forwarded to the Principal Secretary to Government of Haryana, Department of Irrigation, Mini Secretariat, Haryana, Sector-17, Chandigarh for information and necessary action. He is requested to take necessary action on sub Point No.(ii) and (iii) of Point No.6.0 of the report and action taken report be submitted to this office within 15 days.

(Justice Pritam Pal)

Annexure-7

O/C

OFFICE OF THE EXECUTIVE COMMITTEE (GHAGGAR RIVER)

Constituted by the Hon'ble National Green Tribunal under Section 25 of National Green Tribunal Act, 2010 (for execution of order dated 7.8.2018 passed In Original Application no.138 and 139 of 2016) titled

"Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto case)

(Official Address: Tower No.5, 4th Floor, Forest Complex, Sector 68, SAS Nagar) Tel. No. 0172-2298091

Email: cecghaggar@gmail.com

To

1. The Chief Executive officer,
   Punjab Water Supply and Sewerage Board,
   Chandigarh.

2. The Chairman,
   Punjab Pollution Control Board,
   Patiala.

No.CEC/2019/155-156
Dated: 30.5.2019

Subject: **Report on visit to the STP, Zirakpur for treatment of sewage of Zirakpur Town and its adjoining areas on 25.5.2019 by the Executive Committee constituted by the Hon'ble National Green Tribunal vide order dated 7.8.2018 in O.A. no.139-139 of 2016 in the matter of "Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto case)**

.....

It is intimated that the Member of the Executive Committee constituted by the Hon'ble National Green Tribunal vide order dated 7.8.2018 in O.A. no.139-139 of 2016 in the matter of "Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto case) has visited the STP Zirakpur on 25-05-2019 to check its functioning and operation.

The report prepared by the committee is enclosed herewith. The observations and recommendations are mentioned at page 1 to 4 of the report and these may kindly be perused.

It is requested that appropriate action on the various observations and recommendations made by the committee be taken and action taken report be submitted within three weeks.

(Dr. Babu Ram)
Member,
Executive Committee

O/C

Endst. No.CEC/2019/157 Dated: 30.5.2019

A copy of the above is forwarded to the Principal Secretary to Government of Punjab, Department of Science, Technology and Environment, Chandigarh, for information and necessary action.

(Dr. Babu Ram)
Member,
Executive Committee

O/C

Annexure-8

Annexure-8

Ground water quality at various locations along the river Ghaggar (Haryana)

Sr.No.	Analysis Report No.	Date of collection	pH (6.5 to 8.5 limit)	Conductivity	BOD	COD	Ammonia	Total Dissolved Solids (500 limits) (2000 limit)	Total Suspended Solids	Total Hardness (300 limit)	Fluoride (1.0 limits)	Chloride (250 limits)	Sulphate (200 limits)	Calcium (75 limits) (200)	Magnesium (30) (100)	Nickel (0.02)	Copper (0.05 limits)	Chromium (0.05 limits)	Zinc (5 limits)	Lead (0.05 limits)	Iron (0.3 limits)
Jind																					
Sr.No.	**Analysis Report No.**	**Date of collection**	**pH (6.5 to 8.5)**	**Conductivity**	**BOD**	**COD**	**Ammonia**	**Total Dissolved Solids (500 - 2000)**	**Total Suspended Solids**	**Total Hardness (300)**	**Fluoride (1.0)**	**Chloride (250)**	**Sulphate (200)**	**Calcium (75 - (200)**	**Magnesium (30-100)**	**Nickel (0.02)**	**Copper (0.05)**	**Chromium (0.05 l)**	**Zinc (5)**	**Lead (0.05)**	**Iron (0.3)**
1	Outlet of Hand pump installed by PHED near Rani Talab, Taxi Stand, Jind																				
	13 dt. 16.04.2019	09.04.2019	8.2	4760	ND	ND	ND	2910	14	390	ND	990	40	270	120	ND			ND		0.7
Hisar																					
Sr.No.	**Analysis Report No.**	**Date of collection**	**pH (6.5 to 8.5 limit)**	**Conductivity**	**BOD**	**COD**	**Ammonia**	**Total Dissolved Solids (500 limits) (2000 limit)**	**Total Suspended Solids**	**Total Hardness (300 limit)**	**Fluoride (1.0 limits)**	**Chloride (250 limits)**	**Sulphate (200 limits)**	**Calcium (75 limits) (200)**	**Magnesium (30) (100)**	**Nickel (0.02)**	**Copper (0.05 limits)**	**Chromium (0.05 limits)**	**Zinc (5 limits)**	**Lead (0.05 limits)**	**Iron (0.3 limits)**
2	Near point source, Village Kelania, Sirsa																				
	18	26.03.19	8.7	407	ND	ND	-	246	10	90	ND	100	10	70	20	ND		ND	ND		ND
3	Near Bridge, Sirsa - Dabwali Road, Sirsa, 1025 GH-1																				
	17	26.03.19	9.4	502	ND	ND	-	302	10	80	-	90	10	50	30	ND		ND	ND	-	ND
4	Tubewell of Sh. LaxmiNarayana, VillBakarianwali, Sirsa																				
	21	29.03.19	8.9	4960	ND	ND		3010	12	420	ND	1220	16	270	150	ND		ND	ND		ND
5	Near DhaniJaikaran Singh																				
	19	26.03.19	8.8	558	ND	ND		336	14	100	ND	70	10	80	20	ND		ND	ND		ND
6	Tubewell at Village FarwaiKhurd, Sirsa																				
	20	26.03.19	9.2	930	ND	ND		562	12	110	ND	120	14	70	40	ND		ND	ND		ND
7	Tubewell of NumberdarRupchand, Near Village FarwaiKhurd, Sirsa																				
	15	26.03.19	8.5	2190	ND	ND		1298	20	210	ND	620	20	160	50	ND		ND	ND		ND
8	Tubewell near Village Mallewala, Sirsa																				

	16	26.03.19	8.5	2030	ND	ND		1228	14	220	ND	710	30	150	70	ND		ND	ND		ND
9	Tubewell of water works, Village Kawalgarh																				
	13	11.03.19	8.3	652	ND	ND		401	10	160	ND	120	16	120	40	ND		ND	ND		ND
10	Tubewell of Smt. Sushma Rani, Sarpanch, Khairpur																				
	14	11.03.19	9.2	726	ND	ND		441	12	130	ND	180	12	110	20	ND		ND	ND		ND
11	Tubewell of Loharia, Vill. FarwaiKalan, Sirsa																				
	31	15.04.19	8.6	3170	ND	ND		1857	16	220	160	60	ND	390	40	ND		ND	ND		ND
12	Tubewell of Loharia, Vill. FarwaiKalan, Sirsa																				
	32	15.04.19	8.7	1206	ND	ND		734	12	210	170	50	ND	190	30	ND		ND	ND		
13	Tubewell of Laxman Das Vill. DhaniBurjkaramgarh (Sanghar), Sirsa																				
	33	15.04.19	8.8	873	ND	ND		531	12	200	160	40	ND	160	40	ND		ND	ND		
14	Tubewell of Murlidhar, Vill.- DhaniBurjkaramgarh (Sanghar), Sirsa																				
	34	15.04.19	8.5	464	ND	ND		284	10	80	50	30	ND	90	10	ND		ND	ND		
15	Tubewell of Omprakash, Vill.- DhaniBurjkaramgarh (Sanghar), Sirsa																				
	35	15.04.19	8.7	356	ND	ND		217	12	110	80	30	ND	90	20	ND		ND	ND		
16	Tubewell of Vill. Talwara, Chandpur Road, Near Ghaggar																				
	14	12.04.19	8.6	467	ND	ND		268	12	120	90	30	ND	70	16	ND		ND	ND		
17	Tubewell at Talwara to Jakhal Road, Village Talwara																				
	15	12.04.19	8.7	464	ND	ND		284	14	110	70	40	ND	40	10	ND		ND	ND		
18	Tubewell at Talwara																				
	16	12.04.19	8.7	511	ND	ND		311	10	100	70	30	ND	70	12	ND		ND	ND		
19	Tubewell of Village Jakhal																				
	17	12.04.19	8.9	509	ND	ND		310	12	80	50	30	ND	50	18	ND		ND	ND		
20	Tubewell Narail Road, Jakhal																				
	18	12.04.19	8.8	554	ND	ND		338	14	120	80	40	ND	60	12	ND		ND	ND		
21	Tubewell near Narail Road River Ghaggar, Jakhal																				
	19	12.04.19	8.5	582	ND	ND		358	16	140	100	40	ND	70	14	ND		ND	ND		
22	Tubewell Near Ghaggar Narail Road, Jakhal																				
	20	12.04.19	8.5	507	ND	ND		278	12	90	70	20	ND	40	10	ND		ND	ND		
23	Tubewell of Talwari																				
	21	12.04.19	8.6	487	ND	ND		308	8	100	60	40	ND	30	10	ND		ND	ND		
24	Tubewell of Makhan Singh Talwari																				
	22	12.04.19	8.2	624	ND	ND		380	16	130	80	50	ND	90	14	ND		ND	ND		
25	Tubewell SadhanwasTalwari Road																				
	23	12.04.19	8.1	839	ND	ND		511	14	160	110	50	ND	120	14	ND		ND	ND		
26	Tubewell Sadhanwas to DhaniNali Road, Sadhanwas																				
	24	12.04.19	8.7	521	ND	ND		318	10	110	80	30	ND	130	12	ND		ND	ND		
27	Tubewell DhaniNali Road, Sadhanwas																				
	25	12.04.19	8.6	605	ND	ND		368	12	120	100	20	ND	70	14	ND		ND	ND		
28	Tubewell Ratia Road, Chandpura																				

	26	12.04.19	8.7	1100	ND	ND		670	16	180	110	70	ND	70	14	ND		ND	ND		
29	Tubewell Ratia Road, Chandpura																				
	27	12.04.19	7.9	1153	ND	ND		701	14	190	120	70	ND	90	12	ND		ND	ND		
30	Tubewell Chandpura to Ratia Road																				
	28	12.04.19	8.8	566	ND	ND		350	10	130	100	30	ND	60	14	ND		ND	ND		
31	Tubewell Babanpur to Ratia Road, Ratia																				
	29	12.04.19	8.7	994	ND	ND		601	12	180	120	60	ND	50	14	ND		ND	ND		
32	Johne Service Station, Ratia																				
	30	12.04.19	8.8	380	ND	ND		237	10	100	70	30	ND	30	12	ND		ND	ND		
33	Tubewell of Advocate Vikram Singh, VillKelania, Sirsa																				
	1	04.04.19	9.4	441	ND	ND		236	14	90	70	20	ND	90	10	ND		ND	ND		
34	Tubewell of AathBurgiwalaBalvinder Singh, Village Kelnia, Sirsa																				
	2	04.04.19	8.6	333	ND	ND		202	12	110	70	40	ND	60	12	ND		ND	ND		
35	Tubewell of Buta Singh S/o Banta Singh, VillJnorarnali, Sirsa																				
	3	04.04.19	8.9	396	ND	ND		240	10	90	70	20	ND	80	14	ND		ND	ND		
36	Tubewell of Lakha Singh, VillNanakpur, Sirsa																				
	4	04.04.19	8.5	695	ND	ND		420	10	70	50	20	ND	100	10	ND		ND	ND		
37	Tubewell at Gill Farm House, Vill-Bhambur, Sirsa																				
	5	04.04.19	9.3	555	ND	ND		337	14	100	80	20	ND	70	10	ND		ND	ND		
38	Tubewell of Hame Singh on road from Ottu head to Gidranwali, Sirsa																				
	6	04.04.19	9.2	463	ND	ND		281	14	130	90	40	ND	140	10	ND		ND	ND		
39	Tubewell of Surender Singh S/o Bheem Singh, Vill-Ottu, Sirsa																				
	7	04.04.19	8.7	553	ND	ND		336	16	140	90	50	ND	90	20	ND		ND	ND		
40	Tubewell of Purn Singh S/o Makan Singh, VillOttu, Sirsa																				
	8	04.04.19	8.5	586	ND	ND		357	18	90	70	20	ND	50	20	ND		ND	ND		
41	Tubewell of Sohan Ram Vill.- DhaniPartap Singh, Sirsa																				
	9	04.04.19	8.5	766	ND	ND		466	12	120	90	30	ND	100	16	ND		ND	ND		
42	Tubewell of Minder Numberdar, Vill.- DhaniPartap Singh, Sirsa																				
	10	04.04.19	8.8	837	ND	ND		511	14	140	90	50	ND	190	20	ND		ND	ND		
43	Tubewell of PHED Water Works at Vill.- DhaniPartap Singh, Sirsa																				
	11	04.04.19	8.9	562	ND	ND		344	14	90	60	30	ND	70	10	ND		ND	ND		
44	Tubewell installed at Ottu Lake, Sirsa																				
	12	04.04.19	8.7	315	ND	ND		195	14	70	40	30	ND	50	10	ND		ND	ND		