

# **3<sup>rd</sup> report**

of the

## **Executive Committee**

Constituted by the

**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 with Yogender Kumar**

Submitted by

**Executive Committee  
constituted by Hon'ble NGT**

**1<sup>st</sup> October, 2019**

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**3<sup>rd</sup> report of Executive Committee constituted by the 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**

**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 and subsequently in the order dated 21.05.2019, the name of Dr. Babu Ram, former Member Secretary, Punjab Pollution Control Board was included as a Member of the Executive Committee. Now, the structure of the Executive Committee is as under:

<b>Sr. No.</b>	<b>Name &amp; Designation</b>	<b>Designation in the Executive Committee</b>
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, Additional Director, Ministry of Environment Forest & Climate Change (MoEF & CC)	Member
4.	Dr. Babu Ram, Former Member Secretary, Punjab Pollution Control Board	Member

**2.0 Submission of the report by the Executive Committee on 28.02.2019 and consideration of the report by Hon'ble NGT on 11.04.2019.**

The Executive Committee had submitted its report dated 28.02.2019 under the cover dated 1.03.2019, which was considered by the Hon'ble Tribunal on the date of hearing held on 11.04.2019. While accepting the report of the Executive Committee, the Hon'ble Tribunal has further directed in para no. 27 and 28 as under:

**Para no. 27**

In the view of the above, we direct that various actions proposed in the action plans of Himachal Pradesh, Haryana and Chandigarh may continue to be monitored by the Chief Secretaries, as already directed. Recommendations of the Committee and suggestions of learned Amicus may be acted upon.

**Para no. 28**

The Committee may also continue to monitor the execution of the directions of this Tribunal. The Executing Committee may give a further report in the matter after six months or as and when considered necessary. Learned Amicus Curiae will be at liberty to forward any further suggestion to the Committee.

The matter has been listed in the month of Oct, 2019.

The detailed order dated 11.04.2019 passed by the Hon'ble NGT is annexed as per **Annexure-1.**

### **3.0 Submission of next report (2<sup>nd</sup> report) by the Executive Committee on 14.06.2019**

In the meantime, Executive Committee has submitted its next report i.e 2<sup>nd</sup> report through E-mail at [filing.ngt@gmail.com](mailto:filing.ngt@gmail.com) as well as through hard copy vide no. CEC/2019/187 dated 14.06.2019. Copy of the report along with annexures containing 94 pages is annexed as per **Annexure-2.**

#### **3.1 Contents of the report dated 14.06.2019 in brief**

**3.1.1** The Executive Committee held its meeting with the Nodal officers of three States (Punjab, Haryana and Himachal Pradesh) and U.T Chandigarh on 29.03.2019. The decisions taken/ recommendations made in the said meeting are mentioned at page no. 4 and 5 of the report and now at pages No. 113-114 of this report.

#### **3.1.2 Visit to District Fatehabad, Sirsa (Haryana) and STP Sardurgarh (Punjab) on 3.04.2019 and 4.04.2019 w.r.t treatment of sewage of the towns**

The Executive Committee visited Fatehabad town (Haryana), where firstly visited health camp organized by the department of Health at village Talwari and thereafter pollution sources in river Ghaggar were visited and made following observations / recommendations.

1. STP for Ratia town has been installed and no direct discharge from the drain into river Ghaggar.
2. For treatment of sewage of village Talwara, STP of capacity 5 MLD has been installed.
3. For treatment of sewage of Sirsa town, 3 STPs of capacity 15 MLD, 5 MLD and 5 MLD are in operation and 20 MLD STP is under planning for which Public Health Engineering Department of Haryana has been directed to install the same in a time bound manner.
4. Meeting with the District level officers of Districts Fatehabad and Sirsa was held on 4.04.2019, wherein, the issues w.r.t monthly action taken report of the District Level Special Task Force and three monthly action taken report of the State Level Special task Force were discussed. The issues regarding identification of pollution sources in river Ghaggar and steps taken to install STPs and action taken against the defaulters were also deliberated.
5. The Executive Committee also monitored the health camp organized at village Mallewal, District Sirsa on 4.04.2019, wherein 372 patients were examined and were found suffering from various diseases which are found commonly in any given population, as per the opinion of the Doctors.



6. Executive Committee also visited STP Sardulgarh (Punjab) of capacity 4 MLD based on WSP technology. The treated sewage was found discharged into river Ghaggar due to no requirement of water for irrigation of wheat crops. The detailed report of visit dated 3.04.2019 and 4.04.2019 is mentioned at pages 6 to 9 of the report and at pages 115 to 118 of this report.

**3.1.3 11<sup>th</sup> Meeting of Executive Committee held with State of Punjab, Haryana, Himachal Pradesh and U.T. Chandigarh on 12.04.2019**

The Executive Committee held its 11<sup>th</sup> meeting with the officers of State of Punjab, Haryana, Himachal Pradesh and U.T. Chandigarh on 12.04.2019 and the decisions taken w.r.t each State and U.T Chandigarh are mentioned at pages 9 to 13 of the report and now at pages 118 to 122 of this report.

**3.1.4 Inspection of industries of Pehowa Area, Distt. Kurukshetra (Haryana) on 29.4.2019.**

The Executive Committee visited the industries of Pehowa area, District Kurukshetra (Haryana) on 29.04.2019 and the main recommendations, based on the observations made in case of each industry, were made as under:

**3.1.4.1 M/s Sainsons Paper & Board Mill, Plot No.5, Vill. Bakhli, Tehsil Pehowa, Distt. Kurukshetra**

**Recommendations**

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.

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

**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 flora & 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.

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

**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 flora & 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.

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

**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 flora & 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.

#### **3.1.4.5 M/s Sunrise Paper Board Mill, Vill-Guldhera, Tehsil-Pehowa, District-Kurukshetra**

##### **Recommendations**

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 disconnected 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 detailed report regarding inspection of these industries has been mentioned at pages 13 to 18 of the report and now at pages 122 to 127 of this report.

#### **3.1.5 12<sup>th</sup> Meeting with State of Punjab, State of Himachal Pradesh, Haryana and U.T. Chandigarh on 13.05.2019**

The Executive Committee held its 12<sup>th</sup> meeting with the State of Punjab, Himachal Pradesh, Haryana and U.T Chandigarh on 13.5.2019 and decisions/recommendations relating these States and U.T. Chandigarh are mentioned at pages 18 to 20 of the report and now at pages 127 to 129 of this report.

#### **3.1.6 Status with respect to performance of existing STPs, effluent treatment plants of the industries, water quality of drains and river Ghaggar.**

The status in detail has been mentioned at pages 23 to 48 of the report and now at pages 132 to 157 of this report. Briefly, the status w.r.t each State is mentioned as under.

##### **3.1.6.1 State of Punjab**

1. The performance of existing 20 STPs for the towns located on the catchment area of river Ghaggar in the State of Punjab has been mentioned at page no. 23 of the report and now at page No. 132 of this report.

**STPs of the towns namely Baretta, Bhikhi, Budlada, Sardulgarh, Zirakpur, Mohali and Lalru were not meeting with the standards.**

2. Analysis results of the drains monitored in the month of April, 2019 and May, 2019 have been mentioned at page no. 28 and 29 and at pages 137 and 138 of this report.

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

3. The comparison of the analysis of the river Ghaggar water for the year 2018-2019 and for the month May, 2019 has been made and it has been observed that out of 14 locations on river Ghaggar, improvement w.r.t parameters (DO, BOD, T.coli) has been found at 7 locations, whereas at the remaining 7 locations, no improvement has been observed w.r.t parameters especially T.coli which has been found varying between 21000-35000 MPN/100ml.

**3.1.6.2 State of Himachal Pradesh**

1. Presently there is no STP exists in Kala Amb and Parwanoo area located in the catchment area of river Ghaggar. CETP cum STP of 5 MLD capacity for Kala Amb area and 2 STPs each capacity 1 MLD for Parwanoo town have been proposed and the same shall be commissioned by 31.01.2022 but the Executive Committee has decided that these STPs may be completed by 31.03.2021.
2. 51 industries located on catchment area of Sukhna Nallah have been inspected during March to May, 2019 by the HPPCB officers, out of which 3 industries were found violating the norms and power supply of these industries except 1 has been disconnected.
3. 104 industries located on catchment of river Markanda have been inspected during March to May, 2019 by the officers of HPPCB, and notices to all the industries have been issued.
4. Water quality of Sukhna Nallah monitored during July, 2018 to May, 2019, mentioned at page 32 of the report and now at pages 141 of this report, indicate that the quality of water of Sukhna Nallah has been found Class-E w.r.t. BOD and DO parameters
5. Ground water sampling, carried out in three rounds, indicate that no ground water contamination has been observed in any of the sample and all the parameters of these samples are within the permissible limits.

### **3.1.6.3 U.T. Chandigarh**

1. With regard to performance status of 5 existing STPs, as per the analysis report, out of these 5 STPs, 3 STPs were found non-compliant.
2. STP of capacity 2 MLD for Kishangarh area is likely to be commissioned by 30.11.2021.
3. 101 industries have been inspected during March to May, 2019, out of which 9 industries were found violating the norms.  
Out of these 9 industries, 1 unit has been closed its unit on its own. Show-cause-notice issued to 1 unit and 7 industries were issued directions for closure.
4. CPCC has carried out groundwater sampling of 7 locations and all the parameters have been found within the norms except total alkalinity, hardness, calcium and magnesium which may be due to geogenic reasons.

### **3.1.6.4 State of Haryana**

1. The performance status of 62 existing STPs indicate that 6 STPs were found non-compliant
2. Proposed 14 STPs are likely to be commissioned by 31.3.2020.
3. 22 industries were inspected during March to May, 2019 out of which 13 industries were found violating the norms. Out of these 13 industries, closure action has been recommended against 7 industries, prosecution action against 4 industries is under process and action against 2 industries is under process.
4. Water quality of river Ghaggar monitored during January to April, 2019 at various locations has been mentioned at page 41 to 48 of the report and now at pages 150 to 157 of this report. Only in 8 samples, out of total 137 samples, total coliform have been analyzed and the value of this parameter has been observed varying between 1,22,000 to 4,37,000 MPN/100ml, which are quite high as compared to permissible value of 1000 MPN/100ml.
5. Comparison of analysis results of drain effluent samples analyzed for the period 2017 to 2019 indicates that out of total 11 locations, improvement w.r.t BOD parameter has been observed at 5 locations.

### **4.0 Inspections of the industries of Patiala Area (Punjab) by the Executive Committee on 28.5.2019**

In order to check the performance of effluent treatment plants of industries located in the catchment area of river Ghaggar, the Executive Committee visited

4 industries of Patiala area (Punjab) on 28.5.2019 and the recommendations made in each case based on the observations are mentioned as under:

**4.1 M/s Vishal Paper Industries Pvt. Ltd. and M/s Vishal Coaters Pvt. Ltd., Vill. Khusropur, Maine Road, Patiala:**

**4.1.1 Recommendations:**

1. Chairman, PPCB shall revoke the consent granted to the industry under the provision of the Water Act, 1974.
2. Chairman, PPCB shall impose environmental compensation amounting to Rs. 50 lakhs on the industry and the said amount shall be utilized for rejuvenation of water quality of river Ghaggar.
3. Chairman Punjab Pollution Board shall reduce 30% production capacity of the industry so that the quantity of effluent to be generated after reduction of the capacity may be treated effectively and efficiently in the existing treatment system and the various parameters of the treated effluent must achieve the standards at all the times till the up gradation in the existing treatment system is made by the industry. Punjab Pollution Control Board shall seal the machinery of the industry to ensure 30% reduction in production capacity and install CCTV camera on this sealed machinery. The photograph of the sealed machinery and footage of the CCTV camera may be sent to Executive Committee. Executive Committee may visit the industry at any time to check as to whether the sealed machinery is intact or not.
4. Chairman Punjab Pollution Control Board shall direct the industry to upgrade its effluent treatment plant within 3 months to treat whole of the effluent and to achieve all the parameters within the prescribed norms at all the times.
5. Chairman Punjab Pollution Control Board shall direct the industry to develop plantation area in such a way that no stagnation is occurred at any time and the treated wastewater is utilized uniformly for plantation properly.
6. Bd Though at the time of visit to the industry, no effluent was being discharged into Patiala Nadi even then in order to rule out any possibility of discharge of effluent into Patiala Nadi, industry shall keep minimum buffer of 30m between Patiala Nadi and plantation area. In this buffer zone, the industry shall not discharge its effluent. The necessary directions in this regard shall be issued by Chairman Punjab Pollution Control Board.
7. Chairman PPCB shall direct the industry to dispose of its sludge from the secondary clarifier and other waste material like plastic etc. in an environmentally sound manner.

8. There should be no dead pockets in the plantation area and the treated waste water may be utilized uniformly for plantation properly.
9. The industry shall get conduct analysis of ground water and soil samples twice in a year to know the characteristics of underground water and soil because the regular application of treated effluent of the industry in the plantation area may affect the quality of underground water and soil.

#### **4.2 M/s Patiala Distillers and Manufactures Ltd., Vill. Maine, Patiala**

##### **4.2.1 Recommendations**

1. PPCB shall revoke the consent, if granted, to the industry under the provision of water Act, 1974.
2. Since the industry is not achieving the prescribed parameters at the outlet of the secondary clarifier, therefore, Chairman Punjab Pollution Board shall reduce 30% production capacity of the industry so that the quantity of effluent to be generated after reduction of the capacity may be treated effectively and efficiently in the existing treatment system and the various parameters of the treated effluent may achieve the standards at all the time till zero liquid discharge technology plant (ZLD plant) is commissioned and no effluent is discharged by the industry and other observations of the Executive Committee are complied with. Punjab Pollution Control Board shall seal the machinery of the industry to ensure 30% reduction in production capacity and install CCTV camera on this sealed machinery. The photograph of the sealed machinery and footage of the CCTV camera may be sent to Executive Committee. Executive Committee may visit the industry at any time to check as to whether the sealed machinery is intact or not.
3. The industry shall recycle all the clean stream back into the system to save underground water and these shall not be utilized for diluting the treated effluent at any time.
4. Chairman PPCB shall impose an environment compensation amounting to Rs 50 lakh for degrading the environment by wasting clean streams to dilute the treated effluent to bring the parameters within permissible norms and depleting the ground water. **Had the industry provided two or three stages treatment systems, it would have achieved the parameters but it has adopted easy and readily available method by diluting the effluent with clean streams of water. These streams would have been saved and recycled back into the process and saving in underground water would have been made.**

5. The idle tank full of water existing near aeration tank must be dismantled to avoid its misuse.
6. The industry shall dismantle 2 lagoons out of 3 lagoons to rule out any possibility of misusing them.
7. The industry shall construct proper channel distribution system to carry the waste water from anaerobic filter into aeration tank for decomposition of organic matter.
8. There should be no dead pockets in the plantation area and the treated effluent may be uniformly distributed in the plantation area till the zero liquid discharge technology is commissioned.
9. The industry shall get conduct analysis of ground water and soil samples twice in a year to know the characteristics of underground water and soil because the regular application of treated effluent of the industry in the plantation area may affect the quality of underground water and soil.

### **4.3 M/s DSG Papers Pvt. Ltd., Vill. Bhanri, PO Wizidpur, Patiala**

#### **4.3.1 Recommendations**

1. Chairman, PPCB shall revoke the consent granted to the industry under the provision of the Water Act, 1974.
2. Chairman, PPCB shall impose environmental compensation amounting to Rs. 50 lakhs on the industry and the said amount shall be utilized for rejuvenation of water quality of river Ghaggar.
3. Chairman Punjab Pollution Board shall reduce 30% production capacity of the industry so that the quantity of effluent to be generated after reduction of the capacity may be treated effectively and efficiently in the existing treatment system and the various parameters of the treated effluent must achieve the standards at all the times till the up gradation in the existing treatment system is made by the industry. Punjab Pollution Control Board shall seal the machinery of the industry to ensure 30% reduction in production capacity and install CCTV camera on this sealed machinery. The photograph of the sealed machinery and footage of the CCTV camera may be sent to Executive Committee. Executive Committee may visit the industry at any time to check as to whether the sealed machinery is intact or not.
4. Chairman Punjab Pollution Control Board shall direct the industry to upgrade its effluent treatment plant within 3 months to treat whole of the effluent and to achieve all the parameters within the prescribed norms at all the times.



5. Chairman Punjab Pollution Control Board shall direct the industry to develop plantation area in such a way that no stagnation is occurred at any time and the treated wastewater is utilized uniformly for plantation properly.
6. The industry shall distribute the treated effluent, conforming to the standards, in the plantation area through ridges and furrows in such a way that no stagnation is occurred at any time in any manner in the furrows of plantation area.
7. There should be no dead pockets in the plantation area and the treated wastewater is utilized uniformly for plantation properly.
8. The industry shall get conduct analysis of ground water and soil samples twice in a year to know the characteristics of underground water and soil because the regular application of treated effluent of the industry on plantation area may affect the quality of soil and underground water.

The detailed report prepared by the Executive Committee is annexed as per **Annexure-3** (pages 213 to 241 of this report). Chairman, Punjab Pollution Control Board has been asked by the Executive Committee vide its letter No. CEC/2019/211, dated 3.7.2019 to take action on the recommendations and action taken report be submitted to the Committee.

#### **5.0 Visit to the STP Zirakpur, District Mohali (Punjab) on 25.5.2019:**

The Executive Committee visited the STP, Zirakpur provided for the treatment of sewage of Zirakpur Town and its adjoining areas on 25.5.2019. The detailed report prepared by the Committee is annexed as per **Annexure-4** (pages 242 to 245 of this report). Based on the observations made by the Committee, the following recommendations have been made:

#### **5.1 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.

The visit report dated 25.5.2019 alongwith recommendations have been has been sent to Chief Executive Officer, Punjab water Supply & Sewerage Board and Chairman, Punjab Pollution Control Board, Patiala vide letter No. CEC/2019/155-156, dated 30.5.2019 and these officers were asked to take action on the various observations and recommendations made by the Committee and action taken report be submitted to the Executive Committee within one month.

#### **6.0 Meeting with District Level Special Task Force of District Hisar, Jind and Kaithal (Haryana) on 7.6.2019 at Hisar w.r.t. control of pollution in these towns**

As per the action plan prepared by the State of Haryana, District Hisar, Jind and Kaithal fall on the catchment area of river Ghaggar and as such it becomes imperative that the water pollution sources of these towns may be controlled so as to control pollution in river Ghaggar.

Accordingly, the Executive Committee held its meeting with the District Level task force of the Districts Hisar, Jind and Kaithal (Haryana) on 7.6.2019. During the meeting, the detailed deliberations on the various issues were made and the following decisions/recommendations were made:

#### **6.1 Recommendations**

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1. District Level Special Task Force (DLSTF) Hisar, Jind and Kaithal shall hold monthly meetings to review the progress with regard to installation of STP's, monitoring of existing STP's, monitoring of ETP's of the industries, monitoring the progress regarding laying of sewerage system covering all the localities of the towns. Inspection of STP's and ETP's shall also be carried out to check their performance and ensure that no treated/untreated effluent is discharged into drains leading to river

Ghaggar. The strict action against the violators should be recommended to the concerned authorities.

2. DLSTFs shall involve the Civil Society to motivate the people to keep the drains/streams clean and not to throw any waste in these water bodies.
3. All the departments like Public Health Engineering Department, Urban Local Bodies, Department of Forest, Department of Agriculture and Pollution Control Board shall work in tandem with common objective to rejuvenate the quality of river Ghaggar.
4. DLSTF shall involve civil society and elected persons to get remove the solid waste accumulated along roads/streets to make the towns pollution free. This should be done in a mission mode.
5. The quality of water of drains/river Ghaggar water should be analyzed from time to time.
6. The departments should make arrangements in advance for all the project activities to avoid delay during election code of conduct due to coming assembly election. HSPCB shall take up the issue with the State Govt. through Chief Secretary Haryana.
7. The Commissioner, Municipal Corporation Hisar shall issue necessary directions to the concern officers of the corporation for effective management of municipal solid waste, cleanliness of the city and early laying of sewerage network in the unsewered areas of the Hisar town.

The minutes of the meeting held with District Level Task Force of these Districts are annexed as per **Annexure-5** (pages 246 to 253 of this report).

#### **7.0 Inspection of the industry namely M/s Molson Coors India (P) Ltd. village Mohangram, Tehsil Derabassi, District SAS Nagar (Punjab) on 14.6.2019**

The Executive Committee visited the industry namely M/s Molson Coors India (P) Ltd. village Mohangram, Tehsil Derabassi, District SAS Nagar (Punjab) on 14.6.2019. The detailed report is annexed as per **Annexure-6** (pages 254 to 267 of this report). The detailed report was sent to Chairman, Punjab Pollution Control Board vide Executive Committee Letter No. CEC/2019/209, dated 3.7.2019 which is annexed as per **Annexure-7** (pages 268 to 269 of this report) to take action on the recommendations of the Committee. The recommendations made in the report are briefly mentioned as under:

#### **7.1 Recommendations**

1. The industry should channelize its effluent from equalization tank to primary clarifier instead of carrying effluent from primary clarifier to equalization tank, which is principally wrong.

2. The industry should maintain required concentration of MLSS and MLVSS in the aeration tank so as to get the required values of kinetic parameters and increase the efficiency of the aerobic biological treatment system.
3. Chairman, PPCB shall get an environment compensation amounting to Rs. 25 Lakh from the industry and said amount shall be utilized for rejuvenation of environment damage caused due to excess concentration of TDS.
4. In order to ensure the value of TDS parameter always below the permissible limits (2100 mg/l), the industry needs to operate RO system regularly at its optimum capacity to get appropriate quantity of RO permeates so that after mixing of R.O permeate and rest of the treated wastewater (without R.O system), the value of TDS is always below the permissible limits of 2100 mg/l. Also, the industry shall provide flow meter at the inlet, outlet of RO system and at the outlet of the blending tank before discharge of final blended effluent into plantation area.
5. The industry shall maintain proper distribution system network for disposal of final effluent in the plantation area and shall also ensure that no dead pocket is there in the plantation area. There should be uniform application of treated effluent in the plantation area and no stagnation of effluent is there in the plantation area.

**8.0 Visit to 2 MLD STP installed for treatment of Domestic Effluent of industries of focal point, Dera Bassi, District SAS Nagar (Punjab) on 3.7.2019.**

The Executive Committee visited 2 MLD STP installed for treatment of domestic effluent of industries of focal point, Dera Bassi, District SAS Nagar (Punjab) on 3.7.2019. The Committee prepared its detailed report, the same is annexed as per **Annexure-8** (pages 270 to 277 of this report). The detailed report was sent to Chairman, Punjab Pollution Control Board vide Executive Committee Letter No. CEC/2019/240, dated 12.7.2019, which is annexed as per **Annexure-9** (pages 278 of this report). He was requested to take action on the recommendations of the Committee as per the provisions of the Water Act, 1974.

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

## 8.1 Observations

1. The collection tank was found full of solid waste material like plastic cans, plastic bags, containers, multilayered plastic. Lot of oil and grease was observed in the collection tank. No mechanism has been provided to retain these solid waste material before entering into equalization tank.
2. No provisions have been made for removal of oil and grease.
3. In the equalization tank, lot of oil and grease along with solid waste material was found and it was almost non-functional. No provisions have been made to equalize the effluent into this tank.
4. Chemical dosing system was found non-functional/non-operation.
5. The effluent in the primary and secondary clarifier was in static condition and the weir of these clarifiers were found dry which indicate that STP was not made operational from many days.
6. Only the aeration system, consisting of MBBR-1 and MBBR-2 (in parallel), was in operation which is the compulsion of the operating agency to operate the same just to make the bio mass in the system alive otherwise bacteria will die.
7. In the final treated effluent collection tank, the effluent was found stored but it is not sure as to whether the effluent lying stored in the tank is treated wastewater or fresh wastewater mixed with treated/untreated wastewater.
8. PSIEC has adopted two options for discharge of effluent i.e. into *Dhabi Nalah* or on to land for stagnation without any plantation and proper distribution system. Plantation area has not been developed to utilize the treated effluent for plantation. However, the effluent was found stagnating in the adjoining land where very few plants (negligible) have been planted. **Plate-9** shows the stagnation of effluent onto land.



Plate-9: Stagnation of effluent onto Land

9. The condition of STP and the disposal of effluent of STP was pathetic and it indicates that nobody is there to look into the functioning of STP and its mode of disposal. It seems that PSIEC officers have never visited this plant otherwise the condition of the STP would have been improved.
10. As per record, PPCB officers have visited the STP in the month of April, 2019 and it was observed that some components of STP were not in operation. Accordingly, Regional office, Mohali of PPCB has recommended action against the operator of STP.

## 8.2 Recommendations

In view of the above observations and analysis results of the untreated effluent sample, the following recommendations are made

1. Chairman, PPCB shall pass appropriate orders/directions under the provisions of the Water Act, 1974 w.r.t the recommendations as mentioned below.
2. The operator of the STP should be penalized with heavy penalty like no payment of the last 6 months should be paid to him. If already paid, the same may be recovered from him as the State Government (PSIEC) has spent crores of rupees on the construction of STP.
3. The contract made with the contractor should be discontinued and contract of operation of STP should be given to any other reputed agency.
4. As per order dated 28.2.2019 in O.A No. 916 of 2018 in the matter of Sobha Singh Ors. V/s State of Punjab & other, it has been mentioned in para 22 of the said order that the Committee may also consider recommending disciplinary and penal action against the erring officers. Therefore, in light of the above order, the committee recommends that the erring/responsible officers/officials of PSIEC should be penalized with penalty like recovery of Rs.10000/- from each erring officer/official from their salary account.
5. The inefficiency in performing their duties and callous approach of the erring officers/officials should be mentioned in their Annual Progress Appraisal Reports.
6. PSIEC should develop land measuring about 15-20 acres with plantation and proper effluent distribution system in a scientific manner so that treated effluent, conforming to the standards, may be utilized for plantation or alternatively, it may explore the possibility of supplying the treated wastewater to the industries of focal point for their gardening and other allied purposes.
7. Oil and grease trap, an important component of STP, should be added by PSIEC.
8. PPCB shall visit STP surprisingly as well as quarterly in a year.

9. An environment compensation of suitable amount may be imposed on PSIEC and this amount may be recovered from the operating agency.

### **9.0 Meeting of the Executive Committee with District Level Special Task Force of District Kurukshetra, Ambala and Panchkula (Haryana) on 25.7.2019 at Ambala**

District Panchkula, Ambala and Kurukshetra fall on the catchment area of river Ghaggar, as such the Executive Committee held its meeting with District Level Task Force of District Kurukshetra, Ambala and Panchkula (Haryana) to pursue District Level officers to control pollution in river Ghaggar by way of installing STPs and monitoring the pollution sources and groundwater sources in the area. The minutes of the meeting held with the District Level Special Task Force of these Districts are annexed as per **Annexure-10** (page 279 to 284 of this report).

During the meeting, the following decisions/recommendations were taken/made by the Chairman of the Executive Committee:

#### **9.1 Recommendations**

- 1) The district level task force of each district shall make surprise inspection of pollution sources and legal action against the violators may be recommended to the Haryana State Pollution Control Board.
- 2) The department of local Government shall accelerate the construction work of 0.75 MLD STP Sudarshanpur (Panchkula) , 1.5 MLD STP Saketri (Panchkula) and 1 MLD Capacity STP Kangowalan (Panchkula) and shall ensure that these STPs may be completed by 26.12.2019.
- 3) The Haryana Shahari Vikas Pradhikaran shall complete 5 MLD STP at Ambala by 31.3.2020. The department of Urban local Body shall complete STPs each of capacity 12 MLD, being installed at 12 cross road and Kudha Kurdh, respectively, by 4.2.2020.
- 4) Haryana Shahari Vikas Pradhikaran and Public Health Engineering Department shall complete 15 MLD STP Kurukshtera and 25 MLD STP Thanesar by 31.12.2019 and 31.7.2019, respectively.
- 5) The concerned agencies operating CETPs of capacity 0.5 MLD, 0.5 MLD and 5 MLD may be asked to improve the treatment efficiency of these CETPs.
- 6) Haryana State Pollution Control Board shall ensure that all the hazardous waste generating industries are sending their hazardous waste to the common hazardous waste storage and disposal facility regularly and these industries may be monitored by the Board from time to time. These industries may also have the valid authorization of HSPCB under HWM Rules, 2016.

- 7) Haryana State Pollution Control Board shall ensure that all the bio-medical waste generating HCFs are sending their bio-medical waste to the common bio-medical waste treatment facility regularly and these HCFs may be checked by the Board from time to time. These HCFs may also have the valid authorization of HSPCB under BWM Rules, 2016.
- 8) The department of Local Government shall accelerate the process of installation of waste to compost and RDF plant at Panchkula for the management of municipal solid waste generated from Panchkula and Naraingarh local bodies and shall ensure that the integrated facility shall be setup within the time schedule as mentioned in the Action Plan.
- 9) Similarly for the Ambala cluster, where the municipal solid waste of Ambala, Thanesar, Shahbad and Pehowa is proposed to be carried out for imparting processing treatment, the integrated facility may be setup within the time schedule as mentioned in the Action Plan.
- 10) Electromagnetic flow meter shall be installed on all the STPs at their inlet and outlets by the department of local Government/executing agency of the State of Haryana at the earliest.
- 11) Online continuous effluent monitoring system for analyzing the various parameters may be installed on 9 MLD STP by GE, Chandi Mandir, 2 MLD STP sec-7, Ambala city by HSVP and Kalka STP (capacity 0.25 MLD) by PHED at the earliest.
- 12) The department of Urban Development/HSVP/PHED shall connect all the discharges of unapproved and approved colonies of different towns to the sewerage system within the time schedule as mentioned in the Action Plan.
- 13) Sewerage network, connecting of sewage of all the different areas of the towns, may be completed within the time schedule.
- 14) More plantation may be done in Ambala, Panchkula and Kurukshetra area. Further, as already decided in earlier meetings, plantation may also be made along Sukhna Nallah to make it aesthetically good.
- 15) CGWA shall send the analysis results of all the groundwater samples to Haryana State Pollution Control Board and the Board shall analyze the data of these analysis results and in case the concentration of heavy metals is found beyond the permissible limits, these groundwater sources may be sealed and display board, mentioning that these groundwater sources are not fit for drinking purposes, may be placed at these drinking water sources.



**10.0 13<sup>th</sup> meeting of the Executive Committee held on 18.7.2019 with the officers of U.T Chandigarh, State of Punjab and Haryana and with State of Himachal Pradesh on 2.8.2019.**

The detailed discussion on the installation of STPs, inspection of industries, water quality of drains/river and groundwater quality was held in the meeting and following decisions/recommendations were taken/made:

**10.1 U.T Chandigarh**

**10.1.1 Recommendations**

- 1) Municipal Corporation, Chandigarh shall ensure that STPs at Raipur Kalan of capacity 5.675 MLD and Kishangarh near Sukhna lake of capacity 2MLD shall be completed within the time schedule as mentioned in the Action Plan.
- 2) Upgradation of the existing STPs to treat the wastewater upto the latest norms shall be commissioned as per the time schedule mentioned in the Action Plan.
- 3) All the outlets falling into drain/Nallahs further leading to N-Choe and Sukhna Choe should be plugged by 31.12.2019.
- 4) CPCC shall finalize the legal action against the 14 non-complying industries within 15 days. It shall further continue to visit the industries of Chandigarh area surprisingly and legal action against the violating industries should be taken immediately.
- 5) Health checkup camps should be organized on monthly bases and data with regard to any serious disease relating to water borne should be reported to the Executive Committee.
- 6) Water quality of N-Choe and Sukhna Choe at their exit points should be monitored on monthly basis.

**10.2 State of Punjab**

**10.2.1 Recommendations**

- 1) E.O. M.C. Zirakpur alongwith officials of PWSSB shall indentify the culprits, who may be throwing their waste into sewerage system leading to STP Zirakpur and initiate action such persons and submit a list of such culprits alongwith action taken against them within 15 days to the Executing Committee with a copy of the same to the Nodal Office, Punjab Pollution Control.
- 2) STPs for the remaining towns/habitation area located on the drains/Nallahs falling into river Ghaggar should be installed as per the time schedule mentioned in the Action Plan. Proportionate progress of

each STP should be submitted on monthly basis and shall be presented in each meeting of the Executive Committee.

- 3) The M.C. Lalru & PWSSB jointly identify the alternate site for installation of STP of 1.5 MLD capacity at Lalru Mandi and submit action taken report in this regard within one month to the Executing Committee with a copy of the same to the Nodal officer, Punjab Pollution Control Board for Action Plan for clean river Ghaggar.
- 4) Punjab Pollution Control Board shall continue the surprise checking of industries and initiate action in accordance with law against the defaulting units. Punjab Pollution Control Board shall also compare the analysis results of the wastewater with the values of parameters shown during visit by the OCEMS and take appropriate action in the matter in case any major difference is found on comparison. The Punjab Pollution Control Board will also carry out the data analysis of OCEMS to identify the violators.
- 5) PPCB shall continue to monitor the sewage treatment plants of the local bodies surprisingly and action against the violating local bodies should be taken within 21 days from the date when the violations were observed.
- 6) All the irrigation schemes, already commissioned, must be made operational to use the treated sewage for irrigation of the fields. The proposed irrigation schemes, prepared for the towns, shall also be commissioned simultaneously with the commissioning of the STP for the towns.
- 7) The department of local Government/other stakeholder departments of the State Government responsible for installation of STPs should be asked that in future all the STPs shall be designed on the parameters namely BOD : 10 mg/l, pH : 5.5-9.0, TSS : 20 mg/l and F.Coli : 100 MPN/100 ml as mentioned in order passed by Hon'ble NGT on 30.4.2019 in OA No. 1069 of 2018.
- 8) PPCB and HSPCB shall jointly resolve the issue w.r.t. sudden rise in the value of BOD in river Ghaggar at confluence point of Sagarpara drain for which separate D.O. letters have been issued to Chairman PPCB and Chairman HSPCB by the Chairman of the Executive Committee.
- 9) PPCB shall ensure that OCEMS for the remaining 12 industries shall be installed by 31.7.2019 and the same may be got connected to PPCB and CPCB server.
- 10) PWSSB, Municipal Corporation, Patiala; Municipal Corporation, SAS Nagar; PDA & GMADA shall intimate the status of installation of CCTV

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Cameras and OCEMS on their STPs within 15 days to the Executing Committee and Nodal Officer.

- 11) Nodal officer, PPCB shall take up the matter with the Deputy Commissioners of Districts SAS Nagar, Patiala, Sangrur and Mansa regarding inspection of industries to be carried out by district level special task force (DLSTF) as per the direction of the Hon'ble NGT.
- 12) PPCB shall ensure that the ground water sampling along river Ghaggar shall be carried out at the frequency as decided in the last meeting of the Executive Committee.
- 13) Department of Rural Development & Panchayats shall submit time schedule alongwith arrangement of funds for installation of treatment system in 389 villages in writing to the Executing Committee, within 15 days.
- 14) Health checkup camps should be organized on monthly bases and data with regard to any serious disease, relating to water borne, should be reported to the Executive Committee.

### **10.3 State of Haryana**

#### **10.3.1 Recommendations**

- 1) STPs for the towns/habitation area located on the drains/Nallahs falling into river Ghaggar should be installed as per the time schedule mentioned in the action plan. Proportionate progress of each STP should be submitted on monthly basis and shall be presented in each meeting of the Executive Committee.
- 2) HSPCB shall continue to monitor the effluent treatment plants of the industries surprisingly and action against the violating industries should be taken within 21 days from the date when the violations were observed.
- 3) HSPCB shall continue to monitor the sewage treatment plants of the local bodies surprisingly and action against the violating local bodies should be taken within 21 days from the date when the violations were observed.
- 4) The department of local Government, State of Haryana shall take up the matter with the Chief Secretary, Haryana to ask the concerned department to prepare irrigation schemes to utilize the treated sewage of the towns for irrigation and no treated/untreated sewage should be allowed to be discharged into drains/Nallahs leading to river Ghaggar.
- 5) The department of Rural Development and Panchayat, State of Haryana shall take up the matter with the Chief Secretary, Haryana regarding installation of sewage treatment plants for the villages having discharge

≥300 KLD in first phase in a time bound manner. An action plan in this regard shall be submitted to the Executive Committee.

- 6) The department of Rural Development and Panchayat, State of Haryana shall take up the matter with the Chief Secretary, Haryana regarding laying of irrigation schemes to utilize the treated sewage of the villages for irrigation purposes. An action plan in this shall be submitted to the Executive Committee.
- 7) HSPCB shall continue to monitor ground water samples of the water sources points located along river Ghaggar and it shall take action to put ban on the use of water of those water sources for drinking purposes, which are not complying with the norms and sign boards on these points should be displayed indicating that the water is not fit for drinking purposes.
- 8) Health checkup camps should be organized on monthly bases and data with regard to any serious disease relating to water borne, should be reported to the Executive Committee in its each meeting.
- 9) HSPCB shall carried out leachability test in the STP sludge within 15 days.
- 10) The department of local Government, State of Haryana shall provide GPS system on the tankers carrying sewage of the areas which have accessibility to nearby STPs.
- 11) The department of local Government/other stakeholder departments of the State Government responsible for installation of STP should be asked that in future all the STPs shall be designed on the parameters namely BOD : 10 mg/l, pH : 5.5-9.0, TSS : 20 mg/l and F.Coli : 100 MPN/100 ml as mentioned in order passed by Hon'ble NGT on 30.4.2019 in OA No. 1069 of 2018.
- 12) Nodal officer, HSPCB shall take up the matter with the Deputy Commissioners of all the Districts falling on the catchment area of river Ghaggar regarding inspection of industries to be carried out by district level task force as per the directions of the Hon'ble NGT.
- 13) The water quality of river Ghaggar should be analyzed on monthly basis and shall be submitted to the Executive Committee in its each meeting.
- 14) HSPCB shall get install OCEMS for the monitoring of ETPs of the industries falling on the catchment area of river Ghaggar and also for the towns, where STPs have already completed and commissioned.
- 15) HSPCB shall submit performance guarantee as decided by the Hon'ble NGT in OA no. 673 of 2018.
- 16) HSPCB shall ensure the plantation of trees along Sukhna Nallah within 15 days.

- 17) HSPCB shall get install OCEMS into drains/Nallahs joining to river Ghaggar.  
A definite time schedule should also be submitted.

#### **10.4 State of Himachal Pradesh (meeting held on 2.8.2019)**

##### **10.4.1 Recommendations**

1. 2 STPs each of capacity 1 MLD for treatment of sewage of Parwanoo area shall be installed and commissioned by 31.03.2021. Cost also need to be reviewed as it appears on higher side.
2. One CETP of capacity 5 MLD for treatment of sewage and industrial effluent of Kala Amb area shall be installed & commissioned by 31.03.2021.
3. One STP of capacity 1 MLD for the villages Trilokpur and Kheri falling on River Markanda catchment shall be installed and commissioned by 31.03.2021.
4. All the STPs should have a provision of disinfection for ensuring control of fecal coliform as well as sludge digesters for converting sludge into manure. Sludge (STPs and Septic Tanks) Management Plan shall be included in STPs proposal.
5. Necessary measures be taken by Urban Development as well as Irrigation & PH Department to ensure that the generated sewage in the catchment of river Kaushalya, River Markanda is intercepted and diverted to the existing STPs/ proposed STPs so that natural drains are restored and no sewage drain outfalls exists in future.
6. Proposed STPs, STPs under construction and the existing STPs shall be installed/upgraded to achieve the standards as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Deshpande Vs. Union of India & others.
7. All the treated sewage shall be utilized for flushing (in residential apartments, office, malls/commercial complexes), gardening, construction activity, irrigation purposes etc., and proposals shall be finalized in this regard by the State of Himachal Pradesh.
8. Dedicated drainage/sewerage network for carrying industrial effluent from industrial area of Kala Amb to the proposed CETP shall be laid or constructed and commissioned by 31.03.2021.
9. RTWQMS shall be installed on River Kaushalya by 15.8.2019 and data transfer also be connected to HPPCB server and thereafter to CPCB server.
10. RTWQMS shall be installed on River Markanda by 15.08.2019 and data transfer also be connected to HPPCB server and thereafter to CPCB server.
11. Commissioning of Bio-digester as a part of STP on pilot basis shall start functioning by 15.8.2019 and confirmed by 25.08.2019 to the Committee.

12. HPPCB and District Level Special Task Force shall visit industries located in the catchment area of River Markanda and Sukhna Nallah on monthly basis and reports be forwarded to HPPCB for initiating legal action under the provisions of the Water Act, 1974 and in compliance to Hon'ble NGT Orders.
13. Cleanliness drive shall be continued in Kala Amb area and Parwanoo area as regular feature.
14. Challans may be issued to the violators for violating the provisions of the Non-Biodegradable Garbage Act, 2005.
15. The ground water quality of the point sources located on River Markanda and Sukhna Nallah may be analyzed on quarterly basis and wherever the ground water quality is found unfit for drinking purpose, such water sources be capped and a display board mentioning that the 'water is not fit for drinking purpose' may be placed.
16. Regular Health camps shall be organized in the localities / villages in the catchment area of River Markanda and Sukhna Nallah. Health Department shall also submit the health status reports in the catchment of River Markanda and Sukhna Nallah, within two months.
17. Integrated solid waste management facility at Parwanoo shall be developed in a scientific manner in accordance with the SWM Rules, 2016 as amended and also as per guidelines of CPCB by 31.03.2021. Necessary fencing or wire mesh system shall be installed along Sukhna Nallah and Markanda River at Solid Waste littering hot spot.
18. Member Secretary, HPSPSCB shall take up the matter of E-Flow Regulation with Government of HP for River Kaushalya and River Markanda as well as watershed management in the catchment of river Kaushalya and River Markanda and responsibility be fixed on the above matter and for apprising the Executing Committee in the next meeting on the initiatives taken on the afore-said matter.
19. Only roof top rainwater harvesting by the industries shall be encouraged.
20. Details of Industrial Units which have not taken permission from IPH (State Ground Water authority) for extraction of Ground Water & using the Surface Water supply shall be provided to the Executing Committee within a week by the HPPCB and IPH (State Ground Water authority).

The detailed minutes of the meeting held with U.T Chandigarh, States of Punjab, State of Haryana and Himachal Pradesh on 18.7.2019 and 2.8.2019, respectively, are annexed as per **Annexure-11** (page 285 to 292 of this report) and **Annexure-12** (page 293 to 298 of this report), respectively.

**11.0 14<sup>th</sup> meeting of the Executive Committee held with the officers of U.T Chandigarh, State of Punjab, Haryana and Himachal Pradesh on 26.8.2019**

Detailed discussion on various issues w.r.t control of pollution in river Ghaggar was held and following decisions/recommendations were taken/made:

**11.1 U.T Chandigarh**

**11.1.1 Recommendations/decisions**

- Outlet from industrial area phase-1, colony no.4, falling into Sukhna-Choe shall be closed by 31.12.2019.
- Outlet of village Hallomajra, falling into Sukhna-Choe shall be closed by 31.10.2019.
- Outlet from Bougainvillea Garden, falling into N-Choe shall be closed by 15.9.2019.
- Two points of sewage discharge from Attawa area shall be closed by 31.12.2019.
- One outlet carrying sewage of Sec-53, near furniture market, Chandigarh shall be plugged by 31.10.2019.
- One outlet carrying sewage of Sec-53, near Garden of Spring, Chandigarh, shall be plugged by 31.12.2019.
- One outlet from bridge point, near Beant memorial, shall be closed by 31.10.2019.
- One outlet from Beant memorial shall be closed by 15.9.2019.
- Two outlets from Sec-52 shall be plugged by 30.11.2019.
- One outlet from Sec-52 (end) shall be plugged by 30.11.2019.
- Health check up Camp should be organized on monthly basis and prior intimation should be provided to the Executing Committee.
- The Commissioner, Municipal Corporation, Chandigarh should watch the tendering process and ensure the upgradation of existing STPs and installation of new STPs by 30.11.2021.
- CPCC should regularly inspect the industries and take necessary action under the provisions of the Water Act, 1974 against the defaulting units.
- Additional Chief Inspector of Factories shall inspect the industries and ensure the compliance of the factory rules to provide good environment and healthy condition to the workers of the factories.

**11.2 State of Punjab**

**11.2.1 Recommendations/decisions**

- 1) The department of Local Government shall resolve all the land issues, eligibility criteria for DNIT, tendering process, technology issues, DPR preparation etc of the remaining 16 STPs by 31.12.2019 and ensure that these STPs may be installed within the time schedule as mentioned in the

Action Plan. The proportionate progress w.r.t each STP shall be presented in each meeting of the executive committee.

- 2) Upgradation work of 4 existing STPs may be completed within the time schedule as mentioned in the Action Plan. The proportionate progress w.r.t each STP shall be presented in each meeting of the executive committee.
- 3) PPCB shall take up the matter with Garrison Engineer, MES, Patiala to install STP of capacity 6 MLD for cantonment at Patiala and STP of 1 MLD capacity for cantonment at Nabha, within the time schedule as mentioned in the Action Plan. The proportionate progress w.r.t each STP shall be presented in each meeting of the executive committee.
- 4) Member Secretary, PPCB shall hold a meeting with Member Secretary, HSPCB to resolve the issue w.r.t sudden rise in the value of BOD in the water of river Ghaggar at confluence point of Sagar Para drain and submit action taken report in the matter in the next meeting of the Executive Committee.
- 5) PPCB shall continuously monitor the STPs which are in operation and take action against the defaulters for not achieving the prescribed standards.
- 6) Department of rural Development & Panchayat shall install STPs to treat the wastewater of the Rural areas as per the time schedule mentioned in the Action Plan. The list of the 14 villages where treatment systems have been installed and 14 villages where treatment systems are under installation may be submitted in the next meeting of the Executive Committee.
- 7) Irrigation networks for 15 irrigation schemes for 10 towns for utilization of treated sewage for irrigation may be laid at the earliest.
- 8) PPCB shall continuously monitor the effluent treatment plants of the industries and take legal action under the provision of the Water Act, 1974 against the defaulting industries.
- 9) PPCB shall continuously monitor the surface water quality of river Ghaggar at the defined locations and data may be analyzed w.r.t improvement in the quality in terms of various parameters.
- 10) PPCB shall carry out groundwater sampling of the points located in the vicinity of river Ghaggar as per the frequency already decided in earlier meetings.
- 11) PPCB shall get install OCEMS from the remaining 5 industries by 31.08.2019 and the same be got connected to PPCB and CPCB servers. PPCB shall also get connect OCEMS of 7 industries, which have recently installed OCEMS with server of CPCB.
- 12) PPCB shall take up the matter with District Level Special Task Force to visit the industries located in the catchment area of river Ghaggar and action against the defaulting industries may be recommended to PPCB.



13) Regular health check up camps may be organized by the department of Health and Family Welfare. PPCB shall take up the matter with concerned Chief Medical Officer in this regard.

### **11.3 State of Haryana**

#### **11.3.1 Recommendations/decisions**

1. The Deptt. of Urban Local Bodies shall install and commission all the STPs for the towns located in the catchment area of River Ghaggar as per the time schedule mentioned in Action Plan.
2. HSPCB shall continuously monitor the STPs of the towns and take action against the defaulters for not achieving the prescribed standards.
3. HSPCB shall inspect more industries located in the catchment area of River Ghaggar, collect effluent samples of the industries and legal action under the provisions of the Water Act, 1974 may be taken against the defaulting industries.
4. State of Haryana shall prepare the irrigation schemes for utilization of treated sewage of all the towns located on the catchment area of River Ghaggar by 31.12.2019 and shall arrange funds for the same.
5. The Deptt. of Rural Development & Panchayat shall install STPs for the villages located on the catchment area of River Ghaggar and having discharge more than 300 KLD by 31.3.2021.
6. HSPCB shall carry out ground water sampling of the points already identified by it as per the sampling schedule already decided in the earlier meetings and the ground water samples, which are not meeting with the prescribed norms, may not be allowed to be used by the public.
7. Deptt. of Health & Family Welfare shall regularly conduct Health Check up Camps in the towns / villages located in the catchment area of River Ghaggar.
8. District Level Special Task Force of all the districts shall visit the industries and other water polluting sources on monthly basis and action may be recommended to HSPCB against the violating industries / culprits.
9. HSPCB shall monitor the water quality of River Ghaggar at different locations as already earmarked and data may be analysed w.r.t. improvement in the water quality of the River Ghaggar.

### **11.4 State of Himachal Pradesh**

#### **11.4.1 Recommendations/decisions**

1. 2 STPs each of capacity 1 MLD for treatment of sewage of Parwanoo area shall be installed and commissioned by 31.03.2021.
2. 1 CETP cum STP of capacity 5 MLD shall be installed and commissioned to treat sewage / industrial effluent of Kala Amb area by 31.03.2021.

3. HPPCB shall inspect the water polluting industries falling in catchment area of Sukhna Nallah on monthly basis. Surprise inspection of the industries may also be carried out. Action against the defaulting units may be taken.
4. HPPCB shall inspect the water polluting industries falling in catchment area of River Markanda and Jattan Walla Nallah on monthly basis. Surprise inspection of the industries may also be carried out. Action against the defaulting units may be taken.
5. The State of Himachal Pradesh shall prepare irrigation schemes for utilization of treated sewage of Parwanoo area and Kala Amb area by 31.12.2019 and funds for the same shall be arranged.
6. Ground water samples from different locations along Sukhna Nallah, Markanda River and Jattan Walla Nallah may be collected as per the frequency already decided in the earlier meetings and data may be analyzed w.r.t. water quality of the ground water of the area.
7. Deptt. of Health & Family Welfare shall regularly conduct Health Check up Camps in the towns / villages located in the catchment area of Sukhna Nallah, River Markanda and Jattan Walla Nallah.
8. District Level Special Task Force of the concerned districts shall visit the industries and other water polluting sources on monthly basis and action may be recommended to HPPCB against the violating industries / culprits.
9. HPPCB shall monitor the water quality of Sukhna Nallah, River Markanda and Jattan Walla Nallah and river Kaushalya at different locations as already earmarked and data may be analysed w.r.t. improvement in the water quality of Sukhna Nallah, River Markanda and Jattan Walla Nallah.

The minutes of the 14<sup>th</sup> meeting of the Executive Committee held on 26.8.2019 with U.T. Chandigarh, State of Punjab, Haryana and Himachal Pradesh are annexed as per **Annexure-13** (pages 299 to 320 of this report). These minutes were sent to the Member Secretaries of CPCC, PPCB, HPCB and HPPCB vide letter No. CEC/2019/396-399, dated 4.9.2019 with the request to send these minutes to all the concerned departments of State Government for necessary action on their part.

### **12.0 Current Status w.r.t performance of existing STPs, installation of new STPs, upgradation of existing STPs, monitoring of ETPs of the industries, water quality of drains/river Ghaggar and groundwater sources located in the catchment area of river Ghaggar.**

Based on the field visits made by the Executive Committee and meetings held with State level officers of the States namely Punjab, Haryana, Himachal Pradesh

and U.T Chandigarh and District Level Task Force of various Districts, current status w.r.t performance of existing STPs, installation of new STPs, upgradation of existing STPs, monitoring of ETPs of the industries, water quality of drains/river Ghaggar and groundwater sources located in the catchment area of river Ghaggar are mentioned as under:

## 12.1 State of Punjab

### 12.1.1 Performance of existing Sewage treatment plants

30 towns have been identified, which are directly/ indirectly discharging their sewage into river Ghaggar. In these 30 towns, 43 STPs are required to be installed. Presently, 21 STPs in 18 towns have been installed and are in operation. The performance status of these 21 STPs is as under:

Sr. no.	Name of the Town	Capacity of STP	Performance w.r.t. parameter BOD and TSS		
			June, 2019	July, 2019	August, 2019
1.	Banur	4	Complying	Complying	Complying
2.	<b>Baretta</b>	<b>3</b>	<b>Non-Complying</b>	<b>Non-Complying</b>	<b>Non-Complying</b>
3.	<b>Bhikhi</b>	3	<b>Non-Complying</b>	<b>Non-Complying</b>	Complying
4.	<b>Budhlada</b>	6.5	<b>Non-Complying</b>	Complying	<b>Non-Complying</b>
5.	Mandi Gobindgarh	25	Complying	Non-Complying	Complying
6.	Samana	10	Complying	Complying	Complying
7.	Sardulgarh	4	Complying	<b>Non-Complying</b>	<b>Non-Complying</b>
8.	Sunam	8	Complying	Complying	Complying
9.	Zirakpur	17	Complying	<b>Non-Complying</b>	Complying
10.	Khanauri	3	Complying	Complying	Complying
11.	Lehragaga	4	Complying	Complying	Complying
12.	Moonak	3	Complying	Complying	Complying
13.	Patran	4	Complying	Complying	Complying
14.	Rajpura	7	Complying	Complying	Complying

15.		10	Complying	Complying	Complying
16.	SAS Nagar	45.4	<b>Non-Complying</b>	<b>Non-Complying</b>	<b>Non-Complying</b>
17.	MC Dera Bassi	4	-	Complying	<b>Non-Complying</b>
18.	Lalru	1.5	Complying	Complying	Complying
19.	Patiala	46	Complying	Complying	Complying
20.		10	Complying	Complying	Complying
21.		13	Complying	Complying	Complying

The above data indicate that out of these 21 STPs, 6 STPs are not complying with norms w.r.t parameters BOD and TSS. Further, almost all the STPs are not meeting with the standard of 1000 MPN/100ml for Fecal Coliform.

**12.1.2 The status of remaining 22 Sewage Treatment Plants which are either under construction or at planning stage:**

Sr. no.	Name of the Town	Proposed capacity (MLD)	Status as on 31.08.2019
1.	Boha	2	5 % completed
2.	Cheema	2	DNIT is being revised.
3.	Bhadson	3	Funds not tied up
4.	Nabha	12	DNIT Prepared and under approval
5.	Dhuri	5	16 % completed
6.	Dhuri	6	Land arrangement under process by MC, Dhuri. Panachayat land identified.
7.	Sangrur	4	12 % completed
8.	Sangrur	11	Land feasibility report submitted to EO, MC Sangrur. Advertisement given by MC, Sangrur in Newspapers.
9.	Bassi Pathana	3	5 % completed
10.	Longowal	3	DNIT is being revised.

11.	Amlloh	3	Case for final approval for land is in process in DLG office
12.	Dera Bassi	2	Tender received and being checked
13.	Dera Bassi	2	Tender received and being checked
14.	Lalru (Mandi)	1.5	Private land is being identified
15.	Lalru (Dappar)	1	Tender received and being checked
16.	Lalru (Gholu Majra)	0.35	Issues of technology to be decided by the PWSSB.
17.	Lalru (chaundheri Samalheri)	0.35	
18.	Sanour	4	Issues of land and funds are to be resolved.
19.	Ghanaur	2	Tender under process.
20.	Sirhind	2	Pond water diversion in progress
21.	Sirhind	4	5% work completed.
22.	Sirhind	5	10% work completed.

### 12.1.3 Upgradation of existing STPs

Sr. No.	Name of the Town	Capacity of STP (MLD)	Latest status for upgradation to meet with latest norms.
1.	Bareta (PWSSB)	3	DPR is under preparation.
2.	Bhikhi (PWSSB)	3	-do-
3.	Sardulgarh (PWSSB)	4	- do-
4.	Patiala (MC, Patiala)	Capacity enhancement (46MLD to 61MLD)	Construction work of foundation started

#### 12.1.4 Inspection of industries (June 2019 to August 2019)

Month	No. of industries inspected	No. of non-complying industries	Action taken against the industry
June, 2019	11	2	<ul style="list-style-type: none"> <li>One industry has been issued notice u/s 33-A Water Act, 1974.</li> <li>Other industry has also been issued notice u/s 33-A of the Water Act, 1974 and in the hearing held under the said Act, bank guarantee of Rs.5 lakhs has been encashed and the industry has been asked to submit additional bank guarantee of Rs. 5 lakh.</li> </ul>
July , 2019	6	1	<ul style="list-style-type: none"> <li>Notice u/s 33 of the Water Act, 1974 issued.</li> </ul>
August, 2019	11	2	<ul style="list-style-type: none"> <li>One industry has been issued notice u/s 33-A Water Act, 1974.</li> <li>Action under the provisions of Water Act, 1974 is under process in case of 2<sup>nd</sup> industry.</li> </ul>

*Back* **12.1.5 Action taken report on the decisions/ recommendations taken/ made by the Executing Committee in its meetings held with the Officers of the State Govt.**

**12.1.5.1 Action taken report on decisions taken/recommendations made by the Executing Committee in its 13<sup>th</sup> meeting held on 18/07/2019 with the Officers of the State of Punjab.**

Sr. No.	Decision taken/recommendations made in the 13 <sup>th</sup> meeting held on 18.7.2019	Action taken report
1.	Identification of culprits throwing their waste into sewerage system leading to STP Zirakpur.	Committee has been constituted to submit detail report regarding source of oil & grease in the STP Zirakpur.
2.	Installation of STPs for towns located on river Ghaggar as per time	Out of 43 STPs to be installed in 18 towns, 21 STPs are in

	schedule.	operation and 6 STPs are under construction and remaining 22 STPs are likely to be installed within the time schedule as mentioned in Action Plan.
3.	Identification of alternate site for installation of STP at Lalru	Private land is being identified for installation of STP.
4.	Surprise checking of industries by PPCB	In the month of June, 2019, 11 industries were inspected out of which 2 were found violating the norms and action against them is under process.
5.	Monitoring of STP by PPCB	Monitoring of STP is being carried out on monthly basis.
6.	Operation of irrigation scheme to utilize treated wastewater for irrigation.	<ul style="list-style-type: none"> <li>• 9 irrigation schemes have been implemented.</li> <li>• 2 irrigation schemes are under installation</li> </ul>
7.	Installation new STPs based on new standards as per order of Hon'ble NGT	PWSSB has informed that new STPs shall be installed based on new standards.
8.	Resolving the issue of sudden rise in BOD value in river Ghaggar water after confluence of Sagar Para Drain by PPCB and HSPCB.	PPCB asked HSPCB to look into the matter and take action against the defaulters responsible for discharging untreated/partial treated wastewater in Sagar Para drain leading to river Ghaggar.
9.	Installation of OCEMS by remaining industries by 31.7.2019.	Out of 12 industries, 7 industries have installed OCEMS, 4 industries are in the process of installing OCEMS and 1 industry is lying temporary closed.
10.	Installation of CCTV cameras and OCEMS on STPs.	Out of 21 STPs, which are in operation, CCTV cameras have

		been installed in 15 STPs and OCEMS on 1 STP.
11.	Inspection of industries by District Level Special Task Forces of districts Mohali, Patiala, Sangrur and Mansa.	Deputy Commissioners of district Mohali, Patiala, Sangrur and Mansa have been requested to visit the industries along catchment area of river Ghaggar.
12.	Carrying out groundwater sampling along river Ghaggar.	Groundwater sampling of 53 locations has been carried out by CGWB, out of which samples of 14 locations have been got analyzed from PBTI, Mohali.
13.	Installation of STPs by department of Rural Development & Panchayats for villages.	<p>Out of total 389 villages identified in the catchment area of river Ghaggar, 87 villages have been covered under Phase-I for which the funds amounting to Rs 26.10 crores are required and same shall be constructed by 30.6.2020.</p> <p>Out of these 87 villages, treatment system of 14 villages have been completed and treatment systems in other 14 villages are under construction.</p>
14.	Organizing Health check up camps	11 health camps were organized in 4 Districts and in these camps, 1183 patients were diagnosed and 38 patients were found suffered with water borne disease.

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**12.1.5.2 Action taken report on the minutes of 14<sup>th</sup> meeting held on 26/08/2019 with the Officers of the State Govt. of Punjab.**

Sr. No.	Decision taken in the meeting held on 26/08/2019	Action taken report
1.	The department of Local Government shall resolve all the land issues, eligibility criteria for DNIET, tendering process, technology issues, DPR preparation etc of the remaining 16 STPs by 31.12.2019 and ensure that these STPs may be installed within the time schedule as mentioned in the Action Plan. The proportionate progress w.r.t each STP shall be presented in each meeting of the executive committee.	The Department of Local Govt shall adhere to the timelines given in the action plan for installation of STP and apprise the Executing Committee regarding the proportionate progress achieved for installation of these STPs.
2.	Upgradation work of 4 existing STPs may be completed within the time schedule as mentioned in the Action Plan. The proportionate progress w.r.t each STP shall be presented in each meeting of the executive committee.	The Department of Local Govt. shall upgrade the 4 STPs as per the timelines given in the Action Plan and shall apprise the Executing Committee regarding the proportionate progress achieved for upgradation of STPs.
3.	PPCB shall take up the matter with Garrison Engineer, MES, Patiala to install STP of capacity 6 MLD for cantonment at Patiala and STP of 1 MLD capacity for cantonment at Nabha, within the time schedule as mentioned in the Action Plan. The proportionate progress w.r.t each STP shall be presented in each meeting of the executive committee.	<p>1. Tender for installation of 6 MLD capacity STP for cantonment at Patiala was floated but insufficient bids were received. Now, fresh tender has been floated, which will be opened on 15.10.2019. The tender is likely to be accepted by the first week of November, 2019. The Execution and Completion may take about 01 year, as such, the probable the date of commissioning of this STP is December, 2020.</p> <p>2. For installation of 01 MLD capacity MLD for cantonment of Nabha, the DPR has been prepared and the same has been sent to Chief Engineer, Chandi Mandir for scrutiny.</p>

		Thereafter, the tendering process will be started. This STP will be commissioned by March, 2021.
4.	Member Secretary, PPCB shall hold a meeting with Member Secretary, HSPCB to resolve the issue w.r.t sudden rise in the value of BOD in the water of river Ghaggar at confluence point of Sagar Para drain and submit action taken report in the matter in the next meeting of the Executive Committee.	A joint visit by the officer of PPCB and HPCB will be carried out on 26.09.2019 to resolve the issue of sudden rise in the value of BOD of the water of river Ghaggar at confluence point of Sagar Para drain.
5.	PPCB shall continuously monitor the STPs which are in operation and take action against the defaulters for not achieving the prescribed standards.	All the 21 STPs, which are in operation, have been monitored during the month of August,2019.
6.	Department of rural Development & Panchayat shall install STPs to treat the wastewater of the Rural areas as per the time schedule mentioned in the Action Plan. The lists of the 14 villages where treatment systems have been installed and 14 villages where treatment systems are under installation may be submitted in the next meeting of the Executive Committee.	In 14 villages, treatment system have been installed ( <b>Annexure-A</b> ) and in other 14 villages, treatment system are under installation ( <b>Annexure-B</b> ).
7.	Irrigation networks for 15 irrigation schemes for 10 towns for utilization of treated sewage for irrigation may be laid at the earliest.	Out of 15 irrigation schemes, funds under RIDF -25 for 03 irrigation schemes to be implemented at Mandi Gobindgarh (25 MLD), Dhuri (5MLD) and Sangrur ( 4MLD) have been sanctioned but the funds are yet to be released. For the remaining 12 irrigation schemes, the funds are yet to be tied up.
8.	PPCB shall continuously monitor the effluent treatment plants of the industries and take legal action under the provision of the Water Act, 1974 against the defaulting	During the month of August, 11 no. of industries were visited, out of which 09 industries were found meeting with effluent standards and 02 industries were found not meeting with effluent

	industries.	standards.
<b>9.</b>	PPCB shall continuously monitor the surface water quality of river Ghaggar at the defined locations and data may be analyzed w.r.t improvement in the quality in terms of various parameters.	PPCB has monitored the quality of water of river Ghaggar at 14 locations during the month of August, 2019.
<b>10.</b>	PPCB shall carry out groundwater sampling of the points located in the vicinity of river Ghaggar as per the frequency already decided in earlier meetings.	The groundwater quality at 14 locations in the vicinity of river Ghaggar will be monitored after monsoon season.
<b>11.</b>	PPCB shall get install OCEMS from the remaining 5 industries by 31.08.2019 and the same be got connected to PPCB and CPCB servers. PPCB shall also get connect OCEMS of 7 industries, which have recently installed OCEMS with server of CPCB.	Out of 5 industries, 01 industry is lying temporary closed and 02 industries have installed OCEMS. 02 industries yet to install OCEMS and action against both these industries has been initiated by the Board. The Board has given joint hearing to all the 07 industries on 24.09.2019 to pursue them to get connected their OCEMS with the server of the PPCB and CPCB.
<b>12.</b>	PPCB shall take up the matter with District Level Special Task Force to visit the industries located in the catchment area of river Ghaggar and action against the defaulting industries may be recommended to PPCB.	DC, SAS Nagar, Patiala, Sangrur and Mansa have been asked vide letter dated 20/8/2019 to get inspected the industries falling in the catchment area of River Ghaggar from District Level Special Task Force (DLSTF) and to send the action taken report to the Executing Committee and PPCB.  Accordingly, the District Level Special Task Force comprising of Deputy Commissioner, Patiala, Executive Engineer Drainage and Environmental Engineer, PPCB, RO Patiala visited the Jacob Drain on 21.08.2019, on which the Paper mills and Distillery unit are located and river Ghaggar at Badshahpur to check the discharge of industrial effluent into river Ghaggar. Also, the industries namely M/s Vishal

Paper Ltd., M/s Vishal Coaters Pvt. Ltd, M/s DSG paper Pvt. Ltd and M/s Patiala Distillers and Mfrs Pvt. Ltd of District Patiala were visited by the DLSTF of Patiala on 19.09.2019 and none of the industries were found discharging their industrial effluent into river Ghaggar.

**13.** Regular health check up camps may be organized by the department of Health and Family Welfare. PPCB shall take up the matter with concerned Chief Medical Officer in this regard.

Detail of the health camps organized during the month of August, 2019 is given as under:

Name of the District	No. of Health camps organized	No. of patient checked	No. of patient found suffered from water borne diseases
Patiala	3	343	3 people were diagnosed with water borne diseases.
SAS Nagar	2	112	25 patients were diagnosed with diarrhea, scabbies and vomitings.
Sangrur	4	129	01 patient was diagnosed with acute diarrhea
Mansa	1	42	Nil

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**12.1.6 Comparison of water quality of river Ghaggar in terms of average values of BOD, T.coli, and DO (Jan to July, 2018 and Jan to July, 2019)**

Sr. No.	Sampling location	Average values of the parameters as monitored in the month of January to July, 2018			Average values of the parameters as monitored in month of January to July, 2019			Improvement in the water quality of river Ghaggar w.r.t. to parameters
		BOD	DO	T. Coli	BOD	DO	T. Coli	
1.	Mubarikpur Rest House	13	4.2	20857	10	5.0	23429	Improvement w.r.t. BOD and DO parameters
2.	Bhankarpur	22	2.9	24857	25	3.8	34429	Improvement w.r.t. DO parameter
3.	Chattbir	19	2.8	20857	20	3.0	28571	Improvement w.r.t. DO parameter
4.	U/s Jharmal Nadi	22	2.5	20286	12	3.7	19714	Improvement w.r.t. BOD and DO parameters
5.	D/s Jharmal Nadi	33	1.6	24286	17	2.9	24714	Improvement w.r.t. BOD and DO parameters
6.	U/s Dhakanshu Nallah	14	3.1	14714	13	3.8	20500	Improvement w.r.t. BOD and DO parameters
7.	D/s Dhakanshu Nallah	16	2.7	18000	17	3.1	27333	Improvement w.r.t. DO parameter
8.	Rattanheri	65	2.8	31000	23	2.6	20000	Improvement w.r.t. BOD and T. Coli parameters
9.	U/s sagar para Drain	33	2.7	22333	26	3.2	28714	Improvement w.r.t. BOD and DO parameters
10.	D/s Sagar Para Drain	52	1.5	32677	41	2.3	32857	Improvement w.r.t. BOD and DO parameters
11.	Khanauri 2.8	52	1.6	38000	28	2.9	23571	Improvement w.r.t. BOD, DO and T. Coli parameters
12.	Moonak	30	1.8	28143	27	2.8	27000	Improvement w.r.t. BOD, DO and T. Coli parameters
13.	U/s Sardulgarh	22	2.3	18486	21	3.4	20429	Improvement w.r.t. BOD and DO

								parameters
14.	D/s Sardulgarh	24	2.1	22571	26	3.1	27429	Improvement w.r.t. DO parameter

The above data indicate that the water quality of river Ghaggar has been improved in one year (Jan to July 2018 to Jan to July 2019) w.r.t BOD and DO parameters and improvement w.r.t Total coliform parameter at 3 locations out of total 14 locations.

### 12.1.7 Water Quality of river Ghaggar for the month of August, 2019

S.N.	Point of Sample Collection	pH	DO mg/l	BOD mg/l	Cond $\mu$ s/Cm	T.Coli MPN/100ml	Free Amm. mg/l	SAR	B mg/l	Improvement in quality of water of river Ghaggar w.r.t earlier monitoring carried out in the month of July, 2019
1	Ghaggar at Mubarikpur Rest House	7.8	4.7	6	410	21000	0.36	1.17	0.18	Improvement w.r.t parameters BOD and T.coli
2	Ghaggar at Bhankarpur	7.7	4.2	17	477	24000	0.44	1.22	0.22	Improvement w.r.t parameters BOD, DO and T.coli
3	Ghaggar at Chattbir	7.5	4.4	15	483	22000	0.25	1.25	0.23	Improvement w.r.t parameters BOD, DO and T.coli
4	Ghaggar at U/s Jharmal Nadi	7.5	4.0	9	500	17000	0.22	1.34	0.20	Improvement w.r.t parameters BOD, DO and T.coli
5	Ghaggar at D/s Jharmal Nadi	7.6	3.4	16	668	21000	0.39	1.45	0.24	Improvement w.r.t parameters BOD, DO and T.coli
6	Ghaggar at U/s Dhakanshu Nallah	7.6	4.1	9	480	15000	0.28	1.65	0.22	Improvement w.r.t parameters BOD, DO and T.coli

7	Ghaggar at D/s Dhakanshu Nallah	7.7	4.0	13	532	22000	0.35	1.73	0.25	Improvement w.r.t parameters BOD, DO and T.coli
8	Ghaggar at Rattanheri	7.3	2.2	17	838	24000	0.14	2.49	0.30	Improvement w.r.t BOD parameter
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	7.3	3.4	15	722	28000	0.14	2.28	0.20	Improvement w.r.t parameters BOD, DO and T.coli
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	7.7	2.9	21	840	35000	0.44	2.37	0.28	Improvement w.r.t parameters BOD and DO
11	Ghaggar at Khanauri	7.6	3.6	10	472	17000	0.42	1.07	0.26	Improvement w.r.t parameters BOD, DO and T.coli
12	Ghaggar at Moonak	7.3	3.7	12	510	22000	0.13	1.18	0.19	Improvement w.r.t parameters BOD, DO and T.coli
13	Ghaggar at U/s Sardulgarh	7.7	4.9	9	362	15000	0.40	1.07	0.25	Improvement w.r.t parameters BOD, DO and T.coli
14	Ghaggar at D/s Sardulgarh	7.5	4.6	13	475	21000	0.28	1.24	0.31	Improvement w.r.t parameters BOD, DO and T.coli

### 12.1.8 Ground Water Quality in the catchment area of river Ghaggar

Sr. No.	Point of Sampling	Concentration of Parameters						
		pH	Fluoride (as F) mg/l	Potassium (as K) mg/l	Calcium (as Ca) mg/l	Magnesium (as Mg) mg/l	Conductivity mg/l	Hardness Total (as CaCO <sub>3</sub> ) mg/l
1	Raipur (Mansa)	7.78	2	24	16	77	3230	360
2	Burj Bahlike (Mansa)	7.55	1.2	395	52	60	2750	380
3	Mofar (Mansa)	7.86	0.4	5.9	60	29	612	270
4	Jhanda (Mansa)	7.85	0.8	8	40	48	1428	300
5	Bikhi (Mansa)	7.51	0.7	2.1	14	6.1	268	60
6	Kalyan (Patiala)	7.58	0.7	17.3	64	34	965	300
7	Lachkani (Patiala)	7.55	0.5	28	21	32	949	182
8	Sangat (Patiala)	50	65	913	280	29		
9	Lachuru (Patiala)	7.64	1.3	13.2	52	63	2740	390
10	Bulan (Patiala)	7.86	0.9	69	48	106	1441	560
11	Chural Kalan (Sangrur)	8.16	1.2	7.0	26	33	1097	200
12	Manvi (Sangrur)	7.68	0.3	6.4	44	22	329	200
13	Dera Bassi (SAS Nagar)	7.68	0.4	7.1	220	111	3200	1010
14	Issapur (SAS Nagar)	7.89	0.8	315	360	143	6480	1490

Quality of groundwater at 14 locations along river Ghaggar indicate values of calcium(3 locations), magnesium (3 locations) and hardness at 2 locations are higher than the permissible values. These higher values of calcium, magnesium and hardness may be due to geogenic reasons.

### 12.1.9 Status of Irrigation schemes in operation

Sr. No.	Name of the town	Capacity of STP (MLD)	Area to be irrigated (Hectares)
1.	Breta	3	150
2.	Sardulgarh	4	128
3.	Bhikhi	3	165
4.	Banur	4	120
5.	Lehragaga	4	110
6.	Moonak	3	70
7.	Sunam	8	240
8.	Patran	4	120
9.	Samana	10	324



### 12.1.10 Status of Irrigation schemes under construction

Sr. No.	Name of the town	Capacity of STP (MLD)	Area to be irrigated Hectares)	Likely date of commissioning
1.	Khanauri	3	110	30/6/2020
2.	Rajpura	7	140	31/3/2020

### 12.1.11 Irrigation schemes proposed to be implemented on 15 STPs (11 towns)

Sr. No.	Name of the town	Capacity of STP (MLD)
1.	Mandi Gobindgarh	25
2.	Patiala	46
	Patiala	10
	Patiala	13
3.	Rajpura	10
4.	Boha	2
5.	Dhuri	5
6.	Sangrur	4
7.	Bassi Pathana	3
8.	Sirhind	2
	Sirhind	4
	Sirhind	5
9.	Industrial Focal Point, Mandi Gobindgarh	3
10.	Lalru	3
11.	Dera Bassi	3.5

By

### 12.1.12 Status of installation of STPs for the villages.

There are 389 villages which are discharging their wastewater directly/ indirectly into River Ghaggar. The revised Action Plan for installation of treatment system in these villages is as under:

Total no. of villages	Phase-I			Phase-II			Phase-III		
	No. of village covered	Funds required in Rs Crores	Timelines for completions	No. of village covered	Funds required in Rs Crores	Timelines for completions	No. of village covered	Funds required in Rs Crores	Timelines for completions
389	87	26.10	1/3/2019 to 30/6/2020	152	45.6	1/3/2020 to 30/6/2021	150	45	1/3/2021 to 30/6/2022

As per above details, out of 87 villages taken in first phase, the treatment system of 14 villages has been completed and in other 14 villages, the treatment system is in progress.

### 12.1.13 Status of Health check up camps organized during the month of July, 2019

Name of the District	No. of Health camps organized	No. of patient checked	No. of patient found suffered from water borne diseases
Patiala	4	918	28 patients were diagnosed with mild water borne diseases.
SAS Nagar	1	47	6 patients were diagnosed with mild water borne disease such as diarrhoea and scabies
Sangrur	4	167	4 acute diarrhoea
Mansa	2	51	Nil
	<b>11</b>	<b>1183</b>	

The above data indicate that out of 1183 patients checked during health check up camps, 38 patients were found suffered with water borne diseases.

## 12.2 U.T., Chandigarh

### 12.2.1 Performance status of existing 06 STPs

Sr. no.	Name of the STPs	Capacity of STPs (MLD)	Performance w.r.t parameters BOD and TSS		
			June 2019	July 2019	Aug 2019
1.	3 BRD	49.9	Complied	Complied	Complied
2.	Dhanas	7.5	Complied	Complied	Complied
3.	Raipur Kalan	22.5	Not complied	Not complied	<b>Not complied</b>
4.	Raipur Khurd	5.6	Not complied	Not complied	<b>Not complied</b>
5.	Diggian	135	Not complied	Not complied	<b>Not complied</b>
6.	Maloya	22.5	Not started operation	Not started operation	Complied
Total		243 MLD			

It is mentioned here that STPs as mentioned at S.No. 3, 4 & 5 above are being upgraded to meet with the latest norms and shall be completed by November, 2021.

### 12.2.2 Status of Proposed STPs

Sr. no.	Name of the STPs	Capacity of STPs (MLD)	Timeline of commissioning of STP
1.	Kishangarh	2	November / 2021

### 12.2.3 Status of upgradation of existing STPs to meet with latest norms

Sr. no.	Name of the STPs	Capacity of STPs (MLD)	Timeline of upgradation of STP to meet with latest norms
1.	Raipur Kalan	22.5	November / 2021
2.	Raipur Khurd	5.6	November / 2021
3.	Diggian	135	November / 2021

### 12.2.4 Inspection of industries (June 2019 to August 2019)

Month	No. of industries inspected	No. of non-complying industries	Action taken against the industry
June, 2019	53	17	<ul style="list-style-type: none"> <li>Show cause notices were issued to 15 units.</li> <li>Directions were issued to 2 units for disconnection of electricity</li> </ul>
July, 2019	20	15	<ul style="list-style-type: none"> <li>Directions have been issued to 1 unit for disconnection of electricity</li> <li>Show cause notices have been issued to 14 units</li> </ul>
August, 2019	36	18	<ul style="list-style-type: none"> <li>Directions were issued to 13 units for disconnection of electricity</li> <li>Show cause notices have been issued to 5 units</li> </ul>

### 12.2.5 Action taken report on decisions taken/recommendations made by the Executive Committee in its 13<sup>th</sup> meeting held with the officers of U.T Chandigarh on 18.7.2019.

Sr. No.	Decision taken/recommendations made in 13 <sup>th</sup> meeting held on 18.7.2019	Action taken report
1.	STP at Raipur Kalan of capacity 5.675 MLD and Kishangarh area of capacity 2 MLD shall be completed as per the time schedule.	STP of capacity 2 MLD for Kishangarh area shall be completed by 30-11-2021.
2.	Upgradation of existing STPs to meet with the latest norms	Upgradation of existing STPs to meet with latest norms shall be made by November, 2021.
3.	Closing of all outlets falling into Sukhna-Choe and N-choe	All outlets falling into Sukhna Choe and N-choe shall be closed by 31.12.2019
4.	CPCC shall finalize the legal action against 13 non complying industries within 15 days.	Action against the non complying units including electroplating unit is under process.

5.	Health check up camps shall be organized on monthly basis.	Health checkups camps are being organized by the Health Department on monthly basis.
6.	Monitoring of water quality of N-Choe and Sukhna-Choe at their exit points.	Water quality of N-Choe and Sukhna-Choe is being carried out on monthly basis.

**12.2.6 Action taken report on the decisions/recommendations made by the Executive Committee in its 14<sup>th</sup> meeting held on 26.8.2019 with the officers of U.T Chandigarh.**

S.no.	Decisions taken/recommendations made in the meeting 14 <sup>th</sup> held on 28.9.2019	Action taken report
1.	Outlet from industrial area phase-I, colony no. 4, falling into Sukhna Choe shall be closed by 31.12.2019.	Work is under progress.
2.	Outlet of village Hallomajra, falling into Sukhna Choe shall be closed by 31.10.2019	Work is under progress.
3.	Outlet from Bougainvillea garden, falling into N-Choe shall be closed by 15.9.2019	Outlet plugged.
4.	Two points of sewage discharge from Attawa area shall be closed by 31.12.2019	Work is under progress
5.	One outlet carrying sewage of Sector 53 ,near furniture market, Chandigarh shall be plugged by 31.10.2019	Work is under progress
6.	One outlet carrying sewage of Sector 53 ,near garden of spring, Chandigarh shall be plugged by 31.12.2019	Work is under progress
7.	One outlet from bridge point, near Beant Memorial shall be closed by 15.9.2019.	In the meeting held on 26.8.2019, it was informed that it will take two months i.e. 26.10.2019. However, work is under progress and will be completed by 15.10.2019.

8.	Two outlets from Sec-52 shall be plugged by 30.11.2019.	Work is under progress
9.	One outlet from Sec-52 (end) shall be plugged by 30.11.2019.	Work is under progress
10.	Health check up camp should be organized on monthly basis and prior intimation should be provided to the Executive Committee.	Health checks up camps are being organized on monthly basis. Prior intimation is being recorded.
11.	The Commissioner, M.C. Chandigarh should watch the tendering process and ensure the up gradation of existing STPs and installation of new STPs and installation of new STPs by 30.11.2019.	Work is already under progress.
12.	CPCC should regularly inspect the industries and take necessary action under the provisions of the water act, 1974 against the defaulting units.	Inspections are being done and actions are being taken as per the findings.
13.	Additional Chief inspector of factories shall inspect the industries and ensure the compliance of the factory rules to provide good environment and healthy condition to the workers of the factories.	Minutes have been forwarded to Additional Chief inspector of factories. No report has been received till date.

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### 12.2.7 Water quality of Sukhna Choe leading to River Ghaggar

Month	DO	BOD	COD	TSS	Faecal Coliform
	mg/l	mg/l	mg/l	mg/l	MPN/100 ml
April 2019	Nil	201	402	399	$2.0 \times 10^4$
May 2019	Nil	143	283	222	$7.9 \times 10^5$
June 2019	Nil	150	293	120	$1.72 \times 10^5$

The above data indicate that there is improvement in the quality of water flowing into N-Choe w.r.t BOD, COD and TSS parameters but no improvement w.r.t Faecal Coliform.

### 12.2.8 Water quality of N Choe leading to River Ghaggar

Month	DO	BOD	COD	TSS	Faecal Coliform
	mg/l	mg/l	mg/l	mg/l	MPN/100 ml
April 2019	0.14	141	321	149	$2.4 \times 10^6$
May 2019	Nil	60	120	44	$7.9 \times 10^5$
June 2019	Nil	88	210	94	$1.3 \times 10^5$

The above data indicate that there is improvement in the quality of water flowing into Sukhna Choe w.r.t BOD, COD and TSS parameters but no improvement w.r.t Faecal Coliform.

### 12.2.9 Ground water quality of Chandigarh area monitored by CPCC in the month of July 2019

Sr. no.	Location	Parameter (all values in mg/l except pH and F. coli)								
		pH	TSS	TDS	Heavy metals					Faecal coliform (MPN/100 ml)
					T.Cr	Ni.	Cd.	Zn	As	
1.	Dadu Majra	7.4	4	424	BDL	BDL	BDL	BDL	BDL	Nil
2.	Sector -15	7.4	11	728	BDL	BDL	BDL	1.10	BDL	Nil
3.	Sector-22/24	7.3	4	302	BDL	BDL	BDL	0.02	BDL	Nil
4.	Village Palsora	7.4	3	568	BDL	BDL	BDL	BDL	BDL	8
5.	Dhanas	7.4	2	324	BDL	BDL	BDL	0.07	BDL	Nil
6.	Sector -35	7.2	1	352	BDL	BDL	BDL	0.05	BDL	Nil
7.	Sector -20	7.2	5	422	BDL	BDL	BDL	6.90	BDL	Nil

The above data indicate that there is no contamination in groundwater sources of Chandigarh area w.r.t organic, inorganic, heavy metals and F.coli parameters.

### 12.2.10 Closing of outlets falling into Sukhna Choe and N-Choe:

#### ❖ Sukhna Choe

- Total 11 outlets, falling into Sukhna Choe, were identified.
- Out of these 11 outlets, 9 outlets have been closed.
- Remaining 2 outlets shall be closed by 31.10.2019 and 31.12.2019.

#### ❖ N-Choe

- Total 22 outlets, falling into N-Choe, were identified.
- Out of these 22 outlets, 13 outlets have been closed.
- Remaining 9 outlets shall be closed by 31.12.2019.

### 12.2.11 Inspection of industries by District Level Special Task Force

- 15 units were inspected by District Level Special Task Force.
- Out of 15 units, 10 units were found complying with the norms.
- 5 units were found to be non-complying and show cause notices have been issued to these 5 units.

### 12.2.12 Status of Health Check-up camps

Department of Health & Family Welfare, Chandigarh is regularly carrying out Health Check-up Camps in Chandigarh wherein free medicines are distributed and free laboratory tests are conducted as per the convenience of the patients. In these camps, intensive information and awareness generation activities are carried out in the form of health talks, distribution of pamphlets and display of IEC material in the camps.

## 12.3 State of Haryana

### 12.3.1 Performance status of existing STPs

There are 62 existing STPs in the State of Haryana having total treatment capacity of 503.6 MLD. Performance of these existing STPs monitored during the months June,2019 to August,2019 is mentioned as under.

Sr. No.	Name of the district	Name of the town/ city	Existing STP and Capacity (MLD)	Performance w.r.t parameters BOD and TSS		
				Jun-19	Jul-19	Aug-19
1	Ambala	Naya Gaon, Unit-I, Ambala City	3.25	-	-	-
2	Ambala	Naya gaon, Unit-II, Ambala City	3.25	-	-	-
3	Ambala	Baldev Nagar, Unit-I, Ambala City	5	Complied	-	-
4	Ambala	Baldev Nagar, Unit-II, Ambala City	3.25	Complied	-	-
5	Ambala	Moti Nagar, Unit-I, Ambala City	5	-	-	-
6	Ambala	Moti Nagar, Unit-II, Ambala City	5	-	-	-
7	Ambala	Modal Town, Ambala City	6	-	-	-
8	Ambala	Nasirpur, Ambala City	3.25	-	-	-
9	Ambala	Sadipur	0.25	-	-	-
10	Ambala	Devi Nagar, Ambala City	3.25	-	-	-
11	Ambala	Naraingarh	3	Complied	-	-
12	Kurukshetra	Thanesar	25	-	-	-
13	Kurukshetra	Modal Town, Pehowa	8	-	-	-
14	Kurukshetra	Ladwa Road, Shahbad	11.5	-	-	-
15	Kurukshetra	Indri Road, Ladwa	7	-	-	-



Sr. No.	Name of the district	Name of the town/ city	Existin g STP and Capaci ty (MLD)	Performance w.r.t parameters BOD and TSS		
				Jun-19	Jul-19	Aug-19
16	Panchkula	Kalka	4.5	-	Complied	-
17	Panchkula	Kalka	0.25	-	Complied	-
18	Panchkula	Nalagarh Road, Pinjore	5	-	Complied	-
19	Jind	Jind	15	-	-	Not Complied
20	Jind	Narwana	3.5	-	-	-
21	Jind	Narwana	3.75	-	-	-
22	Jind	Narwana	2.6	-	-	-
23	Jind	Uchana	2	Complied	-	-
24	Jind	Uchana	1.5	Complied	-	-
25	Jind	Jind	5	-	-	-
26	Jind	Safidon	9	-	-	-
27	Jind	Julana	4	Not Complied	-	-
28	Kaithal	Cheeka	10	-	-	-
29	Kaithal	Jind Road, Kaithal	10	-	-	-
30	Kaithal	Manas Road, Kaithal	10	-	-	-
31	Kaithal	Manas Road, Kaithal	10	-	-	-
32	Kaithal	Kalayath	5	-	-	-
33	Kaithal	Pundri	3.5	-	-	-
34	Hisar	Dhani Kushal, Bhiwani Road, Hansi	5	-	Complied	-
35	Hisar	Lalpura- Jind Road, Hansi	7.5	-	Complied	-
36	Hisar	Dhani Gram, Barwala	6	Complied	-	-
37	Hisar	Azad Nagar, Rajgarh Road Hisar	15	Complied	-	-
38	Hisar	Rishi Nagar, Hisar	40	Complied	-	Complied
39	Hisar	Hisar	4	Complied	-	Complied
40	Hisar	Narnaund	4	Complied	-	-
41	Hisar	Hansi	6.5	-	-	-
42	Hisar	Uklana	6.5	-	-	Not Complied
43	Sirsa	Chautala Road, Dabwali	16.5	Complied	-	-
44	Sirsa	Shamsabad patti, Kalaria Road, Sirsa	15	-	-	-
45	Sirsa	Vill. Nattar 1, Sirsa	5	-	-	-
46	Sirsa	Vill. Nattar 2, Sirsa	5	-	-	-
47	Sirsa	Daddu Road, Kalanwali	9.5	-	-	-
48	Sirsa	Ellenabad	7.5	-	-	-
49	Sirsa	Rania	6	Complied	-	-
50	Fatehabad	Vill. Bhodia Khera, Bhattu Road, Fatehabad	10	Complied	-	Complied

Sr. No.	Name of the district	Name of the town/ city	Existing STP and Capacity (MLD)	Performance w.r.t parameters BOD and TSS		
				Jun-19	Jul-19	Aug-19
51	Fatehabad	Fatehabad	5	Complied	-	Complied
52	Fatehabad	Vill.Amani, Tohana,	10	Complied	-	-
53	Fatehabad	Ratia	6.5	Complied	-	-
54	Fatehabad	Jakhal Mandi	3.0	-	-	-
	<b>HSVP</b>					
55	Ambala	Sec-7, Urban Estate, Ambala City	2	-	-	-
56	Panchkula	Sec-20, Panchkula	18	-	-	-
57	Panchkula	Sec-20, Panchkula	39	-	-	-
58	Panchkula	Sec-28, Panchkula	15	-	-	-
59	Jind	Jind	10	-	-	Not Complied
60	Kaithal	Kaithal	7.5	-	-	-
61	Hisar	Dabara Tosham Road, Hisar	15	Complied	-	-
62	Fatehbad	Village Majra	10	Complied	-	Complied
		<b>Total</b>	<b>506.6</b>			

### 12.3.2 Status of Proposed STPs

Sr. No.	Name of the Town	Proposed STP (in MLD)	Timelines proposed as per Action Plan	Progress report
1.	Barara	4	31.10.2019	85% work has been done
2.	Jind	7	30.11.2019	75%
3.	Sec-6, Urban Estate, Thanesar	15	31.03.2020	95%
4.	Sec-21 Urban Estate, Ambala City	5	31.12.2019	20%
5.	12 Cross Road, Ambala	12	30.11.2019	5%
6.	Khagesara & Toka	0.5	31.12.2019	70%
7.	Nangal & Allipur	0.5	31.12.2019	75%
8.	Khatoli	0.75	31.12.2019	12%
9.	Kot	0.75	31.12.2019	80%
10.	Sukhdarshanapur	0.75	31.12.2019	62%

Sr. No.	Name of the Town	Proposed STP (in MLD)	Timelines proposed as per Action Plan	Progress report
11.	Village Dabra	8	31.03.2020	10%
12.	Ambala	5	31.03.2020	20%
13.	Khuda Khurd, Ambala	12	4.02.2020	2%
14.	Sirsa	20	30.11.2019	85%
<b>Total</b>		<b>91.25</b>		

### 12.3.3 Inspection of industries (June 2019 to August 2019)

Sr. No.	Month	No. industries inspected	No. of industries violating the norms	Action taken against the industries
<b>Panchkula</b>				
1	June	01	01	Recommended for closure.
2	July	05	05	Recommended for closure=03 nos. Recommended for re-sampling=02 nos.
3	August	Nil	Nil	Nil

### 12.3.4 Inspection of STPs (June 2019 to August 2019)

Sr. No.	Month	No. industries inspected	No. of industries violating the norms	Action taken against the industries
1	June	19	1	Legal Action initiated
2	July	5	0	NA
3	August	8	3	Legal Action initiated against all the 3 STPs.

### 12.3.5 Status of irrigation schemes to be implemented to utilize the treated sewage

- A pilot project by irrigation department for installation of solar / grid powered micro irrigation infrastructure on STPs for utilization of treated sewage for irrigation has been completed on 31.01.2019 and irrigation facility has been created for 76 hectares in Pehowa block.
  - ✓ Regular irrigation scheme is likely to be started in the next crop season.
  - ✓ After watching successful story of the pilot project, similar projects will be replicated in other blocks of the District.

- Another project costing of Rs. 235.94 crores for recycle and reuse of treated wastewater of the towns for irrigation has been planned by irrigation department.
  - ✓ In the first phase, treated wastewater from STPs of Fatehabad, Sirsa, Hisar and Jind Districts costing Rs. 87 crores has been planned and administrative approval has been obtained but no funds have been provided by Govt.

**12.3.6 Status of installation of STPs for the villages having discharge more than 300 KLD.**

Department of Rural Development & Panchayat, Haryana has not submitted any proposal regarding installation of STPs for the villages having discharge more than 300 KLD.

**12.3.7 Action taken report on decisions taken/recommendation made by the Executive Committee in its 13<sup>th</sup> meeting held on 18.7.2019 with the officers of State of Haryana.**

**12.3.8 Action taken report on the minutes of the 14<sup>th</sup> meeting of Executive Committee held on 26.8.2019**

Sr. No.	Decisions taken in the 14 <sup>th</sup> meeting held on 26.8.2019	Action taken report
1.	The Deptt. of Urban Local Bodies shall install and commission all the STPs for the towns located in the catchment area of River Ghaggar as per the time schedule mentioned in the Action Plan.	<p><b>STPs installed</b></p> <p>62 STPs have been installed and commissioned in 27 Towns of 8 Districts by the Public Health Engineering Department of the State.</p> <p><b>STPs under construction-</b> 14 No. STPs are under construction.</p> <ul style="list-style-type: none"> <li>• In Panchkula district, 6 STPs in the towns namely Toka, Nangal, Khatoli, Kot, Billa, Sukhdarshanpur, Kangowalan, Suketri are under installation and shall be commissioned by 26.10.2019.</li> <li>• In Ambala District, 4 STPs in the towns namely Barara, Ambala, 12 Cross Road and Khuda Khurd are under installation and shall be commissioned by 31.10.2019, 31.3.2020,</li> </ul>

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		<p>4.2.2020 and 4.2.2020, respectively.</p> <ul style="list-style-type: none"> <li>• In Kurukshetra District, 1 STP in Kurukshetra town shall be completed by 31.12.2019,</li> <li>• In Jind town, 1 STP shall be completed by 30.12.2019.</li> <li>• In Village Dabra of District Hisar, STP shall be completed by 05.02.2020.</li> <li>• In Sirsa town, STP shall be completed by 30.11.2019.</li> </ul>
2.	HSPCB shall continuously monitor the STPs of the towns and take action against the defaulters for not achieving the prescribed standards.	In the month of July, 2019, HSPCB inspected 5 STPs and all the STPs were found meeting with the prescribed standards
3.	HSPCB shall inspect more industries located in the catchment area of River Ghaggar, collect effluent samples of the industries and legal action under the provisions of the Water Act, 1974 may be taken against the defaulting industries.	HSPCB assures to monitor more number of industries and legal action against the defaulting industries shall be ensured.
4.	State of Haryana shall prepare the irrigation schemes for utilization of treated sewage of all the towns located on the catchment area of River Ghaggar by 31.12.2019 and shall arrange funds for the same	<ul style="list-style-type: none"> <li>• Pilot irrigation scheme has been completed on 31.1.2019 in 76 acres of land of Pehowa area.</li> <li>• Regular irrigation scheme shall be started in next crop season.</li> <li>• Another project costing Rs 87 crores has been planned for the Districts Fatehabad, Sirsa and Hisar.</li> </ul>
5.	The Deptt. of Rural Development & Panchayat shall install STPs for the villages located on the catchment area of River Ghaggar and having discharge more than 300 KLD by 31.3.2021.	Presently, there is no such scheme

6.	HSPCB shall carry out ground water sampling of the points already identified by it as per the sampling schedule already decided in the earlier meetings and the ground water samples, which are not meeting with the prescribed norms, may not be allowed to be used by the public.	In the month of July, 2019, HSPCB carried out groundwater sampling of 33 locations along catchment area of river Ghaggar and out of these 33 samples, 5 groundwater samples were found not meeting with the prescribed standards.
7.	Deptt. of Health & Family Welfare shall regularly conduct Health Check up Camps in the towns / villages located in the catchment area of River Ghaggar	<ul style="list-style-type: none"> <li>• 21 Health Check up Camps have been organized.</li> <li>• Out of the 21 Health Check up Camps, 14 camps have been organized in district Kaithal, where 565 patients were examined in different villages.</li> <li>• Out of remaining 7 camps, 3 camps have been organized in district Ambala, 2 camps in Fatehabad, where, 54 patients were examined and in district Sirsa, 2 Health Check up Camps were organized, where, 84 patients were examined.</li> </ul>
8.	District Level Special Task Force of all the districts shall visit the industries and other water polluting sources on monthly basis and action may be recommended to HSPCB against the violating industries / culprits	DO letter have been written to all the Deputy Commissioners to ask the District Level Special Task Force to visit the water polluting industries and action against the defaulting industries may be recommended to the regulatory body.
9.	HSPCB shall monitor the water quality of River Ghaggar at different locations as already earmarked and data may be analysed w.r.t. improvement in the water quality of the River Ghaggar.	<ul style="list-style-type: none"> <li>• Water quality of River Ghaggar is checked at 38 locations, which have been jointly fixed by 3 States and U.T., Chandigarh.</li> <li>• Besides, water quality of River Ghaggar is analyzed at 4 locations in District Hisar and 21 locations in district Jind.</li> </ul> <p>There is no improvement in the water quality of River Ghaggar w.r.t. T.Coli parameter, which indicates that</p>

	chlorination is hardly being given to any STP to kill T.Coli.
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### 12.3.9 Ground water quality of the area falling in the catchment area of river Ghaggar in the State of Haryana in the month of July 2019

Sr.No.	Sampling Location	Parameter (all values in mg/l pH and F. Coli)									Remarks
		pH (6.5 to 8.5 limit)	TSS	TDS (500 - (2000 limit)	Heavy Metals					Fecal Coliform (MPN/100 ml)	
					T. Cr. (0.05 limits)	Ni. (0.02)	Cd. (0.01 limits)	Zn (5- 15)	As (0.01- 0.05 )		
1	Tubewell NO. 2 dt. Sector-24 dt. HUDA dt. Panchkula	7.85	-	447	-	BDL	-	0.086	-	-	Complying
2	Tubewell NO. 3 dt. Sector-24 dt. HUDA, Panchkula	7.81	-	392	-	BDL	-	0.059	-	-	Complying
3	Tubewell No. 1 dt. (HUDA division No. 3) Near dumping ground sector-23 dt. Panchkula	7.89	-	455	-	BDL	-	0.038	-	-	Complying
4	Tubewell No. 5 dt. Sector-24 dt. HUDA dt. Panchkula	7.92	-	383	-	BDL	-	0.028	-	-	Complying
5	Tubewell No. 4 dt. Sector-24 dt. HUDA , Panchkula	7.86	-	461	-	BDL	-	0.055	-	NIL	Complying
6	Tubewell No. 6 dt. Div-II dt. Sector-24 dt. Panchkula	7.81	-	424	-	BDL	-	0.032	-	NIL	Complying
7	Hand Pump at Ghail Drain dt. Ambala	7.83	-	466	-	BDL	-	0.057	-	Nil	Complying
8	Tubewell at Vill. Dadwa Haryana Punjab Border, Ambala	7.91	-	457	-	BDL	-	0.052	-	NIL	Complying
9	Tubewell at Kalu Majra, Ambala	7.83	-	448	-	BDL	-	0.1	-	NIL	Complying
10	Tubewell at Vill. Dadiana, Ambala	7.84	-	436	-	BDL	-	0.074	-	NIL	Complying
11	Tubewell at Vill. Manakpur, Ambala	7.82	-	622	-	BDL	-	0.062	-	NIL	Complying
12	Tubewell at Vill. Lohgarh, Ambala	7.79	-	429	-	BDL	-	0.064	-	NIL	Complying
13	Tubewell at Vill. Dangderi, Ambala	7.82	-	462	-	BDL	-	0.054	-	NIL	Complying
14	Hand Pump of Village Devban (Near River Bridge) District Kaithal	8.8	12	234	-	-	-	-	-	-	Complying
15	Hand Pump, Village Kithana, (Near Shiv Medical), District Kaithal	8.3	12	701	-	-	-	-	-	ND	Complying
16	Underground water Hand Pump of Village Titran (Near Vishav Karma Auto Center) District Kaithal	8.3	16	2520	-	-	-	-	-	ND	Non-complying
17	Tubewell of water works, Village Kawalgarh, Fatehabad	8.1	13	410	ND	ND	-	ND	-	-	Complying
18	Tubewell of Smt. Sushma Rani, Sarpanch, Khairpur, Fatehabad	8.7	15	460	ND	ND	-	ND	-	-	Non-complying
19	Tubewell of Vill. Talwara, Chandpur Road, Near Ghaggar, Fatehabad	8.5	18	264	ND	ND	-	ND	-	-	Complying
20	Tubewell at Talwara to Jakhal Road, Village Talwara, Fatehabad	8.4	12	281	ND	ND	-	ND	-	-	Complying
21	Tubewell at Talwara,	8.3	20	260	ND	ND	-	ND	-	-	Complying

Sr.No.	Sampling Location	Parameter (all values in mg/l pH and F. Coli)									Remarks
		pH (6.5 to 8.5 limit)	TSS	TDS (500 - (2000 limit)	Heavy Metals					Fecal Coliform (MPN/100 ml)	
					T. Cr. (0.05 limits)	Ni. (0.02)	Cd. (0.01 limits)	Zn (5- 15)	As (0.01- 0.05)		
	Fatehabad										
22	Tubewell of Village Jakhel, Fatehabad	8.7	14	286	ND	ND	-	ND	-	-	Non-complying
23	Tubewell Narail Road, Jakhel, Fatehabad	8.2	14	280	ND	ND	-	ND	-	-	Complying
24	Tubewell near Narail Road River Ghaggar, Jakhel, Fatehabad	8.2	12	324	ND	ND	-	ND	-	-	Complying
25	Tubewell Near Ghaggar Narail Road, Jakhel, Fatehabad	8.7	10	310	ND	ND	-	ND	-	-	Non-complying
26	Tubewell of Talwari, Fatehabad	8.1	10	270	ND	ND	-	ND	-	-	Complying
27	Tubewell of Makhan Singh Talwari, Fatehabad	7.8	12	460	ND	ND	-	ND	-	-	Complying
28	Tubewell Sadhanwas Talwari Road, Fatehabad	7.8	12	460	ND	ND	-	ND	-	-	Complying
29	Tubewell Dhani Nali Road, Sadhanwas, Fatehabad	8.4	16	335	ND	ND	-	ND	-	-	Complying
30	Tubewell Ratia Road, Chandpura, Fatehabad	7.5	12	638	ND	ND	-	ND	-	-	Complying
31	Tubewell Ratia Road, Chandpura, Fatehabad	8.5	18	616	ND	ND	-	ND	-	-	Complying
32	Tubewell Chandpura to Ratia Road, Fatehabad	8.5	12	310	ND	ND	-	ND	-	-	Complying
33	Tubewell Babanpur to Ratia Road, Ratia, Fatehabad	8.4	15	580	ND	ND	-	ND	-	-	Complying
34	Johne Service Station, Ratia, Fatehabad	8.4	12	256	ND	ND	-	ND	-	-	Complying

## 12.4 State of Himachal Pradesh

### 12.4.1 Performance status of existing STPs

Presently, no STP is operational in Parwanoo and Kala Amb Area, which are located in the catchment area of river Ghaggar.

### 12.4.2 Status of Proposed STP

- Sukhna Nallah at Parwanoo and River Markanda at Kala Amb fall in the catchment area of River Ghaggar.
- **Parwanoo town is located in the catchment of Sukhna Nallah.**
  - For installation of STPs in Parwanoo town, 02 STPs have been proposed.
  - In one case land has been finalized which is adjoining the Solid Waste management site of MC Parwanoo at Sector 05 and is proposed to be commissioned by 31.03.2021.
  - The other STP for Parwanoo town is proposed in Village Tipra and the said area is a forest land.



- Both these STPs each of capacity 01 MLD and shall be completed and commissioned by 31.03.2021.

- **Kala Amb town is located on River Markanda.**

- One CETP cum STP of capacity 5 MLD costing Rs. 23 Crores shall be installed in Kala Amb area for which DPR has been prepared.
- Land for CETP has been acquired by Deptt. of Industries. Environmental Clearance has been applied by SPV.

### 12.4.3 Inspection of industries (June 2019 to August 2019)

#### 12.4.3.1 Sukhna Nallah

Sr. No.	Month	No. industries inspected	No. of industries violating the norms	Action taken against the industries
1	June,2019	Inspections - 20	NIL	All the industries were found complying with the norms
2	July,2019	Inspections - 31	NIL	All the industries were found complying with the norms
3	August,2019	Inspections - 18	03	<ol style="list-style-type: none"> <li>1. Power connection of one unit namely M/s Real care Pharma, Sector 06, Parwanoo has been disconnected.</li> <li>2. Effluent samples of two industries namely M/s Total health care Sector 05 Parwanoo &amp; M/s Mahadev Pharma, Village Ambota Parwanoo have been failed to meet the prescribed standards. Therefore, show cause notices have been issued to both these units.</li> </ol>

### 12.4.3.2 River Markanda

Sr. No.	Month	No. industries inspected	No. of industries violating the norms	Action taken against the industries
1	June,2019	49	Nil	All the industries were found complying with the norms
2	July,2019	22	1	Waste water from settling pond of M/s Bhanadari Katha Udyog Jaman Ki Ser, Tehsil Pacchad, Distt. Sirmaur, HP was accidently discharged into the nearby nallah. Environmental Compensation of Rs. 18,750/- was imposed upon the unit.
3	August,2019	30	2	M/s Sirmaur Metalloys, Suketi road Kala Amb and M/s Rama Krishna Industries Kala Amb were found violating Water Act, 1974 and Air, Act, 1981. Orders for power disconnection of both the units were issued and environmental compensation of Rs. 3,20,000/- was also imposed upon the units.

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### 12.4.4 Action taken report on the decisions taken/recommendation made in the 12<sup>th</sup> meeting of the Executive Committee held on 13.05.2019.

S. no.	<u>Decisions taken in the 12<sup>th</sup> meeting held on 13.05.2019</u>	<u>Action taken report Sukhna Nallah</u>	<u>Action taken report River Markanda</u>
1.	To Ensure Zero Liquid Discharge for Electroplating and other highly Polluting Industries.	The Regional Office of the State Board has convened meetings with water polluting industrial units in Parwanoo area on 20.08.2019 & 21.08.2019 and issued directions to such	18 no of industries have installed evaporators in the units thus ensuring Zero Liquid Discharge.

		industrial units to ensure ZLD in a time bound manner. Till date, 04 Electroplating units are upgraded to Zero Liquid Discharge treatment system.	
2.	State Board to carry out Night Inspection of industries to check any sudden waste water discharge.	Regular inspections and monitoring is being carried out and no sudden waste water discharge is observed.	Regular inspections and monitoring is being carried out and no sudden waste water discharge is observed.
3.	To match the online data from OCEMS with actual data.	There is no 17 category industry falling in the catchment of Sukhna Nallah. Hence, OCEMS is not provided.	There is one 17 category industry in the name & style of M/s Ruchira papers Ltd. (Pulp & paper mfg.) The unit has installed OCEMS, online Continuous Emission Monitoring Station. The data is being displayed on the CPCB & the State Board server on real time basis. The State Board is also collecting monthly samples from the final outlet from this industry.
4.	Tertiary treatment should be provided in the STPs to improve the quality of the treated sewage.	All the captive STPs and ETPs of industrial units in the catchment area of Sukhna Nallah have provided tertiary treatment in the form of filtration before final discharge.	All the captive STPs and ETPs of industrial units in the catchment area of Markanda River have provided tertiary treatment in the form of filtration before final discharge.
5.	RTWQMS shall be installed on River Kaushalya by 15.8.2019 and data transfer also be connected to HPPCB server and thereafter	RTWQMS has already been installed on River Kaushalya. However, commissioning and data transfer connectivity shall be done shortly.	The State Board has already released funds to the I&PH Department for the installation of RTWQMS & radar System. Tenders have been floated and the same is expected to be installed by 30.09.2019.

	to CPCB server.		
6.	Commissioning of Bio-digester as a part of STP on pilot basis shall start functioning by 15.8.2019 and confirmed by 25.08.2019 to the Committee.	The STP of 70 KLD has been installed at sector-5, Parwanoo and shall be commissioned by the end of September, 2019.	Point pertains to Parwanoo area only.
7.	HPSPCB should take stringent action under the provisions of Water Act, 1974 against the industries found by passing the untreated effluent and violating the norms. Power connection of such industries should be disconnected immediately.	Power of 01 no of unit disconnected for 03 continuous samples failure. (M/s Real care Pharma, Sector 06, Parwanoo) Samples of M/s Total health care Sector 05 Parwanoo & M/s Mahadev Pharma, Village Ambota Parwanoo are failing to meet the prescribed standards. Show Cause notices have been issued to both the units and re sampling shall be carried out as per State Board notification and procedure prescribed therein.	HPSPCB is carrying out regular inspections of industries in Kala Amb area. In the month of August, 2019, 30 industries were inspected. 16 effluent samples from ETPs and 10 samples from bore wells of different industries were collected.  2 industries were found violating the norms. Orders for disconnection of power connection for both the industries were issued and environmental compensation of Rs. 3,20,000 was imposed upon the units.
8.	The Board should also organize more activities of public participation by organizing workshops, displaying hoarding & playing jingles.	03 number of cleanliness drives have been carried out in the catchment of Sukhna Nallah. 02 No of plantation drives have been carried out till date. Another cleanliness drive is schedules to be held on 01/02 October 2019.	State Board is regularly organizing the mass awareness activities for public participation. State Board organized a State level cleanliness drive in Kala Amb area from 19 <sup>th</sup> to 21 <sup>st</sup> June, 2019 in which about 400 participants from various industries, schools and Govt. offices collected more than 15MT of Solid waste from various streams of Kala Amb

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			area. Solid waste was disposed of at Waste Management site of MC Nahan. Also, a plantation campaign was carried out in Moginand under the guidance of Chairman of DLSTF-cum-Deputy Commissioner, Sirmaur in which 500 plants of water purifying species were planted in Moginand Nallah on 12.09.2019.
9.	All the STPs must be installed and commissioned strictly as per the time schedule mentioned in the Action Plan.	Necessary directions have been issued to the executing agency i.e I&PH department to adhere to the timeline i.e 31.03.2021.	Necessary directions have been issued to the executing agency i.e I&PH department to adhere to the timeline i.e 31.03.2021.
10	CETP for Kala Amb area to treat the industrial wastewater must be setup in the time bound manner.	Pertains to Kala Amb area.	Necessary directions have been issued to the executing agency i.e M/s Kala Amb infrastructure Company to adhere to the timeline i.e 31.03.2021.
11	Holding tanks of sufficient capacity must be constructed at the proposed STPs sites during shut down period.	Necessary directions have already been issued to the concerned agencies for compliance.	Holding tanks of sufficient capacity shall be ensured in proposed CETP Kala Amb and STP Trilokpur to store effluent in case of shut down. Necessary directions have already been issued to the concerned agencies for compliance.
12	The Deptt. of Health, shall conduct detailed health study in	The CMO Solan has been requested to carry out the detailed health study of the Parwanoo area and submit a	Deptt. of Health & Family Welfare is carrying out the detailed health study of Kala Amb area and the report shall

September, 2019.	comprehensive report in a time bound manner. The funds in this regard have been released by HPPCB to the Health Department to carry out health survey in the area.	be submitted accordingly. The funds in this regard have been released by HPPCB to the Health Department to carry out health survey in the area.
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**12.4.5 Action taken report on the decisions taken/recommendations made by the Executive Committee in its 13<sup>th</sup> meeting held on 02.08.2019 with the officers of State of Himachal Pradesh.**

Sr. No.	Decisions taken/recommendations made in the meeting held on 02.08.2019	Action taken report <u>Sukhna Nallah</u>	Action taken report <u>River Markanda</u>
1)	2 STPs each of capacity 1 MLD for treatment of sewage of Parwanoo area shall be installed and commissioned by 31.03.2021. Cost also need to be reviewed as it appears on higher side.	1. The site (already identified) of one of the STP is adjoining to the SWM site of MC in Sector-05, Parwanoo and site for 2 <sup>nd</sup> STP is a forest land for which external agency has been hired for its clearance. The Distt Level Task Force Chairman has directed the Executive Engineer I&PH Solan to expedite the matter and submit action taken report by next meeting.	Pertains to Parwanoo area.
2)	One CETP of capacity 5 MLD for treatment of sewage and industrial effluent of Kala Amb area	Pertains to Kala Amb area.	DPR for setting up of CETP cum STP of capacity 5 MLD has been prepared at an estimated cost of Rs. 23

	shall be installed & commissioned by 31.03.2021.		Crores. Land for CETP-cum-STP has been acquired by Department of Industries. Special Purpose Vehicle i.e. M/s Kala Amb Infrastructure Company has applied for Environment Clearance to the MoEF. First meeting for issuing TORs has been already held in August, 2019, some observations have been raised regarding distance of CETP from Markanda. The SPV is working on resolving the observations made.
3)	One STP of capacity 1 MLD for the villages Trilokpur and Kheri falling on River Markanda catchment shall be installed and commissioned by 31.03.2021.	Pertains to Kala Amb area.	I&PH has prepared DPR for STP Trilokpur. Temple Trust, Trilokpur has agreed to provide partial funding for the STP.  The Chairman of District Level STF issued directions to I&PH to make their own arrangements for remaining funds.
4)	All the STPs should have a provision of disinfection for ensuring control of faecal coliform as well as sludge digesters for converting sludge into manure. Sludge (STPs and Septic Tanks) Management Plan shall be included in STPs proposal.	At present there is no operational STP in operation at Parwanoo. However, necessary directions have been issued to the concerned agencies for a time bound compliance for proposed STPs in future.	At present there is no operational STP in operation at Kala Amb. However, necessary directions have been issued to the concerned agencies for a time bound compliance for proposed STPs in future.
5)	Necessary measures be taken by Urban	HIMUDA has set up a STP of capacity 75 KLD	A CETP-cum-STP of 5 MLD for Kala Amb and one STP of 1

	Development as well as Irrigation & PH Department to ensure that the generated sewage in the catchment of river Kaushalya, River Markanda is intercepted and diverted to the existing STPs/ proposed STPs so that natural drains are restored and no sewage drain outfalls exists in future.	over a septic tank and is under construction in Sector 05 Parwanoo on a pilot basis. The STP is stated to be operationalised by 20 <sup>th</sup> September 2019.  Necessary directions have been issued to the concerned agencies for compliance as per the orders of the Executive Committee.	MLD for Trilokpur is already proposed to intercept all the sewage generated in the catchment of River Markanda.  Necessary directions have been issued to the concerned agencies for compliance as per the orders of the Executive Committee.
6)	Proposed STPs, STPs under construction and the existing STPs shall be installed/upgraded to achieve the standards as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Deshpande Vs. Union of India & others.	Department of I & PH has been informed accordingly and as per the DPR prepared for proposed STPs, standards are considered as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Deshpande Vs. Union of India & others.	Department of I & PH has been informed accordingly and as per the DPR prepared for proposed STPs, standards are considered as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Deshpande Vs. Union of India & others.
7)	All the treated sewage shall be utilized for flushing (in residential apartments, office, malls/commercial complexes), gardening, construction activity, irrigation purposes etc., and proposals shall be finalized in this regard by the State of Himachal Pradesh.	The I&PH has submitted that due to topography of the area, it is difficult to utilize treated sewage for flushing, construction activity, irrigation etc. However, Department of I&PH agreed to explore on pilot basis to check the feasibility of reutilization of treated	The I&PH has submitted that due to topography of the area, it is difficult to utilize treated sewage for flushing, construction activity, irrigation etc. However, Department of I&PH agreed to explore on pilot basis to check the feasibility of reutilization of treated sewage in hilly areas.



		sewage in hilly areas.	
8)	Dedicated drainage/sewerage network for carrying industrial effluent from industrial area of Kala Amb to the proposed CETP shall be laid or constructed and commissioned by 31.03.2021.	Pertains to Kala Amb area.	Effluent from nearby industries shall be transported through pipeline and wherever it is not feasible, the effluent will be transported through tankers.
9)	RTWQMS shall be installed on River Markanda by 15.08.2019 and data transfer also be connected to HPPCB server and thereafter to CPCB server.	The RTWQMS along with Radar system for water quality monitoring and flow measurement respectively has been installed in river Kaushalya near village Kamli. The same has also been inspected by the Member Secretary upon his surprise visit in Parwanoo Area on 06.09.2019.  The IT Cell of the HPPCB is in the process of linking the online data with the State Board Website.	HPSPCB has already released funds to I&PH for the installation of Online Continuous Water Quality Station on River Markanda.  Tender has been allotted by I&PH and same shall be installed by 30.09.2019.
10)	HPPCB and District Level Special Task Force shall visit industries located in the catchment area of River Markanda and Sukhna Nallah on monthly basis and reports be forwarded to HPPCB for initiating legal	No industry has been inspected by the District Level Special Task Force.	No industry has been inspected by the District Level Special Task Force.

	action under the provisions of the Water Act, 1974 and in compliance to Hon'ble NGT Orders.		
<b>11)</b>	Cleanliness drive shall be continued in Kala Amb area and Parwanoo area as regular feature.	Next cleanliness drive has been scheduled on 01 / 02 October 2019 in Parwanoo Area involving all the stake holders.  03 no of drives have already been conducted till date.	HPSPCB carried out a cleanliness drive in Kala Amb area from 19 <sup>th</sup> to 21 <sup>st</sup> June, 2019 in which almost 400 participants from various industries, schools and Govt. offices collected more than 15MT of Solid waste from various streams of Kala Amb area. Solid waste was disposed of at Waste Management site of MC Nahan.  Plantation campaign was also carried out in Moginand under the guidance of Chairman of DLSTF-cum-Deputy Commissioner, Sirmaur in which 500 plants of water purifying species were planted in Moginand Nallah on 12.09.2019.
<b>12)</b>	Challans may be issued to the violators for violating the provisions of the Non-Biodegradable Garbage Act, 2005.	01 No of Challan (Rs 1000/-) has been issued to the unit in the name & style of M/s Om Sai Industries, Sector 01 Parwanoo for plastic waste littering.	Regular challans are being issued to the violators under the provisions of HP Non Biodegradable Garbage Act, 2005.  2 Challans were issued against the violators in June, 2019 and 1 Challan in July, 2019.
<b>13)</b>	The ground water quality of the point sources located on River Markanda and	No contamination of ground water has been observed as per the lab	Regular ground water samples are being collected from various point sources located

	Sukhna Nallah may be analyzed on quarterly basis and wherever the ground water quality is found unfit for drinking purpose, such water sources be capped and a display board mentioning that the 'water is not fit for drinking purpose' may be placed.	analysis results available till date.	in the catchment of River Markanda. In the month of August, 2019, 10 ground water samples were collected. Results of all the samples are within prescribed norms. The results are annexed at <b>Annexure- HPI.</b>
14)	Regular Health camps shall be organized in the localities / villages in the catchment area of River Markanda and Sukhna Nallah. Health Department shall also submit the health status reports in the catchment of River Markanda and Sukhna Nallah, within two months.	08 No of health camps have been organised till date.  CMO Solan has been requested to submit a detailed report by the end of October 2019.	Health camps are being organized by Department of Health & Family Welfare on monthly basis in Kala Amb area. 8 multi-speciality health camps have been organized so far and more than 1600 persons have been benefitted from the same.  Health Survey is also being conducted by the Department of Health, funding for which has been done by the H.P. State Pollution Control Board.
15)	Integrated solid waste management facility at Parwanoo shall be developed in a scientific manner in accordance with the SWM Rules, 2016 as amended and also as per guidelines of CPCB by 31.03.2021. Necessary fencing or wire mesh system shall be installed along Sukhna Nallah and Markanda River at Solid Waste littering hot spot.	The entire legacy waste has been removed from the Solid Waste Management Facility at Sector 05, Parwanoo.  100% door to door collection is being ensured by MC Parwanoo in all the 09 wards.  During the visit of Member Secretary, HPPCB to the said	At present solid waste from Kala Amb area is being disposed of at Solid waste management facility of MC Nahan.  However, SADA Trilokpur has acquired land for setting up of Solid Waste Management Facility at Kala Amb. Development of land is under process. Also, EOI has been invited by SADA Trilokpur for setting up of site.

		facility on 06 September 2019, directions have been given to the MC authorities for starting biodegradable waste processing at site at the earliest.	
16)	Member Secretary, HPSPSCB shall take up the matter of E-Flow Regulation with Government of HP for River kaushalya and River Markanda as well as watershed management in the catchment of river Kaushalya and River Markanda and responsibility be fixed on the above matter and for apprising the Executing Committee in the next meeting on the initiatives taken on the afore-said matter.	Pertains to Kala Amb Area	Matter discussed with the Chief Secretary to the Government of Himachal Pradesh in the State level meeting held on 03.08.2019 and correspondence in this regard has also been done for further action at Government level.
17)	Only roof top rainwater harvesting by the industries shall be encouraged.	Industries have been directed to provide roof top rain water harvesting system only.	Industries have been directed to provide roof top rain water harvesting system only.
18)	Details of Industrial Units which have not taken permission from IPH (State Ground Water authority) for extraction of Ground Water & using the surface water supply shall be provided to the Executing Committee within a week by the HPPCB and IPH (State Ground Water authority).	Detail of borewells is being shared with the I&PH department on a regular basis.	Detail in this regard is awaited from the Department of I&PH.

**12.4.6 Action taken report on the decisions taken/ recommendations made by the Executive Committee in its 14<sup>th</sup> meeting held on 26.8.2019 with the officers of State of Himachal Pradesh**

Sr. No.	Decisions taken/recommendations made in the meeting held on 02.08.2019	Action taken report <u>Sukhna Nallah</u>	Action taken report <u>River Markanda</u>
1.	2 STPs each of capacity 1 MLD for treatment of sewage of Parwanoo area shall be installed and commissioned by 31.03.2021.	The site (already identified) of one of the STP is adjoining to the SWM site of MC in Sector-05, Parwanoo and site for 2 <sup>nd</sup> STP is a forest land for which external agency has been hired for its clearance. The Distt Level Task Force Chairman has directed the Executive Engineer I&PH Solan to expedite the matter and submit action taken report by next meeting.	Pertains to Parwanoo area.
2.	1 CETP cum STP of capacity 5 MLD shall be installed and commissioned to treat sewage / industrial effluent of Kala Amb area by 31.03.2021.	Pertains to Kala Amb area.	DPR for setting up of CETP cum STP of capacity 5 MLD has been prepared at an estimated cost of Rs. 23 Crores. Land for CETP-cum-STP has been acquired by Department of Industries. Special Purpose Vehicle i.e. M/s Kala Amb Infrastructure Company has applied for Environment Clearance to the MoEF. First meeting for issuing TORs has been already held in August, 2019, some

			observations have been raised regarding distance of CETP from Markanda. The SPV is working on resolving the observations made.
3.	HPPCB shall inspect the water polluting industries falling in catchment area of Sukhna Nallah on monthly basis. Surprise inspection of the industries may also be carried out. Action against the defaulting units may be taken.	Power of 01 no of unit disconnected for 03 continuous samples failure. (M/s Real care Pharma, Sector 06, Parwanoo) Samples of M/s Total health care Sector 05 Parwanoo & M/s Mahadev Pharma, Village Ambota Parwanoo are failing to meet the prescribed standards. Show Cause notices have been issued to both the units and re sampling shall be carried out as per State Board notification and procedure prescribed therein.	HPSPCB is carrying out regular inspections of industries in Kala Amb area. In the month of August, 2019, 30 industries were inspected. 16 effluent samples from ETPs and 10 samples from bore wells of different industries were collected.  2 industries were found violating the norms. Orders for disconnection of power connection for both the industries were issued and environmental compensation of Rs. 3,20,000 was imposed upon the units.
4.	HPPCB shall inspect the water polluting industries falling in catchment area of River Markanda and Jattan Walla Nallah on monthly basis. Surprise inspection of the industries may also be carried out. Action against the defaulting units may be taken.	Power of 01 no of unit disconnected for 03 continuous samples failure. (M/s Real care Pharma, Sector 06, Parwanoo) Samples of M/s Total health care Sector 05 Parwanoo & M/s Mahadev Pharma, Village Ambota Parwanoo are failing to	HPSPCB is carrying out regular inspections of industries in Kala Amb area. In the month of August, 2019, 30 industries were inspected. 16 effluent samples from ETPs and 10 samples from bore wells of different industries were collected.  2 industries were found violating the norms. Orders for disconnection of power

		meet the prescribed standards. Show Cause notices have been issued to both the units and re sampling shall be carried out as per State Board notification and procedure prescribed therein.	connection for both the industries were issued and environmental compensation of Rs. 3,20,000 was imposed upon the units.
5.	The State of Himachal Pradesh shall prepare irrigation schemes for utilization of treated sewage of Parwanoo area and Kala Amb area by 31.12.2019 and funds for the same shall be arranged.	The I&PH has submitted that due to topography of the area, it is difficult to utilize treated sewage for flushing, construction activity, irrigation etc. However, Department of I&PH agreed to explore on pilot basis to check the feasibility of reutilization of treated sewage in hilly areas.	The I&PH has submitted that due to topography of the area, it is difficult to utilize treated sewage for flushing, construction activity, irrigation etc. However, Department of I&PH agreed to explore on pilot basis to check the feasibility of reutilization of treated sewage in hilly areas.
6.	Ground water samples from different locations along Sukhna Nallah, Markanda River and Jattan Walla Nallah may be collected as per the frequency already decided in the earlier meetings and data may be analyzed w.r.t. water quality of the ground water of the area.	No contamination of ground water has been observed as per the lab analysis results available till date.	Regular ground water samples are being collected from various point sources located in the catchment of River Markanda. In the month of August, 2019, 10 ground water samples were collected. Results of all the samples are within prescribed norms. The results are annexed at <b>Annexure- HPI.</b>
7.	Deptt. of Health & Family Welfare shall regularly conduct Health Check up	08 No of health camps have been organised till date.	Health camps are being organized by Department of Health & Family Welfare on

	Camps in the towns / villages located in the catchment area of Sukhna Nallah, River Markanda and Jattan Walla Nallah.	CMO Solan has been requested to submit a detailed report by the end of October 2019.	monthly basis in Kala Amb area. 8 multi-speciality health camps have been organized so far and more than 1600 persons have been benefitted from the same.  Health Survey is also being conducted by the Department of Health, funding for which has been done by the H.P. State Pollution Control Board.
8.	District Level Special Task Force of the concerned districts shall visit the industries and other water polluting sources on monthly basis and action may be recommended to HPPCB against the violating industries / culprits.	No industry has been inspected by the District Level Special Task Force.	No industry has been inspected by the District Level Special Task Force.
9.	HPPCB shall monitor the water quality of Sukhna Nallah, River Markanda and Jattan Walla Nallah and river Kaushalya at different locations as already earmarked and data may be analysed w.r.t. improvement in the water quality of Sukhna Nallah, River Markanda and Jattan Walla Nallah.	HPPCB monitors the water quality of Sukhna Nallah and river Kaushalya from time to time.	HPPCB monitors the water quality of Jattan Walla Nallah and river Markanda from time to time.



**12.4.7 Ground water quality of the area falling in the catchment area of river Ghaggar (Sukhna Nallah) in the month of July 2019**

s. no	Location	Parameters (all values in mg/l except pH & FC)										
		pH	TSS	TDS	SO4	Cl	Heavy metals					Faecal coliform (MPN/100 ml)
							TCr	Ni	Cd	Zn	As	
1	Borewell in the premises of M/s Gabriel India Ltd.	7.20	8.0	512.0	84.78	108.97	ND	ND	ND	0.215	ND	Not Analysed

**12.4.8 Ground water quality of the area falling in the catchment area of river Ghaggar (River Markanda) in the month of July 2019**

Analysis results are annexed at Annexure-HPI

**12.4.9 Inspection of industries by District Level Special Task Force**

No Inspection has been carried out by the DLSTF in Parwanoo & Kala Amb area between June to August 2019. The Member Secretary, HPPCB has inspected the Parwanoo area on 06.09.2019.

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### **13.0 Conclusions and Recommendations w.r.t State of Punjab, U.T Chandigarh, State of Haryana and State of Himachal Pradesh**

- The Executive Committee held five meetings (monthly meetings) with State Level Officers of State of Punjab, Haryana, Himachal Pradesh and U.T. Chandigarh from April, 2019 to August, 2019.
- In these meetings, the performance status of existing STPs, Status of proposed STPs, upgradation of existing STPs to meet with latest norms, industries inspected by the concerned State Pollution Control Board / Committee and District Level Special Task Force, water quality of drains / nallahs / choes leading to River Ghaggar and water quality of River Ghaggar, ground water quality of water sources falling in the catchment area of River Ghaggar and Status of Health Checkup Camps were discussed and data from each State / U.T., Chandigarh was taken and analysed.
- The Committee also made spot inspection w.r.t. inspection of industries to check the performance of their Effluent Treatment Plants, Sewage Treatment Plants of the towns of State of Punjab and Haryana. The Committee also held meetings with the district level special task force for various districts of State of Punjab & Haryana and check the status of various activities w.r.t. control of pollution in River Ghaggar.

**Based on the data and meetings held with State Level Officers, District Level Officers and spot inspections made by the Executive Committee, the State wise conclusion and recommendations are made as under:**

#### **13.1 State of Punjab**

##### **Conclusions and recommendations**

Bu  
1. The Executive Committee had visited the following 4 industries of Patiala area (Punjab) on 28.5.2019:

- i) M/s Vishal Paper Industries Pvt. Ltd., Vill. Khusropur, Maine Road, Patiala;
- ii) M/s Vishal Coaters, Vill. Khusropur, Maine Road, Patiala;
- iii) M/s Patiala Distillers and Manufactures Ltd., Vill. Maine, Patiala
- iv) M/s DSG Papers Pvt. Ltd., Vill. Bhanri, PO Wizidpur, Patiala

The recommendations made in case of each industry were sent to Chairman, Punjab Pollution Control Board, Patiala vide No. CEC/2019/211, dated 3.7.2019. These recommendations have been mentioned at pages 9 to 12 of this report. Chairman, Punjab Pollution Control Board, Patiala shall submit the action taken report on the recommendations made by the Executive Committee.

2. 30 towns have been identified, which are directly / indirectly discharging their sewage into River Ghaggar. For these 30 towns, 43 STPs are required to be installed. Presently, 21 STPs in 18 towns have been installed.
3. The performance of these 21 STPs as monitored during the month June to August, 2019 indicate that 6 STPs namely Baretta, Bhikhi, Budhlada, Sardulgarh, Mohali and Dera Bassi are regularly not meeting with the prescribed standards.  
Punjab Pollution Control Board shall take legal action under the provisions of Water Act, 1974 against the departments responsible for operation and maintenance of these STPs.
4. Out of 22 STPs to be installed in the remaining 12 towns, the status is as under:
  - ✓ 5-15% construction work has been completed only in 6 towns.
  - ✓ No land has been finalized in 5 STPs (Dhuri : 6 MLD; Sangrur : 11 MLD; Lalru : 1.5 MLD; Amloh : 3 MLD and Sangrur : 4 MLD).
  - ✓ 3 STPs are at DNIT preparation Stage (Cheema, Nabha and Longowal).
  - ✓ No funds have been tied up in case of one STP (Bhadson : 3 MLD)
  - ✓ 4 STPs at tendering stage ( 2 STPs of Dera Bassi each of capacity 2 MLD, Lalru : 1 MLD and Ghanaur : 2 MLD).
  - ✓ Technology issues are to be decided in the case of 3 STPs.

The concerned departments of State of Punjab shall ensure that all the remaining 22 STPs shall be completed and commissioned by 31-3-2021.
5. 3 STPs for the towns namely Baretta (3 MLD), Bhikhi (3 MLD) and Sardulgarh (4 MLD) have been proposed for upgradation to meet with the latest norms. Presently, these are at DPR stage. In case of one town (Patiala), capacity of STP is to be enhanced from 46 MLD to 61 MLD and construction work has been started at the site.  
*By*  
The concerned departments of the State Government shall ensure that the upgradation work of 3 STPs and capacity enhancement of STP at Patiala (46 MLD to 61 MLD) shall be completed and commissioned by 31.03.2021.
6. Tender for installation of 6 MLD capacity STP by the Garrison Engineer, MES, Patiala for cantonment at Patiala has been floated. Further for installation of STP of 1 MLD capacity for cantonment at Nabha, DPR has been prepared. Garrison Engineer, MES, shall ensure that STP for Patiala cantonment and Nabha cantonment shall be completed and commissioned by 31.12.2020 and 31.03.2021, respectively.

7. Proposed STPs, STPs under construction and the existing STPs shall be installed/upgraded to achieve the standards as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Deshpande Vs. Union of India & others.
8. Punjab Pollution Control Board has inspected 11 industries in the month of June 2019, 6 industries in the month of July, 2019 and 11 industries in the month of August, 2019. But, the number of industries inspected, in view of the importance of the task, was very less.

PPCB should increase frequency of regular inspection and surprise checking of industries located in the catchment area of River Ghaggar to ensure that the ETPs of all the industries are always in operation and should meet with the prescribed norms. These industries may not be allowed to discharge their treated / untreated wastewater into drains / nallah / choes / river Ghaggar.

Punjab Pollution Control Board shall also compare the analysis results of the wastewater with the values of parameters shown during visit by the OCEMS and take appropriate action in the matter in case any major difference is found on comparison. The Punjab Pollution Control Board will also carry out the data analysis of OCEMS to identify the violators.

9. No inspection of any industry was carried out by the District Level Special Task Force (DLSTF) upto July,2019. However, DLSTF, Patiala has visited Jacob drain, Patiala on 21.08.2019 on which paper mills and distillery unit are located and river Ghaggar at Badshapur to check the discharge of industrial effluent into river Ghaggar. Also, 3 paper mill and 1 distillery at Patiala has been visited by DLSTF, Patiala and none of the industry was found discharging its effluent into river Ghaggar.

However, monthly checking / inspection of water polluting industries by the District Level Special Task Force (DLSTF) of all the 4 Districts (Patiala, SAS Nagar, Sangrur and Mansa) should be ensured and recommendations to take legal action against the violating industries under the provisions of the Water Act, 1974 may be sent to the regulatory body.

10. Data w.r.t. water quality of River Ghaggar monitored during January to July, 2018 and January to July, 2019 indicate that there is slight improvement w.r.t. BOD and DO parameter at all the 14 locations and improvement w.r.t Total coliform has been observed only at 3 locations.

Further, improvement w.r.t. the parameters namely BOD, DO and Total coliform has also been observed in the month of August, 2019 in comparison to the water quality as monitored in the month of July, 2018.

Department of Local Government and Punjab Water & Sewerage Board shall ensure that all the STPs shall be made operational at all the times and proper and adequate dose of disinfectant may be given at each STP to bring T.coli and F.coli parameters within prescribed norms. These departments shall ensure that all the STPs may achieve the stringent norms.

PPCB shall continue to make surprise inspections to monitor the sewage treatment plants of the local bodies and action against the violating local bodies should be taken within 21 days from the date when the violations were observed.

11. All the Departments of State of Punjab shall ensure to comply with the decisions taken / recommendations made in each meeting of the Executive Committee so that the activities to be carried out to control pollution in River Ghaggar may be completed and commissioned within the time schedule.
12. Ground water quality monitored at 14 locations along the catchment area of River Ghaggar indicate that the values of calcium (3 locations), magnesium (3 locations) and hardness at 2 locations are higher than the permissible limits and these may be due to geogenic reasons.

Punjab Pollution Control Board shall continue to carry out ground water monitoring of all the ground water sources located along River Ghaggar and these groundwater samples may be analyzed for all the required parameters and in case any groundwater sample is found contaminated and is unfit for drinking purposes, such ground water source may be capped and a display Board mentioning that "**water is not fit for drinking**" may be placed at the contaminated source.

13. Irrigation schemes to utilize the treated sewage for irrigation of agriculture fields have been implemented in 9 towns discharging 43 MLD treated sewage, which cater 1427 hectares of land. 2 irrigation schemes for utilization of treated sewage of the towns namely Khanauri (3 MLD) and Rajpura (7 MLD) are under construction and these are likely to be commissioned by 30.6.2020 and 31.3.2020, respectively. Under these irrigation schemes, 250 Hectares of agriculture land shall be irrigated.

Further, irrigation schemes for 15 STPs (11 towns) having total discharge of treated sewage as 133.5 MLD have been proposed and are likely to be completed by 31.3.2021.

The Department of Water & Soil conservation and Department of Irrigation shall ensure that irrigation schemes to utilize the treated sewage, conforming to the prescribed standards, for all the remaining towns located in catchment area of river Ghaggar may be completed simultaneously with the commissioning of STPs.

14. Regarding treatment and management of treated sewage of villages, the concerned departments of State of Punjab has identified 389 villages. The phase wise completion of treatment system are proposed as under:

**Phase – I**

- 87 villages, where treatment system for treatment of sewage shall be implemented in Phase-I, have been identified.
- The cost of treatment system shall be Rs. 26.10 Crore.
- Treatment system for these villages shall be completed by 30.6.2020.

**Phase – II**

- 150 villages for treatment of sewage, have been covered under Phase-II.
- Funds amounting to Rs. 45.6 Crore shall be required for completion of treatment system of these villages.
- Timelines for completion of these projects shall be 01.03.2020 to 30.6.2021.

**Phase – III**

- Under phase-III, 150 villages have been covered.
- Funds amounting to Rs. 45 Crores shall be required for completion of treatment systems of these villages.
- Timelines for completion of the project is 01.03.2021 to 30.6.2022.

Presently, under phase-I, Out of 87 villages, treatment systems of 14 villages have been completed (**Annexure-A**) and the treatment systems of other 14 villages are under progress (**Annexure-B**).

The department of Rural Development & Panchayat shall ensure that treatment systems for the villages as covered under Phase-I, II and III shall be completed and commissioned within time schedule as mentioned above.

15. Health checkup camps have been organized in all the 4 districts namely Patiala, Mohali, Sangrur and Mansa, where 1183 patients were checked in the month of July, 2019. Out of 1183 patients, 38 patients have been found suffered with water borne diseases. Also, in the month Aug, 2019,

department of Health has organized health camps in 4 Districts and 626 Patients were diagnosed, out of which 29 patients were found suffered with water borne diseases.

The department of Health and Family Welfare shall continue to organize health check up camps in all the 4 Districts (Patiala, SAS Nagar (Mohali), Sangrur and Mansa) of the State, which are located in the catchment area of river Ghaggar.

16. PPCB shall ensure that all the remaining industries which have not installed Online Continuous Effluent Monitoring System (OCEMS), shall install and commission the same by 30.09.2019. These OCEMS shall have its connectivity with PPCB and CPCB server.
17. The department of Local Government, Punjab Water Supply and Sewerage Board, Department of Water Supply and Sanitation or any other concerned department, relating to operation and maintenance of existing sewage treatment plants, shall install CCTV cameras on all the STPs by 30.09.2019.

### **13.2 U.T. Chandigarh**

#### **Conclusions and recommendations**

- 1) For the treatment of sewage of localities/areas covered under U.T., Chandigarh, 6 STPs of total treatment capacity of 242.3 MLD are in operation. The performance of these STPs carried out by CPCC during the months June to August 2019 indicates that out of 6 STPs, 3 STPs are not complying with the norms. CPCC shall take legal action against the stakeholders for not operating their STPs effectively.
- 2) As per CPCC data, total discharge of sewage of Chandigarh is 243 MLD and 6 STPs of capacity 242.3 MLD are in operation. Therefore, there is a gap of only 0.7 MLD, which is to be treated by the Municipal Corporation, Chandigarh. Thus, to treat the balance quantity of wastewater, STP of capacity 2 MLD has been proposed to be set up at Kishangarh to meet with the latest stringent norms. The STP is likely to be completed by November, 2021. However, the Executive Committee recommends that this proposed STP may be completed and commissioned by 31.3.2021.
- 3) For upgradation of existing STPs (Raipur Kalan : 22.5 MLD; Raipur Khurd : 5.6 MLD and Diggian : 135 MLD) to meet with the latest stringent norms, there is proposal to upgrade these STPs. The upgradation work of these STPs shall be completed by November 2021. However, the Executive Committee recommends that upgradation work of existing STPs may be completed by 31.3.2021.

- 4) Proposed STPs, STPs under construction and the existing STPs shall be installed/upgraded to achieve the standards as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Deshpande Vs. Union of India & others.
- 5) In order to check the performance of effluent treatment plants of the industries, CPCC has inspected 109 industrial units from June to August, 2019. Out of these 109 industrial units, 50 Units have been found non compliant. Out of these 50 non complaint units, 16 industrial units have been issued order for disconnection of electric connection and show cause notices have been issued to 34 industrial units.

However, CPCC shall increase its surveillance by conducting surprise inspection and forming a Environment Protection Squad. Regular check on operation of effluent treatment plants of the electroplating industries may be made as these are the source of discharge of toxic effluent into sewerage system leading to Sukhna Choe and N-Choe further leading to River Ghaggar.

- 6) CPCC and Municipal Corporation, Chandigarh shall ensure as under:
  - The remaining 2 outlets falling into Sukhna Choe should be closed by 31.12.2019.
  - The remaining 9 outlets falling into N-choe should be closed by 31.12.2019.

With the closing of these outlets and diverting their sewage into nearby STPs, there shall be further improvement in the water quality of Sukhna Choe & N-Choe and subsequently into River Ghaggar.

- Bel
- 7) CPCC and Municipal Corporation, Chandigarh shall comply with all the decisions taken / recommendations made by the Executive Committee during its meetings (monthly meeting) with the officers of U.T., Chandigarh.
  - 8) Water quality of Sukhna choe, as monitored by CPCC during the month April 2019 to June 2019, indicate that there is improvement in water quality of Sukhna choe w.r.t. parameters BOD, COD & TSS but no improvement has been observed w.r.t. F. Coliform parameter.

Similarly, water quality of N-choe, as monitored by CPCC during the month April to June 2019, indicates that there is improvement in the water quality w.r.t. parameters BOD, COD & TSS. However, there is no improvement in the water quality of N-Choe w.r.t. F.Coli parameters.



Therefore, the Executive Committee recommends that Municipal Corporation, Chandigarh shall make adequate arrangements for disinfectant dosing in STPs so that the value of F.Coliform may be reduced to the prescribed norms.

- 9) CPCC is monitoring the ground water quality of various areas of Chandigarh falling into catchment area of Sukhna Choe and N-Choe. Ground water samples of 7 locations were monitored in the month of July, 2019 and their analysis results indicate that there is no contamination in groundwater sources of Chandigarh area w.r.t. organic, inorganic, heavy metal and F.Coliform.

CPCC shall continue to monitor the ground water quality of various locations in the catchment area of Sukhna choe and N-Choe.

- 10) District Level Special Task Force (DLSTF) has inspected 15 industrial units, out of which 5 units were found non compliant and show cause notices have been issued to these units.

DLSTF shall continue to inspect industrial units falling in catchment area of Sukhna-Choe and N-Choe and action against the violating industries may be recommended to CPCC. It shall also hold monthly meeting with District Level Officers and monitor all the activities relating to control of pollution into Sukhna Choe and N-Choe and subsequently, in River Ghaggar. Monthly action taken report shall be submitted to the Executive Committee.

- 11) Department of Health & Family Welfare, Chandigarh is regularly carrying out Health Check-up Camps in Chandigarh wherein free medicines are distributed and free laboratory tests are conducted as per the convenience of the patients. In these camps, intensive information and awareness generation activities are carried out in the form of health talks, distribution of pamphlets and display of IEC material in the camps.

The Deptt. of Health & Family Welfare shall continue to hold such Health Check up Camps on monthly basis.

- 12) CPCC and Municipal Corporation Chandigarh shall ensure that OCEMS and CCTV cameras on all the existing STPs may be installed within the time schedule as mentioned in the Action Plan.

### **13.3 State of Haryana**

#### **Conclusions and recommendations**

1. The Executive Committee had visited the following 5 industries of Pehowa area, Distt. Kurukshetra (Haryana) on 29.4.2019 :-

- i) M/s Sainsons Paper Industries Pvt. Ltd., Plot No. 5, Vill-Bakhli, Tehsil Pehowa, District- Kurukshetra, Haryana;
- ii) M/s Nishat Paper (P) Ltd., Arunai Road, Vill-Sainsa, Tehsil-Pehowa, District-Kurukshetra;
- iii) M/s Shiv Paper Board Mill, Arunai Road, Vill-Dhanirampura, Tehsil-Pehowa, District-Kurukshetra;
- iv) M/s Kailash Paper Board Mill, Arunai Road, Vill-Saraswati Khera, Tehsil-Pehowa, District-Kurukshetra
- v) M/s Sunrise Paper Board Mill, Vill-Guldhera, Tehsil-Pehowa, District-Kurukshetra

The recommendations made in case of each industry were sent to Chairman, Haryana State Pollution Control Board, Panchkula vide No. CEC/2019/123, dated 21.5.2019. These recommendations have been mentioned at pages 4 to 6 of this report. Chairman, Haryana State Pollution Control Board, Panchkula shall submit the action taken report on the recommendations made by the Executive Committee.

2. In the State of Haryana, there are 62 existing STPs having total treatment capacity of 503.6 MLD. HSPCB has carried out performance of 27 STPs out of total 62 STPs during the month June 2019 to August 2019. In the month of June, 2019, performance of 19 STPs was checked, out of which 18 STPs were found compliant. In the month of July, 2019, 5 STPs were monitored and all were found compliant. In the month of Aug, 2019, 8 STPs were monitored out of which 5 STPs were found compliant.

It is mention here that HSPCB is not regularly monitoring the all the STPs of the State. Therefore, the Executive Committee recommends that HSPCB shall ensure to check the performance of all the existing STPs on monthly basis and action against the non compliant STPs may be taken under the provisions of the Water Act, 1974.

3. There is proposal to install 14 STPs to treat 91.25 MLD of sewage. The construction works of these STPs has been started and are likely to be completed by 31.3.2020.
4. Proposed STPs, STPs under construction and the existing STPs shall be installed/upgraded to achieve the standards as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Deshpande Vs. Union of India & others.
5. HSPCB has inspected 6 industries during the period June 2019 to August 2019 and all these industries were found violating the norms. Out of these 6

industries, the closure orders have been recommended against 4 industries and re-sampling to be carried out in case of 2 industries.

It is mentioned here that the number of inspection made by HSPCB is very less. It has to increase its surveillance by surprise checking or through Environment Project Squad and shall ensure that every industry located in the catchment area of River Ghaggar should be visited at least once in a quarter.

6. The irrigation department, State of Haryana has prepared a pilot project for installation of solar / grid powered micro irrigation infrastructure on STPs for utilization of treated sewage for irrigation, which was completed on 31.01.2019 and irrigation facility was created for 76 hectares in Pehowa Block. Regular irrigation schemes shall be started in the next coming crop season. Similarly, with a view to utilize the treated sewage of the towns for irrigation, a project costing of Rs. 235.94 Cr. has been prepared. In the first phase, treated sewage of STPs of Fatehabad, Sirsa, Hisar and Jind District costing Rs. 87 Crore has been planned.

The Department of Irrigation, State of Haryana shall install and commission irrigation schemes to utilize the treated sewage of all existing STPs by 31.03.2021.

Similarly, the irrigation schemes for utilization of treated sewage of the towns for which STPs are either under construction or in the planning stage shall be installed and commissioned by 31.3.2021.

7. For the treatment of sewage of the villages having discharge more than 300 KLD, presently, the Deptt. of Rural Development & Panchayat, Haryana has no proposal to install the STPs for the villages.

*Boj*  
The Executive Committee recommends that HSPCB shall take up the matter with Deptt. of Rural Development & Panchayat to prepare proposal to install STPs for the villages having discharged more than 300 KLD under Phase-I. Later on, the villages having sewage discharge less than 300 KLD may be taken in Phase-II. The irrigation schemes for utilization of treated sewage of these villages may be prepared by 31.12.2019.

8. The Deptt. of Urban Local Body, HSPCB and other concerned departments shall comply with the decisions taken / recommendations made during the meeting taken by the Executive Committee and action taken report be submitted to the Committee well in time.
9. The Ground Water Quality of the various locations in the catchment area of River Ghaggar, as analyzed by HSPCB during the month July, 2019, indicates that out

of total 34 locations, contamination has been observed at 4 locations. HSPCB shall cap these locations and a display Board mentioning that "**water is not fit for drinking**" may be placed at the contaminated sources.

10. In 8 districts (Panchkula, Ambala, Kurukshetra, Kaithal, Jind, Fatehabad, Hisar and Sirsa) located in the catchment area of River Ghaggar, 21 Health Check up Camps have been organized.

- Out of these 21 Health Check up Camps, 14 camps have been organized in district Kaithal, where 565 patients were examined in different villages.
- Out of remaining 7 camps, 3 camps have been organized in district Ambala, 2 camps in Fatehabad, where, 54 patients were examined and in district Sirsa 2 Health Check up Camps were organized, where, 84 patients were examined.

The department of Health shall ensure that regular health check up camps may be organized for the localities/areas falling in the catchment area of river Ghaggar.

### **13.4 State of Himachal Pradesh**

#### **Conclusions and recommendations**

1. Presently, no STPs is in operation in Parwanoo and Kala Amb area of Himachal Pradesh, which are located in the catchment area of River Ghaggar. Sukhna Nallah at Parwanoo and River Markanda at Kala Amb fall in the catchment area of River Ghaggar.

For installation of STPs in Parwanoo town, 02 STPs each of capacity 1 MLD have been proposed and these shall be installed and commissioned by 31.03.2021.

For treatment of sewage and industrial effluent of Kala Amb area, one CETP cum STP of capacity 5 MLD, costing Rs. 23 Crores has been proposed for which DPR has been prepared. The said CETP cum STP shall be installed & commissioned by 31.03.2021.

2. One STP of capacity 1 MLD for the villages Trilokpur and Kheri, falling in the catchment area of River Markanda, shall be installed and commissioned by 31.03.2021.

3. All the STPs should have a provision of disinfection for ensuring control of fecal coliform as well as sludge digesters for converting sludge into manure.

4. Necessary measures shall be taken by Urban Development as well as Irrigation & PH Department to ensure that the generated sewage in the catchment of river Kaushalya, River Markanda is intercepted and diverted to the existing STPs/ proposed STPs so that natural drains are restored and no sewage drain outfalls exists in future.

5. Proposed STPs for Parwanoo area, villages Trilokpur and Kheri and STP cum CETP for Kala Amb area shall be installed to achieve the standards as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Deshpande Vs. Union of India & others.
6. All the treated sewage shall be utilized for flushing (in residential apartments, office, malls/commercial complexes), gardening, construction activity, irrigation purposes etc., and proposals shall be finalized in this regard by the State of Himachal Pradesh.
7. Dedicated drainage/sewerage network for carrying industrial effluent from industrial area of Kala Amb to the proposed CETP shall be laid or constructed and commissioned by 31.03.2021.
8. Real Time Water Quality Monitoring System (RTWQMS) has been installed on River Kaushalya and its data transfer system shall be connected to HPPCB server and CPCB server.
9. RTWQMS shall be installed on River Markanda by 30.09.2019 and data transfer system shall be connected to HPPCB server and CPCB server.
10. HPPCB has inspected 69 industrial units located in the catchment area of Sukhna Nallah during the months June, 2019 to Aug, 2019. Out of these 69 units, 3 industries have been found violating the norms. Out of these 3 units, power connection of 1 unit has been disconnected and re-sampling of remaining 2 units shall be carried out.

Similarly, HPPCB has inspected 101 industrial units located in the catchment area of River Markanda during the months June, 2019 to Aug, 2019. Out of these 101 units, 3 industries have been found violating the norms. Out of these 3 units, environmental compensation amounting to Rs. 18750/- has been imposed on 1 unit. Power connection of remaining 2 units has been disconnected and also environmental compensation of Rs. 3,20,000/- has been imposed on these 2 units.

No industry has been inspected by District Level Special Task Force (DLSTF) so far. Therefore, HPPCB and District Level Special Task Force shall continue to visit the industries located in the catchment area of River Markanda and Sukhna Nallah on monthly basis and reports be submitted to HPPCB for initiating legal action under the provisions of the Water Act, 1974 against the violating industries.

11. HPPCB has claimed that M/s Ruchira Paper Ltd (Pulp and paper manufacturing unit) has installed OCEMS and data is being displayed on CPCB and HPPCB server. The

State Board is also collecting monthly effluent samples from the final outlet of the industry. However, nothing has been mentioned about matching of the analysis results.

Therefore, HPPCB shall ensure that on each visit of the industry, the analysis results of effluent samples of the industry, analysed in the laboratory, should be matched with the analysis results displayed on OCEMS. In case any major difference is found, appropriate action in the matter may be taken.

12. 5 cleanliness drives in the catchment area of Sukhna Nallah and 1 cleanliness drive in Kala Amb area have been carried out. In the cleanliness drive conducted in Kala Amb area, about 400 participants from various industries, schools and Government offices collected more than 15 MT solid waste from various streams. Also, a plantation campaign was carried out in Sirmour town in which 500 plants were planted.

HPPCB shall continue to conduct such cleanliness drive in Kala Amb and Parwanoo area on regular basis.

13. It has been reported by HPPCB that no contamination of groundwater has been observed in the catchment area of river Markanda and Sukhna Nallah. However, HPPCB shall carry out groundwater sampling to check the ground water quality of the point sources located on River Markanda and Sukhna Nallah on quarterly basis and wherever the ground water quality is found unfit for drinking purpose, such water sources be capped and a display board mentioning that the '**water is not fit for drinking purpose**' may be placed.

14. 8 health camps have been organized in the catchment area of river Markanda and 8 multi specialty health camps were organized in Kala Amb area and 1600 patients were benefitted.

By Department of Health shall organize regular health camps in the localities / villages falling in the catchment area of River Markanda and Sukhna Nallah.

15. Integrated solid waste management facility at Parwanoo shall be developed in a scientific manner in accordance with the SWM Rules, 2016 as amended and also as per guidelines of CPCB by 31.03.2021. Necessary fencing or wire mesh system shall be installed along Sukhna Nallah and Markanda River at Solid Waste littering hot spot.

16. HPPCB shall peruse the matter of E-Flow Regulation with Government of Himachal Pradesh for River Kaushalya and River Markanda as well as watershed management in the catchment of river Kaushalya and River Markanda.

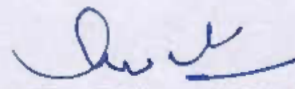
17. HPPCB shall encourage only roof top rainwater harvesting by the industries.

18. HPPCB and other departments of the State of Himachal Pradesh shall comply with all the decisions taken / recommendations made in the meetings of the Executive Committee and action taken report be submitted to the Committee well in time.

  
Dr. V.K Hatwal

  
Dr. Babu Ram

J.C Babu

  
Justice Pritam Pal 30.9.19.  
Former Judge  
Punjab & Haryana High  
Court

Item Nos. 01 & 02

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Original Application No.138/2016 (TNHRC)  
(Case No.559/19/11/14)

WITH

Original Application No. 139/2016 (TNHRC)  
(Case No.600/19/11/14)

Stench Grips Mansa's Sacred Ghaggar River

WITH

Yogender Kumar

Date of hearing: 11.04.2019

**CORAM:** HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

For Applicant(s): Ms. Katyayni, Advocate

For Respondent (s): Mr. Rahul Khurana, Advocate for State of  
Haryana and Haryana State PCB.  
Mr. Shubham Bhalla, Advocate for Chandigarh PCC  
Mr. Manish Kumar, Advocate for State of HP  
Mr. Sanjay Kumar, Advocate for HPPCB  
Mr. Rajkumar, Advocate for CPCB  
Ms. Richa Kapoor, Advocate of PPCB

**ORDER**

1. The issue in the present case is making Ghaggar river pollution free. The river originates in the State of Himachal Pradesh and ends in the State of Rajasthan. The river is included by the Central Pollution Control Board (CPCB) in 351 polluted river stretches of the country, priority - I category, which is a category of highest pollution, having BOD more than 30 mg/l as against the prescribed standard of 3mg/l.
2. 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. 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.

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. Katyayni, Advocate was appointed as Amicus Curiae to assist the Tribunal. The findings of the joint inspection report are that values of various parameters such as BOD, TSS, Faecal Coliform, Lead and Iron were beyond permissible limits at most of the locations in Himachal Pradesh, Haryana, Punjab and Chandigarh.

4. The matter was reviewed vide order dated 07.08.2018 and noticing failure of the Regulatory Authorities in taking remedial steps by way of prevention of pollution and proceeding against the polluters, the Tribunal directed constitution of a Special Task Force (STFs) at the District level as well as at the State level. The State level STF was to be headed by Chief Secretary. The Tribunal directed preparation of action plans with firm timelines so as to ensure that water sample is

as per norms within the targeted time. The Tribunal also constituted an Executing Committee, under Section 25 of the National Green Tribunal Act, 2010, headed by a former Judge of Punjab and Haryana High Court, Justice Pritam Pal. The Executing Committee was to furnish an interim report to this Tribunal. Accordingly, report dated 28.02.2019 under the cover letter dated 01.03.2019 has been received and is taken up for consideration today.

5. We may also note that the issue of 351 polluted river stretches was taken up by this Tribunal vide orders dated 20.09.2018, 19.12.2018 and 8.04.2019, in Original Application No. 673 of 2018. On 20.09.2018, the concerned States were required to constitute River Rejuvenation Committees (RRCs) to prepare action plans to make polluted river stretches pollution free. The action plans were to be submitted to CPCB. The matter was further reviewed on 19.12.2018 and finally on 08.04.2019. This issue was also subject matter of consideration in order dated 16.01.2019, in Original Application No. 606 of 2018, which matter pertains to compliance of Municipal Solid Waste Management Rules. However, this Tribunal directed the Chief Secretaries of all the States to appear in person before this Tribunal after acquainting themselves with the progress not only on the issue of solid waste management but also other significant issues, including the subject of polluted river stretches. Accordingly, Chief Secretaries of Himachal Pradesh, Haryana, Punjab and Advisor to Administrator, Chandigarh appeared on 05.03.2019, 06.03.2019, 07.03.2019 and 26.03.2019 respectively and filed their reports which also include reports on the issues of polluted river stretches. The Tribunal directed the Chief Secretaries

to continue to monitor the subject and furnish quarterly reports. Reports were also furnished by RRCs to CPCB which matter has been dealt with by the Tribunal on 08.04.2019.

6. The States of Himachal Pradesh, Haryana, Punjab and Chandigarh have filed their reports in these proceedings with respect to river Ghaggar.

7. We now proceed to consider the report of the Executing Committee headed by Justice Pritam Pal, former Judge of Punjab and Haryana High Court and action plans prepared by Himachal Pradesh, Haryana, Punjab and Chandigarh. We have perused the said reports with the assistance of learned counsel.

8. The Executing Committee, after noting location of catchment areas of the river and topography of the drains, has mentioned gap analysis with reference to sewage generation, existing management and plans to cover the gap. The said analysis is State wise and area wise. The substance of the said analysis is as follows:-

(i) Himachal Pradesh – Parwanoo and Kala Amb

The gap for Parwanoo is 569.414 KLD

The gap for Kala Amb is 1046.24 KLD

(ii) With regard to Chandigarh the gap is 23.225 MLD

(iii) With regard to Punjab the gap is 75.92 MLD

(iv) With regard to Haryana the gap is 42.9 MLD

9. With regard to gap analysis of industrial effluent generation and management, the Committee observed that though capacity for management in the State of Himachal Pradesh is adequate, at ground level gap is not ruled out on account of lack of adequate

mechanism of the pollution boards to check inadequate operation of treatment systems.

10. With regard to gap of waste water generation and its management in Chandigarh from industries, the gap has been found to be 23.225 MLD. The Committee also observed that efficiency of captive ETPs needed verification. With regard to gap of sewage generation and the existing management scenario in Punjab, the Committee found it to be about 75.92 MLD. While taking into consideration the contribution of 389 villages in the catchment, the total gap in sewage treatment in the catchment of river Ghaggar in Punjab is about 175.92 MLD. As regards Haryana, the gap between sewage generation and existing management according to Committee is 42.9 MLD.

11. On the subject of industrial effluent management in the State of Punjab, the Committee has found that capacity of CETPs/ETPs is adequate. With regard to industrial effluent management in the State of Haryana, the position is similar to Punjab. Adequacy of actual operation of CETPs/ETPs remains a question.

With respect to industrial management in the catchment or river Ghaggar in Himachal Pradesh the Committee observed although there is no any gap in the treatment capacity, discharge of untreated effluent and the sewage by the industrial units and STPs cannot be ruled out, due to lack of adequate mechanism in SPCBs to check the industrial discharges or improper operation of the STPs as such scenario is evident from physical observations of the Committee.

Similarly, with regard to waste management in Chandigarh, the Committee observed that total gap in wastewater treatment is 23.225 MLD. Presently, the industrial inspection mechanism of CPCC for verification of compliance to the discharge norms is not upto remark due to lack of adequate technical skilled manpower and as the industries are allowed to discharge into public sewerage system. In order to avoid interference of the existing STPs working and operations, the efficiency of captive ETPs installed by the industries needs thorough verification for which a mechanism needs to be evolved by CPCB for ensuring compliance to the discharge standards prescribed under Schedule -VI of the Environment (Protection) Rules, 1986.

12. The Committee also considered the solid waste management, bio-medical waste management and hazardous waste management scenario for the State of Himachal Pradesh, Haryana, Punjab and UT Chandigarh to the extent it affected pollution of river.
13. The Committee also got the water sample analyzed at various locations as follows:-

***“River Markanda***

- *Dissolved Oxygen which is in the order of 8-12 mg/l and complying to the water quality criteria for bathing at the monitored locations.*
- *BOD is in the order of 1-3 mg/l and is complying with the water quality criteria for bathing at the monitored locations.*
- *Faecal Coliform is in the order of 33000 to 70000 MPN/100ml and is not complying with the water quality criteria for bathing at the monitored locations.*

***Therefore, based on the measured values at the sampling locations, river Markanda is not***

**complying to the water quality criteria for bathing.**

#### **River Kaushalaya**

- Dissolved Oxygen concentration at the monitored location is observed as 7.8 mg/l and complying to the water quality criteria for bathing at the monitored location.
- BOD is observed as 2 mg/l and is complying with the water quality criteria for bathing at the monitored location.
- Faecal Coliform is observed as 11000 MPN/100ml and is not complying with the water quality criteria for bathing at the monitored locations.

**Therefore, based on the measured values at the sampling location, river Kaushalya is not complying to the water quality criteria for bathing**

#### **River Ghaggar**

- Dissolved Oxygen content is in the order of 0.3 to 7.6 at all the 14 sampling locations. 11 out of 14 sampling locations are not complying to the water quality criteria for bathing.
- BOD is in the order of 2-94 mg/l and 13 out of 14 sampling locations are not complying with the water quality criteria for bathing. Highest BOD of 94 mg/l is observed after confluence of Patiala drain/nadi.
- Faecal Coliform is in the order of 200 to 3,40,000 MPN/100ml and is not complying with the water quality criteria for bathing at 9 out of 13 monitored locations.

**Therefore, based on the measured values at the sampling locations, river Ghaggar is not complying to the water quality criteria for bathing.**

#### **Drain Samples**

The analysis results of the drain samples for analysed parameters reveal that

- TSS is in the order of 30 -612 mg/l whereas TDS is observed as 120 to 6060 mg/l and highest TSS and TDS observed at Patiala drain and Derabassi drain respectively.
- COD is in the order of 30 - 6741 mg/l and highest COD is observed at Derabassi Drain;

- BOD is in the order of 6- 2000 mg/l and highest BOD is observed Derabassi Drain
- NH<sub>3</sub>-N is in the order of 3-89 mg/l and highest Ammonical Nitrogen is observed at Patiala drain.”

14. The Committee thereafter considered details of functioning of STPs and found as follows:-

“With regard to Chandigarh -

The analysis results of the treated sewage from the sewage treatment plants for the period January 2019 reveals that the observed values of the 3 out of 5 STPs located at Khurd, Diggian and Raipur Kalan are observed in the order of 59-69 mg/l, 51-58 mg/l, 59-70 mg/l and the measured values w.r.to BOD is not complying to the prescribed parameter. Also, all the treated sewage is having Faecal Coliform more than 1000 MPN/100 ml which may be due to improper disinfection. Therefore, all the existing STPs require upgradation.

With regard Punjab -

- As observed during the visit, 02 out of the 20 STPs are not in operation.
- Treated sewage from all the 18 STPs is complying with the parameters viz., pH and TSS.
- 09 out of 18 STPs inspected are not complying to the Faecal Coliform, which may be due to improper disinfection.
- In 18 STPs, BOD content in the treated sewage was observed to be in the order of 7 to 61 mg/l and 05 STPs located at Bhikhi, Budhlada, SAS Nagar, Sardulgarh and Patiala are not complying to the treated sewage discharge norms with respect to BOD.
- Faecal Coliform content in all the 18 inspected STPs was observed to be in the order of 780 to 330 MPN/100 ml and 09 STPs are not complying to the norm w.r.to Faecal Coliform.
- STPs located at Bhikhi, Budhlada, SAS Nagar, Sardulgarh and Patiala are not complying to both the parameters such as BOD and Faecal Coliform.
- Total STPs Complying = 09; Total STPs Non Complying = 09

With regard Haryana -

BOD content is observed in treated sewage samples of STP, Urban Estate, Ambala Cant (52 mg/l); STP, Baldevnagar, Ambala Citty (56 mg/l); STP, Devinagar, Ambala (64 mg/l); STP, PHED Industrial Area, Jind (110 mg/l), STP at Debwali, Sirsa (36 mg/l) and STP, Vill, Amani, Fatehbad ( 56 mg/l) i.e., 06 out of 53 STPs monitored are having BOD more than 30 mg/l and afore-said STPs are not complying to the treated sewage discharge norms which may be due to improper operation of these STPs.”

15. Dealing with the sludge characteristics and its management, the Committee found as follows:-

“Based on the analysis results of the sludge samples collected from 07 STPs in the catchment of river Ghaggar concluded that the sludge of all the said STPs is not fit for use as manure especially for food based crops and may be used for greenery.”

16. On the subject of ground water quality, the Committee found as follows :-

**“Himachal Pradesh**

The analysis results of the collected 57 water samples reveals that 05 out of 57 samples are not complying with respect to TDS (> 500 mg/l), 18 out of 57 samples w.r.to Total Alkalinity (200 mg/l), 2 out of 57 samples w.r.to Fluoride (> 1 mg/l), 05 out of 57 samples w.r.to Total Hardness (> 200 mg/l) as well as Iron content(> 0.3 mg/l) when compared with the drinking water standards prescribed under IS10500-2012.

**Chandigarh**

The analysis results of the collected 7 water samples reveal that

- Pre - monsoon samples are not complying when compared with the drinking water standards prescribed under IS10500-2012 with respect to
  - NH3-N at ground water samplings locations located at Sector-15, Village Palsora
  - Turbidity at ground water samplings locations at Dadu Majra, Sector-25, Sector-22, Village Palsora, Dhanas and Sector-35



- Total Alkalinity at ground water samplings locations at Dadu Majra, Sector-25, Sector-22, Village Palsora, Dhanas, Sector-20 and Sector-35
  - TDS at ground water samplings locations Sector-15 and Village Palsora;
  - Faecal Coliform at ground water samplings locations at Dadu Majra and Dhanas.
- Post-monsoon samples are not complying when compared with the drinking water standards prescribed under IS10500-2012 with respect to
- NH3-N at ground water samplings locations located at Dadu Majra, Sector-21, Village Palsora, Dhanas, Sector-20 and Sector-35;
  - Turbidity at ground water samplings locations at Dadu Majra, Sector-15, Village Palsora, Dhanas, Sector-20 and Sector-35;
  - Total Alkalinity at ground water samplings locations at Dadu Majra, Sector-15, Village Palsora, Dhanas, Sector-20 and Sector-35
  - TDS at ground water samplings locations Dadu Majra, Sector-15, Sector-35 and Village Palsora;
  - Faecal Coliform at ground water samplings locations at Sector-22 and Village Palsora.

#### **Punjab**

As per directions of Executing Committee, the Punjab Pollution Control Board has carried out ground water sampling at 79 locations in and around 62 industries (in some industries, more than one sample was drawn) to ascertain the quality of ground water in respect of parameters such as fluoride, sulphate, cadmium, copper, lead, nickel, zinc, arsenic, mercury and oil & grease. Out of these, 71 samples were found conforming to the prescribed standards as laid down in IS: 10500 – 2012. In 8 samples, the concentration of either fluoride or sulphate or both was found beyond the prescribed standards. The Board will take necessary action and monitor the quality of ground water regularly and the same will be reviewed at the district and state level.

## Haryana

*The industries found indulged in reverse pumping are closed and power of closure has already been delegated to the Regional Officers of HSPCB. Further, the STFs have also been directed to close down the contaminated sources of drinking water and also place sign boards nearby the respective contaminated source regarding "Water is not fit for Drinking purpose". The monthly action taken reports are being sought in this regard from District Level Task Forces constituted in this matter by the State Government."*

17. Concluding its consideration, the Committee has, *inter-alia*, made following recommendations:

*"During the water sample collection by the Executing Committee, at most of the places river Ghaggar is having highly coloured wastewater might be due to discharge of industrial effluent likely from Paper & Pulp Industries, Sugar and Distilleries as these industries have not been insisted for removal of 'colour' under Consent mechanism by the respective States and not having strict vigilance by the respective State Pollution Control Boards.*

*Considering depletion of groundwater resources, Government of Punjab should take a policy decision with regard to the supply of meter water to the public as per the demand or supply prescribed under the guidelines issued by Ministry of Urban Development.*

*Also, policy with regard to the utilization of treated sewage for beneficial use which include agriculture, construction activity and green development so as to reduce abstraction and consumption of the ground water resources should be implemented and promoted.*

*Also, all the industries located in the catchment of river Ghaggar should be allowed to use ground water abstraction for commercial use only with the approval of the Central Ground Water Authority and such industries also be suggested to explore alternate water supply sources (including*

adoption of low water consuming technologies) without depending on the natural ground water resources.

All the existing STPs should be insisted upon to obtain Consent under Water (Prevention and Control of Pollution) Act, 1974 from the Punjab Pollution Control Board, with immediate effect.

Therefore, Punjab Government should bring all the STPs under one authority so that it becomes easy for planning, commissioning and for ensuring proper operation and maintenance of the existing or upcoming STPs.

Government should allocate adequate budget for management of sewage in the State and this allocated budget should be released as and when required. Periodic training of all the officials i.e., O & M Staff, field staff or supervisors of the concerned departments involved in operation of the STPs should be organized by PPCB in association with the reputed organizations such as NEERI, Nagpur or NPC, Delhi or IITs.

All the existing STPs should also be connected with electromagnetic flow meters at all the salient points (i.e., inflow, at the bye-pass arrangement, after treatment and before discharge of treated water within the STPs) and proper records maintained. Also, STPs also be connected with continuous online effluent monitoring system for monitoring of prescribed parameters including discharges with a provisions of CC Cameras and real time data also be displayed at the entrance of the STPs and also transferred to the servers of PPCB and CPCB.

Therefore, all the STPs should have a provision of uninterrupted power supply or DG Set of adequate capacity for ensuring proper treatment of sewage during power failures.

All the parameters of the treated sewage may be get analyzed as per the frequency prescribed by the States through any laboratory approved under the E (P) Act, 1986 or NABL approved laboratory.

All such drains should be restored by properly designed sewerage network connectivity (including interception and diversion of sewage from the drains to the existing STPs or upcoming STPs), for ensuring proper treatment of generated sewage to comply with the discharge norms and thereafter only such treated sewage may be discharged into the drains as a part of maintaining the E-flows.

All such existing STPs should be upgraded for ensuring compliance to the effluent discharge norms notified under the Environment (Protection) Act, 1986.

Also, the option of 'Sludge Digester' as a part of STP be created for methane recovery and such generated sludge from the sludge digester may be used as manure and STPs shall ensure that at any instance the generated STP sludge should not be disposed of in river system.

All upcoming STPs preferably should have standby arrangements atleast for two days as a part of the upcoming STPs.

Therefore, Pollution Control Boards are required to prescribe PETP Standards for all the CETPs located in the catchment of river Ghaggar and in the respective States."

18. On the subject of industrial effluent, the Committee inter-alia recommended as follows:-

*"The Committee is also of the view that the technology available, can also be used for the surveillance of the industries located in the catchment area of river Ghaggar by all the concerned States in order to assess illegal discharge by the industries."*

19. With reference to action plans for rejuvenation of river Ghaggar, the Committee has recommended as follows:

***"In addition to the action plans prepared by the respective Governments, following action plans also need to be included with timelines:***

*Development of Bio-diversity parks in the catchment of river Ghaggar.*

*Watershed management and maintaining E-flows in the river Ghaggar and its tributaries for maintaining biological system of the water body.*

*Evolving and Effective Implementation of Sand Mining Policy of the Governments.*

*Dredging and maintenance of all the drains contributing to river Ghaggar pollution and proper disposal of the sludge generated from the dredging and maintenance of the drains.*

*Restoration of all the drains as natural drains for carrying only storm water;*

*Provision of measurement of flows in all the drains before its outfalls in to the river Ghaggar or its tributaries in all the States to know the contribution of discharges into the river Ghaggar or its tributaries and records shall be maintained by the concerned departments in order to evolve further strategies if required.*

*Installation of real time water quality of monitoring stations at all the outfalls of the drains and at the salient points of the river Ghaggar or its tributaries and display of such data in public domain, by all the concerned State Governments.*

*Interception of diversion of wastewater from the drains (not meeting to the water quality criteria), to the near by STPs or CETPs for ensuring further treatment to comply with the discharge norms.*

*Septage management in the catechment areas of river Ghaggar and its tributaries for beneficial use including irrigation, construction activities.”*

20. We may now take up for consideration Affidavits filed by the concerned States.
21. According to the Chandigarh Pollution Control Committee, STP of 5 MGD capacity at Maloya will be operational by 30.04.2018 upon which the gap in sewage treatment will stand bridged. The

Municipal Corporation Chandigarh will also construct a new STP of capacity of 2.0 MGD at Raipur Kalan and 0.40 MGD capacity at Kishangarh under the smart city project.

22. The Himachal Pradesh Pollution Control Board has filed a 'comprehensive report' on control of pollution of river Ghaggar, giving timelines for implementation of rejuvenation of river Markanda at Kala Amb, District – Sirmour. Timeline for execution of laying down of sewerage lines and setting up CETP at Kala Amb and STP at Trilokpur timelines is 31.01.2022. Timelines for STP at Parwanoo by the Local Body is 06.05.2019 and STP with full utilization capacity to be set up by Irrigation Department is 31.01.2022.

23. As per action plan submitted by State of Haryana, STPs which are under construction, will be completed on different dates, extending upto 31.03.2020 which will meet the gap in the generation and treatment of sewage. We note the submission of learned counsel for the State of Haryana that though STPs may be set up, the major challenge is in laying down the sewerage lines to connect the STPs with the sewage.

24. As per action plan of the State of Punjab, different dates for steps for setting up STPs extend upto December, 2020, as per Annexure – L annexed to the plan.

25. Learned Amicus Curiae, Ms. Katyayni has given a note of submission analyzing the report of the Executing Committee with reference to steps required to be taken in the gap in different areas/drains/choes. It is submitted that recommendations of the

Executing Committee should be fully implemented. She also invited our attention to the CAG report on Performance Audit on the subject. She has pointed out that a study is necessary in respect of cumulative deposition impact on soil and ground water. In view of contents of metals and chemicals in the effluents, metals and chemicals need to be separated from the sludge. The STP sludge treatment was important for wide contamination of ground water. Health camps need to be continued in view of occurrence of diseases in the area. CETPs must be properly operated and maintained. New industries should be set up only after taking all possible precautions to avoid any further gap, adding to the pollution. Ground water status needs to be checked near the landfills. Ground water extraction must be regulated in dark zones. Green energy sources may be promoted in the catchments areas. We find the suggestions of learned Amicus to be relevant and worth acceptance.

26. We place on record our deep appreciation for the sincere efforts undertaken by the Committee in conducting proceedings and preparing exhaustive report. The report is accepted.
27. In view of the above, we direct that various actions proposed in the action plans of Himachal Pradesh, Haryana, Punjab and Chandigarh may continue to be monitored by the Chief Secretaries, as already directed. Recommendations of the Committee and suggestions of learned Amicus may be acted upon.
28. The Committee may also continue to monitor the execution of the directions of this Tribunal. The Executing Committee may give a further report in the matter after six months or as and when

considered necessary. Learned Amicus Curiae will be at liberty to forward any further suggestion to the Committee.

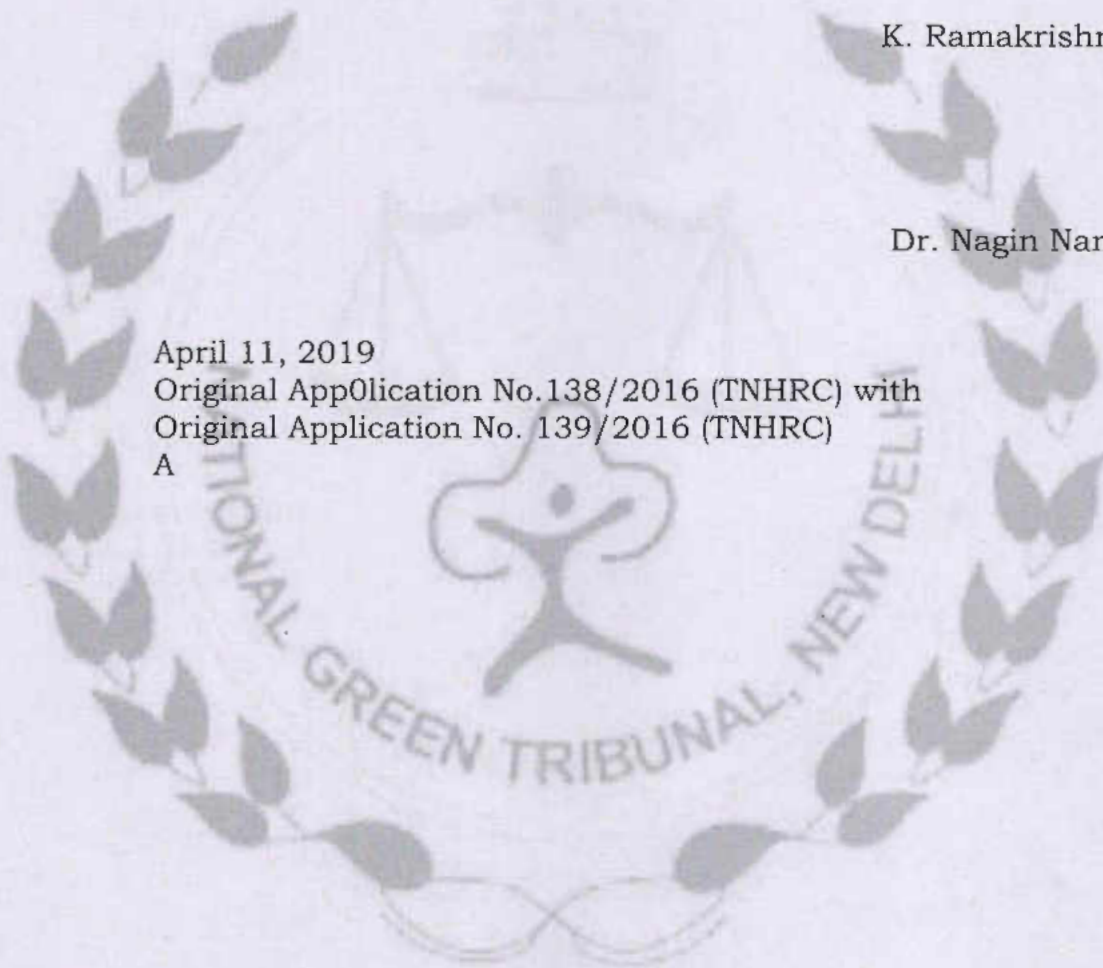
Put up for consideration as and when necessary or in October, 2019.

Adarsh Kumar Goel, CP

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

April 11, 2019  
Original Application No.138/2016 (TNHRC) with  
Original Application No. 139/2016 (TNHRC)  
A





**2<sup>nd</sup> 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**

**14<sup>th</sup> June, 2019**

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**2<sup>nd</sup> report of Executive Committee constituted by the 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**

**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 :

<b>Sr. No.</b>	<b>Name &amp; Designation</b>	<b>Designation in the Executive Committee</b>
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:

<b>Sr. No.</b>	<b>Name &amp; Designation</b>	<b>Designation in the Executive Committee</b>
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 Kalaria 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 Kalaria. 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 is 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 that 20 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 flora & 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 flora & 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 flora & 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 discontinued 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 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.

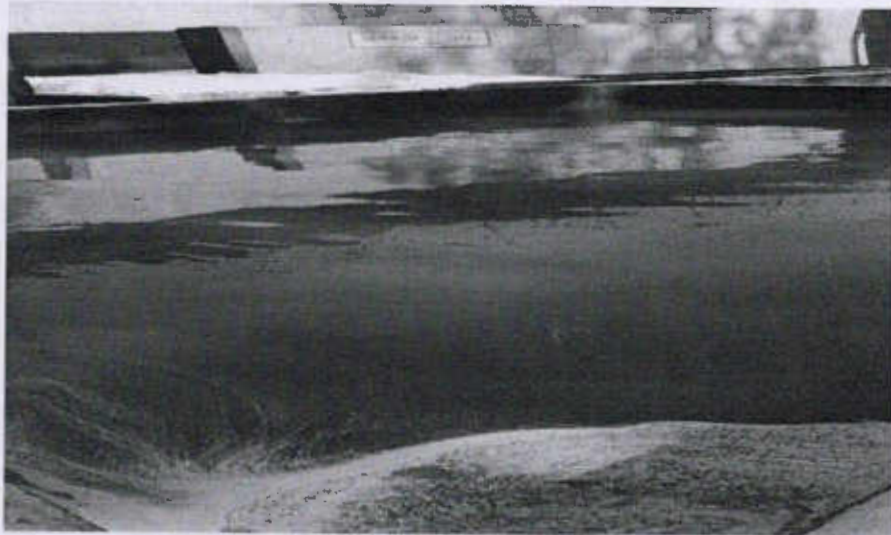


**Plate-2: Effluent in aeration chamber black in colour**

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-Complying
2	<b>Baretta</b>	<b>3</b>	<b>PWSSB</b>	<b>Non-Complying</b>	<b>Non-Complying</b>	<b>Non-Complying</b>
3	<b>Bhikhi</b>	<b>3</b>	<b>PWSSB</b>	<b>Non-Complying</b>	<b>Non-Complying</b>	<b>Non-Complying</b>
4	<b>Budhlada</b>	<b>6.5</b>	<b>PWSSB</b>	<b>Non-Complying</b>	<b>Non-Complying</b>	<b>Non-Complying</b>
5	Khanouri	3	PWSSB	Complying	Complying	Complying
6	Lehragaga	4	PWSSB	Complying	Complying	Complying
7	MandiGobindgarh	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-Complying	Complying
11	<b>Sardhulgarh</b>	<b>4</b>	<b>PWSSB</b>	<b>Non-Complying</b>	<b>Non-Complying</b>	<b>Non-complying</b>
12	Sunam	8	PWSSB	Complying	Complying	Complying
13	<b>Zirakpur</b>	<b>17</b>	<b>PWSSB</b>	<b>Non-Complying</b>	<b>Complying</b>	<b>Non-Complying</b>
14	Rajpura-1	7	PWSSB	Complying	Non-Complying	Complying
15	Rajpura-2	10	PWSSB	Complying	Complying	Complying
16	<b>Mohali</b>	<b>45.4</b>	<b>GMADA</b>	<b>Non-Complying</b>	<b>Non-Complying</b>	<b>Non-Complying</b>
17	<b>Lalru</b>	<b>1.5</b>	<b>GMADA</b>	<b>Non-Complying</b>	<b>Complying</b>	<b>Non-Complying</b>
18	Patiala -1	46	MC, Patiala	Non-Complying	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, Budhlada, Sardhulgarh, 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	<ul style="list-style-type: none"> <li>DPR-Approved.</li> <li>Tendering BY 31/7/2019</li> <li>Commissioning - 31/10/2020</li> </ul>
2.	Sanour	01	-	4 MLD	<ul style="list-style-type: none"> <li>Land yet to be identified</li> </ul>
3.	Bhadson	01	-	3 MLD	<ul style="list-style-type: none"> <li>DPR Prepared</li> </ul>
4.	Nabha	01	-	12 MLD	<ul style="list-style-type: none"> <li>DPR approved</li> </ul>
5.	Sangrur	02	-	4 MLD	<ul style="list-style-type: none"> <li>31/07/2020</li> </ul>
6.				11 MLD	<ul style="list-style-type: none"> <li>31/12/2020</li> </ul>
7.	Dhuri	02	-	5 MLD	<ul style="list-style-type: none"> <li>31/12/2020</li> </ul>
8.				6 MLD	<ul style="list-style-type: none"> <li>31/12/2020</li> </ul>
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 Daparalalru	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**

<b>1.0 Action taken on the decisions taken by the Chairman of the Executive Committee in the meeting held on 29.03.2019</b>		
<b>Sr. No.</b>	<b>Decisions Taken</b>	<b>Action Taken Report</b>
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/nallah/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.  <b>The Executive Committee has recommended disciplinary action against the erring officers for not complying with the directions of the Executive Committee.</b>
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.  <b>The Executive Committee has recommended disciplinary action against the erring officers for not complying with the directions of the Executive Committee.</b>

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.	<p>The Department of Soil &amp; 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.</p> <p>Notably, the treated effluent from the other STPs on the catchment area of river Ghaggar is being directly/ indirectly discharged into river Ghaggar.</p> <p>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.</p>
5.	All the STPs must be designed in such a way that the treated sewage must achieve the BOD level less than 10mg/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.	<p>The officers of HSPCB and PPCB has carried out joint sampling of Sagarpara Drain and towards u/s &amp; 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.</p> <p><b>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.</b></p>
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. <a href="http://www.ppcb.gov.in">www.ppcb.gov.in</a>
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 $\mu$ s/Cm	BOD mg/l	T.Coli MPN/100ml	F.Coli 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 $\mu$ s/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				No improvement
3.	Chattbir	3.4	17.5	24333	3.3	18	35000	No improvement
4.	U/S JharmalNadi	3.6	12.8	20833	2.9	19	28000	No improvement
5.	D/S JharmalNadi	2.7	18.8	24583	4.1	12	17000	Improvement w.r.t. all parameters
6.	U/s Dhakanshu Nallah	3.6	11.7	16750	3	22	28000	No improvement
7.	D/S Dhakanshu Nallah	3.1	14	22417	4.3	12	21000	No improvement
8.	Rattanheri	2.4	37.9	29833	3.2	17	28000	No improvement
9.	U/S Sagarpara Drain	3.3	20.7	23636	3.8	15	21000	Improvement w.r.t. all parameters
10	D/S Sagarpara Drain	2.2	37.5	29545	4.1	13	21000	Improvement w.r.t. all parameters
11	Khanauri	2.3	37.5	28250	2.9	30	28000	Improvement w.r.t. all parameters
12	Moonak	2.4	30.8	26333	3.2	23	21000	Improvement w.r.t. all parameters
13	U/S Sardulgarh	2.7	23.9	20867	2.3	30	28000	No improvement
14	D/S Sardulgarh	2.5	26.9	25000	3.5	9	15000	Improvement w.r.t. all parameters
					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		<ul style="list-style-type: none"> <li>Land for one STP identified.</li> <li>No identification for second STP.</li> </ul>

### 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	Kalayath	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
	<b>HSVP</b>						
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	Fatehabad	Village Majra	HSVP	10	21.09.2018 Complying	30.11.2018 Complying	12.02.2019 Complying
		<b>Total</b>		<b>503.6</b>			



#### 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	<ul style="list-style-type: none"> <li>7 industries has been recommended for closure.</li> <li>Against one industry, prosecution under process.</li> </ul>
2	April	3	3	<ul style="list-style-type: none"> <li>3 industries were closed and prosecution under process</li> </ul>
3	May	2	2	<ul style="list-style-type: none"> <li>Action yet to be taken.</li> </ul>

#### 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.  <b>The Executive Committee has written letter to the Chairman Haryana Pollution Control</b>

	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.	<b>Board to ask big Private Hospitals to carry out Health Check up camps under CSR activities.</b>
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 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**

<b>Sr No</b>	<b>Decisions Taken</b>	<b>Action Taken Report</b>
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. <b>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.</b>
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	BO D 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	BO D 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	BO D 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	BO D 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	BO D 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			
<b>6</b>	<b>Ghaggar River before mixing Ghail drain at Rampur (Ambala)</b>							
	Date of sample collection	PH	BO D 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			
<b>7</b>	<b>Ghaggar River after meeting Sukhna Choe at Vill- Bhankarpur, Punjab</b>							
	Date of sample collection	PH	BO D 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			
<b>8</b>	<b>Sukhna choe at Vill- Bhankarpur, Punjab</b>							
	Date of sample collection	PH	BO D 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			
<b>9</b>	<b>Ghaggar River before meeting Sukhna Choe at Vill- Bhankarpur, Punjab</b>							
	Date of sample collection	PH	BO D 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			
<b>10</b>	<b>Ghaggar River before meeting Derabassi Drain near Vill- Bakkarpur (Punjab) (Upstream)</b>							
	Date of sample collection	PH	BO D mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	8.14	6	47.2	1680			
<b>11</b>	<b>Derabassi drain near Vill- Bakkarpur (Punjab).</b>							
	Date of sample collection	PH	BO D mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	7.47	23	85.6	74			
<b>12</b>	<b>Ghaggar River after meeting Derabassi near Vill- Bakkarpur (Punjab).</b>							
	Date of sample collection	PH	BO D mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	8.13	12	69.6	1668			
<b>13</b>	<b>Ghaggar River before meeting Basauli Choe at Vill- Tepla (Punjab)</b>							
	Date of sample collection	PH	BO D mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	8.08	7	40.8	1714			
<b>14</b>	<b>Bassauli Choe at vill.Tepla (Punjab)</b>							
	Date of sample collection	PH	BO D mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	7.57	24	121.	82			

6								
<b>15</b>	<b>Ghaggar River after meeting Basauli Choe at Vill- Tepla (Punjab)</b>							
	Date of sample collection	PH	BO D mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	16.04.2016	8.03	17	58.4	1668			
<b>16</b>	<b>Ghaggar river before meeting Jharmal Choe at Vill- Tiwana (Punjab)</b>							
	Date of sample collection	PH	BO D 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			
<b>17</b>	<b>Jharmal Choe at Vill- Tiwana (Punjab)</b>							
	Date of sample collection	PH	BO D mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	7.47	18	90.4	58			
<b>18</b>	<b>Ghaggar River after mixing Jharmal Choe, At- Vill- Tiwana, (Punjab)</b>							
	Date of sample collection	PH	BO D mg/l	COD mg/l	TSS mg/l	DO mg/l	Faecal Coliform	Total Coliform
	18.04.2019	8.03	10	43.2	1616			
<b>19</b>	<b>Ghaggar River after mixing Pachis Dara drain at Saralakhurd (Patiala).</b>							
	Date of sample collection	PH	BO D 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			
<b>20</b>	<b>Pachis Draha drain at Vill- SaralaKhurd (Patiala).</b>							
	Date of sample collection	PH	BO D 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			
<b>21</b>	<b>Ghaggar River before mixing Pachis Draha drain at Vill- SaralaKhurd (Patiala).</b>							
	Date of sample collection	PH	BO D 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			
<b>22</b>	<b>Ghaggar River before meeting river Markanda at Village Chiali. (Longitude 76°25.974' and Latitude 30°07.695')</b>							
	Date of sample collection	PH	BO D 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			
<b>23</b>	<b>MarkandaRiver Bhagal Bridge. (Longitude 76°26.218' and Latitude 30°05.025')</b>							
	Date of sample collection	PH	BO D 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°22.571' and Latitude 30°05.410')							
	Date of sample collection	PH	BO D 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	28.0 0	92.0	29			
25	Ghaggar River before mixing, Patiala Nadi at Vill. Bhatia. (Longitude 76°14.696' and Latitude 30°04.717')							
	Date of sample collection	PH	BO D 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°14.610' and Latitude 30°04.759')							
	Date of sample collection	PH	BO D 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 Village Ratanheri. (Longitude 76°14.542' and Latitude 30°04.645')							
	Date of sample collection	PH	BO D 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 mixing Sagar Para Drain at Village Rasoli. (Longitude 76°10.173' and Latitude 29°54.305')							
	Date of sample collection	PH	BO D 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 Ghaggar river, Village Sagra. (Longitude 76°11.249' and Latitude 29°52.976')							
	Date of sample collection	PH	BO D 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	40.0 0	188.8	32			
30	Ghaggar River after mixing of Sagar Para Drain at Village Rasoli. (Longitude 76°10.135' and Latitude 29°53.548')							
	Date of sample collection	PH	BO D 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	22.0 0	116.0	50			
<b>31</b>	<b>River Ghaggar before mixing Kaithal drain at Khanauri. (Longitude 75°00.061' and Latitude 29°50.754')</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	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			
<b>32</b>	<b>Kaithal drain before mixing River Ghaggar at Khanauri. (Longitude 76°06.831' and Latitude 29°50.731')</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	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			
<b>33</b>	<b>River Ghaggar before mixing point of Khanauri drain</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	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			
<b>34</b>	<b>Discharge of Khanauri Town in River Ghaggar. (Longitude 76°06.674' and Latitude 29°50.681')</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	22.01.19	7	38	137.6	41			
	12.02.19	7.37	32	136.4	40			
	12.03.2019	7.08	42.0 0	187.2	36			
<b>35</b>								
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	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			
<b>36</b>	<b>River Ghaggar before meeting discharge of Moonak Town. (Longitude 75°53.763' and Latitude 29°48.503')</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	22.01.19	7.05	30	108.4	40			
	12.02.19	6.85	32	122.8	42			
	12.03.2019	7.41	10.0 0	61.6	27			
<b>37</b>	<b>Discharge of Moonak Town into River Ghaggar. (Longitude 75°53.729' and Latitude 29°48.510')</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>



	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			
<b>38</b>	<b>River Ghaggar after meeting discharge of Moonak Town with River Ghaggar. (Longitude 75°53.702' and Latitude 29°48.515')</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	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			
<b>39</b>	<b>River Ghaggar before meeting Jhambuwalli Choe at Village Chandu. (Longitude 75°00.100' and Latitude 29°49.736')</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	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			
<b>40</b>	<b>Discharge of Jhambuwalli Choe at Village Chandu. (Longitude 75°00.061' and Latitude 29°49.794')</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	22.01.19	7.04	46	156.4	50			
	12.02.19	7.19	52	206.4	68			
	12.03.2019	7.45	24.0 0	80.0	23			
<b>41</b>	<b>River Ghaggar after meeting Jhambuwalli Choe at Village Chandu. (Longitude 75°59.989' and Latitude 29°49.717')</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	22.01.19	7.1	17	81.2	23			
	12.02.19	7.34	30	129.6	48			
	12.03.2019	7.45	60.0 0	271.2	45			
<b>42</b>	<b>Water sample from point between mixing point of Kaithal drain and mixing point of discharge of Khanuri</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BO D mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	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			
<b>43</b>	<b>River Ghaggar before meeting discharge of Ratia.</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BOD mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>
	29.01.19	8.7	34	72	75			
	28.02.19	8.4	38	112	70		25800	340000
<b>44</b>	<b>Discharge of Ratia Town through drain (Longitude 29.711468 and Latitude 75.551894)</b>							
	<b>Date of sample collection</b>	<b>PH</b>	<b>BOD mg/l</b>	<b>COD mg/l</b>	<b>TSS mg/l</b>	<b>DO mg/l</b>	<b>Faecal Coliform</b>	<b>Total Coliform</b>

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

	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

Sr. No.	Drain Joining River Ghaggar	BOD Value (mg/l)			Remarks
		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

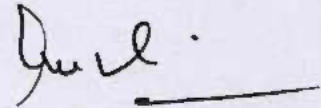


Dr V.K. Hatwal

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<sub>NHRC</sub>)  
(Case No. 559/19/11/14)

And

Original Application No. 139 of 2016 (T<sub>NHRC</sub>)  
(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, Adv.  
for PPCB

Mr. Shubham Bhalla and Mr. Roopam Rai, Adv.

Mr. Manish Kumar, Adv. for State of HP

Date and Remarks	Orders of the Tribunal
Item Nos. 07& 08 August 07, 2018 R & A	<p>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 "<i>Stench Grips Mansa's Sacred Ghaggar River</i>" 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.</p> <p>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.</p>

	<p><b>Item Nos. 07 &amp; 08</b></p> <p><b>August 07, 2018</b></p> <p><b>R &amp; A</b></p>	<p>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.</p> <p>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.</p> <p>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</p>
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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 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



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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) -

	<p><b>Item Nos. 07 &amp; 08</b></p> <p><b>August 07, 2018</b></p> <p><b>R &amp; A</b></p>	<p>Chairman.</p> <p>2) Senior Scientist from Ministry of Environment, Forest and Climate Change.</p> <p>3) Senior Engineer/Scientist from Central Pollution Control Board.</p> <p>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.</p> <p>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 <i>filing.ngt@gmail.com</i>. 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.</p> <p>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</p>
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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 05<sup>th</sup> March, 2019.

....., CP  
(Adarsh Kumar Goel)

....., JM  
(Dr. Jawad Rahim)

....., JM  
(S.P. Wangdi)

	<p>Item Nos. 07 &amp; 08</p> <p>August 07, 2018</p> <p>R &amp; A</p>	<p>.....,EM (Dr. Nagin Nanda) 07.08.2018</p>
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# 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 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.	Punjab	Prepared	Yes	3 No report. Wrongly mentioned in the reply sent to EC	4 No	5 No report submitted	6 Out of 13, action against 5 initiated by issuing a notice. No action against 8 non-complying industries	7 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	8 9 Health camps have been organized	9 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 10<sup>th</sup> 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, 4<sup>th</sup> Floor, 5<sup>th</sup> 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 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.



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 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. 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 Board shall 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 2<sup>nd</sup> 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**

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

## 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.	Punjab	Prepared	Yes	3 No report. Wrongly mentioned in the reply sent to EC	4 No	5 No report submitted	6 Out of 13, action against 5 initiated by issuing a notice. No action against 8 non-complying industries	7 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	8 9 Health camps have been organized	9 Analysis received but no concrete reasons for low worst quality of effluent mentioned. 11 samples collected, results awaited.
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, Fatehabad 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**

<b>Sr. No.</b>	<b>Name of participant alongwith designation</b>	<b>Department</b>
<b>Member of the Executive Committee</b>		
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
<b>Deputy Commissioner</b>		
1.	Sh. Prabhjot Singh, IAS,	Deputy Commissioner, Sirsa
2.	Sh. Dharendra Khadgata, IAS,	Deputy Commissioner, Fatehabad
<b>Officers of the various Departments</b>		
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. Pilonia, 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. Fatehabad**

#### **STP Commissioned**

1. 10 MLD STP at Village Kharati Khera, Bhattu Road, Fatehabad 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**

<b>Sr. No.</b>	<b>Capacity of STP (in MLD)</b>	<b>Location of STP</b>	<b>Technology of STP</b>
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, Assistant 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<sup>3</sup>/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 dosing 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 river 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: -**

<b>Sr. No.</b>	<b>Name and Designation</b>	<b>Designation in the Committee.</b>
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:-**

<b>Sr. No.</b>	<b>Name and Designation</b>
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, Assistant 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 flora & 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 discontinued 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.

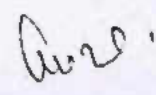


## 6.0 Recommendations on other issues:

- 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, 4<sup>th</sup> 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: -

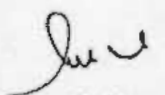
1. M/s Sainsons Paper Industries Pvt. Ltd., Plot No. 5, Vill-Bakhli, Tehsil Pehowa, District- Kurukshetra, Haryana
2. M/s Nishat Paper (P) Ltd., Arunai Road, Vill-Sainsa, Tehsil-Pehowa, District-Kurukshetra
3. M/s Shiv Paper Board Mill, Arunai Road, Vill-Dhanirampura, Tehsil-Pehowa, District-Kurukshetra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

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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

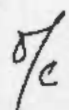
A copy of the above is forwarded to the Additional Chief Secretary to Government of Haryana, Department of Environment and Climate Change, Room No.39, 7<sup>th</sup> Floor, Haryana Civil Secretariat, Sector-1, Chandigarh for information and necessary action.

  
( 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, 4<sup>th</sup> Floor, Forest Complex,  
Sector 68, SAS Nagar) Tel. No. 0172-2298091  
Email: cecghaggar@gmail.com

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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.

o/c  
(Dr. Babu Ram) <sup>Babu Ram</sup>  
Member,  
Executive Committee

Dated: 30.5.2019

Encl. No.CEC/2019/157  
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.

o/c  
(Dr. Babu Ram) <sup>Babu Ram</sup>  
Member,  
Executive Committee

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# 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)	Condu city	BOD	COD	Am mo nia	Total Dissolved Solids (500 - 2000 limit)	Total Suspe nded Solids	Total Hardn ess (300 limit)	Fluori de (1.0 limits)	Chl orid e (250 limi ts)	Sul pha te (20 limi ts)	Calcium (75 - 200)	Magne sium (30 - 100)	Nic kel (0.0 2)	Copper (0.05 limits)	Chr omi um (0.0 5 limi ts)	Zinc (5 limits)	Lead (0.05 limits)	Iron (0.3 limits)
<b>Jind</b>																					
Sr.No.	Analysis Report No.	Date of collection	pH (6.5 to 8.5)	Condu city	BOD	COD	Am mo nia	Total Dissolved Solids (500 - 2000 )	Total Suspe nded Solids	Total Hardn ess (300 )	Fluori de (1.0 )	Chl orid e (250 )	Sul pha te (20 0)	Calcium (75 - 200)	Magne sium (30- 100)	Nic kel (0.0 2)	Copper (0.05 )	Chr omi um (0.0 5 f)	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	950	40	270	120	ND	ND	ND	ND	ND	0.7
<b>Hisar</b>																					
Sr.No.	Analysis Report No.	Date of collection	pH (6.5 to 8.5 limit)	Condu city	BOD	COD	Am mo nia	Total Dissolved Solids (500 limits) (2000 limit)	Total Suspe nded Solids	Total Hardn ess (300 limit)	Fluori de (1.0 limits)	Chl orid e (250 limi ts)	Sul pha te (20 limi ts)	Calcium (75 limits) (200)	Magne sium (30) (100)	Nic kel (0.0 2)	Copper (0.05 limits)	Chr omi um (0.0 5 limi ts)	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	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	-	ND
4		Tubewell of Sh. LaxmiNarayana, VillBakanianwali, Sirsa																			
	21	29.03.19	8.9	4960	ND	ND		3010	12	420	ND	122	16	270	150	ND	ND	ND	ND	ND	ND
5		Near DhanJaikaran Singh																			
	19	26.03.19	8.8	558	ND	ND		336	14	100	ND	70	10	80	20	ND	ND	ND	ND	ND	ND
6		Tubewell at Village FarwaKhurd, Sirsa																			
	20	26.03.19	9.2	930	ND	ND		562	12	110	ND	120	14	70	40	ND	ND	ND	ND	ND	ND
7		Tubewell of NumbardarRupchand, Near Village FarwaKhurd, Sirsa																			
	15	26.03.19	8.5	2190	ND	ND		1298	20	210	ND	620	20	160	50	ND	ND	ND	ND	ND	ND
8		Tubewell near Village Mallewala, Sirsa																			



9	16	26.03.19	8.5	2030	ND	ND	1228	14	220	ND	710	30	150	70	ND	ND	ND	ND
		Tubewell of water works, Village Kawalgarh																
10	13	11.03.19	8.3	662	ND	ND	401	10	160	ND	120	16	120	40	ND	ND	ND	ND
		Tubewell of Smt. Sushma Rani, Sarpanch, Khairpur																
11	14	11.03.19	9.2	726	ND	ND	441	12	130	ND	180	12	110	20	ND	ND	ND	ND
		Tubewell of Loharia, Vill. Farwaikalan, Sirsa																
12	31	15.04.19	8.6	3170	ND	ND	1857	16	220	160	60	ND	390	40	ND	ND	ND	ND
		Tubewell of Loharia, Vill. Farwaikalan, Sirsa																
13	32	15.04.19	8.7	1206	ND	ND	734	12	210	170	50	ND	190	30	ND	ND	ND	ND
		Tubewell of Laxman Das Vill. DhaniBurjkarangarh (Sanghar), Sirsa																
14	33	15.04.19	8.8	873	ND	ND	531	12	200	160	40	ND	160	40	ND	ND	ND	ND
		Tubewell of Muridhar, Vill. - DhaniBurjkarangarh (Sanghar), Sirsa																
15	34	15.04.19	8.5	464	ND	ND	284	10	80	50	30	ND	90	10	ND	ND	ND	ND
		Tubewell of Omprakash, Vill. - DhaniBurjkarangarh (Sanghar), Sirsa																
16	35	15.04.19	8.7	356	ND	ND	217	12	110	80	30	ND	90	20	ND	ND	ND	ND
		Tubewell of Vill. Talwara, Chandpur Road, Near Ghaggar																
17	14	12.04.19	8.6	467	ND	ND	268	12	120	90	30	ND	70	16	ND	ND	ND	ND
		Tubewell at Talwara to Jakhhal Road, Village Talwara																
18	15	12.04.19	8.7	464	ND	ND	284	14	110	70	40	ND	40	10	ND	ND	ND	ND
		Tubewell at Talwara																
19	16	12.04.19	8.7	511	ND	ND	311	10	100	70	30	ND	70	12	ND	ND	ND	ND
		Tubewell of Village Jakhhal																
20	17	12.04.19	8.9	509	ND	ND	310	12	80	50	30	ND	50	18	ND	ND	ND	ND
		Tubewell Narail Road, Jakhhal																
21	18	12.04.19	8.8	554	ND	ND	338	14	120	80	40	ND	60	12	ND	ND	ND	ND
		Tubewell near Narail Road River Ghaggar, Jakhhal																
22	19	12.04.19	8.5	582	ND	ND	358	16	140	100	40	ND	70	14	ND	ND	ND	ND
		Tubewell Near Ghaggar Narail Road, Jakhhal																
23	20	12.04.19	8.5	507	ND	ND	278	12	90	70	20	ND	40	10	ND	ND	ND	ND
		Tubewell of Talwari																
24	21	12.04.19	8.6	487	ND	ND	308	8	100	60	40	ND	30	10	ND	ND	ND	ND
		Tubewell of Makhhan Singh Talwari																
25	22	12.04.19	8.2	624	ND	ND	380	16	130	80	50	ND	90	14	ND	ND	ND	ND
		Tubewell SadhanwasTalwari Road																
26	23	12.04.19	8.1	839	ND	ND	511	14	160	110	50	ND	120	14	ND	ND	ND	ND
		Tubewell Sadhanwas to DhaniNali Road, Sadhanwas																
27	24	12.04.19	8.7	521	ND	ND	318	10	110	80	30	ND	130	12	ND	ND	ND	ND
		Tubewell DhaniNali Road, Sadhanwas																
28	25	12.04.19	8.6	605	ND	ND	368	12	120	100	20	ND	70	14	ND	ND	ND	ND
		Tubewell Ratta Road, Chandpura																

26	12.04.19	8.7	1100	ND	ND	670	16	180	110	70	ND	70	ND	14	ND	ND	ND	ND	
29	Tubewell Rattia Road, Chandpura																		
27	12.04.19	7.9	1153	ND	ND	701	14	190	120	70	ND	90	ND	12	ND	ND	ND	ND	
30	Tubewell Chandpura to Rattia Road																		
28	12.04.19	8.8	566	ND	ND	350	10	130	100	30	ND	60	ND	14	ND	ND	ND	ND	
31	Tubewell Babanpur to Rattia Road, Rattia																		
29	12.04.19	8.7	994	ND	ND	601	12	180	120	60	ND	50	ND	14	ND	ND	ND	ND	
32	Johns Service Station, Rattia																		
30	12.04.19	8.8	380	ND	ND	237	10	100	70	30	ND	30	ND	12	ND	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	ND	10	ND	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	ND	12	ND	ND	ND	ND	
35	Tubewell of Buta Singh S/o Banta Singh, VillJnoranali, Sirsa																		
3	04.04.19	8.9	396	ND	ND	240	10	90	70	20	ND	80	ND	14	ND	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	ND	10	ND	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	ND	10	ND	ND	ND	ND	
38	Tubewell of Hame Singh on road from Otu head to Gidranwali, Sirsa																		
6	04.04.19	9.2	463	ND	ND	281	14	130	90	40	ND	140	ND	10	ND	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	ND	20	ND	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	ND	20	ND	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	ND	16	ND	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	ND	20	ND	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	ND	10	ND	ND	ND	ND	
44	Tubewell installed at Otu Lake, Sirsa																		
12	04.04.19	8.7	315	ND	ND	195	14	70	40	30	ND	50	ND	10	ND	ND	ND	ND	

# ANNEXURE-3

Report on visit to the industries of Patiala area on 28/5/2019 by the Executive Committee constituted by the Hon'ble National Green Tribunal in OA no. 138 and 139 of 2016 in the matter of Stretch Grips Mansa's Ghaggar River (Suo Moto Case) and Yogender Kumar

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 & Haryana High Court	Chairman
2.	Dr. Babu Ram, Former Member Secretary, PPCB	Member

**B) Officers of Punjab Pollution Control Board**

Sr. no.	Name and Designation
1.	Er. S.S. Matharu, Environmental Engineer, PPCB
2.	Er. Lavneet Kumar Dubey, Environmental Engineer, PPCB
3.	Er. Jatinder Soni, Asstt. Environmental Engineer, PPCB
4.	Sh. Charan Singh, Jr. Scientific Officer, PPCB

**C) Officers of Haryana State Pollution Control Board**

Sr. no.	Name and Designation
1.	Er. J.P. Singh, Environmental Engineer, HSPCB

**1.0 Visit to the industries of Patiala Area**

The Executive Committee visited the industries of Patiala area, which are located in the catchment area of River Ghaggar. The status reports of these industries are mentioned as under:

**1.1 M/s Vishal Paper Industries Pvt. Ltd., Vill. Khusropur, Maine Road, Patiala and M/s Vishal Coaters, Vill. Khusropur, Maine Road, Patiala**

**1.1.1 Background**

**• About M/s Vishal Paper Industries Pvt. Ltd.**

The industry, a large scale unit, engaged in the manufacturing of writing and printing paper, was commissioned in the year 2000. The production capacity of the industry is 75 TPD along with Card Board @ 5 TPD as bye product. The raw materials used by the industry are waste paper, imported waste paper and chemicals namely caustic soda, sodium hypochlorite, de-inking chemical, starch and hydrogen peroxide. The manufacturing processes of the industry are pulping, de-inking, bleaching, washing, cutting and paper making. As per the record of Regional Office, PPCB, the consent to operate under the provisions of the Water Act, 1974 and the Air Act, 1981 have been granted upto 31/3/2021.

The total process water requirement is 21535 m<sup>3</sup>/day, of which 20455 m<sup>3</sup>/day is recycled back into the process after primary treatment. Therefore, 1080 m<sup>3</sup>/day is taken into the ETP of which 570 m<sup>3</sup>/day of the treated wastewater is reused in the process and 510 m<sup>3</sup>/day is discharged onto land for plantation.

- **About M/s Vishal Coaters Pvt. Ltd.**

The industry, a large scale unit, engaged in the manufacturing of writing and printing paper, was commissioned in the year 1998. The production capacity of the industry is 75 TPD. The raw materials used by the industry is waste paper. The chemical used in the process are soap stone powder, sodium hydrosulphide, sodium silicate, calcium chloride, lime and hydrogen peroxide. As per the record of Regional Office of PPCB, the consent to operate under the provisions of the Air Act, 1981 has been granted upto 31/3/2023 and under the provisions of the Water Act, 1974 was granted upto 31/3/2019. The industry has applied through online consent management system (OCMS) of the PPCB for renewal of consent to operate under the provisions of the Water Act, 1974, which is under process with the PPCB.

The manufacturing processes of the industry are pulping, de-inking, bleaching, stock preparation, machining, cutting and packing.

The total process water requirement is 21535 m<sup>3</sup>/day, of which 20455 m<sup>3</sup>/day is recycled back into the process after primary treatment. Therefore, 1080 m<sup>3</sup>/day is taken into the ETP of which 570 m<sup>3</sup>/day of the treated wastewater is reused in the process and 510 m<sup>3</sup>/day is discharged onto land for plantation.

### **1.1.2 About Effluent Treatment Plant**

For the treatment of effluent generated by these above said industries, common effluent treatment plant consisting of primary clarifier, aeration tank-1 and aeration tank-2 and secondary clarifier for aeration tank-1 and tube settler for aeration tank-2 have been installed in the premises of M/s Vishal Paper Industries Pvt. Ltd. The treated effluent combining the effluent of both the industries, which is about 1020 m<sup>3</sup>/day (510 m<sup>3</sup>/day + 510 m<sup>3</sup>/day) is discharged onto land for plantation measuring 36 acres as per record of PPCB.

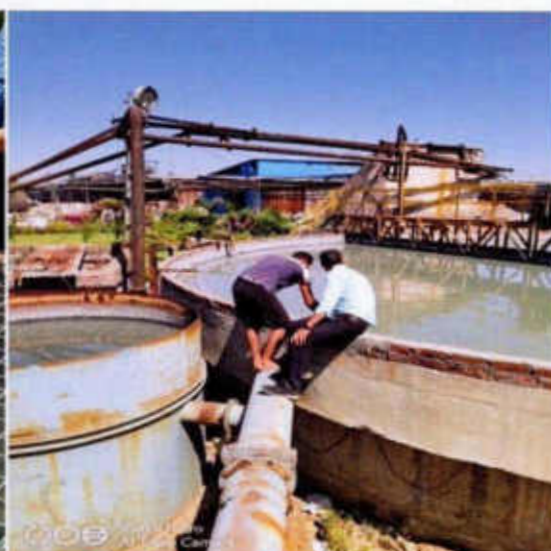
### **1.1.3 Inspection of the industries**

The team consisting of the above members of the Committee, Officers of the PPCB and HSPCB, firstly, visited the final outlet of the industry, from where the treated wastewater is discharged (discharge point mentioned in the **Plate-1**). The effluent sample of treated wastewater was collected. Thereafter, the Committee visited the functioning of primary clarifier and it was observed that the weir of the clarifier was submerged and effluent containing lot of suspended solids (mentioned as per **Plate-2**) was entering into the two aeration tanks,

which are in parallel. The Committee also collected the effluent samples from inlet and outlet of primary clarifier.



**Plate-1: Final outlet of ETP**



**Plate-2: Primary clarifier with submerged weir**

Further, the Committee visited the plantation area, where the final treated effluent is discharged. It was observed that in some of the pockets of the plantation area, the effluent was stagnating in the fields (mentioned as per **Plate-3**). The three effluent samples from the said plantation area were collected by the Committee.



**Plate-3: Stagnated wastewater of the industry in the Plantation area**

The condition of the Patiala Nadi was also seen by the Committee and it was observed that at the time of visit, no effluent was being discharged by the industry into Patiala Nadi.

The Committee also visited the primary treatment system provided to settle the solids in the effluent. During visit, it was observed that all the primary clarifiers were submerged and there were low chances of settling of the solids in the said clarifier.

## 1.2 Collection of effluent samples

During visit to the industry, the Committee collected the effluent samples from the various points. The analysis results of these effluent samples are mentioned in Table 1 given below:

**Table:1: Analysis results of effluent samples collected from various points:**

Sr. no.	Point of sample collection	Parameters (mg/l except pH)						
		pH	TSS	TDS	BOD	COD	MLSS	MLVSS
1.	Primary clarifier inlet	6.80	250	-	520	2050	-	-
2.	Primary clarifier outlet	6.87	238	-	505	2008	-	-
3.	Aeration tank-1	-	-	-	-	-	3410	2280
4.	Aeration tank-2	-	-	-	-	-	3880	2520
5.	Final outlet of ETP	7.65	18	1158	24	140	-	-
6.	Outlet leading to plantation area	7.87	41	1324	24	138	-	-
7.	Plantation area near ETP	7.88	47	1332	24	137	-	-
8.	<b>Plantation area near Patiala Nadi</b>	6.91	224	2970	480	1900	-	-
9.	Plantation area at the end towards Patiala Nadi	7.84	76	1345	32	192	-	-

The analysis results are also enclosed as per Annexure-1

### 1.2.1 Discussion on the analysis results

The analysis results indicate that the values of the parameters in the effluent entering into primary clarifier were observed as pH = 6.80, TSS = 250mg/l, BOD = 520mg/l, COD = 2050mg/l, whereas, the values of these parameters at the outlet of the primary clarifier were 6.87mg/l, 238mg/l, 505mg/l, and 2008mg/l. **The treatment efficiency in terms of removal these pollutants is TSS = 4.8%, BOD = 2.9%, COD = 2.05%, which is almost negligible as expected from such treatment system.** Literature study indicates that the treatment efficiency of primary clarifier for the removal of TSS, BOD and COD varies between 60-70%, 35-40% and 30-40%, respectively. **Thus, the primary clarifier is ineffective and inadequate to remove the suspended solids, BOD and COD.**

Bol  
The analysis results of effluent sample collected from final outlet of ETP indicate that the values of TSS, BOD and COD were observed as 18 mg/l, 24mg/l and 140 mg/l, respectively. The values of these parameters at the outlet of the primary clarifier are 238 mg/l, 505 mg/l and 2008 mg/l. The effluent containing the parameters with abovementioned concentration is entering into aeration tank followed by secondary clarifier. The industry has two parallel sets of aeration

tanks and secondary clarifier. With these parameters, the treatment efficiency of the aeration tank followed by secondary clarifier (aerobic biological treatment system) comes to 92.4 % efficiency in terms of TSS; 95.2% in terms of BOD removal and 93% efficiency in terms of COD removal. Thus, the industry treats part of the primary treated effluent into aerobic biological treatment system.

It is mentioned here that single stage aerobic biological treatment system has lower treatment efficiency in terms of removal of TSS, COD and BOD as compared to the treatment efficiency achieved by the industry for these parameters, whereas, primary clarifier is almost nonfunctional with very low treatment efficiency [TSS = 4.8%, BOD = 2.9% and COD = 2.05%]. These facts indicate that the industry is adding part of the primary clarifier effluent into aeration tank to achieve maximum treatment efficiency and part of the primary clarifier effluent or untreated effluent is by passed to ETP and discharged directly on to land for plantation.

**These facts have also been verified by collecting the effluent samples from plantation area near Patiala Nadi.**

**The analysis results of this effluent sample indicated the values of TSS, BOD and COD as 224 mg/l, 480 mg/l and 1900 mg/l and these values were almost matching with the values at the outlet of the primary clarifier (TSS=238 mg/l, BOD=505 mg/l, COD=2008 mg/l) or inlet of the primary clarifier (TSS=250 mg/l, BOD=520 mg/l and COD=2050 mg/l )**

**Thus the primary clarifier is inadequate and ineffective and discharges part of its untreated wastewater directly on land for plantation area by-passing the aerobic biological treatment system. Part of the effluent after primary clarifier is treated in the aerobic biological treatment system to meet with the standards.**

### **1.3 Observations of the Committee**

- i) The weir of the primary clarifier was found submerged and lot of solids were entering into channel leading to aeration tank1 and aeration tank 2.
- ii) The treatment efficiency of primary clarifier in terms of removal of TSS, BOD and COD is almost negligible. Therefore, to reduce the organic load in the aeration tank, the industry imparts aerobic biological treatment to part of the effluent and part of untreated effluent, bypassing to aerobic biological treatment system, is discharged on to land for plantation and thus polluting the environment. The analysis results of the parameters of

the effluent sample collected from plantation area (S.No. 8, Table 1) also prove the above facts because the values of TSS, BOD and COD at the outlet of primary clarifier or untreated effluent and the values of these parameters in the effluent lying in the plantation area were found almost matching(**TSS: 224 mg/l, BOD: 480 mg/l and COD: 1900 mg/l in the plantation area and TSS: 238 mg/l, BOD: 505 mg/l and COD: 2008 mg/l at the outlet of primary clarifier or TSS:250 mg/l, BOD:520 mg/l and COD:2080 mg/l in the untreated effluent are almost matching**).

- iii) All the primary clarifiers provided in the industry in the working zone to separate the solids from the liquid were found submerged and there were found with little settle-ability of the solids. It indicates that the industry has stored its effluent into these clarifiers just to avoid excess flow of effluent into ETP as the primary clarifier of ETP is of inadequate capacity.
- iv) The industry has not obtained permission from Central Ground Water Authority for abstraction of groundwater.
- v) Housekeeping within the premises of the industry was very poor.

#### 1.4 Recommendations:

**Based on the observations of the committee and the analysis results of the effluent sample collected from plantation area, the committee has made the following recommendations.**

1. Chairman, PPCB shall revoke the consent granted to the industry under the provision of the Water Act, 1974.
2. Chairman, PPCB shall impose environmental compensation amounting to Rs. 50 lakhs on the industry and the said amount shall be utilized for rejuvenation of water quality of river Ghaggar.
3. Chairman Punjab Pollution Board shall reduce 30% production capacity of the industry so that the quantity of effluent to be generated after reduction of the capacity may be treated effectively and efficiently in the existing treatment system and the various parameters of the treated effluent must achieve the standards at all the times till the up gradation in the existing treatment system is made by the industry. Punjab Pollution Control Board shall seal the machinery of the industry to ensure 30% reduction in production capacity and install CCTV camera on this sealed machinery. The photograph of the sealed machinery and footage of the CCTV camera may be sent to Executive Committee. Executive Committee may visit the industry at any time to check as to whether the sealed machinery is intact or not.



4. Chairman Punjab Pollution Control Board shall direct the industry to upgrade its effluent treatment plant within 3 months to treat whole of the effluent and to achieve all the parameters within the prescribed norms at all the times.
5. Chairman Punjab Pollution Control Board shall direct the industry to develop plantation area in such a way that no stagnation is occurred at any time and the treated wastewater is utilized uniformly for plantation properly.
6. Though at the time of visit to the industry, no effluent was being discharged into Patiala Nadi even then in order to rule out any possibility of discharge of effluent into Patiala Nadi, industry shall keep minimum buffer of 30m between Patiala Nadi and plantation area. In this buffer zone, the industry not discharge its effluent. The necessary directions in this regard shall be issued by Chairman Punjab Pollution Control Board.
7. Chairman PPCB shall direct the industry to dispose of its sludge from the secondary clarifier and other waste material like plastic etc. in an environmentally sound manner.
8. There should be no dead pockets in the plantation area and the treated waste water may be utilized uniformly for plantation properly.
9. The industry shall get conduct analysis of ground water and soil samples twice in a year to know the characteristics of underground water and soil because the regular application of treated effluent of the industry in the plantation area may affect the quality of underground water and soil.

## **2.0 M/s Patiala Distillers and Manufactures Ltd., Vill. Maine, Patiala**

### **2.1 About the industry**

M/s Patiala Distillers and Manufactures Ltd., Vill. Maine, Patiala is a large scale unit, which was commissioned in the year 1974. It manufacture of IMLF/ Country Liquor @ 9000 Cases/day and rectified Spirit (ENA, DS) @ 50 MLD along with co-generation power plant of capacity 2 MW. The manufacturing processes of the industry are grain cleaning, milling, slurry preparation/ liquefaction, activation, fermentation, multi pressure distillation, spirit storage, bottling. As per the record of Regional Office, PPCB, the consent to operate under the provisions of the Air Act, 1981 has been granted up to 31/3/2020 and under the provisions of the Water Act, 1974 was granted up to 31/3/2019. The industry has applied through online consent management system (OCMS) of the PPCB for renewal of consent to operate under the provisions of the Water Act, 1974, which is under process with the PPCB. From the manufacturing process, two types of effluent are generated:

1. Spent Wash
2. Bottle Washing

The quantity of spent wash is about 600 m<sup>3</sup>/day, whereas the quantity of bottle washing is 2500 m<sup>3</sup>/day.

## 2.2 About Effluent Treatment Plant

For the treatment of effluent generated from spent washing from the distillation process, the industry has installed 03 stages UASB system followed by aerobic biological treatment system, which consists of aeration tank-1, secondary clarifier-1, aeration tank-2 and secondary clarifier-2. The treated effluent, which is about 600 m<sup>3</sup>/day is further diluted with bottle washing, cooling tower water, steam condensate, boiler blow down, gland leakage and other fresh water streams. The total discharge after treatment and mixing with various streams **(Plate-4)** as mentioned above is about 5000 m<sup>3</sup>/day, which is discharged onto land for plantation area measuring about 61 acres as per record of PPCB.



**Plate-4-Final outlet after dilution**

## 2.3 Collection of Effluent Samples of the Industry

During inspection, the Committee collected that the effluent samples from the various points and their analysis results are mentioned in Table-2:

**Table-2: Analysis results of effluent samples**

Sr. no.	Point of sample collection	Parameters (mg/l except pH)					
		pH	TSS	BOD	COD	MLSS	MLVSS
1.	Spent wash collection tank	4.5	22900	64500	154400	-	-
2.	Outlet of final UASB	7.9	6310	1510	13000	-	-
3.	Aeration tank-1	-	-	-	-	41200	21600
4.	Aeration tank-2	-	-	-	-	11370	6820
5.	Out of secondary clarifier	8.7	610	630	4670		

6.	Dilution water	7.6	22	14	110	-	-
7.	Outlet of ETP after dilution	8.12	72	88	830	-	-

The analysis results are annexed as per Annexure-2.

### 2.3.1 Discussion on the analysis results

Analysis profile of effluent samples has been studied and the results are discussed as under:

- (i) The analysis results indicate that the values of pH, TSS, BOD and COD in the spent wash were observed as 4.5, 22900 mg/l, 64500 mg/l and 154400 mg/l, respectively. The values of these parameters at the outlet of the final UASB were determined as 7.9, 6310 mg/l, 1510 mg/l and 13000 mg/l, respectively.
- (ii) The treatment efficiency in terms of removal of TSS, BOD and COD in 3 stages UASB system has been observed as 72%, 97.6% and 91.5%, respectively.
- (iii) The values of the parameters namely TSS, BOD and COD at the outlet of the secondary clarifier(Final outlet of ETP components) were observed as 610 mg/l, 630 mg/l and 4670 mg/l, respectively, which are beyond the permissible limits of 100 mg/l and 100 mg/l for TSS and BOD parameters. No limits have been prescribed for COD parameter.
- (iv) The concentration of TSS, BOD and COD in the treated effluent after diluting about 8 times, was observed to be 72 mg/l, 88 mg/l and 830 mg/l.
- (v) The values of MLSS and MLVSS in aeration tank 1 and aeration tank 2 were 41200 mg/l, 21600 mg/l and 11370mg/l, 6820 mg/l, respectively. These values are quite abnormal and cannot decompose the organic matter efficiently. It shows that the industry has not extracted the excess sludge either directly from aeration tank or from secondary clarifier from days together.

### 2.4 Observations of the committee

During visit the following observations have been made:

- (i) The industry has installed an ETP consists of 3 stages UASB, aeration tank-1(**Plate-5**), secondary clarifier-1, aeration tank-2(**Plate-6**) and secondary clarifier-2.
- (ii) There was also one big tank full of water, which was being used as aeration tank in the past (**plate 7**). The representative of the industry

claimed that this tank has been provided to keep fill with water just to support the wall of aeration tank-1 to avoid collapsing of the same. The Committee was of the view that the water from this tank may be taken out and it should be closed so as to avoid any possibility of misusing it.



**Plate-5: Aeration Tank-1**



**Plate-6: Aeration Tank-2**



**Plate-7: One big tank full of water adjacent to the aeration tank-1**

- Al
- (iii) The industry has installed multi effect evaporated (MEE) to evaporate the spent wash to make the plant Zero Liquid Discharge (ZLD) as claimed by the representative of the industry. This system is under stabilization and the representative of the industry claimed that this MEE plant shall be made operational within 15-days. It was further informed that solids after the evaporation shall be used as fuel in the new boiler to be installed by the industry.
  - (iv) The treated effluent after anaerobic filter was entering into aeration tank-1 at non-specific places and no proper entry mechanism has been provided in the aeration tank for which the Committee has its observations that the inlet and outlet of the aeration tank-1 have not been properly located at the appropriate points.
  - (v) The industry has provided 03 big lagoons, of which one was filled with spent wash (**Plate-8**), whereas, the remaining two were lying idle.

The Committee is of the view that existence of these lagoons should not be there and these are required to be dismantled. Moreover, no parapet has been provided around these tanks which are essentially to be provided for safety point of view.

(vi) **The treated effluent after aerobic biological treatment system, is diluted about 8 times with bottle washing, cooling tower water, steam condensate, boiler blow down, gland leakage and other fresh water streams whereas, the Committee has raised its strong objection that such type streams should not be wasted for diluting the effluent, whereas, it must be recycled back into the process to save the underground water and reduce the consumption of fresh water in the process of the industry.**

(vii) The analysis results of the effluent sample collected from the outlet of secondary clarifier indicate that the values of TSS, BOD and COD were found as 610 mg/l, 630 mg/l and 4670 mg/l, whereas after dilution (about 8 times), the values of these parameters have been observed as 72 mg/l, 88 mg/l and 830 mg/l. Though the values of TSS and BOD, except COD for which no limits have been prescribed, after lot of dilution (about 8 times), are within the norms but the committee did not accept such type of mechanism because with this system lot of fresh stream and fresh water are wasted and it degrade the environment by way of depleting the ground water.

**Thus, the committee observed that the industry does not meet with the standards at the outlet of secondary clarifier i.e. final outlet of ETP**



**Plate-8: Lagoon for storage of spent wash**

#### **2.1.6 Recommendations:**

**Based on the observations and analysis results of effluent samples, the following recommendations are made by the committee.**

- (i) PPCB shall revoke the consent, if granted, to the industry under the provision of water Act, 1974.
- (ii) Since the industry is not achieving the prescribed parameters at the outlet of the secondary clarifier, therefore, Chairman Punjab Pollution Board shall reduce 30% production capacity of the industry so that the quantity of effluent to be generated after reduction of the capacity may be treated effectively and efficiently in the existing treatment system and the various parameters of the treated effluent may achieve the standards at all the time till zero liquid discharge technology plant (ZLD plant) is commissioned and no effluent is discharged by the industry and other observations of the Executive Committee are complied with. Punjab Pollution Control Board shall seal the machinery of the industry to ensure 30% reduction in production capacity and install CCTV camera on this sealed machinery. The photograph of the sealed machinery and footage of the CCTV camera may be sent to Executive Committee. Executive Committee may visit the industry at any time to check as to whether the sealed machinery is intact or not.
- (iii) The industry shall recycle all the clean stream back into the system to save underground water and these shall not be utilized for diluting the treated effluent at any time.
- (iv) Chairman PPCB shall impose an environment compensation amounting to Rs 50 lakh for degrading the environment by wasting clean streams to dilute the treated effluent to bring the parameters with in permissible norms and depleting the ground water. **Had the industry provided two or three stages treatment systems, it would have achieved the parameters but it has adopted easy and readily available method by diluting the effluent with clean streams of water. These streams would have been saved and recycled back into the process and saving in underground water would have been made.**
- (v) The idle tank full of water existing near aeration tank must be dismantled to avoid its misuse.
- (vi) The industry shall dismantle 2 lagoons out of 3 lagoons to rule out any possibility of misusing them.
- (vii) The industry shall construct proper channel distribution system to carry the waste water from anaerobic filter into aeration tank for decomposition of organic matter.

- (viii) There should be no dead pockets in the plantation area and the treated effluent may be uniformly distributed in the plantation area till the zero liquid discharge technology is commissioned.
- (ix) The industry shall get conduct analysis of ground water and soil samples twice in a year to know the characteristics of underground water and soil because the regular application of treated effluent of the industry in the plantation area may affect the quality of underground water and soil.

### **3.0 M/s DSG Papers Pvt. Ltd., Vill. Bhanri, PO Wizidpur, Patiala**

#### **3.1 About M/s DSG Papers Pvt. Ltd.**

The industry, a large scale unit, was commissioned in the year 2007. It manufactures writing/ printing/ semi craft/ tissue papers @ 125 TPD using waste paper @ 150 TPD as raw material along with co-generation power plant of capacity 5.5 MW and precipitated calcium carbonate @ 20 TPD as by product. The chemicals used in the process are quick lime, calcium carbonate and soap stone etc. The manufacturing processes of the industry are screening, pulping, washing, de-inking, dispersion, bleaching, machining/ paper making and packing. As per the record of Regional Office of PPCB, the consent to operate under the provisions of the Water Act, 1974 and the Air Act, 1981 have been granted upto 31/3/2021.

#### **3.2 About Effluent Treatment Plant**

For the manufacturing of the writing/ printing/ semi craft/ tissue paper, the industry uses 4050 m<sup>3</sup>/day. The quantity of effluent generated by the industry is 3900 m<sup>3</sup>/day. For the treatment of effluent of the industry, it has been installed an effluent treatment plant consisting of two primary clarifiers (**Plate-9**) in parallel, two aeration tanks in parallel (**Plate-10**) and one common secondary clarifier. The effluent is treated separately in each primary clarifier followed by each aeration tank and finally clarified in the common secondary clarifier.

Al



**Plate-9: Primary clarifier-1**



**Plate-10: Aeration Tank-1**

The industry has claimed that the primary treated effluent from these two primary clarifiers, about 1900 m<sup>3</sup>/day is recycled back into the process and rest of the quantity about 2000 m<sup>3</sup>/day is treated in the aerobic biological treatment system followed by secondary clarifier.

The quantity of treated effluent is about 2000 m<sup>3</sup>/day, which is discharged onto land for plantation on the land measuring 46 acres as per the record of regional office of Punjab Pollution Control Board.

### 3.3 Collection of effluent samples

The executive committee after visiting the industry, collected the effluent samples from various points and the analysis results of these effluent samples are mentioned in Table 3 as under:

**Table 3: Analysis results of effluent samples**

S.No.	Point of sample collection	Parameters(mg/l/except pH)						
		pH	TSS	TDS	BOD	COD	MLSS	MLVSS
1.	Inlet to ETP	6.7	1866	-	3300	8990	-	-
2.	Outlet of primary clarifier I	6.5	120	-	436	1430	-	-
3.	Outlet of primary clarifier II	6.6	1240	-	620	1860	-	-
4.	Aeration tank I	-	-	-	-	-	3970	2540
5.	Aeration tank II	-	-	-	-	-	4310	2670
6.	Outlet of ETP	7.4	89	4060	28	230	-	-
7.	Channel leading to plantation	7.4	224	5416	54	365	-	-



	area							
8.	Distribution channel inside Plantation area	6.6	232	5444	54	360	-	-

The analysis results are also enclosed as per Annexure-3

### 3.3.1 Discussion on the analysis results

The analysis results indicate that the values of TSS, BOD and COD at the inlet to the effluent treatment plant were observed as 1866 mg/l, 3300 mg/l and 8990 mg/l, respectively. The effluent is treated parallelly in two sets of primary clarifiers and two sets of aeration tanks and commonly settled in common secondary clarifier. At the outlet of primary clarifier-1, at the values of TSS, BOD and COD were observed as 120 mg/l, 436 mg/l and 1430 mg/l, respectively, resulting in treatment efficiency of primary clarifier in terms of removal of TSS, BOD and COD was observed as 93.6%, 86.8% and 84%, respectively.

It is mentioned here that as per analysis results, treatment efficiency of primary clarifier is very high (93.6%, 88.8% and 84% in terms of removal of TSS, BOD and COD) as compared to normal treatment efficiency of primary clarifier, which is as per literature, it may be 60-70%, 35-40% and 30-40% for TSS, BOD and COD removal. It means the industry has made some hidden mechanism to bring down the parameters to be easily treated in the aerobic biological treatment system.

Similarly, at the outlet of primary clarifier II, the values of TSS, BOD and COD were observed as 1240 mg/l, 620 mg/l and 1880 mg/l resulting in treatment efficiency in terms of removal of TSS, BOD and COD as 33.5%, 81.2% and 93.3%, respectively. The values and treatment efficiency indicate the primary clarifier II is not functioning properly to remove the TSS to the desired level.

### 3.4 Observations of the Committee

1. The treated effluent is discharged onto land for plantation. But during the visit, it was observed that effluent in the furrow maintained in the plantation area were full of partially treated wastewater. Some of the pockets of the plantation areas were found dry and no plantation was there. In some furrows, the effluent containing layer of sludge in the form of slurry was also seen, which indicate that the industry might have discharged its untreated/ partially treated effluent into the drain leading to the plantation area(**Plate-11 and Plate-12**).



**Plate-11: Effluent in the form of slurry in plantation area**



**Plate-12: Effluent in the form of slurry in plantation area**

2. The analysis results of the effluent samples collected from the distribution channel leading to plantation area indicate that the values of pH, BOD, COD, TSS and TDS were observed as 6.6-7.4 mg/l, 54 mg/l, 360-365 mg/l, 224-232 mg/l and 5416-5444 mg/l, respectively. The values of BOD, COD, TSS and TDS are higher than the permissible limits of BOD = 30 mg/l, COD = 350 mg/l, TSS = 50 mg/l and TDS = 2100 mg/l. The analysis results also prove that the industry discharges its partially treated effluent on to land for plantation. Moreover, no control mechanism has been provided to control TDS level.
  
3. Though, the industry has claimed that it recycles about 50% of the primary treated wastewater. But, no flow meters have been installed, which may indicate the quantity of effluent recycled in the process and the quantity of effluent taken into aeration tanks for aerobic biological treatment.

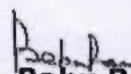
### **3.5 Recommendations**

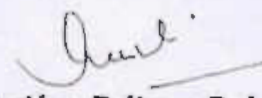
**Based on the observation and analysis results of effluent samples collected from primary clarifiers and plantation area, the following recommendations are made:**

- (i) Chairman, PPCB shall revoke the consent granted to the industry under the provision of the Water Act, 1974.
- (ii) Chairman, PPCB shall impose environmental compensation amounting to Rs. 50 lakhs on the industry and the said amount shall be utilized for rejuvenation of water quality of river Ghaggar.
- (iii) Chairman Punjab Pollution Board shall reduce 30% production capacity of the industry so that the quantity of effluent to be generated after reduction of the capacity may be treated effectively and efficiently in the existing treatment system and the various

parameters of the treated effluent must achieve the standards at all the times till the up gradation in the existing treatment system is made by the industry. Punjab Pollution Control Board shall seal the machinery of the industry to ensure 30% reduction in production capacity and install CCTV camera on this sealed machinery. The photograph of the sealed machinery and footage of the CCTV camera may be sent to Executive Committee. Executive Committee may visit the industry at any time to check as to whether the sealed machinery is intact or not.

- (iv) Chairman Punjab Pollution Control Board shall direct the industry to upgrade its effluent treatment plant within 3 months to treat whole of the effluent and to achieve all the parameters within the prescribed norms at all the times.
- (v) Chairman Punjab Pollution Control Board shall direct the industry to develop plantation area in such a way that no stagnation is occurred at any time and the treated wastewater is utilized uniformly for plantation properly.
- (vi) The industry shall distribute the treated effluent, conforming to the standards, in the plantation area through ridges and furrows in such a way that no stagnation is occurred at any time in any manner in the furrows of plantation area.
- (vii) There should be no dead pockets in the plantation area and the treated wastewater is utilized uniformly for plantation properly.
- (viii) The industry shall get conduct analysis of ground water and soil samples twice in a year to know the characteristics of underground water and soil because the regular application of treated effluent of the industry on plantation area may affect the quality of soil and underground water.

  
Dr. Babu Ram

  
Justice Pritam Pal,  
Former Judge Punjab and Haryana,  
High court

**POLLUTION CONTROL BOARD VATAVARAN BHAVAN,  
NABHA ROAD, PATIALA  
WATER ANALYSIS REPORT**



TC-7045

- |  |   |
|--|---|
| 1. Laboratory Sample No.                       | E- 337-340/ H.O.Lab. Monitoring/2018  |
| 2. ULR No.                                     | ULR-TC70451800000000984P  |
| 3. Name of Industry                            | M/s Vishal Coater Ltd, (Vishal Paper Ltd),<br>Village Khusopur, Maine Road, Patiala.          |
| 4. Name of Sample collecting Officer           | Er. S.S. Matharu, EE, Er. Lavneet Dubey, EE<br>Er. Jatinder Soni, AEE & Sh. Charan Singh, JSO |
| 5. Designation of the officer authorizing Test | Environmental Engineer, Regional Office, Patiala.   |
| 6. Type of Sample                              | Grab  |
| 7. Date & Time of Sample collection            | 28.5.2019   |
| 8. Date & Time of Sample receipt in Lab.       | 29.5.2019   |
| 9. Period of Analysis                          | 29.5.2019 to 04.06.2019   |
| 10. Test Methods                               | As per relevant parts of IS:3025 & Methods of APHA  |

**Results**

Sr. No.	Parameters	Primary Clarifier Inlet	Primary Clarifier Outlet	Aeration Tank-I	Aeration Tank-II
1	pH	6.80	6.87	-	-
2	Total Suspended Solids mg/l	250	238	-	-
3	Bio-chemical Oxygen Demand mg/l	520	505	-	-
4	Chemical Oxygen Demand mg/l	2050	2008	-	-
5	*Mixed Liquid Suspended Solids mg/l	-	-	3410	3880
6	*Mixed Liquid Volatile Suspended Solids mg/l	-	-	2280	2520

\* Not covered under scope of NABL

---End of Report---

*Sanjiv Kumar*  
06-06-19  
Analyzed by

*Manana* 6/6/19  
Scientific Officer

Endst. No: 17435-38

Dt. 6/6/2019

A copy of the above is forwarded to the:-

1. The Chairman Office of Executive committee, 5<sup>th</sup> tower, 4<sup>th</sup> floor, Forest Complex, Sector 68, Mohali.
2. The Member Secretary, Punjab Pollution Control Board, Patiala.
3. The Environment at Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur.
4. The Environment at Engineer, Punjab Pollution Control Board, Regional Office, Patiala.

*Asstt. Scientific Officer*  
6/6/19

**PUNJAB POLLUTION CONTROL BOARD**  
**Zonal Office Lab 3<sup>rd</sup> Floor Saivtri complex, Head office**  
**Dholewal chowk, Ludhiana RO Patiala**  
**DETAILS OF BE SUPPLIED FOR THE COLLECTION OF SAMPLE**

**PART-A**

1. Name & Address of the Industry *M/s Vishal Coates Ltd (Vishal paper Ltd.)  
Vidh. Khasraon, Main Road, Patiala.*
2. Raw material used *Waste paper*
3. i. Product *Writing and printing paper*  
 ) *Screening → Pulping → Dinking → Bleaching → Product*  
 ii. Processes involved
4. i. Give the name of the processes in operation at the time of sampling *All processes were in operation*  
 )  
 ii. The number of wastewater streams from different processes along with discharge of each. *Various streams from Vishal paper & its sister concern unit M/s Vishal Coates leading to ETP*
5. i. Quantity of industrial effluent discharge per hour (in liters)/m<sup>3</sup>/day. *41.3 m<sup>3</sup> hr*  
 ii. Is the discharge of industrial effluent continuous or intermittent and its intermittent, date & time of its discharges *Continuous*  
 iii. Is the quantity and quality of industrial effluent from different streams uniform through out or not. *Non-uniform*  
 iv. Present method of disposal of industrial effluent. *Onto land for plantation*
6. i. Working hours *24 hrs*  
 ii. Closed day *None*
7. Number of outlets through which industrial effluent is discharged/carried outside the industry. *One*
8. Name of the occupants/representative of the industry with designation present at the time of sampling. *Mr. Sanjoo Kumar (Director)*
9. Process not working at the time of sampling & why? *- None -*
10. Parameters to be analyzed. *Print of Sample Collection :-*  
*E-337 1. Primary Clarifier Inlet - PH, TSS, COD, BOD*
11. Sample preserved for (tick)  
 Organic parameter (freezer below 4°C) *E-338 2. Primary Clarifier Outlet - PH, TSS, COD, BOD*  
 ii. Metals (pH less than 2 with HNO<sub>3</sub>) *E-339 3. Aeration tank - 1 - MLSS / MLVSS*  
 iii. Cyanide (pH above 10 with NaOH) *E-340 4. Aeration tank - 2 - MLSS / MLVSS*  
 iv. Oil & grease (separate 1 Lt. sample glass bottles & freeze)  
 v. Others
12. Details visuals report of Water & Air

13. i. Name the components of the ETP which were working.

All were in operation

ii. If any component was not working why?

NA

14. Date & time of collecting the sample

20/5/2019 from 9:45 am to 10:30 am

15. Temperature in °C  
a) Air/Sample

16. Colour and odour of the sample

17. Type of sample collected grab or composite.

Grab

18. Point of sample collection

- 1. Primary Clarifier - 1
- 2. Primary Clarifier - 2
- 3. Aeration tank - 1
- 4. Aeration tank - 2

19. Remarks:-

Samples were collected in the presence of team of Executive Committee.

NOTE:-

The samples of trade effluent of M/s \_\_\_\_\_ from the point mentioned at Sr. No. 18 above was collected in the presence of Sh. \_\_\_\_\_ occupier \_\_\_\_\_ representative of the industry/placed in dry empty container after explaining the provisions of section 21 of the Water (Prevention & Control of Pollution) Act, 1974 to them. No request to send the sample to the State Water Laboratory under section 52 (i) if the said Act has been made by occupier/representative of the industry. The sample was stirred and placed in dry bottle/dry bottles and sealed \_\_\_\_\_ hearing inscription of AEE.

- 1) Ex. Lawrence Dubey, EE
- 2) Ex. C.S. Matharu, EE
- 3) Ex. Tatinder Sand, AEE
- 4) S. Chawan Singh, JCO
- 5) Sh. Sangeet Kumar (Director)

SANJEEV KUMAR (Director)  
Signature of the occupant/Representative of the Industry with Designation 9814127037

[Signature]  
Signature of the Officer collecting the sample

Received sealed/unsealed and preserved sample on \_\_\_\_\_ at \_\_\_\_\_ through Sh. \_\_\_\_\_

BOARD ANALYST  
Patiala

**PUNJAB POLLUTION CONTROL BOARD, NABHA ROAD, PATIALA**  
**FORM X**

**REPORT BY THE STATE BOARD ANALYST (SEE RULE 24)**

Report No. 17325  
Date: 06/06/2019

I, K. Jaspal Singh, State Board Analyst duly appointed under sub-section (3) of section 21 of the Punjab Pollution Control Board Act, 1974 (Central Act 6 of 1974) incurred on the 29<sup>th</sup> day of May 2019 to visit the Shri. Mahesh P. S. Industries of His Distal Paper Pvt. Ltd. Main Road, Patiala for analysis. The analysis was carried out at the analysis reported below.

I further certify that I have analysed the aforementioned samples from 29/05/2019 to 06/06/2019 and obtained the results of the analysis reported below.

The analysis has been made as per methods given in relevant parts of IS 3025, Indian Standard Methods and test for Pollution Control. The details of the analysis are as follows:-

Parameters	From Final Outlet	From Plantation Area near ETP	From Plantation Area near Patiala Nadi	From Plantation at the end towards Patiala Nadi	From Outlet leading to Plantation Area
TSS	7.85	7.88	6.91	7.84	7.87
Total Suspended Solids mg/l	15	47	224	76	41
Total Dissolved Solids mg/l	1126	1332	2970	1345	1324
Bio-chemical Oxygen Demand mg/l	24	24	480	32	24
Chemical Oxygen Demand mg/l	140	137	1900	192	138

Note: 1. All the results are in mg/l except pH.  
2. Empty sample was consumed in testing.

The condition of the seal, labeling, and container on receipt was as follows:-

Seal & Labeling of the container were found intact.  
Signed this 6<sup>th</sup> day of June, 2019.

Address:  
Punjab Pollution Control Board  
Nabha Road, Patiala

File No. 17325  
06/06/2019

(Signature) 06/06/19  
State Board Analyst

To:  
The Environmental Engineer,  
Punjab Pollution Control Board,  
Regional Office, Patiala

Dated:

File No. 17325

06/06/2019

A copy of the above is forwarded to the  
Sr. Environmental Engineer, Punjab Pollution Control Board, Zonal Office-I, Patiala

(Signature) 06/06/19  
State Board Analyst

**POLLUTION CONTROL BOARD VATAVARAN BHAVAN,  
NABHA ROAD, PATIALA  
WATER ANALYSIS REPORT**



TC-7045

- |  |   |
|--|---|
| 1. Laboratory Sample No.                       | E- 341-346/ H.O.Lab. Monitoring/2018  |
| 2. ULR No.                                     | ULR-TC70451800000000985P  |
| 3. Name of Industry                            | M/s Patiala Distillers & Manufactures ,<br>Village Maine, Patiala.                            |
| 4. Name of Sample collecting Officer           | Er. S.S. Matharu, EE, Er. Lavneet Dubey, EE<br>Er. Jatinder Soni, AEE & Sh. Charan Singh, JSO |
| 5. Designation of the officer authorizing Test | Environmental Engineer, Regional Office, Patiala.   |
| 6. Type of Sample                              | Grab  |
| 7. Date & Time of Sample collection            | 28.5.2019   |
| 8. Date & Time of Sample receipt in Lab.       | 29.5.2019   |
| 9. Period of Analysis                          | 29.5.2019 to 04.06.2019   |
| 10. Test Methods                               | As per relevant parts of IS:3025 & Methods of APHA  |

**Results**

Sr. No.	Parameters	Spent Wash	Aeration Tank-I	Aeration Tank-II	Outlet of Final UASB	Dilution Water	Outlet of Secondary Clarifier
1	pH	4.5	-	-	7.9	7.6	8.7
2	Total Suspended Solids mg/l	22900		-	6310	22	610
3	Bio-chemical Oxygen Demand mg/l	64500	-	-	1510	14	630
4	Chemical Oxygen Demand mg/l	1,54,400	-	-	13,000	110	4670
5	*Mixed Liquid Suspended Solids mg/l	-	41,200	11,370	-	-	-
6	*Mixed Liquid Volatile Suspended Solids mg/l	-	21,600	6820	-	-	-

\* Not covered under scope of NABL

---End of Report---

Analyzed by *Sonu Kumar*  
060619

*M. Sharma*  
6/6/19  
Scientific Officer

Endst. No: *17439-42*

Dt. *10/6/2019*

A copy of the above is forwarded to the:-

1. The Chairman Office of Executive committee, 5<sup>th</sup> tower, 4<sup>th</sup> floor, Forest Complex, Sector 68, Mohali.
2. The Member Secretary, Punjab Pollution Control Board, Patiala.
3. The Environment at Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur.
4. The Environment at Engineer, Punjab Pollution Control Board, Regional Office, Patiala

*Asst.*  
Asstt. Scientific Officer  
*6/6/2019*





**PUNJAB POLLUTION CONTROL BOARD**  
**Zonal Office Lab 3<sup>rd</sup> Floor Saivtri complex, Head office**  
**Dholewal Chowk, Ludhiana Ro Patiala**  
**DETAILS OF BE SUPPLIED FOR THE COLLECTION OF SAMPLE**

**\* PART-A**

1. Name & Address of the industry *M/s Patiala Distillers + Manufacturers  
Village Maive, Patiala*
2. Raw material used *Molasses, Grain*
3. i. Product *ENA DS @ 50 KLD, IMFL @ 9000 Capacity*  
 ii. Processes involved *Fermentation and Distillation*
4. i. Give the name of the processes in operation at the time of sampling *All in operation*  
 ii. The number of wastewater streams from different processes along with discharge of each. *1) Spent wash 2) Dilution water  
3) Bottle washing 4) Ro Reject*
5. i. Quantity of industrial effluent discharge per hour (in liters)/m<sup>3</sup>/day. *543 KLD/day Avg. (as per record)*  
 ii. Is the discharge of industrial effluent continuous on intermittent and it intermittent, date & time of its discharges *Continuous*  
 iii. Is the quantity and quality of industrial effluent from different streams uniform through out or not. *Almost uniform*  
 iv. Present method of disposal of industrial effluent. *Onto land for Plantation*
6. i. Working hours *24 hrs*  
 ii. Closed day *As and when required*
7. Number of outlets through which industrial effluent is discharged/carried outside the industry. *One*
8. Name of the occupants/representative of the industry with designation present at the time of sampling. *Mr. Naraaj Bansal (Deputy GM)*
9. Process not working at the time of sampling & why? *All in operation.*
10. Parameters to be analyzed. *1. Spent wash - PH, TSS, COD, BOD - E-341  
2. Aeration Tank I - MLSS, MLVSS - E-342*
11. Sample preserved for (tick)  
 i. Organic parameter (freezer below 4°C) *3. Aeration Tank II - MLSS, MLVSS E-343*  
 ii. Metals (pH less than 2 with HNO<sub>3</sub>) *4. Outlet of Final UASB - PH, TSS, COD, BOD E-344*  
 iii. Cyanide (pH above 10 with NaOH) *5. dilution water - PH, TSS, COD, BOD E-345*  
 iv. Oil & grease (separate 1 Lt. sample glass bottles & freeze) *6. Outlet of Secondary Clarifier - PH, TSS, COD, BOD E-346*  
 v. Others
12. Details visuals report of Water & Air

13. i. Name the components of the ETP which were working. *Collection Tank → Acid Base → Aeration Tank → Aeration I → Clarifier → Clarifier 2 → Air*
- ii. If any component was not working why? *Auto tank for Plantation*
14. Date & time of collecting the sample *NA*
15. Temperature In °C  
a) Air/Sample *28/5/19, 11:45 am to 12:30 am*
16. Colour and odour of the sample
17. Type of sample collected grab or composite. *Grab*
18. Point of sample collection *1) Spent wash 2) Aeration Tank I 3) Aeration Tank 2 4) Outlet of Final VASB 5) Outlet of Seconds Clarifier*
19. Remarks:-

*Samples collected in the presence of Executive team constituted by the NCR.*

NOTE:-

i. The samples of trade effluent of M/s \_\_\_\_\_ from the point mentioned at Sr. No. 18 above was collected in the presence of Sh. \_\_\_\_\_ occupier \_\_\_\_\_ representative of the industry/placed in dry empty container after explaining the provisions of section 21 of the Water (Prevention & Control of Pollution) Act, 1974 to them. No request to send the sample to the State Water Laboratory under section 52 (i) if the said Act has been made by occupier/representative of the industry. The sample was stirred and placed in dry bottle/dry bottles and sealed \_\_\_\_\_ hearing inscription of AEE.

- 1) *Sh. Chander Singh, JSD* 3) *Ev. Jagan Mohan, EE*
- 2) *Ev. Jagan Mohan Singh, AEE* 4) *Ev. S. S. Mathur, EE, PPCB*
- 5) *Ev. J. P. Singh, EE, PPCB*

Signature of the occupant/Representative of the Industry with Designation  
*(Sh. Neeraj Bawani)*

Signature of the Officer AEE official collecting the sample  
*(Jagan Mohan Singh)*

Received sealed/unsealed and preserved sample on \_\_\_\_\_ at \_\_\_\_\_ through Sh. \_\_\_\_\_

BOARD ANALYST  
Patiala

10-247

**PUNJAB POLLUTION CONTROL BOARD, NABHA ROAD, PATIALA**  
**FORM- X**

**REPORT BY THE STATE BOARD ANALYST (see Rule, 24)**

Report No.  
Date

I hereby certify that I, Meenu Sharma, State Board Analyst duly appointed under sub-section (3) of section 33 of the water (Prevention and Control of Pollution) Act, 1974 (Central Act 6 of 1974) received on the 29<sup>th</sup> day of May, 2019 from Sh. Balkishan, F.A. a sample of M/s Patiala distillers & Manufacturers, Village - Patiala for analysis. The sample was in a condition fit for analysis reported below.

I further certify that I have analysed the aforementioned sample from 29.05.2019 to 4.06.2019 and secure the results of the analysis reported below -

The analysis has been made as per methods given in relevant parts of I.S. 3025, India Standard Methods of sampling and test (Physical & Chemical) for water and waste water. The details of the analysis results are as follows.

Parameters	Final Outlet of ETP after mg/l 100x dilution water
pH	8.12
Total Suspended Solids mg/l	72
Chemical Oxygen Demand mg/l	830
Biochemical Oxygen Demand mg/l	88

- Note: 1) All the results are in mg/l except pH.  
 2) Entire sample was consumed in Testing.

The condition of the seals, fastenings and containers on receipt was as follows:-

Seals & fastenings of the containers were found intact.

Signed this 4<sup>th</sup> day of June, 2019

Address:-

Punjab Pollution Control Board  
 Vaswaran Shawan, Nabha Road,  
 Patiala

*M Sharma/4/6/19*  
 (Signature)  
 State Board Analyst

To

The Environmental Engineer,  
 Punjab Pollution Control Board  
 Regional Office, Patiala.

Authorisation Letter No

Dated

Edrsl No. / 7211/12

dt. 4-6-19

Copy of the above is forwarded to the

Sr. Environmental Engineer, Punjab Pollution Control Board, Zonal Office-I, Patiala.

*M Sharma/4/6/19*  
 (Signature)  
 State Board

Analyst

**POLLUTION CONTROL BOARD VATAVARAN BHAVAN,  
NABHA ROAD, PATIALA  
WATER ANALYSIS REPORT**



TC-7045

- |  |   |
|--|---|
| 1. Laboratory Sample No.                       | E- 347-351/ H.O.Lab. Monitoring/2018  |
| 2. ULR No.                                     | ULR-TC70451800000000986P  |
| 3. Name of Industry                            | M/s DSG Paper Pvt. Ltd, Village Bhanra, Patiala.  |
| 4. Name of Sample collecting Officer           | Er. S.S. Matharu, EE, Er. Lavneet Dubey, EE<br>Er. Jatinder Soni, AEE & Sh. Charan Singh, JSO |
| 5. Designation of the officer authorizing Test | Environmental Engineer, Regional Office, Patiala.   |
| 6. Type of Sample                              | Grab  |
| 7. Date & Time of Sample collection            | 28.5.2019   |
| 8. Date & Time of Sample receipt in Lab.       | 29.5.2019   |
| 9. Period of Analysis                          | 29.5.2019 to 04.06.2019   |
| 10. Test Methods                               | As per relevant parts of IS:3025 & Methods of APHA  |

**Results**

Sr. No.	Parameters	Inlet to ETP	Outlet of Primary Clarifier-I	Outlet of Primary Clarifier-II	Aeration Tank-I	Aeration Tank-II
1	pH	6.7	6.5	6.6	-	-
2	Total Suspended Solids mg/l	1866	120	1240	-	-
3	Bio-chemical Oxygen Demand mg/l	3300	436	620	-	-
4	Chemical Oxygen Demand mg/l	8990	1430	1860	-	-
5	*Mixed Liquid Suspended Solids mg/l	-	-	-	3970	4310
6	*Mixed Liquid Volatile Suspended Solids mg/l	-	-	-	2540	2670

\* Not covered under scope of NABL

---End of Report---

Analyzed by *Sannikumar* 06-06-19

Monara/6/6/19  
Scientific Officer

Endst. No: 17443-46

Dt. 10/6/2019

A copy of the above is forwarded to the:-

1. The Chairman Office of Executive committee, 5<sup>th</sup> tower, 4<sup>th</sup> floor, Forest Complex, Sector 68, Mohali.
2. The Member Secretary, Punjab Pollution Control Board, Patiala.
3. The Environment at Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur.
4. The Environment at Engineer, Punjab Pollution Control Board, Regional Office, Patiala

*Asst.*  
Asstt. Scientific Officer  
6/6/2019

PUNJAB POLLUTION CONTROL BOARD

Zonal Office Lab 3<sup>rd</sup> Floor Saivtri complex, Head office  
Dholewal chowk, Ludhiana RO Patiala

DETAILS OF BE SUPPLIED FOR THE COLLECTION OF SAMPLE

PART-A

1. Name & Address of the Industry *M/s DSG Paper Pvt- Ltd  
2111, Bhawra, Patiala*
2. Raw material used *Waste paper*
3. i. Product *Writing + Printing paper, Tissue paper, Porter paper, MG Board etc.*  
ii. Processes involved *Screening, Pulping, washing, Bleaching*
4. i. Give the name of the processes in operation at the time of sampling *All were in operation*  
ii. The number of wastewater streams from different processes along with discharge of each. *Various streams leading to one main line connected to ETP*
5. i. Quantity of industrial effluent discharge per hour (in liters)/m<sup>3</sup>/day. *37.1 m<sup>3</sup>/hr*  
ii. Is the discharge of industrial effluent continuous or intermittent and if intermittent, date & time of its discharges *Continuous*  
iii. Is the quantity and quality of industrial effluent from different streams uniform through out or not. *Non-uniform*  
iv. Present method of disposal of industrial effluent. *Onto land for plantation*
6. i. Working hours *24 hrs*  
ii. Closed day *As and when required*
7. Number of outlets through which industrial effluent is discharged/carried outside the industry. *One*
8. Name of the occupants/representative of the industry with designation present at the time of sampling. *Sh. Vikas Singhal - DGM (Maintenance)*
9. Process not working at the time of sampling & why? *None*
10. Parameters to be analyzed. *1. Inlet to ETP - PH, TSS, COD, BOD E-347*
11. Sample preserved for (tick)  
i. Organic parameter (freezer below 4°C) *2. Outlet of Primary Clarifier - I - PH, TSS, COD, BOD E-348*  
ii. Metals (pH less than 2 with HNO<sub>3</sub>) *3. Outlet of Primary Clarifier - II - PH, TSS, COD, BOD E-349*  
iii. Cyanide (pH above 10 with NaOH)  
iv. Oil & grease (separate 1 Lt. sample glass bottles & freeze) *4. Aeration Tank - I - MLSS/MLVSS E-350*  
v. Others *5. Aeration Tank - II - MLSS/MLVSS E-351*
12. Details visuals report of Water & Air

13. i. Name the components of the ETP which were working. All in Operation
- ii. If any component was not working why? None
14. Date & time of collecting the sample 25/5/19 3:30 pm to 4:15 pm
15. Temperature in °C  
a) Air/Sample 40°C / 32°C
16. Colour and odour of the sample
17. Type of sample collected grab or composite. Grab
18. Point of sample collection  
1) Inlet to ETP 2) Outlet of Primary Clarifier - I  
3) Outlet of Primary Clarifier II 4) Aeration Tank - I  
5) Aeration Tank - II
19. Remarks:-

Samples collected in the presence of Executive Committee constituted under directions of N.G.T.

NOTE:-

The samples of trade effluent of M/s \_\_\_\_\_ from the point mentioned at Sr. No. 18 above was collected in the presence of Sh. \_\_\_\_\_ occupier \_\_\_\_\_ representative of the industry/placed in dry empty container after explaining the provisions of section 21 of the Water (Prevention & Control of Pollution) Act, 1974 to them. No request to send the sample to the State Water Laboratory under section 52 (i) if the said Act has been made by occupier/representative of the industry. The sample was stirred and placed in dry bottle/dry bottles and sealed \_\_\_\_\_ hearing inscription of AEE.

- 1) S. Chand Singh, JCO 3) En. Laxmeeta Dubey, EE
- 2) En. Jafarulla, Smt. AFA 4) En. S.S. Matharu, EE
- 5) Sh. Vikas Singh, DGM

[Signature]  
25/5/19  
Signature of the occupant/Representative of the Industry with Designation

[Signature]  
25/5/19  
Signature of the Officer official collecting the sample

Received sealed/unsealed and preserved sample on \_\_\_\_\_ at \_\_\_\_\_ through Sh. \_\_\_\_\_

BOARD ANALYST  
Patiala

**PUNJAB POLLUTION CONTROL BOARD, NABHA ROAD, PATIALA**  
**FORM- X**

REPORT BY THE STATE BOARD ANALYST (see Rule, 24)

Report No. 04  
 Dated 4.6.2019

I hereby certify that I, Sorinder Singh, State Board Analyst duly appointed under sub-section (3) of section 50 of the water (Prevention and Control of Pollution) Act, 1974 (Central Act 6 of 1974) received on the 29<sup>th</sup> day of May, 2019 from Sh. Balkishan, F A, a sample of M/s DSG Paper Pvt Ltd, Village Bhanra, Patiala for analysis. The sample was in a condition fit for analysis reported below.

I further certify that I have analysed the aforementioned sample from 29.05.2019 to 4.06.2019 and declare the results of the analysis reported below:-

The analysis has been made as per methods given in relevant parts of I.S. 3025, Indian Standard Methods of sampling and test (Physical & Chemical) for water and waste water. The details of the analysis results are as follows:

Parameters	Final Outlet of ETP	From Channel leading to plantation area	From distribution channel inside plantation area
pH	7.4	7.4	6.8
Total Suspended Solids mg/l	89	224	232
Total Dissolved Solids mg/l	4060	5416	5444
Chemical Oxygen Demand mg/l	230	365	360
Bio-chemical Oxygen Demand mg/l	28	54	54

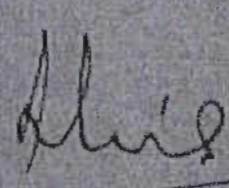
- Notes: 1) All the results are in mg/l except pH.  
 2) Entire sample consumed in Testing.

The condition of the seals, fastenings and containers on receipt was as follows:-

Seals & fastenings of the containers were found intact  
 Signed this 4<sup>th</sup> day of June, 2019.

Address:-

Punjab Pollution Control Board  
 Vatavaran Bhawan, Nabha Road,  
 Patiala



(Signature)  
 State Board Analyst

To

The Environmental Engineer,  
 Punjab Pollution Control Board  
 Regional Office, Patiala

no 17305  
 6/6/2019



Authorisation Letter No.

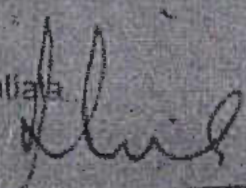
Dated

Encl No. 17306

dt 6/6/2019

copy of the above is forwarded to the

Sr. Environmental Engineer, Punjab Pollution Control Board, Zonal Office-I, Patiala



(Signature)  
 State Board Analyst



# ANNEXURE - 4

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)

The following were present during the visit:-

Sr. No.	Name and Designation
1.	Dr. Babu Ram, Former Member Secretary, PPCB now as Member of the Executive Committee
2.	Ms. Kanwaldeep Kaur, Assistant Environment Engineer, Punjab Pollution Control Board, SAS Nagar

## 1.0 Visit to the STP, Zirakpur:

Zirakpur, is one of the towns falling in the catchment area of river Ghaggar. Therefore, for the treatment of sewage of the town, Punjab Water Supply and Sewerage Board installed STP based on Sequencing Batch Reactor (SBR) Technology in the year 2013. STP Zirakpur was visited by the team as mentioned above on 25.5.2019 and the report is submitted as under:

The treatment capacity of STP is about 17.3 MLD. The components of the STP are as under: -

1. Collection tank for receiving raw sewage
2. Screen chamber
3. Grit chamber
4. Selector Zone
5. SBR System (Two tanks in series)
6. Chlorine dosing tank
7. Final disposal into sewer

During visit, it was observed that the STP was in operation. However, some other observations relating to the operation of STP are mentioned as under:

## 2.0 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**

But

3. No chlorination 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**

### **3.0 Recommendations:**

**In view of the above observations, it is recommended as under:**


- 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

*Barh*

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.

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

  
(Dr. Babu Ram)  
Member,  
Executive Committee

**Chairman, Executive Committee**

**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, 4<sup>th</sup> Floor, Forest Complex,  
Sector 68, SAS Nagar) Tel. No. 0172-2298091

Email: cecghaggar@gmail.com

To

1. The Deputy Commissioner, Hisar
2. The Deputy Commissioner, Jind
3. The Deputy Commissioner, Kaithal
4. The Commissioner, Municipal Corporation, Hisar

No. CEC/2019/

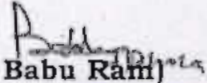
Dated: 3.7.2019

**Subject:** Minutes of the meeting held under the Chairmanship of Justice Pritam Pal, Former Judge Punjab and Haryana High court and now as Chairman of the Executive committee constituted by the Hon'ble National Green Tribunal in OA No. 138/2016 and 139/2016 in the matter of Stench grips Mansa's sacred river Ghaggar with the District level special task force of District Hisar, Jind and Kaithal on 7-6-2019 at 2:00 PM in the committee room of Mini-Secretariat, Hisar

\*\*\*\*

It is intimated that Justice Pritam Pal, former Judge, Punjab & Haryana High Court and now as Chairman, Executive Committee constituted by the Hon'ble National Green Tribunal in OA No. 138 and 139 of 2016 in the matter of Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto case) and Yogender Kumar held meeting with the District Level officers of District, Hisar, Jind and Kaithal on 7.6.2019 in the committee room of Mini-Secretariat, Hisar. The minutes of the meeting have been prepared and the same are enclosed herewith.

It is requested that the necessary action on the decisions taken by the Chairman of the Executive Committee may be taken and action taken report be submitted to the Committee within 15 days.

  
(Dr. Babu Ram)

Member,  
Executive Committee


Endst. No. CEC/2019/

Dated: 3.7.2019

A copy of the above alongwith copy of the minutes of the meeting is forwarded to the following for information and necessary action please: -

1. The Additional Chief Secretary to Government of Haryana, Department of Environment and Climate change, Haryana Civil Secretariat, Sector 1, Chandigarh- 160001
2. The Director General, Urban Local Bodies, Haryana, Bays 11-14, Sector 4, Panchkula, Haryana 134112
3. Chairman, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula, Haryana 134109.
4. The Engineering-in-Chief, Public Health Engineering Department, Haryana, Bay No. 13-18, Sector 4, Panchkula, 134112.

DA/ As above

  
(Dr. Babu Ram) 3/7/2019  
Member,

Executive Committee

Minutes of the meeting held under the Chairmanship of Justice Pritam Pal, Former Judge Punjab and Haryana High court and now as Chairman of the Executive committee constituted by the Hon'ble National Green Tribunal in OA No. 138/2016 and 139/2016 in the matter of Stench grips Mansa's sacred river Ghaggar with the District level special task force of District Hisar, Jind and Kaithal on 7-6-2019 at 2:00 Pm in the committee room of Mini-Secretariat, Hisar

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

At the outset, Deputy Commissioner Hisar Welcomed the Chairman of the Executive Committee and other District level officers and thereafter, Chairman of the Executive Committee apprised that the Hon'ble National Green Tribunal in OA No. 138/2016 and 139/2016 in the matter of Stench grips Mansa's sacred river Ghaggar vide order dated by 7-8-2018 has constituted District level special task force comprising of District magistrate, Superintendent of police, regional officer of the State Pollution Control Board in the concern 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 District STF has to identify persons responsible for violation of law so that action can be taken. Executive Committee may consider that the Govt. of Haryana must have constituted District level task forces. Now these District Level Task forces are to hold meeting with the District level officers to review the progress with regard to steps taken to control pollution in river Ghaggar and make field visits so to identify the culprits responsible for polluting the river Ghaggar and action to be taken against the culprits.

Thereafter, point wise agenda for the meeting was taken for discussion.

**A. Deputy Commissioner, Hisar**

**(i) Inspection by DSTF**

It was apprised that District Level Special Task Force (DSTF) has been constituted in the District. DSTF has inspected and collected samples of all the 9 STPs falling under the jurisdiction of District Hisar, of which 2 STPs of capacity of 5MLD and 7 MLD were found non-performing and accordingly, prosecution proceedings have been initiated against the officers responsible for operation of these STPs.

Re

**(ii) Construction of STPs/CETPs/Laying of sewers**

It was informed that 9 STPs exist in District Hisar. No CETP exists or under planning in jurisdiction of District. Plan for laying of sewerage system in the approved colonies along river Ghaggar has been prepared.

**(iii) Progress Solid Waste / Hazardous waste/BMW management**

It was apprised that the, hazardous wastes and biomedical wastes are sent to the common hazardous waste disposal site and common biomedical waste management facilities. For the management of the solid waste, action plan has been prepared and the same is being implemented at the State level.

**(iv) Flow meters at inlet/outlet of STPs**

It was apprised that flow meters have already been installed at the outlet of all the 9 STPs but flow meters at the inlet of the STPs have been installed only at 5 STPs. The remaining STPs shall also be provided with flow meters at their inlets within one month

**(v) Arrangements for uninterrupted operation of STP during maintenance.**

In order to operate STPs regularly without any interruption, DG sets have been installed at all the STPs. However, no separate storage capacity of sewage has been provided during non-functioning of STPs.

**(vi) Interception of Sewage.**

It was informed that unsewered areas of unproved colonies of District Hisar, shall be provided with sewerage systems as per the activities mentioned in the action plan.

It was further apprised that the sewage has to be intercepted and put into the nearest sewerage network so as to treat it in the nearest STPs and no sewage should be discharged into drains without any treatment. The four points of Cheeka and Kaithal have

to be intercepted with main sewerage system and the same shall be completed by 30-6-2019.

**(vii) Greenery Development**

Chairman of the Executive Committee desired that enough plantation must be made on the suitable location as part of Green development to improve the quality of environment. The Green development camps must be organized from time to time.

**(viii) Ground Water Management**

Regarding ground water management, it was apprised that the concern regional office of HSPCB shall be asked to identify the industries/processing units, which have not taken permission for abstraction of ground water. These industries shall be directed to get NOC from CGWA.

**(ix) Health Camps**

It was informed that 36 health checkup camps have been organized in the District. The Chairman of the Executive Committee desired that District level task force shall visit the STPs/industries to check whether these STPs are operated regularly and strict vigil must be kept on the operation of the effluent treatment plants. Strict action under the provisions of the Water Act 1974 must be recommended to HSPCB against the defaulting industries/custodian of STP's.

**B. Deputy Commissioner, Kaithal**

Deputy Commissioner Kaithal apprised the Executive Committee that in the District Kaithal, District Level Special Task Force has been constituted and monthly meeting are being held as per the directions of the Hon'ble NGT to review the progress regarding installation of STP's, operations of STP's, monitoring of the drains and ground water. He further informed that as per the agenda, the following activities have been carried out by the DSTF.

**(i) Inspection by DSTF**

In District Kaithal, there are 28 industries but none of them is water polluting. For treatment of sewage of the towns, 7 STP's have been installed and their regular monitoring is being carried out.

**(ii) Construction of STPs/CETPs/laying of sewers:**

It was informed that work of up-gradation of 10 MLD STP in Guhla Cheeka town is in progress. 5% work has been completed and 3200m Sewer line has been completed.

**(iii) Progress solid waste/ Hazardous waste/BMW management**

For the management of Solid Waste, activities are being carried out as per Action Plan prepared by the State of Haryana. Municipal Council Kaithal has issued 85 challans to the violators. For the management of the Hazardous Waste, common Hazardous Waste Management site has been developed in the State.

For the management of the Biomedical Waste, there are 204 health care facilities and these HCFs are sending their biomedical waste to the common biomedical waste treatment facility.

**(iv) Flow meters at inlet/outlet of STPs**

It was informed that flow meters at outlet have been installed and flow meters at inlet and bypass will be installed up to 30-6-2019. DNIT for flow meter at inlet and bypass of STP is in process.

**(v) Arrangement for uninterrupted operation of STP during maintain**

It was informed that the land for holding tanks is not available. As and when the land is arranged, the work will be taken in hand.

Bad

**(vi) Interception of Sewage**

It was informed that the sewage of approved areas has been connected to sewerage system.

**(vii) Greenery Development**

It was informed that efforts shall be made to develop greenery in the area so as to improve the quality of the environment.

**(viii) Ground water management**

It was informed that there is no water consuming industries in the District Kaithal. As such, no NOC is required by any industry to abstract underground water.



The Chairman of the Executive Committee desired that the District Authorities must take steps for crop diversification and maize crop should be encouraged instead of paddy crop so as to reduce the consumption of water.

**(ix) Health camps**

18 health checkup camps have been organized in District, Kaithal and 704 patients have been diagnosed but no water borne disease has been found in any of the patients.

**C. Deputy Commissioner Jind**

Deputy Commissioner Jind apprised the Executive Committee that in the District Jind, District Level Special Task Force has been constituted and monthly meeting are being held as per the directions of the Hon'ble NGT to review the progress regarding installation of STP's, operations of STP's, monitoring of the drains and ground water. He further informed that as per the agenda, the following activities have been carried out by the DSTF.

- (i)** In District Jind, 9 STP's have been installed by the Public Health Engineering Department. These STP's are located in Jind, Nirvana, Uchana, Safidon and Julana. The total capacity of these STP's is 46.35 MLD. The monitoring of these STP's is being carried out from time to time.
- (ii)** One STP of capacity 7 MLD is under construction and shall be commissioned by 30.11.2019.
- (iii)** The Hazardous waste generating industries are sending their waste to the common hazardous waste disposal facility.
- (iv)** Flow meters have been installed at the outlet of the STP's but no flow meter have been installed at inlet of these STP's and there is proposal to install the same within the firm time schedule.
- (v)** Regarding inception of sewerage system, the matter shall be taken up with the urban local bodies/ Public Health Engineering Departments to provide Sewerage Facility to cover all the localities of the town.
- (vi)** With regard to ground water development, it was suggested that in order to save the water which is maximally consumed during paddy sowing season, there should be diversification of crops. D.C. Jind apprised that in District Jind, there is proposal to give subsidy amounting to Rs.2000 to the farmers for sowing maize and the seeds for the same shall be provided free of cost. In order to

Ad

encourage the system of crop diversification, the panchayat land shall be given on lease to those farmers who shall sow maize crop only. Paddy crop shall not be allowed to be sown in Panchayat Land.

Thereafter Sh. Gautam Sardana, Mayor of Municipal Corporation, Hisar, who was specially invited in the meeting, was apprised by the Chairman of the Executive Committee that his intervention is required for effective management of Municipal Solid Waste, cleanliness of the city and early laying of sewage network in the unsewered areas. He was therefore requested that concerned officers of Municipal corporation Hisar may be directed to carry out the said activities timely.

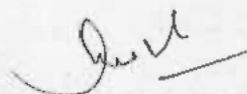
**After detailed deliberation, the Chairman of the Executive Committee decided as under:**

1. District Level Special Task Force (DLSTF) Hisar, Jind and Kaithal shall hold monthly meetings to review the progress with regard to installation of STP's, monitoring of existing STP's, monitoring of ETP's of the industries, monitoring the progress regarding installation of sewerage system covering all the localities of the towns. Inspection of STP's and ETP's shall also be carried out to check their performance and ensure that no treated/untreated effluent is discharged into drains leading to river Ghaggar. The strict action against the violators should be recommended to the concerned authorities.
2. DLSTFs shall involve the Civil Society to motivate the people to keep the drains/rivers clean and not to throw any waste in these water bodies.
3. All the departments like Public Health Engineering Department, Urban Local Bodies, Department of Forest, Department of Agriculture and Pollution Control Board shall work in tandem with common objective to rejuvenate the quality of river Ghaggar.
4. DLSTF shall involve civil society and elected persons to get remove the solid waste accumulated along roads/streets to make the town pollution free. This should be done in a mission mode.
5. The quality of water of drains/river Ghaggar water should be analyzed from time to time.
6. The departments should make arrangements in advance for all the project activities to avoid delay during election code of conduct due to coming assembly election. HSPCB shall take up the issue with the State Govt. through Chief Secretary Haryana.

7. The Commissioner, Municipal Corporation Hisar shall issue necessary directions to the concern officers of the corporation for effective management of municipal solid waste, cleanliness of the city and early laying of sewerage network in the unsewered areas of the Hisar town.

  
Dr. Babu Ram 20/6/2019

Submitted for approval to conveying  
the same to the concerned officers.

  
Justice Pritam Pal, Former Judge,  
Punjab & Haryana High Court,  
Chairman Executive Committee

# ANNEXURE-6

**Report on visit to M/s Molson Coors India (P) Ltd. village Mohangram, Tehsil Derabassi, District SAS Nagar on 14.6.2019 by the Executive Committee constituted by Hon'ble National Green Tribunal in OA no. 138 and 139 of 2016 in the matter of Stretch Grips Mansa's Ghaggar river (Suo Moto case) and Yogender Kumar.**

The following were present during the visit:

## **A) Members of the Executive Committee**

<b>Sr. no.</b>	<b>Name and Designation</b>	<b>Designation in the Committee</b>
1.	Justice Pritam Pal, Former Judge, Punjab & Haryana High Court	Chairman
2.	Dr. Babu Ram, Former Member Secretary, PPCB	Member

## **B) Officers of Punjab Pollution Control Board**

<b>Sr. no.</b>	<b>Name and Designation</b>
1.	Er. Ashok Sharma, Environmental Engineer, PPCB
2.	Er. Kanwaldeep Kaur, Asstt. Environmental Engineer, PPCB

## **C) Representatives of the Industry**

<b>Sr. no.</b>	<b>Name and Designation</b>
1.	Sh. Gurpreet Singh Johri, General manager
2.	Sh. Vikrant Sabmiller, Manager

## **1.0 Background**

### **About M/s Molson Coors India (P) Ltd.**

The industry, a large scale unit, engaged in the manufacturing of beer by using malt, broken rice, sugar, hops, yeast etc. as raw materials. The manufacturing processes of the industry are Malt Milling → Cereal Cooker → Mashing → Mash Filter → Wort Kettle → Whirl Pool → Plate Heat Exchanger → Beer Filter → Beer Polisher → Carbonator → Beer Filling → Pasteuriser → Packing. For the manufacturing of Beer, the industry uses water about 600 m<sup>3</sup>/day, of which about 275 m<sup>3</sup>/day is generated as an effluent by the industry.

### **2.0 About Effluent Treatment Plant (ETP)**

For the treatment of effluent of the industry, the industry has installed an effluent treatment plant consisting of equalization tank, primary clarifier, UASB, plate settler, aeration tank, secondary clarifier, RO system and blending

tank. During visit, it was observed that the effluent was being taken firstly into primary clarifier and thereafter into equalization tank, whereas the effluent should have been firstly passed through the equalization tank then to primary clarifier. Probably, the reasons for floating of scum on the top surface of the effluent in the equalization tank may be due to wrong geometry of the treatment system.

## 2.1 Collection of effluent samples

The Executive Committee after visiting the various components of effluent treatment plant, collected the effluent samples from various points and these samples were got analysed from PPCB and HSPCB laboratories. The analysis results of both these laboratories are annexed as per **Annexures-1 & 2**.

**Table-1: Analysis results of effluent samples analysed by PPCB lab.**

Point of sample collection	Parameters (mg/l except pH)							
	pH	TSS	TDS	COD	BOD	SAR	MLSS	MLVSS
Raw effluent collection tank(inlet)	4.2	1920	1942	10324	4200	12.1	--	--
Equalization Tank	5.2	2230	3752	4412	1560	14.8	--	--
Primary Clarifier	6.7	1530	3524	4156	1450	20.4	--	--
Outlet of UASBR	7.0	705	3828	1008	380	16.9	--	--
Aeration tank	-	--	--	--	--	--	8950	6710
Secondary Clarifier outlet	8.3	26	3768	57	14	20.2	--	--
Blending tank(Final)	8.4	23	1380	23	6	11.9	--	--
From plantation area	8.7	64	2490	58	14	20.9	--	--

**Table-2: Analysis results of effluent samples analysed by HSPCB lab.**

Point of sample collection	Parameters (mg/l except pH)							
	pH	TSS	TDS	COD	BOD	SAR	MLSS	MLVSS
Raw effluent collection tank(inlet)	4.23	1860	3812	8360	2850	14.79	--	--
Equalization Tank	5.16	2400	4208	5048	1625	14.47	--	--
Primary Clarifier	6.43	1324	4688	4840	1375	19.17	--	--
Outlet of UASBR	7.05	700	3012	1220	315	17.62	--	--
Aeration tank	--	--	--	--	--	--	--	--
Secondary Clarifier outlet	8.21	21	3212	91.2	15	31.30	--	--
Blending tank(Final)	8.38	81	1516	96	19.5	13.76	--	--
From plantation area	8.80	58	2264	56.8	10.5	20.11	--	--

### 2.1.1 Discussion on the analysis results

The analysis of the various parameters has been carried out PPCB & HSPCB Laboratories. The analysis results of raw effluent (untreated effluent) of both the laboratories indicate that the values of TSS, TDS, COD, BOD and SAR were observed to be varied between 1860-1920 mg/l, 1942-3812 mg/l, 8360-10324

mg/l, 2850-4200 mg/l and 12.1-14.89, respectively. At the outlet of the primary clarifier, the values of these parameters were observed to be varied between 1324-1530 mg/l, 3524-4688 mg/l, 4156-4840 mg/l, 1375-1450 mg/l and 19.17-20.4, respectively. The treatment efficiency of primary clarifier in terms of removal of TSS, COD and BOD was determined as 20.3-28.8 %, 42.1-59.7-% and 51.7-65.5%, respectively. The values of parameters namely TSS, TDS, COD, BOD and SAR at the outlet of the UASB have been found as 700-705 mg/l, 3012-3828 mg/l, 1008-1220 mg/l, 315-380 mg/l and 16.9-17.62, respectively. The treatment efficiency in terms of removal of TSS, COD, BOD has been observed as 53.9-62.3%, 75.7-85.4% and 73.8-88.9%, which are the same as expected from such treatment system. The values of MLSS and MLVSS have been observed as 8950 mg/l and 6750 mg/l, respectively, which are quite high and such high level of bio mass in the aeration tank decrease the treatment efficiency of aeration tank followed by secondary clarifier. However, the concentration of various parameters like TSS, COD, BOD, SAR and TDS at the outlet of the secondary clarifier was observed to be 21-26 mg/l, 57-91.2 mg/l, 14-15 mg/l, 20.2-31.3 and 3212-3768 mg/l.

Though the values of TSS, COD, BOD and SAR at the outlet of the secondary clarifier were within the permissible limits (TSS is 21-26 mg/l against 100 mg/l, COD is 57-91.2 mg/l against the permissible limits 250 and BOD is 14-15 mg/l against 30 mg/l but the value of TDS has not been reduced to the level of 2100 mg/l against the observed value of 3212-3768 mg/l.

Thereafter, after secondary clarifier, the industry has installed RO system followed by MEE and permeate of the RO system is taken into the blending tank where most of the part of treated effluent after secondary clarifier are mixed to get the values of parameters as TSS = 23-81 mg/l , TDS = 1380-1516 mg/l, COD = 23-96 mg/l, BOD = 6-19.5 mg/l and SAR = 11.9-13.76, whereas the values of these parameters in the effluent samples collected from plantation area were observed as 58-64 mg/l, 2264-2490 mg/l, 56.8-58 mg/l, 10.5-14 mg/l and 20.1-20.9. The value of TDS has been observed as 2264-2490 mg/l against permissible limits of 2100 mg/l. These facts indicate that the industry does not operate its RO plant regularly as per its capacity to get appropriate quantity of RO permeate so that after mixing of both the streams i.e. treated effluent after secondary clarifier and RO permeate, the value of TDS shall always within the permissible limits of 2100 mg/l.

### 3.0 Observations of the Committee

- 1) Lot of scum was observed in the equalization tank(**Plate-1**), which defeat the purpose of equalizing the effluent in the equalization tank. The industry needs to correct the geometry of the unit system by channelizing the effluent from equalization tank to primary clarifier instead of routing the effluent from primary clarifier to equalization tank.



**Plate-1 : Lot of scum in the equalization tank**

- 2) The values of MLSS and MLVSS in the aeration tank are abnormally high as compared to the required values to be maintained in the aeration tank. The high value of MLSS and MLVSS not only affect the bio kinetic parameters but also decreases the treatment efficiency of the aeration tank followed by secondary clarifier. The industry needs to maintain the value of MLVSS varying between 2500-3000 mg/l, whereas the MLSS may vary between 3200-4000 mg/l. **Plate-2** shows the functioning of aeration tank.



**Plate-2 :Aeration Tank**

- 3) The industry is discharging its treated effluent containing high value of TDS varied between 2264-2400 mg/l. It indicates that the industry is not operating its RO system regularly to get appropriate quantity of RO permeate so that after mixing of treated effluent and RO permeate , the desired value of TDS below 2100 mg/l may be ascertained.
- 4) Though the industry has claimed that the treated effluent after blending with permeate of RO system is utilized for irrigation purposes but very little (about negligible) quantity of treated waste water was found discharged into plantation area (**Plate-3**). Some plantation areas, were found dry (**Plate-4**). The official of PPCB collected the effluent sample from plantation area, the photograph of which is mentioned as per (**Plate-5**)



**Plate-3 : Very small quantity of treated wastewater found discharged into plantation area**



**Plate-4 :Dry plantation area (without application of blended water)**

Bel





**Plate-5 : Effluent sample being collected from plantation area.**

5. Sludge drying beds were found filled with sludge. It indicate that the industry has not removed sludge from sludge drying beds from the last so many days **(Plate-6)**.



**Plate-6 : Sludge Drying Beds full of sludge**

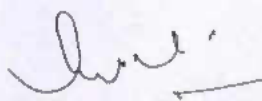
#### **4.0 Recommendations :**

1. The industry should channelize its effluent from equalization tank to primary clarifier instead of carrying effluent from primary clarifier to equalization tank, which is principally wrong.
2. The industry should maintain required concentration of MLSS and MLVSS in the aeration tank so as to get the required values of kinetic parameter and increase the efficiency of the aerobic biological treatment system.

3. Chairman, PPCB shall get an environment compensation amounting to Rs. 25 Lakh from the industry and said amount shall be utilized for rejuvenation of environment damage caused due to excess concentration of TDS.
4. In order to ensure the value of TDS parameter always below the permissible limits (2100 mg/l), the industry needs to operate RO system regularly at its optimum capacity to get appropriate quantity of RO permeates so that after mixing of R.O permeate and rest of the treated wastewater (without R.O system), the value of TDS is always below the permissible limits of 2100 mg/l. Also, the industry shall provide flow meter at the inlet, outlet of RO system and at the outlet of the blending tank before discharge of final blended effluent into plantation area.
5. The industry shall maintain proper distribution system network for disposal of final effluent in the plantation area and shall also ensure that no dead pocket is there in the plantation area. There should be uniform application of treated effluent in the plantation area and no stagnation of effluent is there in the plantation area.

Bal

  
**Dr. Babu Ram,**  
**Member Executive Committee**

  
**Justice Pritam Pal**  
**Former Judge,**  
**Punjab and Haryana High Court,**  
**Chairman of the Executive**  
**Committee**

\*\*\*\*\*

# Annexure - 1

PUNJAB POLLUTION CONTROL BOARD VATAVARAN BHAVAN,  
NABHA ROAD, PATIALA  
WATER ANALYSIS REPORT

(1) - (2)

- |  |   |
|--|---|
| 1. Laboratory Sample No.                   | E 473-480/ H.O.Lab. Monitoring/2019   |
| 2. U.I.R No.                               | TC704518000000001067P   |
| 3. Name of Industry                        | M/s Molson Coors India Pvt. Ltd. Village<br>Bhankarpur Derabassi, Distt SAS Nagar |
| 4. Name of Sample collecting Officer       | Er. Kanwaldeep Kaur. AEE  |
| 5. Designation of officer authorizing Test | EE, RO SAS Nagar.   |
| 6. Type of Sample                          | Grab  |
| 7. Date & Time of Sample collection        | 14.06.2019  |
| 8. Date & Time of Sample receipt in Lab.   | 15.06.2019  |
| 9. Period of Analysis                      | 15.06.19 to 20.06.19  |
| 10. Test Methods                           | As per relevant parts of IS:3025/Method of APHA                                   |



## Results

Sr. No.	Parameters	Raw effluent collection tank (inlet)	Equilisation Tank	Primary Clarifier Outlet	Aeration Tank	Secondary Clarifier outlet	Outlet of UASBR	Blending tank (Final)	From plantation area
1	pH	4.2	5.2	6.7	-	8.3	7.0	8.4	8.7
2	Total Suspended Solids mg/l	1920	2230	1530	-	26	705	23	64
3	Total Dissolved solids mg/l	1942	3752	3524	-	3768	3828	1380	2490
4	Chemical Oxygen Demand mg/l	10324	4412	4156	-	57	1008	23	58
5	Bio-chemical Oxygen Demand mg/l	4200	1560	1450	-	14	380	6	14
6	*Sodium Absorption Ratio	12.1	14.8	20.4	-	20.2	16.9	11.9	20.9
7	*Mixed Liquid Suspended Solids mg/l	-	-	-	8950	-	-	-	-
8	*Mixed Liquid Volatile Suspended Solids mg/l	-	-	-	6710	-	-	-	-

\*Not covered under the scope of NABL

Analyzed by *[Signature]*

---End of Report---

*[Signature]*  
Scientific Officer 21/6/19

Endst. No: 18631-32

Di. 21/6/2019

- A copy of the above is forwarded to the:-
1. The Senior Environment Engineer, Punjab Pollution Control Board, Zonal Office-I Patiala.
  2. The Environment Engineer, Punjab Pollution Control Board, Regional Office, SAS Nagar.

*[Signature]*  
Jr. Scientific Officer

# PUNJAB POLLUTION CONTROL BOARD

Regional Office, SAS Nagar.

DETAILS TO BE SUPPLIED FOR THE COLLECTION OF SAMPLE

E-473-80

Name of the industry: M/S Molson Coors India Pvt Ltd  
Villy Bhatnagar Derabassi Distt SAS Nagar

Scale	Raw Material	Product
<u>Red</u>	<u>Large</u>	<u>Beer</u>
Processes involved: <u>Milling → Mashing → lautering → Boiling → whirlpooling → wort cooling → fermentation maturation → filtration → Bottling</u>		
Name of the processes in process at the time of sampling: <u>all operational</u>		
Number of waste water streams from different processes: <u>Different streams lead to collection</u>		
Quantity of industrial effluent discharge per day (in m <sup>3</sup> /day): <u>275 KLD</u>		
Nature of discharge of industrial effluent: <u>continuous, intermittent, non-uniform</u>		
Frequency of discharge: <u>16 hours</u>		
Date & time of its discharges: <u>one Sunday</u>		
Quantity and quality of industrial effluent from different streams: <u>uniform throughout of day</u>		
Method of disposal of industrial effluent: <u>out to land for plantation</u>		
Name of the person through which industrial effluent is discharged to the industry: <u>Mr Vikrant Sharma</u>		
Name of the occupant representative of the industry: <u>(Eng. Manager)</u>		
Name of the person present at the time of sampling & working at the time of sampling & collection: <u>Mobile No.</u>		
Parameters to be analyzed: <u>PH, TSS, COD, BOD, TDS, SAR, MLSS + MVSS</u>		
Point of sample collection: <u>E-473 (1) Raw effluent collection tank (inlet)</u>		
<u>E-474 (2) Equalization tank</u>		
<u>E-475 (3) Primary Clarifier Outlet</u>		
<u>E-476 (4) Aeration tank for MLSS + MVSS</u>		
<u>E-477 (5) Secondary Clarifier Outlet</u>		
<u>E-478 (6) Outlet of UASB</u>		
<u>E-479 (7) Blending tank</u>		
<u>E-480 (8) from plantation area (for SAR + eff. products)</u>		
pH range: <u>10-11</u>		
Temperature: <u>10-20</u>		
Type of process: <u>(separate 10 sample glass jars &amp; freeze)</u>		
Name of the components of the ETP which were working: <u>Equalization tank → primary clarifier → aeration tank → secondary clarifier → UASB → ZRO system → Blending tanks</u>		

lot of scum/sludge was observed in the equalization tank. lot of sludge was observed on the top surface of the primary clarifier, effluent after UASBR was grey slimy smell. Very few quantity of treated effluent was observed in the plantation area.

Remarks: All the above samples are collected in the presence of executive committee constituted by HNH, NAT.

from the pump house...  
 representative of the industry placed...  
 after details of the provisions of section 21 of the Water (Prevention & Control) Act, 1974...  
 sample to the State Water Laboratory under section 52 of the Act...  
 The sample was stirred and placed in the...  
 bearing description of AIT

Er Ashok Kumar (EC), Mr Vikrant Sharma.  
 Er Kamaldeep Kumar (NEC), Mr Gurspreet Singh

*[Signature]*  
 14/05/17

*[Signature]*  
 14/5/17

Sample collected and analyzed through SH.

BOARD ANALYST



To

Type of Sample:-Monitoring  
 Haryana State Pollution Control Board's Laboratory  
 SCO-115, 1<sup>st</sup> & 2<sup>nd</sup> Floor, Sec-25, Panchkula, Haryana  
Test Report

page 1 of 4

The Member Secretary,  
 Haryana State Pollution Control Board  
 Panchkula

Report No. 862  
 Dated: 27-06-2019

Description: Received a sample on 15/06/2019 of Water collected by Sh. Ashok Kumar (EE), Sh. Vikrant Sharma, Er. Kanwaldeep Kaur, AEE and Sh. Gurpreet Singh of PPCB collected from M/s Molson Loors India Pvt. Ltd., Village Bhankarpur, Derabassi, Distt. SAS Nagar on 14/06/2019. The sample has been analysed from 15/06/2019 to 27/06/2019.

1.	Sample Code	959	960
2.	Sample Collected from #	Raw effluent collection tank (Inlet)	Equalization tank


OBSERVATION

1.	Appearance	Yellowish	Blackish
2.	Odour	Bad	Bad


RESULTS

Sr. No.	Parameter Name	Result	Result	Limit	Test Method
1.	pH Value	4.23	5.16		APHA, 4500-H+B
2.	Suspended Solid mg/l	1860.0	2400.0		APHA, 2540-D
3.	BOD mg/l \$	2850.0	1625.0		IS:3025(P-44)
4.	COD mg/l \$	8360.0	5048.0		APHA, 5220-B
5.	Total Dissolved Solid mg/l	3812.0	4208.0		-
6.	Sodium Absorption Ratio (SAR)	14.79	14.47		-


Sample Collected/Not Collected by us  
 Sample Consumed in testing

  
 JSA1  
 Manjali

  
 JSA2  
 Kiran Bala

  
 SSA  
 Sukhram

  
 Analyst  
 Harish Chandra

  
 Laboratory Incharge  
 Rajkumar

CC to Regional Office PPCB SAS Nagar

The test report relate only to the particular sample submitted for testing.

\*\*\*

# This information is provided by the field officer.

BDL - Below Deduction Limit.

DL - Deduction Limit.

§ Disclaimer: Parameter at S.No. 3 &amp; 4 the results may be affected as sample was received without preservation.



To

Type of Sample:-Monitoring  
Haryana State Pollution Control Board's Laboratory  
SCO-115, 1<sup>st</sup> & 2<sup>nd</sup> Floor, Sec-25, Panchkula, Haryana  
Test Report

page 2 of 4

The Environmental Engineer,  
Punjab Pollution Control Board  
Plot No. 55, Phase-II, Opp. Bassi Theatre,  
SAS Nagar, Mohali.

Report No. 862  
Dated: 27-06-2019

Description: Received a sample on 15/06/2019 of Water collected by Sh. Ashok Kumar (EE), Sh. Vikrant Sharma, Er. Kanwaldeep Kaur, AEE and Sh. Gurpreet Singh of PPCB collected from M/s Molson Loors India Pvt. Ltd., Village Bhankarpur, Derabassi, Distt. SAS Nagar on 14/06/2019. The sample has been analysed from 15/06/2019 to 27/06/2019.

1.	Sample Code	961	962
2.	Sample Collected from #	Primary clarifier outlet	Secondary clarifier outlet

OBSERVATION

1.	Appearance	Greyish	Greyish
2.	Odour	Bad	Mild

RESULTS

<u>Sr. No.</u>	<u>Parameter Name</u>	<u>Result</u>	<u>Result</u>	<u>Limit</u>	<u>Test Method</u>
1.	pH Value	6.43	8.21		APHA, 4500-H+
2.	Suspended Solid mg/l	1324.0	21.0		APHA, 2540-D
3.	BOD mg/l	1375.0	15.0		IS:3025(P-44)
4.	COD mg/l	4840.0	91.2		APHA, 5220-B
5.	Total Dissolved Solid mg/l	4688.0	3212.0		-
6.	Sodium Absorption Ratio (SAR)	19.17	31.29		-

Sample Collected/Not Collected by us  
Sample Consumed in testing

JSA1  
Manjali

JSA2  
Kiran Bala

SSA  
Sukhram

Analyst  
Harish Chandra

Laboratory Incharge  
Rajkumar

CC 1 Regional Office PPCB SAS Nagar

The test report relate only to the particular sample submitted for testing.

\*\*\*

# This information is provided by the field officer.

BDL - Below Deduction Limit

DL - Deduction Limit



To

Type of Sample:-Monitoring  
Haryana State Pollution Control Board's Laboratory  
SCO-115, 1<sup>st</sup> & 2<sup>nd</sup> Floor, Sec-25, Panchkula, Haryana  
Test Report

page 3 of 4

The Environmental Engineer,  
Punjab Pollution Control Board  
Plot No. 55, Phase-II, Opp. Bassi Theatre,  
SAS Nagar, Mohali.

Report No. 862  
Dated: 27-06-2019

Description: Received a sample on 15/06/2019 of Water collected by Sh. Ashok Kumar (EE), Sh. Vikrant Sharma, Er. Kanwaldeep Kaur, AEE and Sh. Gurpreet Singh of PPCB collected from M/s Molson Loors India Pvt. Ltd., Village Bhankarpur, Derabassi, Distt. SAS Nagar on 14/06/2019. The sample has been analysed from 15/06/2019 to 27/06/2019.

1.	Sample Code	963	964
2.	Sample Collected from #	Outlet of UASBR	Blanding Tank


OBSERVATION

1.	Appearance	Blackish	Greyish
2.	Odour	Bad	Mild


RESULTS


<u>Sr./No.</u>	<u>Parameter Name</u>	<u>Result</u>	<u>Result</u>	<u>Limit</u>	<u>Test Method</u>
1.	pH Value	7.05	8.38		APHA, 4500-H+
2.	Suspended Solid mg/l	700.0	81.0		APHA, 2540-D
3.	BOD mg/l	315.0	19.5		IS:3025(P-44)
4.	COD mg/l	1220.0	96.0		APHA, 5220-B
5.	Total Dissolved Solid mg/l	3012.0	1516.0	-	-
6.	Sodium Absorption Ratio (SAR)	17.62	13.76	-	-


Sample Collected/Not Collected by us  
Sample Consumed in testing

  
JSA1  
Manjali

  
JSA2  
Kiran Bala

  
SSA  
Sukhram

  
Analyst  
Harish Chandra

  
Laboratory Incharge  
Rajkumar

CC to Regional Office PPCB SAS Nagar

The test report relate only to the particular sample submitted for testing.

\*\*\*

# This information is provided by the field officer.

BDL - Below Deduction Limit.

DL - Deduction Limit.





Type of Sample:-Monitoring  
Haryana State Pollution Control Board's Laboratory  
SCO-115, 1<sup>st</sup> & 2<sup>nd</sup> Floor, Sec-25, Panchkula, Haryana  
Test Report

page 4 of 4

To

The Environmental Engineer,  
Punjab Pollution Control Board  
Plot No. 55, Phase-II, Opp. Bassi Theatre,  
SAS Nagar, Mohali.

Report No. 862  
Dated: 27-06-2019

Description: Received a sample on 15/06/2019 of Water collected by Sh. Ashok Kumar (EE), Sh. Vikrant Sharma, Er. Kanwaldeep Kaur, AEE and Sh. Gurpreet Singh of PPCB collected from M/s Molson Loors India Pvt. Ltd., Village Bhankarpur, Derabassi, Distt. SAS Nagar on 14/06/2019. The sample has been analysed from 15/06/2019 to 27/06/2019.

- |    |                         |                      |
|----|-------------------------|----------------------|
| 1. | Sample Code             | 965                  |
| 2. | Sample Collected from # | From Plantation area |
- OBSERVATION**
- |    |            |          |
|----|------------|----------|
| 1. | Appearance | Brownish |
| 2. | Odour      | Mild     |

**RESULTS**

Sr. No.	Parameter Name	Result	Result	Limit	Test Method
1.	pH Value	8.80			APHA, 4500-H+
2.	Suspended Solid mg/l	58.0			APHA, 2540-D
3.	BOD mg/l	10.5			IS:3025(P-44)
4.	COD mg/l	56.8			APHA, 5220-B
5.	Total Dissolved Solid mg/l	2264.0		-	-
6.	Sodium Absorption Ratio (SAR)	20.11s		-	-

Sample Collected/Not Collected by us  
Sample Consumed in testing

JSA1

Manjali

JSA2

Kiran Bala

SSA

Sukhran

Analyst

Harish Chandra

Laboratory Incharge

Rajkumar

CC to Regional Office PPCB SAS Nagar

The test report relate only to the particular sample submitted for testing.

\*\*\*

# This information is provided by the field officer.

BDL - Below Deduction Limit.

DL - Deduction Limit.

**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, 4<sup>th</sup> Floor, Forest Complex,  
Sector 68, SAS Nagar) Tel. No. 0172-2298091  
Email: cecghaggar@gmail.com

To

The Chairman,  
Punjab Pollution Control Board,  
Patiala.

No. CEC/2019/209  
Dated: 3.7.2019

**Subject:** Report on visit to M/s Molson Coors India (P) Ltd. village Mohangram, Tehsil Derabassi, District SAS Nagar on 14.6.2019 by the Executive Committee constituted by Hon'ble National Green Tribunal in OA no. 138 and 139 of 2016 in the matter of Stench Grips Mansa's Ghaggar river (Suo Moto case) and Yogender Kumar.

\*\*\*\*

It is intimated that the Executive Committee constituted by the Hon'ble National Green Tribunal in OA No. 138 and 139 of 2016 in the matter of Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto case) and Yogender Kumar has visited the industry namely M/s Molson Coors India (P) Ltd. village Mohangram, Tehsil Derabassi, District SAS Nagar on 14.6.2019. The report prepared by the Executive Committee is enclosed herewith. The recommendations made in the report are briefly mentioned as under: -

1. The industry should channelize its effluent from equalization tank to primary clarifier instead of carrying effluent from primary clarifier to equalization tank, which is principally wrong.
2. The industry should maintain required concentration of MLSS and MLVSS in the aeration tank so as to get the required values of kinetic parameter and increase the efficiency of the aerobic biological treatment system.
3. Chairman, PPCB shall get an environment compensation amounting to Rs. 25 Lakh from the industry and said amount shall be utilized for rejuvenation of environment damage caused due to excess concentration of TDS.
4. In order to ensure the value of TDS parameter always below the permissible limits (2100 mg/l), the industry needs to operate RO system regularly at its optimum capacity to get appropriate quantity of RO permeates so that after mixing of R.O permeate and rest of the treated wastewater (without R.O system), the value of TDS is always below the permissible limits of 2100 mg/l. Also, the industry shall provide flow meter at the inlet, outlet of RO system and at the outlet of the blending tank before discharge of final blended effluent into plantation area.

5. The industry shall maintain proper distribution system network for disposal of final effluent in the plantation area and shall also ensure that no dead pocket is there in the plantation area. There should be uniform application of treated effluent in the plantation area and no stagnation of effluent is there in the plantation area.

It is requested that action on the recommendations made by the Executive Committee may be taken and action taken report may be sent to the Committee within 15 days.

DA/ As above

g  
h  
(Dr. Babu Ram) 12/11  
Member,  
Executive Committee

Endst. No. CEC/2019/210

Dated: 3.7.2019

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

DA/ As above

2  
(Dr. Babu Ram)  
Member,  
Executive Committee

## **Report on visit to 2 MLD STP installed for treatment of Domestic Effluent of industries of focal point, Dera Bassi, District SAS Nagar on 3.7.2019.**

The following were present during the visit

- 1) Dr. Babu Ram, Member, Executive Committee, constituted by Hon,ble NGT
- 2) Er. Mohit Bisht, Assistant Environmental Engineer, PPCB, Mohali

### **1.0 Background**

As per the record of PPCB, Mohali, the industries located in focal point, Dera Bassi are discharging their wastewater into sewerage system. It has been informed that the water polluting industries of focal point, Dera Bassi have installed their captive ETPs and the domestic effluent was being discharged into Dhabi Nallah. The estimated discharge of domestic wastewater of focal point, Dera Bassi is 2 MLD. For the treatment of this domestic effluent, PSIEC has installed sewage treatment plant of capacity 2 MLD costing Rs 2crores approximately.

### **2.0 Visit to the STP**

During the visit to STP, it was observed that STP consists of following components

- i) Collection tank
- ii) Equalization tank
- iii) Chemical dosing tank
- iv) Primary clarifier
- v) Aeration system(MBBR-1 and MBBR-2)
- vi) Secondary Clarifier
- vii) Treated effluent collection tank
- viii) Final disposal sump

**Plate-1 to Plate-8** shows the different components of STP.



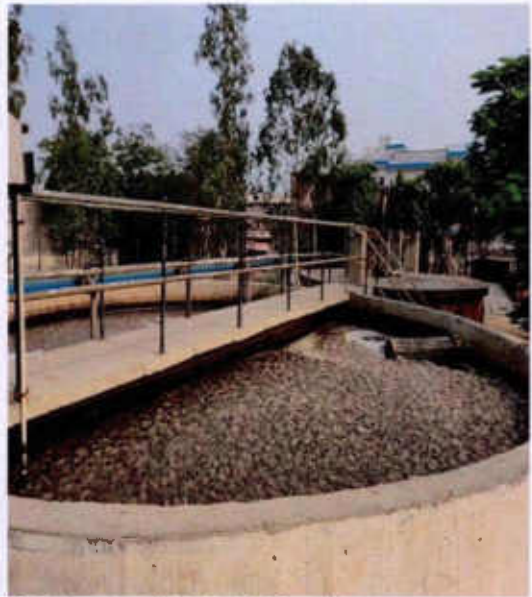
**Plate-1: Equalization tank**



**Plate-2: Flash Mixer for Chemical dosing**



**Plate-3: Dry weir of the primary Clarifier**



**Plate-4: MBBR-1 tank**



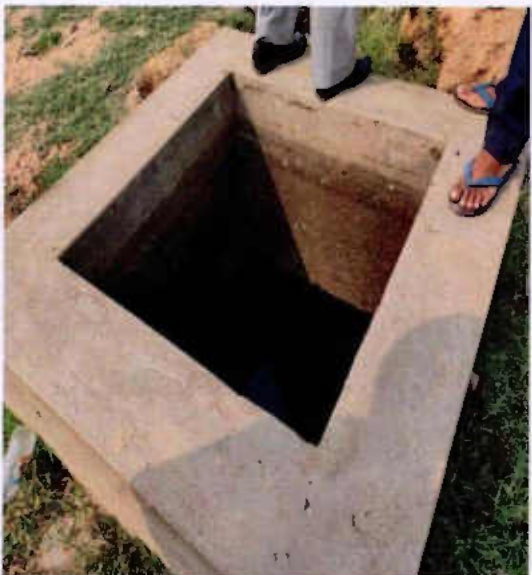
**Plate-5: MBBR-2 tank**



**Plate-6: Secondary clarifier with dry weir**



**Plate-7: Final effluent collection tank**



**Plate-8: Final disposal sump**

Ref

During visit, none of the components of STP were in operation except MBBR system which is required to be operated by the operator to make the biomass system alive.

### **3.0 Collection of effluent samples and observations**

Since the STP was not in operation, therefore untreated effluent samples was collected from the collection tank and the same was sent to PPCB lab for analysis of the parameters. The analysis results are enclosed as per **Annexure-1**.

### **3.1 Discussion on the analysis results**

Analysis results indicate that the values of parameter namely COD, BOD, TSS, TDS and oil and grease were observed as 548 mg/l, 170 mg/l, 230 mg/l, 904 mg/l and 8.2 mg/l, respectively. Since it was untreated effluent, therefore, the parameters namely COD, BOD and TSS were found beyond the permissible values of 250 mg/l, 30 mg/l and 100 mg/l, respectively.

### **3.2 Other observations:**

- i) The collection tank was found full of solid waste material like plastic cans, plastic bags, containers, multilayered plastic. Lot of oil and grease was observed in the collection tank. No mechanism has been provided to retain these solid waste material before entering into equalization tank.
- ii) No provisions have been made for removal of oil and grease.
- iii) In the equalization tank, lot of oil and grease along with solid waste material was found and it was almost non-functional. No provisions have been made to equalize the effluent into this tank.
- iv) Chemical dosing system was found non-functional/non-operation.
- v) The effluent in the primary and secondary clarifier was in static condition and the weir of these clarifiers were found dry which indicate that STP was not made operational from many days.
- vi) Only the aeration system, consisting of MBBR-1 and MBBR-2 (in parallel), was in operation which is the compulsion of the operating agency to operate the same just to make the bio mass in the system alive otherwise bacteria will die.
- vii) In the final treated effluent collection tank, the effluent was found stored but it is not sure as to whether the effluent lying stored in the tank is treated wastewater or fresh wastewater mixed with treated/untreated wastewater.
- viii) PSIEC has adopted two options for discharge of effluent i.e. into *Dhabi Nalah* or on to land for stagnation without any plantation and proper distribution system. Plantation area has not been developed to utilize the treated effluent for plantation. However, the effluent was found stagnating in the adjoining

land where very few plants (negligible) have been planted. **Plate-9** shows the stagnation of effluent onto land.



**Plate-9: Stagnation of effluent onto Land**

- ix) The condition of STP and the disposal of effluent of STP was pathetic and it indicates that nobody is there to look into the functioning of STP and its mode of disposal. It seems that PSIEC officers have never visited this plant otherwise the condition of the STP would have been improved.
- x) As per record, PPCB officers have visited the STP in the month of April, 2019 and it was observed that some components of STP were not in operation. Accordingly, Regional office, Mohali of PPCB has recommended action against the operator of STP.


#### **4.0 Recommendations**

In view of the above observations and analysis results of the untreated effluent sample, the following recommendations are made

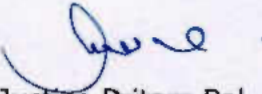
**Chairman, PPCB shall pass appropriate orders/directions under the provisions of the Water Act, 1974 w.r.t the recommendations as mentioned below.**

- 1. The operator of the STP should be penalized with heavy penalty like no payment of the last 6 months should be paid to him. If already paid, the same may be recovered from him as the State Government (PSIEC) has spent crores of rupees on the construction of STP.
- 2. The contract made with the contractor should be discontinued and contract of operation of STP should be given to any other reputed agency.

3. As per order dated 28.2.2019 in O.A No. 916 of 2018 in the matter of Sobha Singh Ors. V/s State of Punjab & other, it has been mentioned in para 22 of the said order that the Committee may also consider recommending disciplinary and penal action against the erring officers. Therefore, in light of the above order, the committee recommends that the erring/responsible officers/officials of PSIEC should be penalized with penalty like recovery of Rs.10000/- from each erring officer/official from their salary account.
4. The inefficiency in performing their duties and callous approach of the erring officers/officials should be mentioned in their Annual Progress Appraisal Reports.
5. PSIEC should develop land measuring about 15-20 acres with plantation and proper effluent distribution system in a scientific manner so that treated effluent, conforming to the standards, may be utilized for plantation or alternatively, it may explore the possibility of supplying the treated wastewater to the industries of focal point for their gardening and other allied purposes.
6. Oil and grease trap, an important component of STP, should be added by PSIEC.
7. PPCB shall visit STP surprisingly as well as quarterly in a year.
8. An environment compensation of suitable amount may be imposed on PSIEC and this amount may be recovered from the operating agency.

  
Dr. Babu Ram,  
Member, Executive Committee

Submitted for approval to convey the above recommendations to the concerned departments to take action on the various recommendations and action taken report be submitted within 15 days.

  
Justice Pritam Pal,  
Former Judge,  
Punjab and Haryana High Court,  
Chairman, Executive Committee



Annexure - 1

**PUNJAB POLLUTION CONTROL BOARD VATAVARAN BHAVAN,  
NABHA ROAD, PATIALA  
WATER ANALYSIS REPORT**



TC-7045

- |  |   |
|--|---|
| 1. Laboratory Sample No.                   | E 572/ H.O.Lab. Monitoring/2019                 |
| 2. ULR No.                                 | TC704518000000001148P                           |
| 3. Name of Industry                        | M/s STP PSIEC(2 MLD), Focal point<br>Dera Bassi |
| 4. Name of Sample collecting Officer       | Er Mohit Bisht, AEE                             |
| 5. Designation of officer authorizing Test | EE, RO SAS Nagar.                               |
| 6. Type of Sample                          | Grab  |
| 7. Date & Time of Sample collection        | 3.07.19   |
| 8. Date & Time of Sample receipt in Lab.   | 4.07.19   |
| 9. Period of Analysis                      | 4.07.19 to 9.07.19                              |
| 10. Test Methods                           | As per relevant parts of IS:3025/Method of APHA |

**Results**

Sr. No.	Parameters	Collection Tank of STP
1	pH	6.4
2	Chemical Oxygen Demand mg/l	548
3	Bio-chemical Oxygen Demand mg/l	170
4	Total Suspended Solids mg/l	230
5	Total Dissolved Solids mg/l	904
6	*Oil & Grease mg/l	8.2

\*Not covered under the scope of NABL.

Note: BDL means Below method detection limit

---End of Report---

Analyzed by

Scientific Officer

Endst. No: 20300-301

DL 9.7.19

A copy of the above is forwarded to the:-

1. The Senior Environment Engineer, Punjab Pollution Control Board, Zonal Office-I Patiala.
2. The Environment Engineer, Punjab Pollution Control Board, Regional Office, SAS Nagar.

Jr. Scientific Officer

H

**FUGAS POLLUTION CONTROL BOARD**  
 Regional Office, SAS Nagar.  
 DETAILS TO BE FILLED FOR THE COLLECTION OF SAMPLE

Name & Address of I.E. Industry		MIS STP PSIEC (2MLD), Focal Point, Deer Bani	
1. Category	Field	Industry/Plant	Product
Domestic Effluent		Focal Point, Deer Bani	
2. i.	Give the name of the industry & operation in the line of sampling	DE. of Industrial	
2. ii.	The number of effluent streams from different processes along with discharge point	located at focal point, Deer Bani	
3. i.	Quantity of industrial effluent received per hour on the day/night	-	
3. ii.	Is the discharge of industrial effluent continuous or intermittent, date & time of its discharge	Continuous	
3. iii.	Is the quality and quantity of industrial effluent from different sources uniform throughout the day?	Non Uniform	
3. iv.	Place of receipt of industrial effluent if different from discharge point	Into Dhobi - Hallah	
3. v.	Working hours	-	
3. vi.	Number of effluent receiving tanks or pits used in the discharge point	One	
4.	Name of the person in charge of the industry with designation and name of contact at the time of sampling	Dr. Lokandhar, Operator	Mobile No. 9815285353
5.	Process not working at the time of sampling if any?	-	
6.	Parameter to be analyzed	① pH, TSS, TDS, BOD, COD, DO, etc. E-32	
7.	Point of sample collection	① Collection Tank of STP	
8. i.	Sample preserved for (tick)		
8. ii.	Organic substances (using preservative)	✓	
8. iii.	Metals (using HNO <sub>3</sub> or other acid preservative)	x	
8. iv.	Cyanide (using NaOH or other alkali preservative)	x	
8. v.	Oil & grease (using preservative glass bottles or beakers)	✓	
8. vi.	Others	Biphenyl bottle for COD	
9.	Other's details (specify)	① Brackish	
10. i.	Reason for non-compliance in the discharge point working	MBBh tank over	
10. ii.	If any corrective work was done, when and why?	At Component 2 except MBBh tank	
11.	Date & time of collection of sample	3/7/11 at 09:15 AM	
12. i.	Temperature of	40°C	
12. ii.	Air/Water		

H

W brookich high turbid.

10. Type of sample collected grab or composite.

Grab

11. Remarks

During visit, the STP was not in operation. All the components of the STP except MBR tank were found not in operation. The samples have been collected from the collection tank (untreated). The samples have been collected in presence of Dr. Babu Laxmi, Member, Executive Committee for monitoring purposes.

12. Note

~~the samples of trade effluent of M/s \_\_\_\_\_ from the point mentioned at Sr. No. 14 above was collected in the presence of Sr. \_\_\_\_\_ (Occupier) \_\_\_\_\_ representative of the industry/State \_\_\_\_\_ by empty bottles after explaining the provisions of section 21 of the Water (Prevention & Control) Act, 1974 to them. It is to be noted that the samples were collected under section 21 (1) of the said Act in compliance of section 21(1)(a) of the Act. The sample was stored and placed in dry bottles/bottles and sealed bearing inscription of AEE.~~

- 1) Ex. Mohit Patel, AEE
- 2) Sh. Lakshmi, Jaiswal

Lakshmi

Signature of the occupier/Representative of the industry with Designation

Mohit Patel  
3/7/19  
Signature of the Officer official collector of sample

Received report (enclosed) on received sample on \_\_\_\_\_ at \_\_\_\_\_ through Sr. \_\_\_\_\_

BOARD ANALYSIS  
Perishable

**OFFICE OF THE MONITORING 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, 4<sup>th</sup> Floor, Forest Complex, Sector 68, SAS Nagar) Tel. No. 0172-2298091

Email: [cecswm606@gmail.com](mailto:cecswm606@gmail.com)

To

The Chairman,  
Punjab Pollution Control Board  
Patiala.

No. CEC/2019/240

Dated: 12.7.2019

**Subject: Report on visit to 2MLD STP installed for treatment of Domestic Effluent of industries of focal point, Dera Bassi, District SAS Nagar on 3.7.2019.**

\*\*\*\*

Please find enclosed herewith a Report on visit to 2MLD STP installed for treatment of Domestic Effluent of industries of focal point, Dera Bassi, District SAS Nagar on 3.7.2019.

The Executive Committee has made its recommendations on page no. 4-5 of the report. It is requested that necessary action on the recommendations made by the Committee may be taken and action taken report be submitted within 15 days.

DA/As above

*[Signature]*  
(Dr. Babu Ram)

Member,  
Executive Committee

Endst.No. CEC/2019/240-A

Dated: 12.7.2019

The Principal Secretary to Government of Punjab, Department of Science, Technology and Environment, for information and necessary action.

DA/As above

*[Signature]*  
(Dr. Babu Ram)

Member,  
Executive Committee

# ANNEXURE-10

**Minutes of the meeting of the District Level Special Task Force of District Kurukshetra, Ambala and Panchkula held under the chairmanship of Justice Pritam Pal, former Judge, Punjab & Haryana High Court now as Chairman of the Executive Committee constituted by the Hon'ble NGT in 138 and 139 of 2016 in the matter of "Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto case) on 25.7.2019 at 11:00 AM at Panchayat Bhawan, Ambala.**

\*\*\*\*


**The list of the Participants is as per Annexure.**

Deputy Commissioner, Ambala welcomed the Chairman of the Executive Committee alongwith other district level officers of the districts Ambala, Kurukshetra and Panchkula of the State of Haryana. Regional officer, Panchkula apprised as under:

- Towns namely Kalka, Pinjore, Panchkula, Ambala, Kurukshetra, Shahbad, Pehowa, Kaithal, Cheeka, Ratia, Tohana and Sirsa of the State of Haryana, fall in the catchment area of river Ghaggar.
- Districts, Panchkula, Ambala and Kurukshetra fall under the jurisdiction of Regional Office Panchkula of HSPCB.
- 197 industries of these districts are located in catchment area of river Ghaggar.
- 6 drains belong to Haryana, 10 drains belong to Punjab, 1 drain commonly belongs to Haryana, Punjab and Chandigarh and 2 drains belong to Himachal Pradesh, fall into the river Ghaggar.
- The Pollution potential in terms of BOD values is varying between 9-90 mg/l in all the 7 drains passing through the State of Haryana and joining river Ghaggar.
- Sagar Para drain has been found more contaminated carrying wastewater with BOD as 90 mg/l.
- Action Plan for control of pollution in river Ghaggar was submitted to Hon'ble NGT on 30.1.2019.

Thereafter, the agenda of the meeting was taken up for discussion as under:

## **1) Inspections by District Level Task Force**

 It was informed that 5,4 and 4 inspections of industrial and residential complexes were made by DSTF of district Ambala, Panchkula and Kurukshetra, respectively.

## **2) Construction status of STPs of District Panchkula**

Out of the 8 STPs of district Panchkula, which are under construction, the progress of STP Billa and STP kangowalan was very poor (2%), whereas work of STP at Saketri has not been started so far. The reasons for very slow progress was intimated as land issue, which has now been resolved and it was assured by the representative of department of local Government that 2 STPs shall be completed by the end of December, 2019,

whereas the STP, whose work has not been started so far, shall be completed by the end of June, 2020.

### **3) Construction status of STPs of District Ambala**

Out of 4 STPs (each of capacity 4,5,12 and 12 MLD), the progress of construction of STP of 5 MLD of Ambala town (20%), STP of 12 MLD capacity at 12 cross road Ambala is (2%) and 12 MLD capacity STP at Khuda Khurd (2%) is very poor. The department of local Government has been asked to complete and commission these STPs by 4.2.2020.

### **4) Construction status of STPs of District Kurukshetra**

2 STPs each of capacity 15 and 25 MLD, which are under construction, are likely to be completed by 31.12.2019.

### **5) Existing CETPs**

1 CETP of capacity 0.5 MLD, 2<sup>nd</sup> of capacity 0.5 MLD and 3<sup>rd</sup> of capacity 5 MLD are operating in Panchkula, Ambala Cantt and industrial growth centre Saha, respectively. It was informed that these CETPs are meeting with the standards except Panchkula CETP for which, the committee asked to improve the treatment efficiency of the same.

### **6) Hazardous waste management**

It was apprised as under:

- Total 297 industries are existing in these 3 districts.
- 2689.345 TPA HW consisting of recyclable, reusable, landfillable and incinerable waste is generated by the industries. Landfillable hazardous waste is sent by all the industries to the common hazardous waste disposal and storage facility i.e. M/s Gujrat Protection and Infrastructure Limited, Faridabad.

### **7) Bio-Medical Waste**

It was apprised as under:

- Total 464 HCFs having 280 bedded HCFs and 184 non bedded HCFs are operating in these 3 districts.
- Total BMW by these HCFs having 6335 beds is 2.5 TPD by 6335 beds.
- All the HCFs have made their agreement with common bio-medical waste treatment facility.
- The common bio-medical waste treatment facility is inspected, by HSPCB on quarterly basis.

### **8) Municipal Solid Waste Management**

- 186 TPD MSW is generated by Panchkula and Naraingarh ULBs which has been proposed to join Panchkula cluster.

- 221 TPD MSW generated by Ambala, Thanesar, Shahbad and Pehowa towns shall be treated in Ambala cluster.
- Tenders for engaging the suitable agency is under process.

### **9) Installation of Online Monitoring system by STPs**

It was informed that out of total 21 STPs of these 3 districts, online continuous effluent monitoring systems (OCEMS) have been installed in 18 STPs. In 1 STP (Kalka town) tender is under process and in other 2 STPs of GE, Chandi mandir and Sec-7, Ambala city, OCEMS has not been installed so far.

### **10 ) Uninterrupted operation of STPs during maintenance and interception of sewage**

It was informed in the meeting that only in rare and critical circumstances, bypass to STPs is allowed with the permission of the HSPCB.

With regard to interception of sewage, the status is as under:

#### **Pehowa Town**

100% sewage of 5 localities of Pehowa town has been tapped and the same is routed through sewerage system.

#### **Ambala Town**

11 localities of Ambala town are yet to be connected to the sewerage system and presently, the same are discharged into drains.

#### **Barwala Town**

5 residential areas of Barwala town are also required to be connected to the sewerage system.

*Bu*

#### **Panchkula Town**

The 12 localities of Panchkula town have been connected to the sewerage system.

### **11) Sewerage network in approved areas**

It was apprised that in Ambala, 55-95% of the area is sewerred. In Panchkula, the area sewerred is 75-95% and in Kurukshetra, it is 81-85%. It was informed that all the residential areas shall be properly connected with sewerage system by 31.3.2020.

### **12) Ground water management and sampling of groundwater**

The representative of CGWA informed that the industries of these districts namely Panchkula, Ambala and Kurukshetra, who have applied for NOC for abstraction of

groundwater, have been granted the same in case the documents required by the department are submitted by the industries.

The department is also carrying out groundwater sampling of the groundwater sources along river Ghaggar. In some of the shallow tubewells, the concentration of heavy metal like cadmium has been observed above the permissible limits.

The Executive Committee has directed the representative of CGWA to send the analysis results of these groundwater samples to the Haryana State Pollution Control Board and the Board shall analyze the data of these analysis results and in case the concentration of heavy metals is found beyond the permissible limits, these groundwater sources may be sealed and display board, mentioning that these groundwater sources are not fit for drinking purposes, may be placed at these drinking water sources.

### **13) Green Development**

The Executive Committee apprised that in order to develop bio-diversity parks in the catchment area of river Ghaggar, in Ambala and Panchkula area, 10200 and 11929 plants, respectively, have been planted.

The committee desired that more plantation may be done in these districts. Further, as already decided in earlier meetings, plantation may also be made along Sukhna Nallah to make it aesthetically good.

### **14) Health Camps**

The representative of health department informed that in Ambala, Panchkula and Kurukshetra, health camps have been organized but no such water borne disease has been observed in any of the health camp.

**The detailed deliberation on each item was made and the Chairman of the Executive committee decided as under.**

- At*
- 1) **The district level task force of each district shall make surprise inspection of pollution sources and legal action against the violators may be recommended to the Haryana State Pollution Control Board.**
  - 2) **The department of local Government shall accelerate the construction work of 0.75 MLD STP Sudarshanpur (Panchkula) , 1.5 MLD STP Saketri (Panchkula) and 1 MLD Capacity STP Kangowalan (Panchkula) STP of capacity 1 MLD and shall ensure that these STPs may be completed by 26.12.2019.**
  - 3) **The Haryana Shahari Vikas Pradhikaran shall complete 5 MLD STP at Ambala by 31.3.2020. The department of Urban local Body**



shall complete STPs each of capacity 12 MLD, being installed at 12 cross road and Kudha Kurdh, respectively, by 4.2.2020.

- 4) Haryana Shahari Vikas Pradhikaran and Public Health Engineering Department shall complete 15 MLD STP Kurukshtera and 25 MLD STP Thanesar by 31.12.2019 and 31.7.2019, respectively.
- 5) The concerned agencies operating CETPs of capacity 0.5 MLD, 0.5 MLD and 5 MLD may be asked to improve the treatment efficiency of these CETPs.
- 6) Haryana State Pollution Control Board shall ensure that all the hazardous waste generating industries are sending their hazardous waste to the common hazardous waste storage and disposal facility regularly and these industries may be monitored by the Board from time to time. These industries may also have the valid authorization of HSPCB under HWM Rules, 2016.
- 7) Haryana State Pollution Control Board shall ensure that all the bio-medical waste generating HCFs are sending their bio-medical waste to the common bio-medical waste treatment facility regularly and these HCFs may be checked by the Board from time to time. These HCFs may also have the valid authorization of HSPCB under BWM Rules, 2016.
- 8) The department of Local Government shall accelerate the process of installation of waste to compost and RDF plant at Panchkula for the management of municipal solid waste generated from Panchkula and Naraingarh local bodies and shall ensure that the integrated facility shall be setup within the time schedule as mentioned in the Action Plan.  
Similarly for the Ambala cluster, where the municipal solid waste of Ambala, Thanesar, Shahbad and Pehowa is proposed to be carried out for imparting processing treatment, the integrated facility may be setup within the time schedule as mentioned in the Action Plan.
- 9) Electromagnetic flow meter shall be installed on all the STPs at their inlet and outlets by the department of local Government/executing agency of the State of Haryana at the earliest.
- 10) Online continuous effluent monitoring system for analyzing the various parameters may be installed on 9 MLD STP by GE, Chandi Mandir, 2 MLD STP sec-7, Ambala city by HSVP and Kalka STP (capacity 0.25 MLD) by PHED at the earliest.

- 11) The department of Urban Development/HSVP/PHED shall connect all the discharges of unapproved and approved colonies of different towns to the sewerage system within the time schedule as mentioned in the Action Plan.
- 12) Sewerage network, connecting of sewage of all the different areas of the towns, may be completed within the time schedule.
- 13) More plantation may be done in Ambala, Panchkula and Kurukshetra area. Further, as already decided in earlier meetings, plantation may also be made along Sukhna Nallah to make it aesthetically good.
- 14) CGWA shall send the analysis results of all the groundwater samples to Haryana State Pollution Control Board and the Board shall analyze the data of these analysis results and in case the concentration of heavy metals is found beyond the permissible limits, these groundwater sources may be sealed and display board, mentioning that these groundwater sources are not fit for drinking purposes, may be placed at these drinking water sources.

*By*

Minutes of 13<sup>th</sup> meeting of the Executive Committee held on 18.7.2019 at 11.00 am to 1.30 pm at MGSIPA, Sector-26, Chandigarh under the Chairmanship of Justice Pritam Pal, Former Judge, Punjab & Haryana High Court, Chandigarh and now as Chairman of the Executive Committee constituted by the Hon'ble National Green Tribunal, New Delhi in OA No. 138 of 2016 and 139 of 2016 in the matter of "Stench Grips Mansa's Ghaggar River" (Suo-Moto Case) V/s Joginder Kumar with the officers of the U.T Chandigarh, State of Punjab and Haryana.

List of the participants is as per **Annexure-1**.

The following agenda points were taken for discussion in the meeting

## **1.0 U.T., CHANDIGARH**

### **1.1 Water Quality of N-Choe, status of STP completed & commissioned and closing of the direct outlet into N-Choe and Sukhna Choe leading to river Ghaggar.**

The Commissioner, Municipal Corporation, Chandigarh apprised that as per census 2011, the total population of U.T., Chandigarh is 10.54 Lacs and wastewater generation is 54 MGD, of which 53.85 MGD is treated by installing 6 Sewage Treatment Plants (STP) of capacity 11 MGD, 5 MGD, 30 MGD, 1.25 MGD, 1.6 MGD and 5 MGD. It has been further apprised that these STP shall be upgraded to treat the wastewater upto the latest norms by November 2021, for which, presently, the tenders are under process. One STP located at Raipur Kalan of capacity 1.2 MGD, has been proposed to be constructed by 31.7.2019 and the same shall be commissioned by 31.08.2019. Similarly, the STP of capacity 2 MLD, to be setup at Kishangarh near Sukhna Choe, shall be completed by November 2021. The treated sewage of all these STPs is discharged into natural choe except the treated sewage of digging STP, which goes to the irrigation channel.

With Regard to quality of water of River Ghaggar during the period January, 2018 to December, 2018 and January, 2019 to June, 2019, it was informed that N-Choe enters River Ghaggar. The analysis results of the N-Choe at its exist point indicate that the values of BOD, COD, TSS, Boron, T.Coli and F.Coli were found to be varied between 60-141 mg/l, 120-321 mg/l, 44-182 mg/l, 0-0.04 mg/l,  $3.48 \times 10^5$  -  $1.8 \times 10^7$  MPN/100 ml and  $1.30 \times 10^5$  -  $2.4 \times 10^6$  MPN/100 ml, respectively, which are much higher the permissible values. These values indicate that there is no improvement in the quality of water of N-Choe leading to River Ghaggar.

Further, the quality of River Ghaggar was also analysed in the Year 2018 and January to June 2019. The analysis results indicate that the value of parameters in River Ghaggar namely BOD, COD & TSS in the year, 2018 were found to be varied between 4-27 mg/l, 20-159 mg/l & 138-2294 mg/l, respectively. The

values of these parameters in the month of January to June 2019 were found to be varied between 20-32 mg/l, 56-167 mg/l & 701-2053 mg/l, respectively, which are higher than the desired value in River Ghaggar. Therefore, Municipal Corporation, Chandigarh; Deptt. of Local Govt. and CPCC has to be more vigilant to closed all the outlets directly falling into the drain /Nallah leading to River Ghaggar and operation of STPs effectively & efficiently and closed monitoring of the industries of Chandigarh area, so that quality of water of River Ghaggar may be improved.


It was informed in the meeting that some of the outlets are still to be closed due to which the level of above parameters have found in increased trend. Regarding closing of the untreated wastewater discharging into N-Choe, it was informed that out of total 20 direct outfalls into N-choe, the Municipal Corporation has closed 11 outlets and for closing the remaining outlets, the action plan is mentioned as per **Annexure-2**.

### **1.2 Inspection of the industries**

It has been informed that CPCC has carried out inspection of electroplating industries of Chandigarh area. Out of total 102 electroplating industries, 71 were found functional and these industries have been inspected by CPCC. Out of the remaining non functional 31 industries, 16 units have temporarily closed their electroplating process on their own, 12 units have been closed permanently, 2 units have not started with operation and 1 unit has not been established so far.

Out of 71 functional units, 53 industries were inspected, of which effluent samples of 33 industries were collected. 14 industries were found non-complying, of which show cause notices have been issued to 8 industries and show cause notices to the remaining 6 industries is under process.

### **1.3 Organizing Health Check up Camp in Chandigarh**

 It was apprised that one health check up camp was organized in the Month of June 2019, but nothing has been mentioned about the nature of diseases observed during the camp.

**After detailed deliberation, the following decisions were taken**

- 1) Municipal Corporation, Chandigarh shall ensure that STPs at Raipur Kalan of capacity 5.675 MLD and Kishangarh near Sukhna lake of capacity 2MLD shall be completed within the time schedule as mentioned in the Action Plan.**

- 2) Upgradation of the existing STPs to treat the wastewater upto the latest norms shall be commissioned as per the time schedule mentioned in the Action Plan.
- 3) All the outlets falling into drain/Nallahs further leading to N-Choe and Sukhna Choe should be plugged by 31.12.2019.
- 4) CPCC shall finalize the legal action against the 14 non-complying industries within 15 days. It shall further continue to visit the industries of Chandigarh area surprisingly and legal action against the violating industries should be taken immediately.
- 5) Health checkup camps should be organized on monthly bases and data with regard to any serious disease relating to water borne should be reported to the Executive Committee.
- 6) Water quality of N-Choe and Sukhna Choe at their exit points should be monitored on monthly basis.

## 2.0 State of PUNJAB

### 2.1 Action Taken Report on the minutes of the last meeting held on 12.4.2019

- **Identification of miscreants discharging their waste into STP Zirakpur.**
  - ✓ It was apprised that PPCB has collected treated effluent samples of STP Zirakpur in February 2019, March 2019 and June 2019 and on all the occasions, the concentration of oil & grease was found within the prescribed limits. These results have also been corroborated with oil & grease in the untreated effluent samples and the same were also found within permissible limits.
- **Hindrance created by the locals and not allowing installation of STP, Lalru (1.5 MLD capacity)**
  - ✓ Since the matter has not been sorted out. Therefore, it has been proposed to identify the alternate sites for installation of STP of 1.5 MLD capacity at Lalaru.
- **Designing of STPs at BOD level less than 10 mg/l**
  - ✓ It was informed that compliance to the order dated 30.04.2019 in OA No. 1069/2018, in future all the STPs shall be designed on the parameters namely BOD : 10 mg/l, pH : 5.5-9.0, TSS : 20 mg/l and F.Coli : 100 MPN/100 ml.
- **Surprise checking of industries by PPCB**
  - ✓ It was informed that out of total 48 industries located in the catchment area of River Ghaggar, 26 industries were required to install OCEMS, of which 14 industries have already installed the said system. Regular readings on OCEMS

system are taken by PPCB and are compared with actual analysis results of wastewater. The OCEMS of these industries have also connectivity with website of PPCB and CPCB and in case the variation in values of the parameters is observed and SMS alerts shall be generated, action against the defaulting industries shall be taken by PPCB.

- **PPCB to take up the matter with HSPCB regarding sudden rise in the value of BOD in River Ghaggar at confluence point of Sagarpara drain**
  - ✓ Matter is yet to be taken with HSCPB.
- **Installation of OCEMS for remaining 12 industries**
  - ✓ These industries shall install OCEMS by 31.07.2019.
- **Uploading of monthly and quarterly Action Taken Report of DLSTF and SLSTF on CPCB and PPCB website**
  - ✓ All the monthly and quarterly action taken reports have been uploaded on CPCB and PPCB websites.
- **Inspection of the industries by District Level Special Task Force**
  - ✓ No inspection of industries has been carried out by District Level Special Task Force.
- **Ground water sampling by PPCB**
  - ✓ PPCB has collected 14 groundwater samples of important points.

## **2.2 Average water quality of River Ghaggar during January 2018 to December 2018 and January 2019 to June 2019.**

The data submitted by PPCB indicate that the values of BOD, DO & T.Coli at various points in River Ghaggar have been observed as 10.5-49.8 mg/l, 1.9-4.6 mg/l & 15667-34917 MPN/100 ml, respectively, during the sampling carried out from January 2018 to December 2018. The values of these parameters as analysed during the period January 2019 to June 2019 indicate that these parameters have been found varied between 10-40 mg/l, 2.5-5 mg/l & 19500-34333 MPN/100 ml, respectively. The data indicate that there is slight improvement in the values of BOD and DO but no improvement in terms of reduction of T.Coli has been observed.

## **2.3 Towns where STPs have been completed and commissioned**

It was apprised that 21 STPs of capacity 231.4 MLD, have been installed in 18 Towns, based on different technologies like WSP, UASB, FAB, MBBR & SBR.

## **2.4 Towns / habitation areas, where STPs are yet to be installed**

It was informed that the out of total 30 towns located in the catchment area of River Ghaggar for which 43 STPs are required to be installed. STPs in 5 towns

namely Boha, Dhuri, Sangrur, Bassi Pathana & Sirhind has been started but the construction of the same is very slow. In other towns, the work of STP could not be started due to the reasons as mentioned in **Annexure-3**.

#### **2.5 Industries inspected by PPCB during the month June, 2019**

It was apprised that PPCB has inspected 11 industries in the month of June, 2019, of which 2 industries were found violating the norms, against which the legal action is under process.

#### **2.7 STPs inspected by PPCB during the month of June, 2019**

It was informed that 20 STPs were inspected by PPCB, of which 5 STPs were found violating the norms, against which the legal action is under process.

#### **2.8 Irrigation schemes to be implemented to utilize the treated sewage**

It was apprised that for 8 towns namely Bareta, Sardulgarh, Bhikhi, Banur, Lehragagga, Moonak, Sunam & Patran, irrigation schemes, to utilize the treated sewage, have been commissioned. In 2 towns namely Khanauri & Rajpura, these irrigation schemes are under process and the same shall be commissioned by 01.12.2019 and 31.12.2019, respectively. For rest of 11 towns namely Mandi Gobindgarh, Patiala, Rajpura, Boha, Dhuri, Sangrur, Bassi Pathana, Sirhind, Focal Point Mandi Gobindgarh, Lalru & Dera Bassi where 15 STPs are in operation, irrigation schemes have been prepared and funds are being tied up with NABARD under Rural Infrastructure Development funds.

#### **2.9 Installation of STPs for villages having discharge $\geq$ 300 KLD.**

It was informed that the technical committee constituted by Chief Secretary, Punjab has decided that DRDP shall provide treatment technology consisting of Screen Chamber, Grit Chamber, Aerobic WSP, Facultative WSP and Maturation Ponds in 10 villages. PPCB shall also provide such system in 2-5 villages.

It was further apprised that per new proposal, in 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> phase the treatment facility will be provided in 87, 152 & 150 villages irrespective of discharge of the village. The requirement of funds for 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> phase has been estimated as Rs. 26.10 crores, Rs. 45.6 crores & Rs. 45 crores. The Finance Department of the State has made budgetary provision of Rs. 50.00 crores for the financial year 2019-20. If the funds are timely released by the Finance Department, the work of 1<sup>st</sup> phase would be completed by 30.06.2020. The target dates for providing treatment facility in the rural areas for the 2<sup>nd</sup> & 3<sup>rd</sup> phase are 30.06.2021 and 30.06.2022, respectively. The construction work of treatment system based on WSP in 28 villages of 1<sup>st</sup> phase has already been started and the same is likely to be completed by 31.08.2019.

#### **2.10 Status of Health Camps to be organized**

It was informed that during the 3 months (April to June, 2019), 40 Health checkup camps have been organized. However, no details about the patients diagnosed during the said period and serious disease, if any, found in any patient has been mentioned.

### **2.11 Action taken report of the District Level Special Task Force**

It was informed that the District Level Special Task Force of SAS Nagar, Patiala, Sangrur & Mansa have taken decisions during their meetings as under:

- PPCB shall keep regular check on the 48 industries located in the catchment area of River Ghaggar.
- Regarding STP monitoring and installation of STPs for the remaining towns, PWSSB shall expedite the process.
- For Plugging the outlets of the industries into sewer of MC, Zirakpur, the units shall be identified, which are discharging their effluent into sewer and submit the report to PPCB.
- Regarding installation of proposed STP of 1.5 MLD capacity at Lalru, PWSSB to pursue the matter and submit the action taken report. Maintenance work of STP of capacity 4 MLD of Dera Bassi, likely to be commissioned immediately, shall be given to the responsible agency.
- Operator of STP shall obtain consent to operate from PPCB. The concerned agencies like MCs, PWSSB and GMADA shall immediately apply for consent to PPCB and PPCB shall ensure full support to these agencies.
- The other decisions taken in the DLSTF are mentioned as per **Annexure-4**.

**After detailed deliberation, the following decisions were taken**

- 1) **E.O. M.C. Zirakpur alongwith officials of PWSSB shall indentify the culprits, who may be throwing their waste into sewerage system leading to STP Zirakpur and initiate action such persons and submit a list of such culprits alongwith action taken against them within 15 days to the Executing Committee with a copy of the same to the Nodal Office, Punjab Pollution Control.**
- 2) **STPs for the remaining towns/habitation area located on the drains/Nallahs falling into river Ghaggar should be installed as per the time schedule mentioned in the action plan. Proportionate progress of each STP should be submitted on monthly basis and shall be presented in each meeting of the Executive Committee.**



- 3) **The M.C. Lalru & PWSSB jointly identify the alternate site for installation of STP of 1.5 MLD capacity at Lalru Mandi and submit action taken report in this regard within one month to the Executing Committee with a copy of the same to the Nodal officer, Punjab Pollution Control Board for Action Plan for clean river Ghaggar.**
- 4) **Punjab Pollution Control Board shall continue the surprise checking of industries and initiate action in accordance with law against the defaulting units. Punjab Pollution Control Board shall also compare the analysis results of the wastewater with the values of parameters shown during visit by the OCEMS and take appropriate action in the matter in case any major difference is found on comparison. The Punjab Pollution Control Board will also carry out the data analysis of OCEMS to identify the violators.**
- 5) **PPCB shall continue to monitor the sewage treatment plants of the local bodies surprisingly and action against the violating local bodies should be taken within 21 days from the date when the violations were observed.**
- 6) **All the irrigation schemes, already commissioned, must be made operational to use the treated sewage for irrigation of the fields. The proposed irrigation schemes, prepared for the towns, shall also be commissioned simultaneously with the commissioning of the STP for the towns.**
- 7) **The department of local Government/other stakeholder departments of the State Government responsible for installation of STP should be asked that in future all the STPs shall be designed on the parameters namely BOD : 10 mg/l, pH : 5.5-9.0, TSS : 20 mg/l and F.Coli : 100 MPN/100 ml as mentioned in order passed by Hon'ble NGT on 30.4.2019 in OA No. 1069 of 2018.**
- 8) **PPCB and HSPCB shall jointly resolve the issue w.r.t. sudden rise in the value of BOD in river Ghaggar at confluence point of Sagarpara drain for which separate D.O. letters have been issued to Chairman PPCB and Chairman HSPCB by the Chairman of the Executive Committee.**
- 9) **PPCB shall ensure that OCEMS for the remaining 12 industries shall be installed by 31.7.2019 and the same may be got connected to PPCB and CPCB server.**

- 10) PWSSB, Municipal Corporation, Patiala; Municipal Corporation, SAS Nagar; PDA & GMADA shall intimate the status of installation of CCTV Cameras and OCEMS on their STPs within 15 days to the Executing Committee and Nodal Officer.
- 11) Nodal officer, PPCB shall take up the matter with the Deputy Commissioners of Districts SAS Nagar, Patiala, Sangrur and Mansa regarding inspection of industries to be carried out by district level special task force (DLSTF) as per the direction of the Hon'ble NGT.
- 12) PPCB shall ensure that the ground water sampling along river Ghaggar shall be carried out at the frequency as decided in the last meeting of the Executive Committee.
- 13) Department of Rural Development & Panchayats shall submit time schedule alongwith arrangement of funds for installation of treatment system in 389 villages in writing to the Executing Committee, within 15 days.
- 14) Health checkup camps should be organized on monthly bases and data with regard to any serious disease, relating to water borne, should be reported to the Executive Committee.

Ag

**Minutes of the meeting held with the officers of the various departments of the State of Himachal Pradesh on 02.08.2019 at 11.00 am at 4<sup>th</sup> Floor, 5<sup>th</sup> Tower, Forest Complex, Sector-68, Mohali by members of the Executing Committee constituted in OA No. 138 of 2016 and 139 of 2016 in the matter of Stench Grips Mansa's Ghaggar River (Suo-Moto case) Vs. Jogender Kumar & Ors.**

**The list of participant is enclosed as Aneuxre-1.**

Dr. Babu Ram, Member, Executing Committee welcomed Shri J.Chandra Babu, Additional Director, CPCB and Member, Executing Committee and Dr. V.K.Hatwal, Joint Director, MOEFCC and Member, Executive Committee and other officials of various departments of State Government of Himachal Pradesh present in the meeting. Thereafter, the agenda of the meeting was taken up for discussions.

**Senior Environmental Engineer, HPPCB apprised Executing Committee as detailed under:**

**1. Inspection of the industries**

• **Sukhna at Parwanoo**

Inspection of 7 Water polluting industries in the catchment area of Sukhna choe has been carried out in the month of June, 2019, and 2 out of 7 industries inspected were found violating the norms, against which action u/s 33-A of the Water (Prevention and Control of Pollution) Act, 1974 has been recommended.

• **River Markanda at Kala Amb**

49 water polluting industries located in the catchment area of River Markanda leading to River Ghaggar have been visited in the month of June, 2019 and all the industries were found to comply with the norms.

**2. Meetings of the District Level Special Task Force**

HPPCB officials informed that 7 meetings of the District Level Special Task Force have been held under the chairmanship of Deputy Commissioner, Solan and minutes of the meetings were sent to the State Level Special Task Force. Similarly, 8 meetings of District Level Special Task Force have been conducted under the chairmanship of Deputy Commissioner, Sirmour.

**3. Installation of Real Time Water Quality Monitoring Station (RTWQMS)**

It was informed that the funds for installation of Real Time Water Quality Monitoring Station (RTWQMS) have been released by HPPCB to Irrigation and Public Health (I & PH) Department, Himachal Pradesh State and the said department invited tenders for procurement and installation of RTWQMS. The Executive Engineer, I & PH, Solan informed that the RTWQMS shall be installed on River Kaushalya by 15.08.2019 and for installation of Radar, the tender shall be opened by 07.08.2019.

For installation of RTWQMS on River Markanda, the funds have been released by HPPCB to Irrigation and Public Health (I & PH) Department, Himachal Pradesh State and the said department has invited tenders for procurement and installation of the same.

**4. Installation of STPs for treatment of sewage generated from Parwanoo town**

It was apprised that proposal for 2 STPs of capacity 1 MLD each including laying of sewerage system in Parwanoo town, costing of Rs. 49.82 Crore has been prepared and these STPs shall be commissioned by 31.01.2022. Additionally, one bio-digester in STP on pilot basis in Sector-5, Parawanoo shall start functioning by 15.08.2019 for which civil work has been completed.

**5. Installation of 5 MLD CETP for treatment of sewage of Kala Amb area and industrial effluent of the industries**

It was informed that DRP for setting up of CETP costing Rs. 20 Crore has been prepared by M/s Environ Technologies Ankleshwar. Land for CETP has been acquired by Deptt. of Industries and shall be transferred in the name of SPV for setting up of the CETP. For getting Environment Clearance form MoEF&CC, the application shall be filed by SPV namely M/s Kala Amb Infrastructure Company. The CETP is likely to be commissioned by 31.01.2022. For treatment of sewage of small villages Trilokpur & Kheri area falling on the bank of River Markanda, there is a proposal to install 1 MLD STP, which is likely to be completed by 31.01.2022.

**6. Average quality of water of River Ghaggar**

It was apprised that since River Ghaggar is not directly passing through the State of Himachal Pradesh and only Sukhna Nallah and River Markanda are falling into River Ghaggar, therefore, HPPCB is only monitoring the water quality of Sukhna Nallah and River Markanda, the results of which are mentioned as under:

• **Sukhna at Parwanoo**

Analysis results indicate that the average value of BOD, COD and DO in Sukhna Nalla has analyzed during the month Jan, 2019 to July, 2019 were observed as 33.2 mg/l, 170.7 mg/l and 4.6 mg/l, respectively. The values of F.Coli and T.Coli were observed as 381 MPN/100 ml and 639 MPN/100 ml, respectively.

• **River Markanda at Kala Amb**

Analysis results indicate that the value of BOD and DO in River Markanda as analyzed in the month of May, 2019 were observed as 0.9 mg/l and 7.47 mg/l, respectively. The values of F.Coli and T.Coli were observed as 49 MPN/100 ml and 170 MPN/100 ml, respectively. In the month of June, 2019, it was informed that the source was found dry.

**7. Status of irrigation schemes to be implemented to utilize the treated sewage.**

It was informed that presently there is no irrigation scheme either operational or proposed in Parwanoo and Kala Amb area due to topography of the area. However, efforts can be made to utilize the treated sewage for irrigation, wherever possible.

**8. Status of installation of STPs for villages having discharge  $\geq$  300 KLD.**

It was informed that no village having discharge more than 300 KLD fall on Sukhna Nallah and River Markanda, as such, there is no proposal to install STP for the villages.

**9. Ground water sampling**

Ground water sampling of the points on the catchment area of Sukhna Nallah and River Markanda has been carried out and no contamination has been observed on the points located on Sukhna Nallah. The ground water sampling of the points located on River Markanda indicate low contamination of water w.r.t. parameters BOD, COD and TSS. No heavy metal like Copper, Nickle, Lead and Cadmium were detected in these samples.

**10. Status of Health Camps organized**

• **It was apprised as under:**

- ✓ 7 Health camps have been organized in the villages located along Sukhna Nallah.
- ✓ 6 Multi Specialty Health Camps have been organized in Kala Amb area by the Deptt. of Health & Family Welfare, wherein, more than 1000 persons were examined.
- ✓ Similarly in the month of June, 2019, health camp was organized at Himalayan Group of Institutions, Kala Amb, wherein, 150 patients were examined.

**11. Other activities carried out by District Level Special Task Force**

• **Sukhna Nallah at Parwanoo**

- ✓ 4 challans have been issued for solid waste burning and plastic littering.
- ✓ Solid waste site cleared at Parwanoo.
- ✓ All Kabaris inventorized.
- ✓ Wire mesh installed along Solid Waste littering hot spots.
- ✓ 3 plantation drives were made.

**12. River Markanda at Kala Amb**

- Cleanliness drive organized in Kala Amb area in June 2019 in which about 400 participated and collected about 15 MT solid wastes from various streams of Kala Amb area. Solid waste was disposed off at waste management site of M.C., Nahan.
- 2 units were challaned for Rs. 6000/- in June, 2019 under Non-Biodegradable Garbage Act, 2005.
- Site for setting up of solid waste management facility has been identified.

**13. Uploading of action taken report of District Level Special Task Force / State Level Special Task Force**

It was informed that monthly as well as 3 monthly action taken report of District Level Special Task Force and State Level Special Task Force have been uploaded on the website of HPPCB.

**After detailed deliberations, following recommendations were made by the members of Executing Committee:-**

1. 2 STPs each of capacity 1 MLD for treatment of sewage of Parwanoo area shall be installed and commissioned by 31.03.2021. Cost also need to be reviewed as it appears on higher side.
2. One CETP of capacity 5 MLD for treatment of sewage and industrial effluent of Kala Amb area shall be installed & commissioned by 31.03.2021.
3. One STP of capacity 1 MLD for the villages Trilokpur and Kheri falling on River Markanda catchment shall be installed and commissioned by 31.03.2021.
4. All the STPs should have a provision of disinfection for ensuring control of faecal coliform as well as sludge digesters for converting sludge into manure. Sludge (STPs and Septic Tanks) Management Plan shall be included in STPs proposal.
5. Necessary measures be taken by Urban Development as well as Irrigation & PH Department to ensure that the generated sewage in the catchment of river Kaushalya, River Markanda is intercepted and diverted to the existing STPs/ proposed STPs so that natural drains are restored and no sewage drain outfalls exists in future.
6. Proposed STPs, STPs under construction and the existing STPs shall be installed/upgraded to achieve the standards as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Deshpande Vs. Union of India & others.
7. All the treated sewage shall be utilized for flushing (in residential apartments, office, malls/commercial complexes), gardening, construction activity, irrigation purposes etc., and proposals shall be finalized in this regard by the State of Himachal Pradesh.
8. Dedicated drainage/sewerage network for carrying industrial effluent from industrial area of Kala Amb to the proposed CETP shall be laid or constructed and commissioned by 31.03.2021.
9. RTWQMS shall be installed on River Kaushalya by 15.8.2019 and data transfer also be connected to HPPCB server and thereafter to CPCB server.
10. RTWQMS shall be installed on River Markanda by 15.08.2019 and data transfer also be connected to HPPCB server and thereafter to CPCB server.
11. Commissioning of Bio-digester as a part of STP on pilot basis shall start functioning by 15.8.2019 and confirmed by 25.08.2019 to the Committee.
12. HPPCB and District Level Special Task Force shall visit industries located in the catchment area of River Markanda and Sukhna Nallah on monthly basis and reports be

forwarded to HPPCB for initiating legal action under the provisions of the Water Act, 1974 and in compliance to Hon'ble NGT Orders.

13. Cleanliness drive shall be continued in Kala Amb area and Parwanoo area as regular feature.
14. Challans may be issued to the violators for violating the provisions of the Non-Biodegradable Garbage Act, 2005.
15. The ground water quality of the point sources located on River Markanda and Sukhna Nallah may be analyzed on quarterly basis and wherever the ground water quality is found unfit for drinking purpose, such water sources be capped and a display board mentioning that the 'water is not fit for drinking purpose' may be placed.
16. Regular Health camps shall be organized in the localities / villages in the catchment area of River Markanda and Sukhna Nallah. Health Department shall also submit the health status reports in the catchment of River Markanda and Sukhna Nallah, within two months.
17. Integrated solid waste management facility at Parwanoo shall be developed in a scientific manner in accordance with the SWM Rules, 2016 as amended and also as per guidelines of CPCB by 31.03.2021. Necessary fencing or wire mesh system shall be installed along Sukhna Nallah and Markanda River at Solid Waste littering hot spot.
18. Member Secretary, HPSPSCB shall take up the matter of E-Flow Regulation with Government of HP for River kaushalya and River Markanda as well as watershed management in the catchment of river Kaushalya and River Markanda and responsibility be fixed on the above matter and for apprising the Executing Committee in the next meeting on the initiatives taken on the afore-said matter.
19. Only roof top rainwater harvesting by the industries shall be encouraged.
20. Details of Industrial Units which have not taken permission from IPH (State Ground Water authority) for extraction of Ground Water & using the Surface Water supply shall be provided to the Executing Committee within a week by the HPPCB and IPH (State Ground Water authority).

Ra

**Attendance of the officers of Himachal Pradesh State who attended the meeting on 2.8.2019 in OA No. 138-139 of 2016 in the matter of Ghaggar River**

**A) Member of the Executive Committee**

- 1) Justice Pritam Pal, Former Judge, Punjab & Haryana High Court, Now as Chairman of the Committee
- 2) Sh. J. Chandra Babu, Additional Director, CPCB
- 3) Dr. Vimal K. Hatwal, Joint Director, MOEFCC, Chandigarh
- 4) Dr. Babu Ram, Former Member Secretary, Punjab Pollution Control Board, Now as Member of Executive Committee

**B) Officers of Himachal Pradesh**

- 1) Sh. Aditya Negi, MS, HPSPCB
- 2) Er. S. K. Shandil, Environmental Engineer, HPSPCB, Shimla
- 3) Sh. A.K Sharda, Environmental Engineer, HPSPCB
- 4) Dr. R. K. Daroch, Chief Medical Officer, Solan (Department of Health and Family Welfare)
- 5) Dr. K. K. Prashar, Chief Medical Officer, Sirmour (Department of Health and Family Welfare)
- 6) Dr. Gagan Deep Raj Hans, District Program Officer, CMO Solan (Department of Health and Family Welfare)
- 7) Sh. Sudhir Sharma, Executive officer, Municipal Council, Parwanoo
- 8) Sh. Ashutosh, Sanitary Inspector, M.C, Parwanoo
- 9) Dr. Rajender Verma, Agriculture Additional Director, Agriculture
- 10) Sh. Tarun Gupta, Senior Environment officer, Department of Environment, Science & Technology, Shimla
- 11) Sh. Gian S. Negi, Joint Secretary (Rural Development)
- 12) Sh. Joginder Chauhan, SE, IPH circle Nahan
- 13) Sh. Sanjay Kaul, SE, IPH, Solan
- 14) Sh. Ram Kumar Gautam, Director, Department of Urban Development
- 15) Dr. Sharwan Kumar, SEE, HPSPCB, Parwanoo



**Minutes of 14<sup>th</sup> Meeting of the Executing Committee held with the officers of U.T Chandigarh, State of Punjab, Haryana and Himachal Pradesh on 26.08.2019 at 11:00 A.M onwards in the Committee Room, MGISPA, Sector 26, Chandigarh under the Chairmanship of Hon'ble Justice Pritam Pal, Former Judge, Punjab & Haryana, High Court, in compliance to the Hon'ble NGT order dated 07.08.2018 in the matter of OA No. 138 of 2016 and 139 of 2016 titled Stench Grips Mansa's Sacred Ghaggar River (Suo-Motu Case) and Yogender Kumar.**

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The concerned officers of U.T Chandigarh, State of Punjab, Haryana and Himachal Pradesh attended the meeting on 26.8.2019.

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

## **1) U.T. Chandigarh**

The Member Secretary CPCC welcomed the Chairman of the Executive Committee and other members. Thereafter, he presented the status of action taken to control pollution in river Ghaggar as under:

### **A) Issues relating to Municipal Corporation, Chandigarh**

#### **1) Closing of outlets falling into Sukhna Choe**

It was informed that out of 11 outlets falling into Sukhna Choe, 9 outlets have been closed.

#### **The status of closing of remaining two outlets is as under:**

- For closing of outlet from industrial area phase-1, colony no.4, temporary bund has been made with sand bags and for the construction of permanent plug i.e construction of RCC wall, tenders have been invited and shall be opened shortly.
- For closing of outlet of village Hallomajra, open channel wastewater has been tapped. 90% of sewerage system, for the connection of this outlet, has been completed and shall be completed by 31.10.2019.

#### **2) Closing of outlets falling into N-Choe**

It was informed that out of 22 outlets falling into N-Choe, 12 outlets have been closed.

#### **The status of closing of remaining 10 outlets is as under:**

- For closing one outlet from Bougainvillea Garden, the concerned authority looking after the area has been asked to stop the discharge. Previously, the discharge was stopped but reoccurred during maintenance. Now the same shall be plugged by 15.9.2019.
- Two points of sewage discharge from Attawa area were identified and these shall be closed by 31.12.2019.

- One outlet carrying sewage of Sec-53, near furniture market, Chandigarh, shall be plugged by 31.10.2019.
- One outlet carrying sewage of Sec-53, near Garden of Spring, Chandigarh, shall be plugged by 31.12.2019.
- One outlet from bridge point, near Beant memorial, shall be closed by 31.10.2019.
- One outlet from Beant memorial shall be completed by 15.9.2019.
- Two outlets from Sec-52 shall be plugged by 30.11.2019.
- One outlet from Sec-52 (end) shall be plugged by 30.11.2019.

### **3) Status of STPs**

It was informed as under:

- After commissioning of 6<sup>th</sup> STP (Maloya 5 MGD capacity), now Chandigarh is having the total sewage treatment capacity of 53.85 MGD almost completing the 100% treatment capacity w.r.t. generation of 54 MGD waste water.
- For treatment of remaining 0.15 MGD, STP of capacity 2 MLD at Kishangarh has already been proposed which will be completed by 30.11.2021.
- In order to achieve the stringent parameters, all the STPs shall be upgraded by 30.11.2021.

### **4) Water Quality of Sukhna Choe and N-Choe**

It was apprised as under:

- As per the analysis results of the year, 2019, the value of BOD in N-Choe at the exit point of Chandigarh was observed as 84 mg/l and no heavy metals were detected.
- As per the analysis results of the year, 2019, the value of BOD in Sukhna-Choe at the exit point of Chandigarh was observed as 71 mg/l and no heavy metals were detected.

### **B) Issues relating to CPCC**

#### **5) Inspection of industries by CPCC**

It was apprised as under:

- 102 electroplating industries were inspected by CPCC.
- 71 industries were found functional.
- Effluent samples of 71 industries were collected.
- Out of 71 industries, 47 units were found complying.
- 24 units were not found complying.
  - ✓ Out of 24 industries, electric connection of 11 units disconnected.
  - ✓ Re-sampling of 10 units is to be carried out.
  - ✓ Show cause notices issued to 3 units.

### **C) Issues relating to District level Task Force**

#### **6) Inspection of industries by DLTF**

- District Level Special Task Force has visited 15 units.
- Out of 15 units, 10 units were found complying with the norms.
- 5 units were found to be non-complying.
- Show cause notices have been issued to these 5 units.

#### **D) Department of Health**

##### **7) Organizing Health check up camps**

It was informed that Department of Health is organizing the health check up camp on monthly basis and the latest health camp was organised on 31st July, 2019 in Civil Dispensaries at Village Kaimbwala.

##### **8) Action taken report on the minutes of the last meeting held on 18.7.2019.**

<b>Sr. No.</b>	<b>Decision taken in the last meeting held on 18.7.2019</b>	<b>Action taken report</b>
1.	STP at Raipur Kalan of capacity 5.675 MLD and Kishangarh area of capacity 2 MLD shall be completed as per the time schedule.	These STPs shall be completed within the time schedule.
2.	Upgradation of existing STPs to meet with the latest norms	Upgradation of existing STPs to meet with latest norms shall be made as per the time schedule.
3.	Closing of all outlets falling into Sukhna-Choe and N-choe	All outlets into these Choes shall be closed as per the time schedule mentioned in point no. 1 and 2 (page no. 1 and 2).
4.	CPCC shall finalize the legal action against 13 non complying industries within 15 days.	Action against the non complying units including electroplating unit is under process.
5.	Health checkups camps shall be organized on monthly basis.	Health checkups camps are being organized by the Health Department on monthly basis.
6.	Monitoring of water quality of N-Choe and Sukhna-Choe at their exit points.	Water quality of N-Choe and Sukhna-Choe is being carried out on monthly basis.

##### **9) Interaction with Additional Chief Inspector of factories**

The Chairman of the Executive Committee informed the Additional Chief Inspector of Factories that during the visit of the Executing Committee to the industries of Chandigarh area, the working conditions in factories are pathetic and labours are working in very poor environment. There is hardly any

ventilation in the factory buildings and no personal protective equipments have been provided to the workers.

He assured that he shall personally visit the industries and ensure the compliance of the factory rules by the industries for the welfare of the workers and providing good working condition in the factories.

**After detailed deliberation, the following decisions were taken**

- Outlet from industrial area phase-1, colony no.4, falling into Sukhna-Choe shall be closed by 31.12.2019.
- Outlet of village Hallomajra, falling into Sukhna-Choe shall be closed by 31.10.2019.
- Outlet from Bougainvillea Garden, falling into N-Choe shall be closed by 15.9.2019.
- Two points of sewage discharge from Attawa area shall be closed by 31.12.2019.
- One outlet carrying sewage of Sec-53, near furniture market, Chandigarh shall be plugged by 31.10.2019.
- One outlet carrying sewage of Sec-53, near Garden of Spring, Chandigarh, shall be plugged by 31.12.2019.
- One outlet from bridge point, near Beant memorial, shall be closed by 31.10.2019.
- One outlet from Beant memorial shall be closed by 15.9.2019.
- Two outlets from Sec-52 shall be plugged by 30.11.2019.
- One outlet from Sec-52 (end) shall be plugged by 30.11.2019.
- Health check up Camp should be organised on monthly basis and prior intimation should be provided to the Executing Committee.
- The Commissioner, Municipal Corporation, Chandigarh should watch the tendering process and ensure the upgradation of existing STPs and installation of new STPs by 30.11.2021.
- CPCC should regularly inspect the industries and take necessary action under the provisions of the Water Act, 1974 against the defaulting units.
- Additional Chief Inspector of Factories shall inspect the industries and ensure the compliance of the factory rules to provide good environment and healthy condition to the workers of the factories.

## 2) State of Punjab

Nodal officer PPCB presented the status w.r.t control of pollution in river Ghaggar as under:

### A) Status of Sewage Treatment Plants

- 43 STPs are required to be installed in 30 towns.
- 21 STPs are in operation.
- Out of remaining 22 STPs, which are yet to be completed/constructed, 6 STPs are under construction and are within the timelines as mentioned in the Action Plan.
- The remaining 16 STPs are delayed due to land issues, eligibility criteria for DNIT, tendering process, technology issues, DPRs preparation etc.
- 2 STPs to be installed by MES, have also been delayed and are at tendering and DPR preparation stage.

### B) Upgradation of existing STPs based on WSP

- 4 existing STPs have been delayed and are at DPR preparation stage.

### C) Operational status of STPs

It was apprised as under:

- The monitoring of 21 STPs carried out by PPCB in the months April-July, 2019 indicates that 11-15 STPs have been found complying with the pollution control norms, whereas 6-10 STPs are not meeting with the prescribed standards.
- Show cause notices along with personal hearing have been given to PWSSB for non-complying STPs. Necessary directions have been issued to operate STPs properly and effectively.

### D) STPs in Rural areas

It was informed as under:

- 389 villages have been indentified
- 87 villages have been covered to install STPs in Phase-1.
  - ✓ Rs 26.10 crore are required for STPs in 87 villages.
  - ✓ Timeline: 30.6.2020
- 152 villages covered to install STPs in Phase-II.
  - ✓ Rs 45.6 crore are required for STPs in 152 villages.
  - ✓ Timeline: 30.6.2021
- 150 villages covered to install STPs in Phase-III.
  - ✓ Rs 45 crore are required for STPs in 150 villages.
  - ✓ Timeline: 30.6.2022

## **E) Schemes for utilization of treated wastewater for irrigation**

It was informed as under:

- In 9 towns, irrigation network has been laid to utilize treated domestic wastewater for irrigation.
- In 2 towns, irrigation schemes are under progress.
- For 10 towns, 15 irrigation schemes for utilization of treated sewage for irrigation are under process.

## **F) Inspection of industries by PPCB**

It was apprised as under:

- 13 industries located in the catchment area of river Ghaggar have been visited from April, 2019 to June, 2019 and suitable directions have been issued to these industries.

## **G) Surface water quality monitoring**

It was informed as under:

- 14 locations have been fixed for monitoring of water quality of river Ghaggar.
- Based on the analysis study of July, 2019, quality of water remains to class 'D' at the entry and exit point in Punjab.
- At 11 locations in the State of Punjab, the quality of water has been found to be class 'E'.
- Quality of water suddenly deteriorate before and after the confluence point of Sagar Para Drain coming from Haryana.
- The value of BOD in river Ghaggar water at 14 locations has been observed to be varied between 13-65 mg/l in the year, 2018, whereas, in the year, 2019, the value of BOD has been observed as 10-41 mg/l.
- F.coli in river Ghaggar water has been observed to be more than 20000 MPN/100ml in the year, 2018-2019.
- The value of DO in river Ghaggar water at these 14 locations has been found increased in the year, 2019 as compared to previous year of 2018.

## **H) Ground water quality in the Vicinity of river Ghaggar**

It was informed as under:

- CGWA has carried out ground water sampling at 53 locations, of which 14 ground water samples of hot-spot locations have been analyzed by PBTI.
- All the 14 ground water samples have been found within the permissible limits except the value of chloride, sulphate, magnesium and total hardness which may be due to natural reasons.

### **I) Online continuous effluent monitoring system (OCEMS)**

It was apprised as under:

- All the industries having discharge more than 50 KLD are required to install OCEMS.
- 26 industries are required to install OCEMS.
- 21 industries have already installed OCEMS.
- 4 industries are in the process of installing OCEMS.
- 1 industry is lying temporary closed.

### **J) Monitoring by State Level and District Level Special Task Force**

It was informed as under:

- 6 meetings of State level Special task Force have been held to monitor the progress on the Action Plan.
- 4 meetings in each district by the district level special task force have been held.
- Proceedings of the meetings have been uploaded on PPCB website.

### **K) Organizing Health camps**

It was apprised as under:

- In Patiala, SAS Nagar, Sangrur and Mansa health camps have been organized, where 918, 47, 167 and 51 patients totalling 1183 patients were checked, out of which total 38 patients were found suffered from water borne diseases.

### **L) Action taken report on the minutes of the last meeting held on 18.7.2019.**

Action taken report on the decisions taken in the last meeting held on 18.7.2019 is as under:

<b>Sr. No.</b>	<b>Decision taken in the last meeting held on 18.7.2019</b>	<b>Action taken report</b>
1.	Identification of culprits throwing their waste into sewerage system leading to STP Zirakpur.	Committee has been constituted to submit detail report regarding source of oil & grease in the STP Zirakpur.
2.	Installation of STPs for town located on river Ghaggar as per time schedule.	Details of STPs have been given in point no. 'A'.
3.	Identification of alternate site for installation of STP at Lalru	Private land is being identified for installation of STP.
4.	Surprise checking of industries by PPCB	The details have been given at point no. 'F'.
5.	Monitoring of STP by PPCB	Monitoring of STP is being carried out on monthly basis.
6.	Operation of irrigation scheme to utilize treated wastewater for irrigation.	<ul style="list-style-type: none"><li>• 9 irrigation scheme have been implemented.</li><li>• 2 irrigation scheme are under installation</li></ul>

7.	Installation new STPs based on new standards as per order of Hon'ble NGT	PWSSB has informed that new STPs shall be installed based on new standards.
8.	Resolving the issue of sudden rise in BOD value in river Ghaggar water after confluence of Sagar Para Drain by PPCB and HSPCB.	PPCB asked HSPCB to look into the matter and take action against the defaulters responsible for discharging untreated/partial treated wastewater in Sagar Para drain leading to river Ghaggar.
9.	Installation of OCEMS by remaining industries by 31.7.2019.	Out of 12 industries, 7 industries have installed OCEMS, 4 industries are in the process of installing OCEMS and 1 industry is lying temporary closed.
10.	Installation of CCTV cameras and OCEMS on STPs.	Out of 21 STPs, which are in operation, CCTV cameras have been installed in 15 STPs and OCEMS on 1 STP.
11.	Inspection of industries by District Level Special Task Forces of districts Mohali, Patiala, Sangrur and Mansa.	Deputy Commissioners of district Mohali, Patiala, Sangrur and Mansa have been requested to visit the industries along catchment area of river Ghaggar.
12.	Carrying out groundwater sampling along river Ghaggar.	Groundwater sampling of 53 locations has been carried out by CGWB, out of which samples of 14 locations have been got analyzed from PBTI.
13.	Installation of STPs by department of Rural Development & Panchayats for villages.	Details have been mentioned at point no. 'D'.
14.	Organizing Health check up camps	Details have been mentioned at point no. 'K'.

**After detail deliberation, the following decisions were taken by the chairman of the Monitoring Committee.**

- 1) The department of Local Government shall resolve all the land issues, eligibility criteria for DNIET, tendering process, technology issues, DPR preparation etc of the remaining 16 STPs by 31.12.2019 and ensure that these STPs may be installed within the time schedule as mentioned in the Action Plan. The proportionate progress w.r.t each STP shall be presented in each meeting of the executive committee.
- 2) Upgradation work of 4 existing STPs may be completed within the time schedule as mentioned in the Action Plan. The proportionate progress w.r.t each STP shall be presented in each meeting of the executive committee.
- 3) PPCB shall take up the matter with Garrison Engineer, MES, Patiala to install STP of capacity 6 MLD for cantonment at Patiala and STP of 1 MLD capacity for cantonment at Nabha, within the time schedule as mentioned in the



- Action Plan. The proportionate progress w.r.t each STP shall be presented in each meeting of the executive committee.
- 4) Member Secretary, PPCB shall hold a meeting with Member Secretary, HSPCB to resolve the issue w.r.t sudden rise in the value of BOD in the water of river Ghaggar at confluence point of Sagar Para drain and submit action taken report in the matter in the next meeting of the Executive Committee.
  - 5) PPCB shall continuously monitor the STPs which are in operation and take action against the defaulters for not achieving the prescribed standards.
  - 6) Department of rural Development & Panchayat shall install STPs to treat the wastewater of the Rural areas as per the time schedule mentioned in the Action Plan. The lists of the 14 villages where treatment systems have been installed and 14 villages where treatment systems are under installation may be submitted in the next meeting of the Executive Committee.
  - 7) Irrigation networks for 15 irrigation schemes for 10 towns for utilization of treated sewage for irrigation may be laid at the earliest.
  - 8) PPCB shall continuously monitor the effluent treatment plants of the industries and take legal action under the provision of the Water Act, 1974 against the defaulting industries.
  - 9) PPCB shall continuously monitor the surface water quality of river Ghaggar at the defined locations and data may be analyzed w.r.t improvement in the quality in terms of various parameters.
  - 10) PPCB shall carry out groundwater sampling of the points located in the vicinity of river Ghaggar as per the frequency already decided in earlier meetings.
  - 11) PPCB shall get install OCEMS from the remaining 5 industries by 31.08.2019 and the same be got connected to PPCB and CPCB servers. PPCB shall also get connect OCEMS of 7 industries, which have recently installed OCEMS with server of CPCB.
  - 12) PPCB shall take up the matter with District Level Special Task Force to visit the industries located in the catchment area of river Ghaggar and action against the defaulting industries may be recommended to PPCB.
  - 13) Regular health check up camps may be organized by the department of Health and Family Welfare. PPCB shall take up the matter with concerned Chief Medical Officer in this regard.

### 3) State of Haryana

Member Secretary, HSPCB presented the status of various activities w.r.t. control of pollution in River Ghaggar as under:

#### 1. Status of Sewage Treatment Plant

- 46 STPs have been installed and commissioned in 27 Towns of 8 Districts by the Public Health Engineering Department of the State.
- 5 STPs in 3 Towns of 3 Districts have been installed and commissioned by HSVP.

#### 2. Status of STPs under construction

- In Panchkula district, 8 STPs in the towns namely Toka, Nangal, Khatoli, Kot, Billa, Sukhdarshanpur, Kangowalan, Suketri are under installation and shall be commissioned by 26.10.2019.
- In Ambala District, 4 STPs in the towns namely Barara, Ambala, 12 Cross Road and Khuda Khurd are under installation and shall be commissioned by 31.10.2019, 31.3.2020, 4.2.2020 and 4.2.2020, respectively.
- In Kurukshetra District, 1 STP in Kurukshetra town shall be completed by 31.12.2019,
- In Jind town, 1 STP shall be completed by 30.12.2019.
- In Village Dabra of District Hisar, STP shall be completed by 05.02.2020.
- In Sirsa town, STP shall be completed by 30.11.2019.
- In Jakhal Mandi, STP shall be completed by 31.08.2019.

#### 3. List of industries inspected by HSPCB in July, 2019

It was apprised as under:

- HSPCB has inspected 3 industries in the month July 2019 and effluent samples of these industries were not found meeting with the prescribed standards, as such, show cause notices have been issued to these industries.

Chairman of the Monitoring Committee desired that more industries shall be inspected by HSPCB and surprise checking of the industries may also be conducted by the Board.

#### 4. Inspection of STPs by HSPCB in July, 2019

It was apprised as under:

- HSPCB has inspected 5 STPs in the month July, 2019 and all the STPs are found meeting with the standards prescribed by the Board.
- No action is required to be taken against the operators of the STPs.

## **5. Status of irrigation schemes to be implemented to utilize the treated sewage**

It was apprised as under:

- A pilot project by irrigation department for installation of solar / grid powered micro irrigation infrastructure on STPs for utilization of treated sewage for irrigation has been completed on 31.01.2019 and irrigation facility has been created for 76 hectares in Pehowa block.
- Testing of the equipments / pipe lines network is under process.
- Regular irrigation scheme is likely to be started in the next crop season.
- After watching success story of the above pilot project, similar projects will be replicated in other blocks of the district.
- Another project costing Rs. 235.94 crores for recycle and reuse of treated wastewater of the towns for irrigation has been planned by irrigation department.
- In the first phase, treated wastewater from STPs of Fatehabad, Sirsa, Hisar and Jind districts costing Rs. 87 Crores has been planned and administrative approval has been obtained but no funds have been provided by Govt..
- Accordingly, in order to get the funds, project has been submitted to agriculture department of the State.

## **6. Status of installation of STPs for the villages having discharge more than 300 KLD.**

- No action has been taken by Department of Rural Development & Panchayat.

## **7. Ground water sample collection in July, 2019**

It was apprised as under:

- 33 Ground water sample have been collected from various locations located in the catchment area of River Ghaggar in districts Panchkula, Ambala, Kurukshetra, Kaithal, Jind, Fatehabad, Hisar and Sirsa.
- Out of these 33 ground water samples, 5 samples are not found complying with the norms, whereas, remaining 28 samples are meeting with the norms.

## 8. Status of Health camps organized

It was informed as under:

In 8 districts (Panchkula, Ambala, Kurukshetra, Kaithal, Jind, Fatehabad, Hisar and Sirsa ) located in the catchment area of River Ghaggar, Health Check up Camps have been organized.

- 21 Health Check up Camps have been organized.
- Out of the 21 Health Check up Camps, 14 camps have been organized in district Kaithal, where 565 patients were examined in different villages.
- Out of remaining 7 camps, 3 camps have been organized in district Ambala, 2 camps in Fatehabad, where, 54 patients were examined and in district Sirsa 2 Health Check up Camps were organized, where, 84 patients were examined.

## 9. Action taken report of District Level Special Task Force

- In was informed that District Level Special Task Force of the all the 8 districts have submitted their action taken report for the month July 2019.
- Action taken reports of District Level Special Task Force are being uploaded on the website of HPCSB.

## 10. Water quality of river Ghaggar

- It was informed that water quality of River Ghaggar is checked at 38 locations, which have been jointly fixed by 3 States and U.T., Chandigarh.
- Besides, water quality of River Ghaggar is analyzed at 4 locations in District Hisar and 21 locations in district Jind.
- There is no improvement in the water quality of River Ghaggar w.r.t. T.Coli parameter, which indicates that chlorination is hardly being given to any STP to kill T.Coli.

## 11. Action taken report on the decisions taken 13<sup>th</sup> meeting held on 18.7.2019

The action report was submitted as under:

Sr. No.	Decisions taken in the 13 <sup>th</sup> meeting held on 18.7.2019	Action taken report
1.	Installation of STPs for the towns located on the drains / Nallah leading to River Ghaggar	The report has been mentioned at point 1. & 2.
2.	Monitoring of ETPs of the industries by HSPCB	Report has been mentioned at point no. 3.
3.	Monitoring of STPs by HSPCB	Report has been mentioned at point no. 4.
4.	Preparation of irrigation schemes for utilization of treated sewage for irrigation	Report has been mentioned at point no. 5.

5.	Installation of STPs for the villages having discharge more than 300 KLD	No scheme has been prepared so far.
6.	Preparation of irrigation schemes for utilization of treated sewage of villages for irrigation scheme	No scheme has been prepared so far.
7.	Ground water monitoring by HSPCB	Report has been mentioned at point no. 7.
8.	Organizing Health Checkup Camps	Report has been mentioned at point no. 8.
9.	Carrying leachability test by HSPCB	Matter referred to Scientific Branch of HSPCB.
10.	Provisions of GPS system on sewage carrying tankers	Necessary directions have been issued to ULB department for installation of GPS system on the tankers.
11.	Installation of new STPs as per the new standards mentioned in order dated 30.4.2019 of Hon'ble NGT in OA No. 1069 of 2018	Necessary directions have been issued to concerned departments.
12.	Inspection of industries by DLSTF	DO letters have been issued to all the DC's of the State.
13.	Monitoring of water quality of River Ghaggar	Report has been mentioned at point no. 10.
14.	Installation of OCEMS by the industries for monitoring of ETPs	4 units have already installed OCEMS. Out of 60 OCEMS to be installed on the STPs, 52 OCEMS have been installed on STPs.
15.	Submission of performance guarantee as per order of Hon'ble NGT in OA No. 673 of 2018.	Performance guarantee will be submitted by PHED.
16.	Plantation of trees by HSPCB along Sukhna Choe	Action under process
17.	Installation of OCEMS into drain / nallah leading to River Ghaggar by HSPCB.	Action under process

**After detailed deliberation, the following decisions were taken:**

1. The Deptt. of Urban Local Bodies shall install and commission all the STPs for the towns located in the catchment area of River Ghaggar as per the time schedule mentioned at point no. 2 (page 9 and 10).
2. HSPCB shall continuously monitor the STPs of the towns and take action against the defaulters for not achieving the prescribed standards.
3. HSPCB shall inspect more industries located in the catchment area of River Ghaggar, collect effluent samples of the industries and legal action under the provisions of the Water Act, 1974 may be taken against the defaulting industries.
4. State of Haryana shall prepare the irrigation schemes for utilization of treated sewage of all the towns located on the catchment area of River Ghaggar by 31.12.2019 and shall arrange funds for the same.

5. The Deptt. of Rural Development & Panchayat shall install STPs for the villages located on the catchment area of River Ghaggar and having discharge more than 300 KLD by 31.3.2021.
6. HSPCB shall carry out ground water sampling of the points already identified by it as per the sampling schedule already decided in the earlier meetings and the ground water samples, which are not meeting with the prescribed norms, may not be allowed to be used by the public.
7. Deptt. of Health & Family Welfare shall regularly conduct Health Check up Camps in the towns / villages located in the catchment area of River Ghaggar.
8. District Level Special Task Force of all the districts shall visit the industries and other water polluting sources on monthly basis and action may be recommended to HSPCB against the violating industries / culprits.
9. HSPCB shall monitor the water quality of River Ghaggar at different locations as already earmarked and data may be analysed w.r.t. improvement in the water quality of the River Ghaggar.

#### **4. State of Himachal Pradesh**

##### **a) Status of existing STPs**

It was apprised that presently, no STP exists in Parwanoo and Kala Amb area.

##### **b) Status of STPs under construction**

It was apprised as under:

- Sukhna Nallah at Parwanoo and River Markanda at Kala Amb fall in the catchment area of River Ghaggar.
- Parwanoo town located on Sukhna Nallah.
- For installation of STPs for Parwanoo town, land has been finalized and shall be commissioned by 31.01.2022.
- Kala Amb town located on River Markanda.
- One CETP cum STP of capacity 5 MLD costing Rs. 23 Crores shall be installed in Kala Amb area for which DPR has been prepared. Land for CETP has been acquired by Deptt. of Industries. EC has been applied by SPV.

##### **c) List of industries inspection by HPPCB in August, 2019**

It was apprised as under:

- **Sukhna at Parwanoo**
  - 6 Industries were inspected by HPPCB.
  - Analysis results of the effluent samples, collected from these industries, are awaited.
- **River Markanda at Kala Amb**
  - 22 industries were inspected HPPCB in the month July, 2019.
  - ETPs of all the industries were found in operation.
  - No major violations/observations were observed in any of the ETP of these industries.

##### **d) Inspection of STPs by HPPCB**

There is no STP in Parwanoo and Kala Amb area, as such, no inspection is applicable.

##### **e) Status of irrigation schemes to be implemented to utilize the treated sewage**

It was informed that no irrigation scheme either operational or proposed in Parwanoo and Kala Amb area.

**f) Status of installation of STPs for the villages having discharge more than 300 KLD**

It was apprised as under:

- 2 STPs have been proposed by I& PH department Solan, which shall also include village areas.
- 1 CETP of capacity 5 MLD costing Rs. 23 Crores shall be installed in Kala Amb area for which DPR has been prepared. Land for CETP has been acquired by Deptt. of Industries. EC has been applied by SPV.

**g) Ground water sample collection in July, 2019**

▪ **Sukhna Nallah at Parwanoo**

It was apprised as under:

- Fresh water supply through Lift Water Supply Scheme on River Kaushalya is there.
- Water quality of this river is meeting Class 'A'.
- 2 rounds of ground water samples have been completed but no contamination has been found.
- One ground water sample has been collected in August, 2019. Result awaited.

▪ **River Markanda at Kala Amb**

It was apprised as under:

- 39 ground water samples have been collected by HPPCB and I& PH from Kala Amb area. Results awaited.

**h) Status of Health camps organized**

▪ **Sukhna Nallah at Parwanoo**

It was informed as under:

7 health camps have been organized till date by Health department.

▪ **River Markanda at Kala Amb**

It was informed as under:

- 7 health camps have been organized by Deptt. of Health & Family Welfare in Kala Amb area and about 1500 patients have been examined.
- In July 2019, health camp was organized by Kala Amb area and about 250 patients were examined.

**i) Action taken report of District Level Special Task Force**

▪ **Sukhna Nallah at Parwanoo**

It was informed as under:



- 7 meetings of DLSTF have been held.
- Closure directions have been issued to 15 units.
- Challans have been issued for solid waste burning and plastic littering.
- Survey for real time water quality station done with I & PH, Solan.
- Joint inspection for land finalization for STPs at Parwanoo area was made.

▪ **River Markanda at Kala Amb**

It was informed as under:

- All water polluting industries in Kala Amb area were inspected.
- 14 effluent samples from outlet of ETPs of the industries were collected in July, 2019. Analysis results are awaited.
- HPPCB imposed environmental compensation of Rs. 18750/- on M/s Bhandari Katha Udyog, Distt. Sirmour for violation of provisions of Water Act, 1974.
- 10 meetings of DLSTF have been held.
- DPR for installation of CETP has been prepared and estimated cost of the same is Rs. 23 crores. Land for CETP has been acquired by the Deptt. of Industries.

j) **Water quality of river Ghaggar (Jan, 2018 to Dec, 2018)**

▪ **Sukhna Nallah at Parwanoo**

It was informed as under:

- HPPCB is not directly monitoring water quality of River Ghaggar as the same does not flow through its territory.
- HPPCB is monitoring water quality of Sukhna Nallah on monthly basis.
- No industry in the catchment area of Sukhna Nallah discharge wastewater directly into River Ghaggar.
- Water quality monitored from Sukhna Nallah before confluence with River Kaushalya indicate the value of BOD and COD as 4.8 mg/l and 40 mg/l, respectively.
- Water quality of Kaushalya River after confluence of Sukhna Nallah was monitored and analysis results indicate the value of BOD and COD as 2 mg/l and 5 mg/l, respectively.
- At exist point of HP, Near Kalka, water of Sukhna Nallah was found containing BOD between 8-28 mg/l and COD as 60-104 mg/l.

▪ **River Markanda at Kala Amb**

It was informed as under:

- Water quality of River Markanda up stream of Jattan Walla Drain indicate the value of BOD as 0.8 mg/l and T.Coli as 79 MPN/100 ml.

- Water quality of Jattan Walla Drain indicate the value of BOD as 45 mg/l and T.Coli as 180000 MPN/100 ml.

**k) Water quality of river Ghaggar (Jan, 2019 to August, 2019)**

▪ **Sukhna Nallah at Parwanoo**

It was informed as under:

- HPPCB is monitoring water quality of Sukhna Nallah on monthly basis.
- No industry in the catchment area of Sukhna Nallah discharge wastewater directly into River Ghaggar.
- The water quality of Sukhna Nallah at exit point of HP near Kalka indicate the value of BOD varying between 0.6 – 72 mg/l and COD value between 8-280 mg/l.

▪ **River Markanda at Kala Amb**

No analysis results were submitted for the period January, 2019 to August, 2019.

**L) Action taken report on the decisions taken 13<sup>th</sup> meeting held on 2.8.2019**

**The action report was submitted as under:**

▪ **Sukhna Nallah at Parwanoo**

- Regarding ZLD technology to be adopted by electroplating industries and other highly polluting industries, 2 meeting were held on 20.8.2019 and 21.08.2019.
- Inspection and sampling of all water pollution industries in catchment area of Sukhna Nallah was carried out.
- Closure directions u/s 33-A of the Water Act, 1974 have been issued against one industrial unit.
- HPPCB carried out cleanliness drive in Parwanoo area in June 2019 and about 350 participants from various industries, schools and Government offices participated and 20 MT solid waste was collected from Samtel Nallah.
- 7 meetings of DLSTF have been held.
- Funds for real time OCEMS stations have been released by HPPCB and I & PH. OCEMS shall be installed in River Kaushalya by 31.08.2019.
- Proposal has been prepared for installation of 2 STPs each of capacity 1 MLD and the same are likely to be completed by 31.01.2022.
- One pilot basis bio digester shall be made functional by 31.08.2019

▪ **River Markanda at Kala Amb**

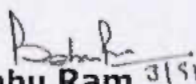
- Inspection of all the water pollution industries in Kala Amb area has been carried out by HPPCB. 14 effluent samples have been collected and the analysis results are awaited.

- HPPCB has imposed an EC amounting to Rs. 18750/- on M/s Bhandari Katha Udyog, Distt. Sirmour for violation of provisions of the Water Act, 1974.
- Water samples of River Markanda up stream Kala Amb, downstream Kala Amb and Jattan Walla drain are being collected on monthly basis.
- 10 meetings of DLSTF have been held.
- DPR for installation of CETP of capacity 5 MLD costing Rs. 23 Crore has been prepared. Land for CETP has been acquired by DIC.
- Site for setting up of solid waste management facility has been identified.
- Funds for installation of OCEMS have been released by HPPCB.
- HPPCB started cleanliness drive in Kala Amb area from 19.6.2019 to 21.6.2019 in which about 400 participants from various industries, school and Government offices were participated and more than 15 MT of solid waste from various streams of Kala Amb area was collected.

**After detailed deliberation, the following decisions were taken:**

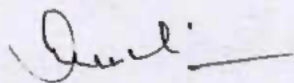
1. 2 STPs each of capacity 1 MLD for treatment of sewage of Parwanoo area shall be installed and commissioned by 31.03.2021.
2. 1 CETP cum STP of capacity 5 MLD shall be installed and commissioned to treat sewage / industrial effluent of Kala Amb area by 31.03.2021.
3. HPPCB shall inspect the water polluting industries falling in catchment area of Sukhna Nallah on monthly basis. Surprise inspection of the industries may also be carried out. Action against the defaulting units may be taken.
4. HPPCB shall inspect the water polluting industries falling in catchment area of River Markanda and Jattan Walla Nallah on monthly basis. Surprise inspection of the industries may also be carried out. Action against the defaulting units may be taken.
5. The State of Himachal Pradesh shall prepare irrigation schemes for utilization of treated sewage of Parwanoo area and Kala Amb area by 31.12.2019 and funds for the same shall be arranged.
6. Ground water samples from different locations along Sukhna Nallah, Markanda River and Jattan Walla Nallah may be collected as per the frequency already decided in the earlier meetings and data may be analyzed w.r.t. water quality of the ground water of the area.
7. Deptt. of Health & Family Welfare shall regularly conduct Health Check up Camps in the towns / villages located in the catchment area of Sukhna Nallah, River Markanda and Jattan Walla Nallah.
8. District Level Special Task Force of the concerned districts shall visit the industries and other water polluting sources on monthly basis and action may be recommended to HPPCB against the violating industries / culprits.

9. HPPCB shall monitor the water quality of Sukhna Nallah, River Markanda and Jattan Walla Nallah and river Kaushalya at different locations as already earmarked and data may be analysed w.r.t. improvement in the water quality of Sukhna Nallah, River Markanda and Jattan Walla Nallah.

  
**Dr. Babu Ram** 31/5/2019

Member, Executive Committee

Minutes approved.



**( Justice Pritam Pal )**

Former Judge, Punjab and Haryana  
High Court,

(Chairman of the Executive Committee)

**List of the Participants****A) Members of the Monitoring Committee**

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

**B) List of the officers of U.T Chandigarh, State of Punjab, State of Haryana and State of Himachal Pradesh****a) U.T Chandigarh**

Sr. No.	Name, Designation & Department
1.	Sh. K. K. Yadav, IAS Commissioner, Municipal Corporation, Chandigarh
2.	Sh. T.C. Nautiyal, IFS, Member Secretary, CPCC
3.	Sh. Mukesh Bansal, Chief Engineer, Municipal Corporation, Chandigarh
4.	Sh. Varun Benipal, Addl. Chief Inspector of Factories
5.	Sh. Ramesh Dhiman, Labour Inspector & Factory Inspector
6.	Sh. Vivek Pandey, Scientist 'B', CPCC

**b) State of Punjab****a) Department of Science, Technology and Environment**

Sr. No.	Name, Designation & Department
1	Sh. Rakesh Kumar Verma, IAS, Principal Secretary, Department of Science, Technology & Environment
2	Sh. Pardeep Garg, Additional Director, Department of Environment, Chandigarh

**b) Officers of other Departments/Boards/Corporations**

Sr. No.	Name, Designation & Department
1.	1) Er. Krunesh Garg, Member Secretary, Punjab Pollution Control Board.
2.	2) Er. V.K. Garg, Chief Engineer, PWSSB.
3.	3) Ms. Lovejeet Kalsi, ACA, PUDA
4.	4) Er. Pankaj Mehmi, Executive Engineer, PUDA
5.	5) Er. Tejpal Singh, Executive Engineer, Rural Department & Panchayat.
6.	6) Er. Lata Chauhan, Supertending Engineer, PWSSB.
7.	7) Sh. Gurdarshan Singh, EO, MC, Derabassi
8.	8) Sh. Gurdeep Singh, EO, MC, Banur
9.	9) Sh. S.K. Sharma, Executive Engineer, PSIEC.
10.	10) Er. Bhola Tiwai, Garrison Engineer (South), MES, Patiala
11.	2) Er. S.S. Matharu, Environmental Engineer, Punjab Pollution Control Board, Regional Office, Hoshiarpur

### c) State of Haryana

Sr. No.	Name, Designation & Department
1.	Sh. Anand Mohan Sharan, IAS, Principal Secretary, ULB, Haryana, Chandigarh
2.	Sh. S. Naryanan, IFS, Member Secretary, HSPCB, Panchkula
3.	Sh. K.K. Verma, Chief Engineer, Public Health Engineering Department, Panchkula
4.	Sh. Naresh Pawar, Chief Engineer, HSVP, Panchkula
5.	Sh. Phool Singh Nain, Chief Engineer, Irrigation Department, Haryana, Panchkula
6.	Dr. Sanjay Sharma, Deputy Director, Health Department, Panchkula
7.	Sh. J.P. Singh, Environmental Engineer, HSPCB, Panchkula
8.	Sh. Mandeep Singh, XEN, MC, Panchkula
9.	Sh. N.K. Payal, XEN, HSVP, Panchkula
10.	Sh. R.K Mago, ME, Thanesar, Kurukshetra
11.	Sh. B.N. Bharti, EO, M.C. Thanesar, Kurukshetra
12.	Sh. Hari Krishan Sharma, EE, MC, Hisar
13.	Sh. Ranvir Singh, SDE, ULBD, Panchkula

### d) State of Himachal Pradesh

Sr. No.	Name, Designation & Department
1.	Shri, Lalit Jain, IAS, Director, Rural Development, GoHP
2.	Dr. Sharwan Kumar, SEE, HPPCB, RO Ponta Sahib
3.	Er. SK Shandil, EE, HPPCB cum Nodal Officer
4.	Dr. Sanjay Sharma, Deputy Director, Health, Shimla
5.	Dr. KK Parashar, CMO, Nahan
6.	Dr. Mahesh Sharma, MS, Solan
7.	Dr. Gagan Deep Raj Hans, Deptt. of Health
8.	Shri, SumitSood, Ex En, I&PH, Solan
9.	Rajesh K Jharta, Consultant, RDDHO
10.	Er. Lalit Thakur, AEE HPPCB Sub Regional Office Kala Amb