

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

(By Video Conferencing)

Original Application No. 916/2018  
(Earlier O.A. No. 101/2014)

(With Report dated 31.01.2020)

Sobha Singh & Ors.

Applicant(s)

Versus

State of Punjab & Ors.

Respondent(s)

Date of hearing: 22.06.2020

Date of uploading of order: 29.06.2020

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

**ORDER**

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**I. Introduction - The issue and the background on the subject of pollution of rivers Satluj and Beas in the State of Punjab:**

1. This order may be read in continuation of order dated 12.12.2019. Issue for consideration is the remedial action for pollution of Rivers Satluj and Beas in the State of Punjab and other incidental matters. The subject has been dealt with by this Tribunal in the last five years on several occasions. The matter was exhaustively reviewed on 24.07.2018. It was noted that main sources of pollution are discharge of untreated industrial effluents by industries, discharge of untreated municipal sewage as well as solid or other waste disposal either directly in the said rivers or in the drains or the tributaries of the said rivers.
  
2. River Satluj also finds mention in 351 identified polluted river stretches based on data compiled by Central Pollution Control Board

("CPCB") which issue has been dealt with separately today in O.A. No. 673/2018 to which reference will be made later.

**II. Order of this Tribunal dated 24.07.2018 constituting a Committee to prepare time bound action plan for control of pollution and ensuring the quality of the water as per bathing standards:**

3. Vide order dated 24.07.2018<sup>1</sup>, this Tribunal directed the CPCB to constitute a Monitoring Committee with representatives from the Pollution Control Boards of Punjab and Rajasthan and Mr. Balbir Singh Seechewal, a volunteer and to prepare a time bound action plan to be put on the website. Involvement of stake holders was to be sought, apart from undertaking awareness programs.

**III. Report of the Committee and order dated 14.11.2018:**

4. The report of the Committee which was taken up for consideration vide order dated 14.11.2018 showed huge amount of uncontrolled pollution on account of lack of sewage treatment systems, non-availability of Sewage Treatment Plants ("STPs") or other appropriate waste water treatment facilities, lack of skilled man power, non-sustainable approach in designing sewage management project which resulted in damage to the health of the inhabitants and the environment.

5. Having regard to the magnitude of the damage and failure of governance in handling the situation, the Tribunal directed the State of Punjab to deposit a sum of Rs. 50 Crores for restoration of the environment which could be recovered from the erring local bodies/officers/individual.

**IV. Order of this Tribunal dated 16.01.2019 in O.A. No. 606/2018 requiring the presence of Chief Secretaries of all the States/UTs**

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<sup>1</sup> In O.A. No. 101/2014, Sobha Singh & Ors. Vs. State of Punjab & Ors.

**to appear before this Tribunal after acquainting themselves with the important environmental issues including control of pollution of the polluted river stretches:**

6. Vide order dated 16.01.2019 in O.A. No. 606/2018 while dealing with the issue of Solid Waste Management and allied pollution related issues, this Tribunal directed personal appearance of the Chief Secretaries after acquainting themselves with significant environmental issues mentioned therein, including the issue of polluted river stretches in their States/UTs. Accordingly, the Chief Secretaries appeared, interacted with the Tribunal and undertook to take further remedial steps. They were to file further reports and appear again on the dates fixed. Even in second round many Chief Secretaries have appeared and directions have been issued for the remedial measures being taken.

**V. Further reports of the Committee dated 21.1.2019 and 30.01.2019 and order of this Tribunal dated 28.02.2019 and directing modification of the Committee to be headed by former Judge of Punjab and Haryana High Court to oversee the execution of the action for control of pollution:**

7. Further reports dated 21.01.2019 and 30.01.2019 were filed by the CPCB in respect of restoration of the rivers in question in the present case which were taken up for consideration on the last date of hearing i.e. 28.02.2019. The reports considered the action plan of the State of Punjab which was furnished in pursuance of orders of this Tribunal dated 20.09.2018 and 19.12.2018 in *Original Application No.673 of 2018*, *News item published in "The Hindu" authored by Shri Jacob Koshy Titled "More river stretches are not critically polluted: CPCB"*. In view of continuing pollution and highly inadequate steps for remedying the situation, this Tribunal directed that the Monitoring Committee earlier constituted may now be headed by a former Judge of Punjab and Haryana High Court. A former Chief Secretary of Punjab and a former Member Secretary of

Punjab PCB were directed to be included as Members. The Tribunal suggested two Senior IAS officers named in the order, whose contribution in the field of environment was well acknowledged, could be involved in a suitable manner. The Committee was to oversee the remedial measures and also consider closure of polluting activities, prosecution of the polluters and recovery of compensation for damaging the environment, apart from recommending disciplinary and penal action against the erring officers. The Tribunal also suggested that the State Government should record failure of individual officers in the ACRs.

**VI. Report of the Committee dated 12.06.2019 and order of this Tribunal dated 16.07.2019:**

8. The matter was considered on 16.07.2019 in light of the report dated 12.06.2019 furnished by the Monitoring Committee.

9. After noticing the status report furnished in the report with regard to STPs not achieving the norms, need for monitoring stations at appropriate locations, need for inspection of ETPs particularly in respect of industries in the proximity of water bodies, finalization of timelines for treatment equipments, CCTV cameras to check dumping of waste, specific observations with regard to Budda Nalah and Holy Bein, Common Effluent Treatment Plant ("CETP") at Jalandhar, waste management and STPs at S.B.S. Nagar, Kalasinghia drain, violations by specified industries and local bodies, misconduct of certain officers, this Tribunal directed the report be implemented fully in letter and spirit. The Tribunal directed that identified polluting activities be stopped and compensations recovered from the identified polluters. The compensation may go back upto five years based on assessment of the period for which violation took place.

The PCB may recover compensation after following due procedure of law and give an action taken report to the Committee.

**VII. Order dated 01.10.2019 in O.A. No. 138/2016 modifying the constitution of the Committee and substituting the Chairman of the Committee by Justice Jasbir Singh, former Judge of the Punjab and Haryana High Court:**

10. The constitution of the Committee was modified for the reasons mentioned in the order dated 01.10.2019 to the effect that the Committee will now be headed by Justice Jasbir Singh, former Judge of the Punjab and Haryana High Court in place of Justice Pritam Pal, former Judge of the Punjab and Haryana High Court.

**VIII. Order of this Tribunal dated 22.11.2019 in O.A. No. 138/2016 dealing with the issue of control of pollution of river Ghaggar:**

11. We may also refer to order dated 22.11.2019 in O.A. No. 138/2016 to dealing with the control of pollution of river Ghaggar wherein following directions have been issued:

*“(i) All the concerned States/UT relevant for River Ghaggar must ensure installation of STPs within the planned timelines subject to the rider that where the timelines goes beyond 31.12.2020, the timeline will be treated to be 31.12.2020. Wherever timeline already laid down by the State/UT is exceeded, compensation will be payable @ Rs 10lakh/month per STP till commissioning of STPs. This scale of compensation will also apply, in respect of STPs for which timeline for construction of STP is beyond 31.12.2020, from 01.01.2021. The STPs must conform to the laid down standards and connected to the sewerage network with a view to achieve the object of setting up of such STPs.*

*(ii) Let the concerned SPCBs/PCC take steps in terms of observations of the Committee after considering the response of the alleged polluters. If the Committee observes that SPCBs/PCC has not taken necessary and adequate action, report be given to this Tribunal.*

*(iii) Local bodies in the catchment area may ensure that solid waste is not dumped into the river or its tributaries which aspect may be monitored by the Committee also.*

(iv) Future functioning of the Committee will be in terms of clarification as per para 21 above. Incidental issues stand disposed of in terms of para 22 above.

(v) Let steps be taken by concerned States/UTs in terms of the recommendations and for compliance of direction for connecting the drains to the STPs wherever feasible and till then in-situ remediation in terms of para 20 above.

(vi) The Chairmen, Member Secretaries of SPCBs/PCC, Secretaries Urban Development and Secretaries Irrigation and Public Health of the four States/ UT and nodal officer of CPCB may remain present in person for the assistance of the Tribunal so that comprehensive review of progress can be undertaken.”

**IX. Order of this Tribunal dated 06.12.2019 in connected matters dealing with pollution of 351 river stretches – O.A. No. 673/2018 on the subject of preparation and execution of action plan for control of pollution of polluted river stretches:**

12. We may also refer to order dated 06.12.2019 in O.A. No. 673/2018, wherein following directions have been issued:

“(i) 100% treatment of sewage may be ensured as directed by this Tribunal vide order dated 28.08.2019 in O.A. No. 593/2017 by 31.03.2020 atleast to the extent of in-situ remediation and before the said date, commencement of setting up of STPs and the work of connecting all the drains and other sources of generation of sewage to the STPs must be ensured. If this is not done, the local bodies and the concerned departments of the States/UTs will be liable to pay compensation as already directed vide order dated 22.08.2019 in the case of river Ganga i.e. Rs. 5 lakhs per month per drain, for default in in-situ remediation and Rs. 5 lakhs per STP for default in commencement of setting up of the STP.

(ii) Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning till 31.03.2021 in terms of order dated 08.04.2019 in the present case will remain as already directed. In default, compensation will be liable to be paid at the scale laid down in the order of this Tribunal dated 22.08.2019 in the case of river Ganga i.e. Rs. 10 lakhs per month per STP.

(iii) We further direct that an institutional mechanism be evolved for ensuring compliance of above directions. For this purpose, monitoring may be done by the Chief Secretaries of all the States/UTs at State level and at National level by the Secretary, Ministry of Jal Shakti with the assistance of NMCG and CPCB.

(iv) For above purpose, a meeting at central level must be held with the Chief Secretaries of all the States/UTs atleast once in a month (option of video conferencing facility is open) to take stock of the progress and to plan further action. NMCG will be the nodal agency

for compliance who may take assistance of CPCB and may give its quarterly report to this Tribunal commencing 01.04.2020.

(v) The Chief Secretaries may set up appropriate monitoring mechanism at State level specifying accountability of nodal authorities not below the Secretary level and ensuring appropriate adverse entries in the ACRs of erring officers. Monitoring at State level must take place on fortnightly basis and record of progress maintained. The Chief Secretaries may have an accountable person attached in his office for this purpose.

(vi) Monthly progress report may be furnished by the States/UTs to Secretary, Ministry of Jal Shakti with a copy to CPCB. Any default must be visited with serious consequences at every level, including initiation of prosecution, disciplinary action and entries in ACRs of the erring officers.

(vii) As already mentioned, procedures for DPRs/tender process needs to be shortened and if found viable business model developed at central/state level.

(viii) Wherever work is awarded to any contractor, performance guarantee must be taken in above terms.

(ix) CPCB may finalize its recommendations for action plans relating to P-III and P-IV as has been done for P-I and P-II on or before 31.03.2020. This will not be a ground to delay the execution of the action plans prepared by the States which may start forthwith, if not already started.”

13. A separate order has been passed today in OA 673/2018 which will apply to the present case. To avoid repetition the said order itself may be referred to as covering the present case to that extent.

**X. Report of Committee dated 29.10.2019 and consideration thereof:**

14. Further report dated 29.10.2019 was considered vide order dated 12.12.2019 with reference to:

- (a) Monitoring of functioning of existing STPs.
- (b) Functioning of CETPs.
- (c) Monitoring of ETPs.
- (d) Setting up of new and up gradation of STPs.
- (e) Setting up of ETP plan for dairy waste.
- (f) Reconciliation of waste water and industrial effluents of Ludhiana.

- (g) Release of fresh water in Budha Nallla and Holy Bein.
- (h) Reuse of treated water for irrigation.
- (i) Preventing dumping of Solid Waste.
- (j) Treatment facilities in villages.
- (k) Shifting of dying industries.
- (l) Organizing health checkups.
- (m) Direct discharges into drains.

15. The Tribunal directed:

*“19. Further steps need to be taken by the State of Punjab, regulatory authorities and concerned local bodies in accordance with law after following the due procedure. The authorities may ensure that there is no discharge of untreated or partially treated pollutants or dumping of other waste in the rivers in violation of statutory provisions under the Water (Prevention and Control of Pollution) Act, 1974 (Water Act). The concerned authorities may take further action in the light of the report.*

*20. The Satluj and Beas rivers being identified river stretches by CPCB, directions of this Tribunal in O.A. No. 673/2018 dated 06.12.2019 will apply to the said river stretches particularly with regard to adherence to the timelines to ensure atleast in-situ remediation as an interim arrangement till 31.03.2020 failing which compensation will be payable from 01.04.2020 by the State which may be recovered from the concerned erring polluters/officers and ensuring full compliance of the action plans by 31.03.2021 failing which compensation will be payable in terms of the said order.*

**Letter of the Committee dated 26.11.2019 regarding non-seriousness of the officers of Government of Punjab:**

*21. This Tribunal also received letter dated 26.11.2019 pointing out non-seriousness of the officers of the State of Punjab and not responding to the notice of the Committee to attend significant meeting. By way of e-mail it was informed that a meeting was scheduled on 25.11.2019, Principal Secretaries, Local Government and Water Resources, Punjab along with other officers were requested to attend personally for important decision at responsible level. Not only officers did not attend, no response was sent on account of which the meeting had to be adjourned and lead the Committee to pass a resolution as follows:-*

*“Serious issues regarding discharge of untreated wastewater into the Holy Bein and non-compliance to the directions issued by the Committee have been raised from time to time. the senior officers i.e. the Principal Secretary, Local Government and Principal Secretary, Water Resources were requested vide letter No. CEC/SB/2019/169, dated 25.11.2019 to participate in the meeting personally on 26.11.2019 at 11.30 AM at Forest Complex, Sector 68, Mohali so that commitment could be made at responsible level. Intimation was also sent to*

them on 25.11.2019 through email and telephonic message was also conveyed. No communication was received that they are unable to attend this meeting on account of their pre-occupations. The officers from other departments are available. We waited upto 11.45 AM. No message has been received from the office of the above said officers. Their attitude shows non-seriousness about this extremely important issue which concerns the future generation. It also shows their disrespect to the directions issued by the Committee constituted by the Hon'ble NGT.

On account of their non-availability meeting is adjourned. Let a report be sent to Hon'ble National Green Tribunal, New Delhi to take appropriate action.”

Learned counsel for the State of Punjab has made a statement that the issue to be looked into at the highest level in the State and remedial action taken. Let the Chief Secretary, Punjab look into the matter and take further remedial action in this regard.

#### **XI. Incidental issues:**

22. We consider it necessary to clarify the procedure for functioning of the Committee henceforth. The Committees may consider all relevant issues and give its reports preferably once in two months to this Tribunal with a copy to all the concerned Chief Secretaries and SPCBs/PCC. The concerned Chief Secretaries/SPCBs/PCC may look into the said report and give their response to this Tribunal within two weeks thereafter. The response may include the action taken by the statutory bodies or other authorities. Since the Committee constituted by this Tribunal is a Fact Finding/Executing/ Monitoring Committee and has to give status report to this Tribunal, its functioning may not be viewed as giving final directions to the regulatory bodies. However, the State regulatory body may take into account the observations of the Committee in their functioning and act their own after considering the response of the alleged polluter. The Committee will be at liberty to point out to this Tribunal that action taken by the regulatory authority was not adequate. These observations are consistent with the Orders of this Tribunal dated 21.10.2019 in O.A. No. 670 of 2018 with regard to the procedure and functioning of a similar Committee in the State of UP. Dr. Babu Ram will act as Technical Expert to the Committee henceforth.

#### **XII. Directions:**

23. Accordingly, following directions are issued:

- (i) Let the concerned authorities in the State of Punjab take steps in terms of observations and recommendations of the Committee particularly in the matter of setting up of requisite treatment plants in the State, compliance to standards by the existing STPs and fixing responsibility on officials for non-performance of duties, compliance to standards by CETP leather complex, inadequate inspections by officials of SPCB, slow pace with regard to new/upgradation/rehabilitation of STPs, setting up of

*new CETPs textile and dyeing industrial cluster, setting up of new ETP for dairy waste, bridging of gap in terms of sewage quantity to be treated, interception of the drains, maintaining flow/release of fresh water in Buddha Nallah and Holy Bein, dealing of Buddha Nalla utilization of treated waste water, treatment facilities for villages, laying down pretreatment standards, desilting of drains, shifting of dyeing industries, organizing health check ups, preventing direct discharges into the drains, increased surveillance of polluting industries, training of the staff. If the timelines laid down in the order of this Tribunal dated 06.12.2019 in O.A. No. 673/2018 are crossed, compensation in terms of the directions in the said order will be payable.*

- (ii) Local bodies in the catchment area may ensure that solid waste is not dumped into the rivers or the drains connected to the rivers.*
- (iii) Future functioning of the Committee will be in terms of clarification as per para 22 above.*
- (iv) Let the Chief Secretary, Punjab look into the matter as mentioned in Para 21 above and take further remedial action.”*

**XI. Third Report of the MC dated 31.01.2020 and consideration thereof:**

16. Accordingly, report of the Monitoring Committee dated 31.01.2020 titled “**3<sup>rd</sup> Report of the Monitoring Committee constituted by Hon’ble National Green Tribunal in O.A. No. 916/2018**” has been taken up for consideration. The report mentions the steps taken up by the Committee for further monitoring of abatement of pollution of the Sutlej and Beas rivers. The report mentions the status of water quality of the polluted river stretches, earlier report of Committee dated 29.10.2019, Monitoring of functioning of STPs in the catchment area, progress w.r.t. installation of OCEMS and CCTV cameras, CETPs in the catchment area of river Sutlej, ETPs of the industries, setting up of new STPs / upgradation / rehabilitation of existing STPs, installation of new CETPs for dyeing industries of Ludhiana, setting up of ETPs / Bio-gas plants for dairy waste, setting up of treatment facility in villages and utilization of treated sewage of STPs for irrigation.

17. The Committee has also given in tabular form previous recommendations and compliance status; meeting with the District Level Officers and District Level Task Force, Ludhiana on 15/11/2019; visit to the industries of Ludhiana area on 15/11/2019 viz. M/s O; processor Pvt. Ltd., K-3, Textile Colony, Industrial Area-A, Ludhiana, M/s Oriental Knit Fab Pvt. Ltd., 278, Industrial Area-A, Ludhiana, M/s Sunshine Dyeing Pvt. Ltd., 261 Industrial Area-A, Ludhiana, M/s Ramal Dyeing Jalandhar bye pass, Opp. Shakti Nagar, Ludhiana; Visit to Dasuya, Talwara, Pathankot area and Sansarpur Terrace, Industrial Area, District Kangra on 20.11.2019 and 21.11.2019; Sewage Treatment Plant, Dasuya, BBMB; STP of capacity 8 MLD; Management of Solid waste of BBMB, Talwara; Installation of STP to treat sewage of Talwara Town; Sewage treatment plant of capacity 27 MLD at Pathankot; Visit to Friends Paper Mill, IGC, Pathankot and M/s Pioneer Industries Ltd., (Gluten Div.), Plot A2-A3, IGC, Defence Road, Pathankot; Visit to Sansarpur Terrace Industrial Area, Phase 3, District Kangra, Himachal Pradesh on 20.11.2019 and 21.11.2019,

18. Reference has been further made to visit to industries of Sansarpur Terrace, Industrial Area, District Kangra, M/s Premier AlkobeV Pvt. Ltd., Plot no.1, Sansarpur Terrace, Industrial Area, Phase 3, District Kangra, Himachal Pradesh, M/s Jassal Paper Mill, industrial area, Sansarpur Terrace, District kangra (HP), M/s Deepak battery storage, industrial area, Sansarpur Terrace, district Kangra; Visit to the industries of Jalandhar area on 3/12/2019; Sewage Treatment plant (STP) of capacity 50 MID, Basti Peer Daad, Jalandhar, Sewage Treatment plant (STP) of capacity 50 MID, Basti Peer Daad, Jalandhar, Capitol Hospital, Pathankot Road, Jalandhar, Shital Fibres Ltd., A-17, Focal Point, Jalandhar, M/s H.R

International unit-2, C-107-108, Focal Point Extn, Jalandhar; report on compliance of order dated 17.12.2019 of the Hon'ble National Green Tribunal in OA no. 596 of 2019 in the matter of Vikram Ahuja V/s State of Punjab and others; Visit to the drainage system carrying seepage/ sludge and treated/ untreated sewage of the towns falling in the jurisdiction of District Fazilka, Ferozepur, Faridkot, Moga & Sri Mukatsar Sahib and further culminating at Fazilka area on 06.01.2020 and meeting with the District level officers of above 5 districts on 07.01.2020 (to be considered separately in O.A. No. 596/2019); the current status of performance of existing sewage treatment plants; construction of new sewage treatment plants; upgradation and capacity enhancement of existing sewage treatment plants; status of the towns where funds have not been tied up so far; gaps in quantity of sewage to be treated; utilization of treated sewage for irrigation; treatment of sewage of villages, water quality of drains / Nallahs/ rivers; environment flow, septage and faecal sludge management; performance of existing STPs; status of STPs under construction; status of STPs under planning and funds tied up; STPs under planning but funds yet to be tied up; STPs which require technologically upgradation and funds tied up; gaps in treatment of sewage of the towns located on river Sutlej; treatment of sewage of villages; details of the villages where STPs have been completed; Status of 23 STPs/Towns where irrigation projects for utilization of treated sewage for irrigation have been commissioned (as on 31.12.2019), Status of towns /STPs where irrigation projects for utilization of treated sewage for irrigation are under progress; Status of towns/ STPs where irrigation projects for utilization of treated sewage for irrigation have been sanctioned; Status of towns /STPs where funds have not be tied up for irrigation projects (as on 31.12.2019); Status of CETPs for treatment of

effluent of dyeing industries of Ludhiana; leather complex, Jalandhar and effluent of electroplating industries of Jalandhar; Identification of new CETPs to treat the effluent from focal points of the State; Installation of ETPs/Biogas power plant for treatment of dairy wastewater; desilting of Budha Nallah; Feasibility study for utilization of treated sewage of STPs of Jalandhar and Ludhiana towns for irrigation; Comparison of water quality of river Sutlej at various points for the period January, 2019 to June, 2019 and September, 2019 to December, 2019 w.r.t. parameters DO, BOD, TSS and F.Coli/T.Coli.; Comparison of water quality of Budha Nallah at various points for the period January, 2019 to June, 2019 and September, 2019 to December, 2019 w.r.t. parameters BOD, COD, TSS, F.Coli/T.Coli, T.Cr., Hexa Cr, Ni, Zn, Cu, Mn, Fe, Pb.; comparison of water quality of Kala Singhian drain at various points for the period January, 2019 to June, 2019 and September, 2019 to December, 2019 w.r.t. parameters BOD, COD, TSS, F.Coli/T.Coli, T.Cr., Hexa Cr, Ni, Zn, Cu, Mn, Fe, Pb., comparison of water quality of East Bein drain at various points for the period January, 2019 to June, 2019 and September, 2019 to December, 2019 w.r.t. parameters BOD, COD, TSS, F.Coli/T.Coli, T.Cr., Hexa Cr, Ni, Zn, Cu, Mn, Fe, Pb., Environmental Flow, Septage and Faecal Sludge management, performance of existing sewage treatment plants (Beas; status of STPs under construction (Beas); status of STPs under planning but funds are yet to be tied up, STPs which require technologically upgradation and funds not tied up so far; status of completed STPs in the villages, status of STPs in the villages which are under progress, details of the Villages which have been taken in Phase-II for installation of STPs, the details of the villages in the catchment area of river Beas which have been taken in phase-III for installation of STPs; Towns/STPs where irrigation projects for utilization of treated sewage for

irrigation have been commissioned (as on 31.12.2019); status of Towns/STPs where funds have not been tied up for irrigation projects (as on 31.12.2019), comparison of water quality of river Beas at various points for the period January, 2019 to June, 2019 and September, 2019 to December, 2019 w.r.t. parameters DO, BOD, TSS and F.Coli/T.Coli.; comparison of water quality of Holy Bein (Kali Bein) at various points for the period January, 2019 to June, 2019 and September, 2019 to December, 2019 w.r.t. parameters BOD, COD, TSS, T. Coli and F. Coli., Environmental Flow, septage and faecal sludge management, Information, Education and Communication (IEC) activities.

19. Conclusions and recommendations are as follows:

### **“2.9 Conclusions and recommendations:**

*Based on the observations made during the visit to the industries and pollution sources, discussion held with the State and District level officers, data with regard to performance of existing STPs, installation of new STPs, STPs under planning, STPs which require technology up gradation and gap in treatment of sewage, treatment of sewage of villages, utilization of treated sewage for irrigation, water quality of drains/nallahs, river Sutlej and Beas, the following conclusions and recommendations are made.*

#### **A) River Sutlej**

- 1. Punjab Pollution Control Board is regularly carrying out the monitoring of sewage treatment plants of the towns located in the catchment area of river Sutlej. The monitoring data indicate that out of 50 STPs monitored during January 2019 to June 2019 and September 2019 to December 2019, 26 STPs (52%) are complying with all the norms. In 10 STPs (20%) BOD and TSS parameters are within the norms but F.coli parameter not within the norms. 5 STPs (10%) are meeting with TSS parameter but not meeting with the BOD and F.coli parameters. **No improvement w.r.t BOD, TSS and F.coli parameters was observed in 5 STPs (10%). No data available in case of 2 STPs (4%). 2 STPs (4%) were found not meeting with BOD parameter alone.** Therefore, the Monitoring Committee recommends as under:*

- ✓ **Municipal Corporations/ Municipal Councils/ PWSSB or any other agency operating the STPs,***

**should operate their STPs as per the operation and maintenance manual prepared by PWSSB.**

- ✓ **These departments should impart trainings to the Supervisory staff.**
- ✓ **In order to bring down the F. coli parameter within the norms, adequate dosing of disinfectant with proper disinfectant contact mechanism should be provided.**
- ✓ **Concerted efforts may be made by all the concerned departments to bring down the non compliance of STPs to significantly low level.**
- ✓ **OCEMS along with flow meters shall be installed at inflow, outflow and bye-pass of the STPs and record in this regard may be maintained by the STP operator.**
- ✓ **OCEMS and CCTV cameras on all the STPs may be ensured to be installed by 31/01/2020, failing which environment compensation may be imposed by PPCB on the defaulting STPs.**

2. For the treatment of sewage of the towns located in the catchment area of river Sutlej, 53 STPs have been installed. 5 STPs in 3 towns namely Guru Har Sahai, Kotkapura and Giddadbaha are under construction and progress w.r.t construction of these STPs has been increased from 2% to 5 % (Guru Har Sahai: 4 MLD), 2% to 7% (Guru Har Sahai: 1 MLD), 75% to 80% (Kotkapura: 6MLD). Upto September, 2019, STP Giddadbaha was mentioned as completed and electric connection was under progress but now after the expiry of 3 months i.e upto 31.12.2019, again the status of STP is same, which indicate that very slow progress has been made to construct and commission these STPs.

**The Monitoring Committee recommends that the Punjab Water Supply & Sewerage Board should give more attention towards the completion of STPs especially for the town Guru Har Sahai. Giddadbaha STP should be made operational by 31.1.2020.**

3. 12 STPs of capacity 353 MLD, for which funds have been tied up, are under planning. 4 STPs for the towns Balachaur, Garhshankar, Maluka and Rahon are still at tendering stage. In case of 3 STPs (Ferozpur: 1MLD, Sri Mukatsar Sahib: 10MLD and Kiratpur Sahib: 2MLD), no substantial progress has been made. In other 5 STPs, either re-tendering has been done or land acquisition process has been started.

**The Monitoring Committee recommends that the Department of Local Government and Punjab Water Supply and Sewerage Board should give attention towards the completion of these STPs by 31.10.2020.**

4. 10 STPs of capacity 28 MLD for 10 towns (Bhagta Bhaika, Bhai Roopa, Kotha Guru, Arniwala, Malian Wala, Mamdot,

Mudki, Mahilpur, Nihal singh wala and Barhi wala) are under planning but the funds have not been tied up so far. Moreover, no sewerage system exists in these towns.

**The Monitoring Committee recommends that the department of Local Government and Punjab Water Supply and Sewerage Board shall provide sewerage system in these towns by 31.3.2020 and STPs for these towns may be completed by 31.12.2020.**

5. There is proposal to upgrade STP of capacity 100 MLD of Jalandhar town for which DPR is under preparation and funds have been tied up in AMRUT and Smart city scheme but the State share is yet to be arranged. Similarly, in case of Ludhiana, there is proposal to upgrade technologically all the 5 STPs of capacity 466 MLD. For these STPs, DPR is under preparation and funds have been tied up in AMRUT and Smart city scheme but the State share is yet to be released.

**The Monitoring Committee recommends that the Department of Local Government shall take up the matter with department of Finance, Government of Punjab for early release of State share so that these STPs may be upgraded technologically by 31.12.2020.**

6. There is a gap of 381 MLD sewage of 22 towns (out of 50 towns) for which no arrangements have been made to provide the funds to treat the sewage so that water quality of river Sutlej is improved.

**It is recommended that the Deptt. of local Government, GMADA and Department of Water Supply and Sanitation should make arrangements to provide funds for treatment of gap sewage discharge of 381 MLD in a time bound manner so that STPs may be completed by 31.12.2020.**

7. Out of 75 villages selected in phase-I for installation of sewage treatment plant, STPs in 4 villages (Dihana, Rattanpura, Hazara and Raowali) have been completed. For the remaining 71 villages, funds are required to be arranged by the Department of Rural Development and Panchayat for which the Department may take up the matter with the Department of Finance, Government of Punjab.
8. For 23 STPs, irrigation projects have been completed and commissioned. For the remaining STPs, the Department of soil and Water conservation shall lay irrigation network by 31.12.2020.
9. For 14 STPs, irrigation projects for utilization of treated sewage for irrigation have been sanctioned but the funds have not been released so far.

**The Department of soil and water conservation shall take up the matter with department of Finance, Government of Punjab for early release of funds.**

10. Regarding reuse of treated wastewater of STPs at Phariwal (Jalandhar of capacity 100 MLD), Jamalpur, Balloke and Bhattian (Ludhiana) of total capacity 466 MLD, department of Soil and Water Conservation has carried out the feasibility studies, which is mentioned as under:

- For 100 MLD STP at Pholriwal, Jalandhar, the project is not feasible as the farmers are reluctant to use treated wastewater.
- In case of 48 MLD STP Jamalpur (Ludhiana), it has been mentioned that STP is lying defunct and PWSSB has planned to construct a new STP based on SBR technology.
- For use of 50 MLD STP treated wastewater of Bhattian (Ludhiana), the quality of treated wastewater has not been found fit for irrigation.
- For utilization of treated wastewater of 152 MLD STP (Ballloke-I, Ludhiana) and 105 MLD (Balloke-II, Ludhiana) for irrigation, the project has been found feasible and tentative estimate of Rs 141.43 crore has been prepared but the funds are yet to be tied up.

**The Committee recommends that the Department of Local Government shall conduct IEC activities to bring confidence among the farmers for utilization of treated sewage of 100 MLD STP, Pholriwal, Jalandhar. Also, regarding release of funds amounting to Rs. 141.43 crore for laying irrigation network to utilize treated sewage of 152 MLD and 105 MLD STPs Balloke, Ludhiana, the matter may be taken up with the Department of Finance, Government of Punjab.**

11. Textile dyeing industries of Ludhiana have installed their individual effluent treatment plants. However, in order to maintain one outlet and achieve the stringent standards, 3 CETPs of capacity 15 MLD, 40 MLD, 50 MLD are under construction.

- 15 MLD CETP for treatment of effluent of dyeing industries of Bahadurke road Ludhiana, was proposed to be commissioned by 30.06.2019 but it has been completed (100%) in the month of December 2019.
- CETPs of capacity 40 MLD and 50 MLD have been completed to 93% and 67%, respectively.

**The Monitoring Committee recommends that these 40 MLD and 50 MLD CETPs should be completed by 31.3.2020, failing which Punjab Pollution Control Board shall impose environment compensation of suitable amount on the SPVs of these CETPs.**

12. For upgradation of 5 MLD CETP and installation of new 6 MLD CETP for treatment of wastewater of leather Complex, Jalandhar, DPR has been prepared and the same is pending with CLRI for vetting.

**The Monitoring Committee recommends that PPCB shall take up the matter with CLRI to get the DPR vetted and SPV of leather complex, Jalandhar may be directed to initiate the process of installation of new CETP of capacity 6 MLD and upgradation of existing CETP of capacity 5 MLD by 28.2.2020.**

13. For installation of new CETP of capacity 0.15 MLD for electroplating industries of Jalandhar area, the work of CETP was started but due to public resistance, work has been stopped. As per the decision of the Deputy Commissioner, Jalandhar, work of CETP shall be restarted after obtaining necessary permission from the concerned department and with the help of Punjab police.

**It is recommended that Deputy Commissioner, Jalandhar shall get start the construction work of 0.15 MLD CETP for electroplating industries of Jalandhar by 15.2.2020. PPCB shall take up the matter with Deputy Commissioner, Jalandhar immediately.**

14. For installation of new CETPs to treat the effluent from focal points of the State, An SPV has been formed under the name & style of M/s Amritsar Textile Effluent Treatment (P) Ltd., for the installation of CETP for dyeing industries of New Focal Point, Amritsar. The PSIEC has not handed over the plot for the construction of CETP. The matter is pending with the MD, PSIEC.

**It is recommended that PPCB shall take up the matter with MD, PSIEC to handover the plot for construction of CETP for dyeing industries of new focal point, Amritsar by 15.2.2020.**

15. PPCB shall issue necessary directions under the provision of Water Act, 1974 to the textile dyeing industries located in non-designated areas which have no Connectivity with the CETPs (under Constructions) to shift at some suitable location in the designated areas which may have connectivity to these CETPs.
16. All the large-scale textile dyeing industries of Ludhiana should upgrade their effluent treatment plants to achieve the standards at par with the standards prescribed for CETPs for small and medium scale textile industries of Ludhiana by 30.06.2020.

17. The Monitoring Committee in has already directed Municipal Corporations Ludhiana and Jalandhar to provide firm timelines for setting up of ETPs and Biogas Plants for Management of Dairy Waste, which is a big source of contributing high values of BOD, TSS and F.Coli parameters.

In Ludhiana, 2 dairy complexes exist.

- One dairy complex is located at Tajpur road, which generate huge quantity of solid waste and about 5 MLD liquid waste. **In order to manage these wastes, no steps have been taken by the Municipal Corporation, Ludhiana.**
- In dairy complex, Haibowal about 400 TPD animal dung is generated, out of which 180 TPD is given to bio-gas power plant Haibowal. PEDDA has already installed bio-gas power plant of capacity 1 MW. It was proposed by PEDDA that power plant based on bio-gas shall be operated at capacity 0.5 MW and rest of the bio-gas to be generated using animal dung, shall be converted into CBG, which shall be sold in open market. Besides, liquid effluent about 10 MLD in the form of washings and urine of animal is directly discharged into Budha Nallah. **However, no further steps have been taken to manage the rest of the quantity of cow dung and treatment of the liquid waste.**
- In Jalandhar, 1 dairy Complex located at Jamsher, generates wastewater about 5 MLD. ETP of capacity 5 MLD has been proposed to be installed. A bio-gas plant of 1 MW has also been proposed to be installed in the Jamsher Dairy Complex. However, no further steps have been taken to manage cow dung and treatment of the liquid waste.

**The monitoring Committee recommends that the directions may be issued to the Municipal Corporation Ludhiana and Jalandhar to install biogas plant of adequate capacity to manage whole of the animal dung and install effluent treatment plant of adequate capacity to treat liquid waste of the diary complex, Tajpur road, Haibowal (Ludhiana) and Jamsher (Jalandhar) by 31.12.2020.**

18. **The Monitoring Committee recommends that the department of Water Resources, Punjab may be directed to desilt the Budha Nallah at the earliest and Action Taken Report be submitted to the Monitoring Committee.**

19. Municipal Corporation, Ludhiana should install new STPs to treat 200 MLD gap in sewage treatment as per the latest norms by 31.12.2020.

20. *Municipal corporation, Ludhiana should upgrade their existing STPs (466 MLD capacity) to meet with the latest norms by 31.12.2020.*
21. *The Municipal Corporation Ludhiana should plug all the 16 direct outlets, carrying untreated domestic sewage of Ludhiana City, presently being discharged into Budha Nallah and divert the same to nearby STPs. These outlets should be closed by 30.6.2020.*
22. *Municipal Corporation Jalandhar shall install new sewage treatment plants for treatment of 100 MLD gap in sewage quantity by 31.12.2020.*
23. *PPCB shall install Real Time Water Quality Monitoring System (RTWQMS) at the appropriate locations by 28.2.2020.*
24. *Punjab Pollution Control Board shall carry out the comprehensive study and water audit of Common Effluent Treatment Plant (CETP) based on Zero liquid discharge technology installed at Ludhiana, for small scale electroplating industries of Ludhiana and other areas and shall submit the report to the Chairman, Punjab Pollution control Board for action in the matter under intimation to the Committee. PPCB shall also submit the compliance report w.r.t recommendations made by the Monitoring Committee during its visit to Ludhiana area on 16.08.2019.*
25. *Punjab Pollution Control Board shall carry out surprise inspection of large scale electroplating industries of Ludhiana to ensure that effluent treatment plants (based on zero liquid discharge technology) installed by these industries should be operated at all the times and effluent from these industries may not be allowed to discharge into sewerage system further leading to Budha Nallah so as to avoid the chances of discharge of toxic heavy metal into river Sutlej. The recovered water from zero liquid discharge technology ETPs should be recycled back into the processes of the industries. The toxic sludge from the ZLD system shall be disposed off to TSDF, Nimbuan.*
26. *During the 8<sup>th</sup> meeting of the Monitoring Committee held on 23.12.2019 with the State level officers of concerned departments, it was observed that percentage of non compliance of effluent treatment plants installed by the industries was 22 % and out of these total inspections, 8 inspections have been carried out by SEE but no inspection was carried out by CEE and Chairman.*

**The Monitoring Committee recommends that Punjab Pollution Control Board shall increase the inspection of industries by way of making surprise inspection and through Environment Protection Squad. The senior level officers should also carry out the inspections of industries.**

27. PPCB shall notify pretreatment standards for CETP at the earliest as directed by the Hon'ble NGT vide its order dated 28.2.2019.
28. PPCB has started monitoring of Budha Nallah from September, 2019 onwards. However, the values of BOD, COD, TDS, T-coli & F-coli in Budha Nallah effluent are high and PPCB needs to identify the reasons for high values of these parameters. With regard to values of total chromium, Hexa Chromium, Copper, Zinc, Iron, Lead, Nickel, there is improvement in these parameters at the end of Budha Nallah before meeting to River Sutlej. However, PPCB shall continuously keep strong surveillance on the functioning of CETP installed for electroplating industries and proper lifting of effluent from the electroplating industries.
29. The Monitoring of Kala Singhian drain conducted during January 2019 to June, 2019 and September, 2019 to December, 2019 indicates that there is an improvement in Kala Singhian Drain effluent w.r.t parameter BOD, COD and TSS (at first four points) and total chromium. However, PPCB shall ensure that all the sewage disposal points into Kala Singhian Drain are closed. It shall also keep strong surveillance on lifting mechanism of effluent from electroplating industries as these industries have joined CETP, Ludhiana. PPCB shall ensure that no electroplating industry shall discharge its effluent into sewerage system or directly into Kala Singhian Drain.
30. The Monitoring of East Bein conducted during January 2019 to June, 2019 and September, 2019 to December, 2019 indicates that there is improvement in East Bein drain effluent w.r.t parameter BOD, COD, TSS, T-coli & F-coli. The heavy metals namely total chromium, Nickel, Copper & lead have not been detected. The value of zinc is in decreasing order. The value of iron has been found in increasing order.
31. In order to maintain Environment flow in river Sutlej, the Monitoring Committee recommends that the following directions be given to the various departments of State of Punjab.
  - Department of Water Resources and Department of Soil & Water conservation shall identify the area

*/ stretches in the catchment area of river Sutlej for providing check dams / storage tanks for storage of run off / storm water during rainy days and the stored water may be released in regulated way so as to maintain the quality of drains/Nallah/river water at down streams.*

- *The Municipal Councils / Corporations / Department of Local Govt. shall install STPs to achieve the stringent parameters i.e. BOD : 10 mg/I, so that the resultant value of BOD after mixing with the river water may be nearly 3 mg/I.*
- *The industries be directed to achieve the stringent parameters i.e. BOD : 10 mg/I. The industries discharging wastewater, having toxic constituents, may not be allowed to discharge their effluent into drains/Nallah/rivers / water bodies. These industries be directed to achieve Zero Liquid Discharge technology.*
- *The department of water resource has proposal to release 200 cusec water from Sirhind canal into Budha Nallah. The necessary amount has been deposited by PPCB and Municipal Corporation Ludhiana. The department of water resources shall take immediate steps to construct infrastructure to release canal water in Budha Nallah to increase DO, reduce organic parameters and increase its aesthetic value.*
- *PPCB has placed the order for installation of Real Time Water Quality Monitoring System in Budha Nallah (2) and in river Sutlej (4) and are likely to be installed and commissioned by 31.3.2020.*

*32. For management of Septage and Faecal sludge, the Monitoring Committee recommends that the Deptt. of Rural Development & Panchayat, Government of Punjab and Municipal Councils of the State may be directed to identify the sources of generation of septage and faecal sludge from rural and urban areas and a comprehensive plan to dispose off these materials in an environmentally sound manner be prepared in a time bound manner. There is need to identify and adopt the low cost technology which could treat the septage and fecal sludge before their discharge into the Environment.*

*33. Punjab Pollution Control Board and Himachal Pradesh Pollution control Board shall comply with the recommendations made by the Monitoring Committee in the case of each industry/pollution source during its visit to Pathankot, Dasuya, Talwara (Punjab) and Sansarpur Terrace (H.P) on 20.11.2019 and 21.11.2019.*

*34. Punjab Pollution Control Board shall comply with the recommendations made by the Monitoring Committee in*

*the case of each industry/pollution source during its visit to Jalandhar area on 3.12.2019.*

35. *All the concerned department of State of Punjab and pollution Control Board shall comply with the recommendations made by the Monitoring Committee during its visit to the drainage system carrying seepage/sludge and treated/untreated sewage of the towns falling in the jurisdiction of District Fazilka, Ferozepur, Faridkot, Moga & Sri Mukatsar Sahib and further culminating at Fazilka area on 06.01.2020 and meeting with the District level officers of above 5 districts on 07.01.2020.*

## **B) River Beas**

1. *The sewage treatment plants installed for the towns located in the catchment area of river Beas are regularly being monitored by Punjab Pollution Control Board. The Monitoring data for the period January, 2019 to June, 2019 and September, 2019 to December, 2019 indicate that out of 16 STPs installed in the catchment area of river Beas, 13 STPs (81.25%) are meeting with all parameters. 2 STPs (12.5 %) are not meeting with BOD, TSS and F.coli parameters. 1 STP (6.25 %) is not meeting with BOD and F.coli parameter.*

*The Monitoring Committee recommends as under:*

- *Municipal Corporations/ Municipal Councils/ PWSSB or any other agency operating the STPs, should operate their STPs as per the operation and maintenance manual prepared by PWSSB.*
  - *These departments should impart trainings to the Supervisory staff.*
  - *In order to bring down the F. coli parameter within the norms, adequate dosing of disinfectant with proper disinfectant contact mechanism should be provided.*
  - *CCTV cameras, OCEMS along with flow meters shall be installed at inflow, outflow and bye-pass of all the STPs and record in this regard may be maintained by the STP operator. These shall be installed by 28.2.2020, failing which environment compensation may be imposed by PPCB on the defaulting STPs.*
2. *6 STPs (Kartarpur: 4 MLD, Dhilwan: 2.5 MLD, Kothi Pandita: 2 MLD, Adarsh Nagar: 1.2 MLD, Haiana: 2 MLD and Sultanpur Lodhi:5 MLD) are under planning and funds have been tied up for these STPs. These STPs are likely to be completed by 31.10.2020. Presently these STPs are either at tendering stage or land issues are there.*

***Punjab Water Supply & Sewerage Board should take immediate steps to start the construction***

**work of these STPs by 31.1.2020 so that these STPs may be completed by 31.12.2020.**

3. 4 STPs (Talwara: 4 MLD, Sujjanpur: 2 MLD, Sujjanpur: 3.5 MLD and Rawal & Colonies : 3 MLD) are under planning and funds are yet to be tied up.

**Punjab Water Supply & Sewerage Board should make arrangements to arrange funds for these STPs so that these may be completed by 31.12.2020.**

4. 5 STPs (Shri Hargobind Pur: 1 MLD, Dasuya: 4 MLD, Sham Chaurasi: 1 MLD, Bhulath : 4 MLD and Kapurthala : 25 MLD) are required technology upgradation but the funds have not been tied up so far.

**Punjab Water Supply & Sewerage Board should make arrangements to arrange funds for technologically upgradation these STPs so that these STPs may be technologically upgraded by 31.12.2020.**

5. The data provided by PWSSB indicated that there is gap in sewage quantity quantity of towns: Haryana (2 MLD), Talawara (4 MLD), kartarpur (4 MLD), Dhilwan (2.5 MLD), Kapurthala (3MLD), Sultanpur Lodhi (5 MLD), Sujjanpur (5.5 MLD) and Pathankot (3.2 MLD). Thus, there is total gap in sewage quantity to be treated is 29.2 MLD for which immediate steps may be taken by the department of Local Government/Punjab Water Supply Sewerage Board to make arrangement of funds for installation of STPs.
6. For utilization of treated sewage of the towns, irrigation projects for 11 towns have been completed and commissioned.

**The Department of Soil and Water Conservation should lay irrigation network for utilization of treated sewage of the remaining towns for which STPs have been completed by 31.12.2020.**

7. For 7 towns (Pathankot: 27 MLD, Tanda: 4 MLD, GE, Air Force: 3 MLD, GE, South: 2 MLD, GE, West: 2 MLD, GE, Mammon: 2 MLD and GE, North: 2 MLD), irrigation projects for utilization of treated sewage have been prepared but the funds have not been tied up.

**The Department of Soil and Water Conservation should arrangement of funds and lay irrigation network, for utilization of treated sewage of the 7 towns for which STPs have been completed, by 31.12.2020.**

8. For 2 villages (Bhadas :300 KLD, District Kapurthala and Chawa: 120, District Gurdaspur) STPs have been completed and for the 3 villages (Gurdwara Ghallu Ghara: 50 KLD,

District Gurdaspur, Bham: 615 KLD, District Gurdaspur and Kiri Afgana: 299 KLD, District Gurdaspur), STPs are under construction.

**The department of Rural Development & Panchayat shall complete STPs in these 3 villages by 30.6.2020.**

9. The Department of Rural Development & Panchayat has taken 35 villages for treatment of their sewerage in Phase-II. However, nothing has been mentioned about the arrangement of funds and date of completion of STPs. Similarly, in Phase-III, 35 more villages have been selected for installation of STPs but nothing has been mentioned about the arrangement of funds and date of completion of STPs.

**The Department of Rural Development Panchayat shall prepare the DPR and shall make arrangements of funds for installation of STPs for these 70 (35+35) villages.**

10. Water quality of river Beas at various points as monitored during the period January, 2019 to June, 2019 and September, 2019 to December, 2019, w.r.t parameters DO, BOD and F.coli indicate that water quality of river Beas is class 'B' as per the water quality criteria prescribed by CPCB.

11. Parameters BOD, COD, TSS and F.coli were monitored at various points of Holy Bein and data indicate that the values of BOD, COD, TSS and F.coli in the month of January to June, 2019 vary between 2.5-5.4 mg/I, 17-30 mg/I, 18-31 mg/I, 195-427 MPM/100 ml. In the month of September-December, 2019 these values were observed as BOD: 2.6-6.0 mg/I, COD: 17-32 mg/I, TSS: 21-32mg/I, F.coli: 175-220 MPM/100 ml. As per data, the water quality of Holy Bein is class B to C.

12. To maintain the Environment flow and to restore the quality of river Beas, the following recommendations are made:

- i. Department of Water Resources and Department of Soil & Water conservation shall identify the areas / stretches in the catchment area of river Beas for providing check dams / storage tanks for storage of run off / storm water during rainy days and the stored water may be released in regulated way so as to maintain its quality at down streams.
- ii. The Municipal Councils / Corporations / Department of Local Govt. shall install STPs to achieve the stringent parameters i.e. BOD : 10 mg/I, so that the resultant value of BOD after mixing with the river water may be nearly 3 mg/I.
- iii. Industries be directed to achieve the stringent parameters i.e. BOD : 10 mg/I. The industries discharging wastewater having toxic constituents, may not be allowed to discharge their effluent into Rivers /

*water bodies. These industries be directed to achieve Zero Liquid Discharge (ZLD) technology.*

*iv. PPCB has placed the order for installation of Real Time Water Quality Monitoring System in river Beas at one location and shall be installed and commissioned by 31.3.2020.*

*13. For Septage and Faecal sludge management, the Monitoring Committee recommends that the Dept of Rural Development & Panchayat, Government of Punjab and Municipal Councils of the State may be directed to identify the sources of generation of septage and faecal sludge from rural and urban areas and a comprehensive plan to dispose off these materials in an environmentally sound manner be prepared in a time bound manner. There is need to identify and adopt the low-cost technology which could treat the septage and fecal sludge before their discharge into the Environment.”*

**XII. Fourth Report of the Monitoring Committee dated 05.06.2020 and consideration thereof**

20. Further report dated 05.06.2020 titled “**4<sup>th</sup> Report of the Monitoring Committee constituted by Hon’ble National Green Tribunal in O.A. No. 916/2018**” has also been taken up for consideration.

21. The said report is in continuation of the 3<sup>rd</sup> report of the Monitoring Committee. The report refers to the earlier order dated 12.12.2019 dealing with the second report dated 29.10.2019 directing the concerned authorities to take steps in terms of observations and recommendations in the matter of setting up of requisite treatment plants in the State, compliance of standards by the existing STPs and fixing responsibility on officials for non-performance of duties, compliance of standards by CETP leather complex, inadequate inspections by officials of SPCB, slow pace with regard to new/upgradation/rehabilitation of STPs, setting up of new CETPs textile and dyeing industrial cluster, setting up of new ETP for dairy waste, bridging of gap in terms of sewage quantity to be treated, interception of the drains, maintaining flow/release of fresh water in Buddha Nallah and Holy Bein, dealing of Buddha Nalla utilization of

treated waste water, treatment facilities for villages, laying down pretreatment standards, desilting of drains, shifting of dyeing industries, organizing health check-ups, preventing direct discharges into the drains, increased surveillance of polluting industries, training of the staff. Thereafter, the report mentions visit of the MC to M/s Vardhman Yarns & Threads Ltd., Phagwara road, District Hoshiarpur and to the Effluent Treatment Plant (ETP). Further mention has been made of the meeting of the MC with the State level officers to review the progress on implementation of Action Plans for Cleaning Rivers Sutlej and Beas. The report also mentions:

- Status of Water Quality of Polluted Stretches,
- Installation of Real Time Water Quality Monitoring Stations (RTWQMS),
- Status of STP Monitoring,
- Action taken by PPCB against non-compliant STPS,
- Status of CETP monitoring,
- Action taken by PPCB against non compliant ETPs,
- Installation of OCEMs in existing ETPs having discharged of > 50 KLD,
- Setting up of New/ Up-gradation/ Rehabilitation of STPs,
- Progress of CETPs for cluster of dyeing industries of Ludhiana,
- Progress of setting up of ETPs/Biogas Plants for Dairy Waste,
- Setting up of treatment facilities in villages,
- E-flow, Septage Management, IEC activities and setting up of biodiversity parks,
- Report on visit to pollution sources in Holy Bein (Kali Bein) and river Sutlej by the MC
- Sultanpur drain carrying untreated sewage of Sultanpur town, partly by passing STP based on WSP technology,

22. Some of the significant recommendations of the MC under various heads are:

- ***Re: Visit to M/s Vardhman Yarns & Threads Ltd., Phagwara road, District Hoshiarpur by the Monitoring Committee on 27.1.2020:***

**“Discussion on the analysis results, observations & Conclusion :**

*The analysis results indicate that the value of pH, TSS, TDS, COD & BOD in the untreated effluent were found to be 10, 145 mg/l, 3040 mg/l, 820 mg/l and 240 mg/l, respectively,*

whereas, the values of these parameters at the outlet of the primary clarifier were found as 6.7, 89 mg/l, 1604 mg/l, 350 mg/l and 105 mg/l, respectively. The value of MLSS in aeration tank was observed as 1970 mg/l. The values of the parameters at the outlet of secondary clarifier were observed as pH : 7.9, TSS : 40 mg/l, TDS : 2070 mg/l, COD : 94 mg/l and BOD : 25 mg/l. The values of the parameters at the outlet of Effluent Treatment Plant were found as pH : 8.0, Colour : 80 (P-Co Units), TSS : 10 mg/l, TDS : 1540 mg/l, COD : 48 mg/l, BOD : 10 mg/l and SAR : 10. The parameters namely Ammonical nitrogen, sulphide, total chromium, Phenolic compounds and Oil & Grease were not detected in the treated effluent at the outlet of the effluent treatment plant. The overall treatment efficiency in terms of removal of TSS, COD & BOD was observed as 93.1%, 94.14% and 95.83%, respectively.

Further, it has been observed that the values of all the parameters namely pH, TSS, TDS, COD, BOD and SAR are within the prescribed limits. The values of Ammonical Nitrogen, Sulphide, Total Chromium, Phenolic compounds and Oil & Grease were not detected. Thus, the industry is achieving the prescribed parameters.”

- **Re: visit to pollution sources in Holy Bein (Kali Bein) and river Sutlej:**

#### **“3.3.1.1 Observations and Recommendations Observations**

The Monitoring Committee in number of times for the last one year during its visit to the area has observed that the flow of untreated sewage either through breaking of pipeline or chamber (provided for diversion and lifting of untreated sewage into STP) into Sultanpur drain, which is further leading to Holy Bein has become regular practice and contaminating its water quality. Thus, the monitoring committee is of the view that Department of Local Government, MC Sultanpur Lodhi and PWSSB are not serious towards the treatment of sewage of the town through STP. Moreover, the Hon'ble NGT in its order dated 06.12.2016 (uploaded on 12.12.2016) in OA No. 916 of 2018 has directed to provide in situ bio remediation system in the drains by 31.3.2020 to ensure that no untreated sewage is flowing into drains.

#### **Recommendations :**

- a) Therefore, the monitoring committee recommend that the Chairman, PPCB shall initiate to issue directions under the provisions of the Water Act, 1974 to the Department of Local Government/M.C. Sultanpur Lodhi to make permanent arrangements to divert the untreated sewage into STP Sultanpur Lodhi within 7 days.
- b) An Environmental Compensation of suitable amount may be imposed on Department of Local Government / MC Sultanpur Lodhi for discharging untreated sewage into

*Sultanpur drain leading to Holy Bein and contaminating its water quality and damaging the environment.”*

- **Re: Visit to East Bein, river Sutlej at upstream of Gidderpindi, railway bridge and seepage of river Sutlej:**

**“Recommendations :**

*The Monitoring Committee recommends that the matter regarding contaminated water flowing into East Bein and further leading to river Sutlej may be taken up in the next meeting at State level and the concerned departments be directed to bring the action taken report on the installation of STPs, treatment of dairy effluent and performance of ETPs of the industries falling in the catchment areas of East Bein, Kala singhia drain and Ghara drain. These Departments be directed to present their status report through photographs and PowerPoint presentation.”*

- **Visit to the pollution sources in District Moga falling in the catchment area of river Sutlej on 27.02.2020, status of Sewage Treatment Plants in District Moga, Treatment of sewage / sullage of rural areas of District Moga, Visit to Sewage Treatment Plant of capacity 27 MLD, Moga by the Monitoring Committee on 27.02.2020, Visit to M/s Kathpal Dairies (Unit-II), Village Kokri Phoola Singh, District Moga**

**“3.4.4.1 Recommendations:**

*The Monitoring Committee has made the following recommendations:-*

- 1) *Punjab Water Supply & Sewerage Board shall install and commission sewerage system and STP for the towns Nagar Panchayat Nihal Singh Wala, Nagar Panchayat Badhni Kalan, Nagar Panchayat Kot Ise Khan and Nagar Panchayat Fatehgarh Panjtoor by 31.03.2021. The Dept. Of Local Govt. shall provide necessary funds and adequate land area for installation of STPs including laying of sewerage system in the above said towns by 31.03.2020. In the meantime, ULBs shall provide in-situ bio remediation in the drains by 31.03.2020.*
- 2) *The Municipal Corporation Moga shall provide funds for regular operation & maintenance of 27 MLD STP Moga for the period 2019-2020 and 2020-21 by 15.03.2020.*
- 3) *Punjab Water Supply & Sewerage Board shall repair / improve the functioning of centrifugal system installed with 27 MLD STP, within 15 days.*

- 4) *The sludge in liquid form lying thrown within the premises of the STP shall be lifted within 15 days and the same shall be disposed off in scientific manner.*
- 5) *Punjab Water Supply & Sewerage Board shall remove the weed and wild grass grown within the STP premises within 10 days.*
- 6) *Municipal Corporation, Moga shall regulate the supply of tubewells to the residents of Moga town in such a way that per capita should not increase 150 LPD so that the capacity of existing STP may be sufficient to handle the wastewater discharge of the town.*
- 7) *All the ULBs of District Moga shall provide roof of adequate height on the compost pits constructed / to be constructed by 31.03.2020.*
- 8) *Punjab Pollution Control Board shall finalize the technology for installation of treatment facility to treat the sewage of the rural areas, within 15 days.*
- 9) *The Dept. of Rural Development & Panchayat shall provide treatment facility to treat the sewage of rural area by 30.06.2020.*
- 10) *The Chairman, Punjab Pollution Control Board shall issue the following directions under the provisions of the Water Act, 1974 :*
  - *To issue closure orders to the industry for deliberately locking its industry to avoid the visit of the Committee.*
  - *Directions be issued to the PSPCL to disconnect the electric connection of the industry.”*

- **Re: Visit to Sewage Treatment Plant STP of capacity 14 MLD, Mansa by the Monitoring Committee on 11.03.2020:**

**“3.5.1 Recommendations**

*The Monitoring Committee recommends that PWSSB in consultation with Municipal Councils Mansa shall explore various options available for utilization of treated sewage i.e. construction activity, road cleaning, vehicle washing, green belt, public toilets for flushing in 15 days and utilize the treated sewage according so that the pond may be emptied.”*

- **Re: Visit to the hospital namely M/s Muktsar Medicity Hospital, Bathinda Road, Sri Muktsar Sahib by Monitoring Committee on 17.03.2020:**

**“3.6.2 Recommendations:**

In view of the above, the Monitoring Committee has made the following recommendations:

1. Since from the physical appearance of ETP, it was observed by the Committee that ETP was not operated from the last few days and no sludge was found in sludge lying beds. Therefore, the Monitoring Committee recommends that Environmental compensation amounting to Rs.2 lakh may be imposed by PPCB. The Chairman, PPCB shall issue necessary directions to the Hospital authorities under the provision of the Water Act, 1974 and Bio Medical Waste Management Rules, 2016.
  2. The hospital authorities shall upgrade/modify its effluent treatment plant by adding requisite components for treatment of infectious/toxic wastewater by 31.05.2020.
  3. The hospital authorities shall provide sludge drying beds of adequate size by 30.04.2020 to ensure that the sludge is dried and lifted before the treatment of next batch of wastewater.
  4. The hospital authorities shall provide electromagnetic flow meter (EMF) at inlet and outlet of effluent treatment plant by 30.04.2020.
  5. The dried sludge, which is hazardous in nature, may be sent to TSDF, Nimbuan.
  6. The Environmental Engineer, Regional Office, Bathinda shall monitor the performance of the ETP of the hospital by 15.05.2020. In case, the performance of ETP of the hospital is found unsatisfactory and not meeting with the prescribed parameters, as mentioned in the Bio Medical Waste (Management) Rules, 2016, Environmental Compensation of suitable amount may be imposed on the hospital authorities alongwith revocation of consent under Water Act, 1974 and authorization under Bio Medical Waste (Management) Rules, 2016.
  7. The hospital authorities shall maintain proper record w.r.t day of operation of ETP, operational hours, quantity of chemicals/nutrient used during treatment, units of electricity consumed, name of the persons deployed for treatment, quantity of effluent treated and dispose off.”
- **Re: The current status of performance of existing sewage treatment plants, construction of new sewage treatment plants, upgradation and capacity enhancement of existing sewage treatment plants, status of the towns where funds have not been tied up so far, gaps in quantity of sewage to be treated, utilization of treated sewage for irrigation, treatment of sewage of villages, water quality of drains / Nallahs/ rivers, environment flow, septage and feecal sludge management.**
    - i. **Status of STPs under planning and funds tied up:**

“The Monitoring Committee recommends that these 24 STPs should be completed by 31.3.2021.”

**ii. STPs which require technologically up-gradation and funds tied up**

*“The Monitoring Committee recommends that upgradation work of STPs of capacity 100 MLD of Jalandhar Town, 466 MLD STPs of Ludhiana area, 2.6 MLD STP of Phillaur town, 3 MLD STP of Malout and 3 MLD STP of Goniana should be upgraded by concerned Municipal Corporation Jalandhar & Ludhiana and by the department of Local Govt. by 31.03.2021.”*

**iii. Gaps in treatment of sewage of the towns located on river Sutlej:**

*“There is gap of 387 MLD, which is to be treated by providing New STPs. These STPs are under planning and funds have been made available except of Arniwala town STP of capacity 2 MLD. The details of these STPs The data w.r.t gap in treatment of sewage, as submitted by Punjab Water Supply and Sewerage Board, indicate have been mentioned at point No.3.7.1.4.*

- *The Monitoring Committee recommends that these 24 STPs to treat the gap of 387 MLD sewage should be completed by 31.3.2020.”*

**iv. Utilization of treated wastewater from STPs for irrigation**

*“To utilize treated sewage of 24 STPs of capacity 151.5 MLD, irrigation projects have been sanctioned. These irrigation schemes shall cater command area of 5638.5 hectares of irrigation land. Funds for these irrigation schemes have been sanctioned but these have not been released so far. The department of Soil and Water Conservation shall take up the matter with the State Govt. for early release of funds.*

*“Since for utilization of treated sewage of Ludhiana (466 MLD) and Jalandhar (100 MLD), irrigation schemes have not been found feasible, therefore, the department of Soil and Water Conservation shall prepare irrigation schemes within 01 month so that huge quantity of treated sewage can be safely utilized for irrigation.”*

**v. Details of the villages where STPs have been completed**

- *The department of Rural Development and Panchayat has selected 75 villages of the State to install STPs for*

the treatment of sewage of these villages. Out of these villages, STPs have been completed in 04 villages.

- The department of Rural Development and Panchayat shall take up the matter with the State Govt. to provide necessary funds for installation of STPs for the remaining 71 villages which have been taken under Phase-1 villages.

**vi. Status of CETPs for treatment of effluent of dyeing industries of Ludhiana, leather complex, Jalandhar and effluent of electroplating industries of Jalandhar**

“For commissioning and completion of CETPs for cluster of dyeing industries of Bahadurke Road, Tajpur Road & Rahon Road and Focal point, Ludhiana, Punjab Pollution Control Board shall take following action.

- PPCB shall follow up the matter with concerned departments of State of Punjab and MoEF&CC for early release of funds and restart the construction work of 40 MLD and 50 MLD CETPs and shall ensure to complete and commission these CETPs by 31.08.2020.
- 15 MLD CETP for Bahadur Ke Road, dyeing industries cluster be stabilized within 45 days.
- For upgradation of 5 MLD existing CETP for leather tanning industries, PPCB shall take up the matter with Punjab Effluent Society and DPR shall be got prepared and upgradation is made timely so that CETP may meet with the prescribed norms industries.”

**vii. Installation of ETPs/Biogas power plant for treatment of dairy wastewater**

“The Monitoring Committee recommends as under.

- Biogas Power Plant at Haibowal dairy Complex shall be upgraded to BioCNG plant by 30.09.2020 and Biogas Plant at Tajpur Road dairy complex shall be installed by 31.03.2021.
- For the treatment of liquid effluent about 5 MLD from Tajpur Road dairy complex and 10 MLD from Haibowal dairy complex, the project has been covered under comprehensive proposal and after the opening of the tenders, priority shall be given to the installation of ETPs for these dairy complex.”

**viii. Comparison of water quality of Budha Nallah for the period March, 2020 and April 2020:**

“The Municipal Corporation, Ludhiana has prepared composite proposal to install new STPs, upgrade/rehabilitate the existing STPs with a estimated cost of Rs 1000 crore. The Monitoring Committee recommends that all the activities

covered under composite proposal should be completed by 31.03.2021.”

**ix. Water quality of Kala Singhian drain for the months of March-2020 & April-2020**

“The water quality data of Kala Singhian drain indicates that the values of BOD have been increased to 105-188 mg/l at Athola Gazipur as compared to the values of BOD as 27-30 mg/l at its section at Pathankot- Jalandhar Road. The increase in the values is due to discharge of some untreated sewage into Kala singhian drain. PPCB should check the untreated discharges entering into the said drain and suitable directions be issued to the concerned agency for treatment of the same.”

**x. Utilization of Treated wastewater from STPs for Irrigation**

“In order to utilize the treated sewage of STPs of 8 towns of capacity 50.1 MLD, irrigation schemes have been completed. Under these irrigation schemes 1305 hectares of land has been covered. Punjab Pollution Control Board shall check these irrigation schemes and ensure that these should be commissioned to utilize the treated sewage for irrigation.”

“Irrigation scheme to utilize the treated sewage of STP of Begowal town has been completed. It should be commissioned by 30.06.2020 and the treated sewage should be utilized for irrigation purposes.”

“Irrigation schemes for 07 STPs of capacity 42 MLD have been prepared but the funds have not been tied up so far. The department of Soil and Soil Conservation should take up the matter with State Govt. for release of funds to utilize the treated sewage 7 STPs of capacity 42 MLD for irrigation.”

**xi. Water quality of Holy Bein (Kali Bein) for the months of March, 2020 and April, 2020:**

“The data w.r.t water quality of Holy Bein indicates that quality of water varies between class B to C, which indicates that water can be used for drinking purposes by imparting conventional treatment followed by disinfection and irrigation purposes.

The Department of Local Govt. and Punjab water Supply and Sewerage Board should take immediate steps to upgrade Existing 25 MLD STP Kapurthala and make arrangements to utilize the treated wastewater of STP Kapurthala for irrigation.”

### **“3.8 Conclusions and Recommendations:**

*In view of data as discussed above, the Monitoring Committee has made the following conclusions and recommendations:*

#### **3.8.1 River Sutlej**

1. *The State of Punjab should comply with the recommendations made by the Monitoring Committee during its 9<sup>th</sup> meeting held with State level officers on 14.2.2020.*
2. *Punjab Pollution Control Board is regularly carrying out the monitoring of sewage treatment plants of the towns located in the catchment area of river Sutlej. The performance data of 50 STPs installed in the catchment area of river Sutlej indicates that 31 STPs (62%) are complying with all the norms w.r.t BOD, TSS and F.Coli parameters. 06 STPs are not meeting with standards for BOD, TSS and F.Coli parameters, out of which STP Jamalpur, Ludhiana is lying defunct for which Municipal Corporation, Ludhiana has been directed upgrade/rehabilitate the same by 31.03.2021. 07 STPs are not meeting BOD and F.Coli parameters. 04 STPs are not meeting with F.Coli parameter. No analysis carried out in the case of 02 STPs. Therefore, the Monitoring Committee recommends as under:*
  - ✓ *Municipal Corporations/ Municipal Councils/ PWSSB or any other agency operating the STPs, should operate their STPs as per the operation and maintenance manual prepared by PWSSB.*
  - ✓ *These departments should impart trainings to the Supervisory staff.*
  - ✓ *In order to bring down the F. coli parameter within the norms, adequate dosing of disinfectant with proper disinfectant contact mechanism should be provided.*
  - ✓ *Concerted efforts may be made by all the concerned departments to bring down the non compliance of STPs to significantly low level.*
  - ✓ *OCEMS along with flow meters shall be installed at inflow, outflow and bye-pass of the STPs and record in this regard may be maintained by the STP operator.*
  - ✓ *OCEMS and CCTV cameras on all the STPs may be ensured to be installed by 31/05/2020, failing which environment compensation may be imposed by PPCB on the defaulting STPs.*
3. *The data w.r.t STPs which are under construction shows that STP Kotkapura has been constructed upto 85% and it should be commissioned by 31.08.2020 and STP Gidderbaha is under stabilization and the same should be commissioned by 30.06.2020. Remaining STPs of Guru Sahai of capacity 4 MLD and 1 MLD should be completed and by 31.3.2021.*
4. *24 STPs of capacity 250 MLD, for which funds have been tied up, are under planning.*

- 6 STPs for the towns (Balachaur: 4 MLD, Garhshankar: 3 MLD, Rahon: 3 MLD, Jalandhar: 50 MLD, Ludhiana: 50 MLD, Raikot: 7 MLD) are at tendering stage.
- 14 STPs (Maluka: 1MLD, Jalandhar: 25 MLD, Nawanshahr: 44 MLD, Kiratpur: 2 MLD, Bhagta Bhaika: 3 MLD, Bhai Roopa: 4 MLD, Kotha Guru: 3 MLD, Arniwala: 2 MLD, Mamdot: 3 MLD, Mudhki: 3 MLD, Mahilpur: 2 MLD, Nihal Singh wala, Bariwala: 2 MLD, Sri Mukatsar Sahib: 10 MLD) are at DNIT preparation stage.
- In case of 3 STPs (Faridkot:14 MLD, Patti; 8 MLD, Ferozepur: 1 MLD: 1MLD, land issues are to be resolved.
- In STP of 1 town namely Arriwala: 2 MLD, funds have not been tied up.

**The Monitoring Committee recommends that the Department of Local Government and Punjab Water Supply and Sewerage Board and department of Water Supply and Sanitation should ensure the completion of these STPs by 31.3.2021.**

5. For upgradation of 100 MLD STP of Jalandhar town, DPR has been prepared and funds have been tied up in AMRUT and Smart city scheme. In case of Ludhiana, there is proposal to upgrade technologically all the 5 STPs of capacity 466 MLD. For these STPs, tenders have been invited and funds have been tied up in AMRUT and Smart city scheme. For upgradation of 3 STPs (Phillaur: 2.6 MLD, Mallout: 3 MLD, Goniana: 3 MLD), DNIT is under preparation.

**The Monitoring Committee recommends that upgradation work of STPs of capacity 100 MLD of Jalandhar Town, 466 MLD STPs of Ludhiana area, 2.6 MLD STP of Phillaur town, 3 MLD STP of Malout and 3 MLD STP of Goniana should be completed by the concerned Municipal Corporations Jalandhar and Ludhiana and by the department of Local Govt. by 31.03.2021.**

6. In order to utilize the treated sewage for irrigation, the irrigation schemes to utilize treated sewage of 23 towns have been completed. These irrigation schemes cater 3543 hectares of land and treated sewage 134.8 MLD shall be utilized in these irrigation fields.

**Punjab Pollution Control Board shall check the status of these irrigation schemes to assure as to whether these have been commissioned or not**

7. To utilize treated sewage of 24 STPs of capacity 151.5 MLD for irrigation, irrigation projects have been sanctioned. These irrigation schemes shall cater command area of 5638.5 hectares of irrigation land. Funds for these irrigation schemes have been sanctioned but these have not been released so far.

**The department of Soil and Water Conservation shall take up the matter with the State Govt. for early release of funds.**

8. For 16 STPs of capacity 243.4 MLD, irrigation schemes have been prepared to utilize treated sewage of the towns for irrigation. However, the funds have not been made available. The department of Soil and Water Conservation shall take up the matter with the State Govt. for release of funds for these 16 STPs.

**The department of irrigation has claimed that for utilization of treated sewage of Ludhiana (466 MLD) and Jalandhar (100 MLD), irrigation schemes have not been found feasible. Therefore, the Monitoring Committee recommends that department of Soil and Water Conservation shall prepare irrigation schemes within 01 month so that huge quantity of treated sewage can be safely utilized for irrigation.**

9. The department of Rural Development and Panchayat has selected 75 villages of the State in the first phase to install STPs for the treatment of sewage of these villages. Out of these villages, STPs have been completed in 04 villages.

**The Monitoring Committee recommends that the department of Rural Development and Panchayat shall take up the matter with the State Govt. to provide necessary funds for installation of STPs for the remaining 71 villages which have been taken under Phase-1 villages.**

10. For commissioning and completion of CETPs for cluster of dyeing industries of Bahadurke Road, Tajpur Road & Rahon Road and Focal point, Ludhiana, Punjab Pollution Control Board shall take following action.

- PPCB shall follow up the matter with concerned departments of State of Punjab and MoEF&CC for early release of funds and restart the construction work of 40 MLD and 50 MLD CETPs and shall ensure to complete and commission these CETPs by 31.08.2020.
- 15 MLD CETP for Bahadur Ke Road, dyeing industries cluster be stabilized within 45 days.
- With regard to upgradation of existing ETP of capacity 5 MLD installed at Leather Complex Jalandhar, which was not achieving the prescribed standards, it was informed to the Monitoring Committee during its meeting with the officers of Jalandhar on 29.05.2020 that a proposal for upgradation of existing CETP was prepared with an estimated cost of Rs 27.25 crore along with a proposal to construct mixing tank for dilution of treated effluent of CETP mixing with treated wastewater of STP Peer Dad. The proposal of upgradation of CETP was approved by Government of

India with DPIIT contribution as 70% of the project cost  
However, e-Tender is yet to be published.

- The Chairman of the Monitoring Committee directed that the tender for upgradation of CETP for leather complex, Jalandhar shall be floated by 10.06.2020 and the construction work of dilution tank shall be completed within 2 months. Upgradation work of 5 MLD existing CETP should be completed by 31.03.2021.

11. The Monitoring Committee held its meeting with District level officers of District Jalandhar on 29.5.2020, wherein, it was informed that for installation of ETP to treat the diary effluent of Jamsher dairy complex, draft DPR has been prepared and the same is at finalization stage. For the management of the cow dung, design statement is being prepared by the contractor. It has been directed by the Monitoring Committee that DPR of both the projects shall be finalized within 15 days and work for construction of ETP and biogas plant shall be started within 6 months and the shall be completed and commissioned by 31.3.2021.

12. For the management of cow dung at Haibowal dairy complex, biogas power Plant of capacity 1 MW has already been installed and the same is under renovation for installation of Bio CNG Plant, which requires import of the machinery and soon after the ease out of the Covid-19, pandemic, renovation work will be completed including operation of Bio CNG plant by 30.09.2020. With this upgradation, the consumption of animal dung will be increased to 235 TPD. Municipal Corporation, Ludhiana has claimed that for the management of dairy dung of Tajpur Road dairy complex, Ludhiana, the project shall be completed within 30 months from the date of demarcation of land by GLADA. The PEDDA assured to make efforts to complete the project expeditiously. The Monitoring Committee recommends as under.

- Biogas Power Plant at Haibowal dairy Complex shall be upgraded to Bio CNG plant by 30.09.2020 and Biogas Plant at Tajpur Road dairy complex shall be installed by 31.03.2021.
- For the treatment of liquid effluent about 5 MLD from Tajpur Road dairy complex and 10 MLD from Haibowal dairy complex, the project has been covered under comprehensive proposal and after the opening of the tenders, priority shall be given to the installation of ETPs for these dairy complex.

13. For desilting of Budha Nallah and Kala Singhian drain, the Monitoring Committee has asked Commissioner, Municipal Corporation, Ludhiana and Jalandhar to divert the funds to the department of Irrigation within 10 days and on receipt of funds, irrigation department shall allot the work preferably within next 6 weeks.

14. *The monitoring data of river Sutlej indicate that the values of BOD and F.Coli at 100 m downstream of confluence of Budha Nallah with river Sutlej have been found as 21.7 mg/l and 356667 MPN/100ml, respectively, and these values have been reduced to 3.3 mg/l and 953 MPN/100 ml in river Sutlej at Harike Head works indicating the quality of water as class 'C' as per the water quality prescribed by CPCB.*
15. *The quality of Budha Nallah water monitored during March, 2020 and April, 2020 indicates that the values of BOD have been found varying between 118- 158mg/l and 190- 270 mg/l, respectively. The values of F.Coli were found to varying between 1700000- 3100000 MPN/100 ml. The data further indicate that some outlets carrying untreated sewage are directly falling into Budha Nallah and some STPs are not functioning properly.*
16. *The Municipal Corporation, Ludhiana has prepared composite proposal to install new STPs, upgradation/rehabilitation work of existing STPs with an estimated cost of Rs 1000 Crore. The Monitoring Committee recommends that all the activities covered under composite proposal should be completed by 31.03.2021.*
17. *The Monitoring data of East Bein indicate that the values of BOD at its course at Phagwara have been found as 15-18 mg/l and these were found increased to 70- 75 mg/l at its section at Malsian in Jalandhar. Similarly, the values of T. Coli have been increased to 110000 MPN/100 ml at Malsian against the values as observed at its course at Phagwara. The increase in the value of BOD and T.Coli is due to discharge of part of the untreated sewage of Jalandhar area into East Bein leading to river Sutlej.*
18. *The water quality data of Kala Singhian drain indicates that the values of BOD have been increased to 105-188 mg/l at Athola Gazipur as compared to the values of BOD as 27-30 mg/l at its section at Pathankot- Jalandhar Road. The increase in the values is due to discharge of some untreated sewage into Kala singhian drain. PPCB should check the untreated discharges entering into the said drain and suitable directions be issued to the concerned agency for treatment of the same.*
19. *The Municipal Corporation Ludhiana should plug all the 16 outlets carrying untreated domestic sewage of Ludhiana City and directly falling into Budha Nallah and divert the same to nearby STPs soon after the completion of new STPs of capacity 227 MLD. These outlets should be closed by 30.6.2020.*
20. *PPCB shall install Real Time Water Quality Monitoring System (RTWQMS) at the appropriate locations by 30.06.2020.*

21. Punjab Pollution Control Board shall carry out the comprehensive study and water audit of Common Effluent Treatment Plant (CETP) based on Zero liquid discharge technology installed at Focal Point Ludhiana, for small scale electroplating industries of Ludhiana and other areas and shall submit the report to the Chairman, Punjab Pollution control Board for action in the matter under intimation to the Committee. PPCB shall also submit the compliance report w.r.t recommendations made by the Monitoring Committee during its visit to Ludhiana area on 16.08.2019.

22. Punjab Pollution Control Board shall conduct surprise inspection of large scale electroplating industries of Ludhiana to ensure that zero liquid discharge technology effluent treatment plants, installed by these industries, are operated at all the times and effluent from these industries should not be allowed to discharge into sewerage system further leading to Budha Nallah. The permeate from zero liquid discharge technology ETPs should be recycled back into the processes of the industries. The toxic sludge from the ZLD system should be disposed off to TSDF, Nimbuan.

23. PPCB shall notify pretreatment standards for CETP at the earliest as directed by the Hon'ble NGT vide its order dated 28.2.2019.

24. In order to maintain Environment flow in river Sutlej, the Monitoring Committee recommends that the following directions be given to the various departments of State of Punjab.

- Department of Water Resources and Department of Soil & Water conservation shall identify the area / stretches in the catchment area of river Sutlej for providing check dams / storage tanks for storage of run off / storm water during rainy days and the stored water may be released in regulated way so as to maintain the quality of drains/Nallah/river water at down streams.
- The Municipal Councils / Corporations / Department of Local Govt. shall install STPs to achieve the stringent parameters i.e. BOD: 10 mg/l, so that the resultant value of BOD after mixing with the river water may be nearly 3 mg/l.
- The industries be directed to achieve the stringent parameters i.e. BOD: 10 mg/l. The industries discharging wastewater, having toxic constituents, may not be allowed to discharge their effluent into drains/Nallah/rivers / water bodies. These industries may be directed to achieve Zero Liquid Discharge technology.

25. With regard to release of fresh water from Sirhind Canal into Budha Nallah, it was informed to the Monitoring

committee in the meeting held with District level officers of District Ludhiana that DPR of the project shall be submitted by 30.06.2020, tendering processes shall be completed by 15.08.2020 and work shall allotted to the Contractor by September, 2020, work shall be started by October, 2020 and project shall be completed by April, 2021.

**The Monitoring Committee directed that the Department of Water Resources shall ensure that the project regarding release of fresh water from Sirhind Canal into Budha Nallah shall be completed by 31.03.2021.**

26. For management of Septage and Faecal sludge, the Monitoring Committee recommends that the Deptt. of Rural Development & Panchayat and Department of Local Govt. shall jointly constitute committees to identify the sources of generation of septage and faecal sludge from rural and urban areas and these departments shall prepare a comprehensive plan to dispose of these materials in an environmentally sound manner in a time bound manner.
27. The Department of Local Govt., Municipal Corporation Moga, Municipal Councils falling under the District Moga, Punjab Water Supply and sewerage Board, department of Rural Development and Panchyat and Punjab Pollution control Board shall comply with the recommendations made by the Monitoring Committee during its visit to pollution sources of Moga area on 27.02.2020.
28. Punjab Water Supply and sewerage Board, Municipal Council Moga and Punjab Pollution Control Board shall comply with the recommendations made by the Monitoring Committee during its visit to STP Mansa on 11.3.2020.
29. Punjab Pollution Control Board and Authorities of Mukatsar Medicity Hospital, Bathinda Road, Sri Mukatsar Sahib shall comply with the recommendation made by the Monitoring Committee during its visit to the said hospital of Sri Mukatsar on 17.3.2020.

### **3.8.2 River Beas:**

- 1 Presently, in the catchment area of river Beas 16 STPs of capacity 97.1 MLD have been installed. Out of these 16 STPs, 10 sewage treatment plants (STPs) of capacity 76.1 MLD have been installed by Punjab Water Supply and Sewerage Board, 5 STPs of capacity 17 MLD have been installed by MES authority and 01 STP of capacity 4 MLD by BBMB authority Talwara.
- 2 The performance study of STPs located in the catchment area of river Beas indicates as under.

- Out of 16 STPs installed in the catchment area of river Beas, 12 STPs (Pathankot: 27 MLD, Sri Hargobindpur: 1 MLD, Dasuya: 4 MLD, BBMB Talwara: 4 MLD, Begowal: 2.5 MLD, Bhulath; 4 MLD, Sultanpur Lodhi: 2.6 MLD, MES: Pathankot: 3 MLD, MES Mamoon: 2 MLD, MES Pathankot: 8 MLD, MES Mamoon: 2 MLD, MES Mamoon: 2 MLD) are meeting with the prescribed norms w.r.t parameters namely BOD, TSS and F.Coli.
  - 3 STPs namely Mukerian: 5 MLD, Sham Churasi: 1 MLD, Tanda: 4 MLD are meeting with BOD and TSS parameters and not with F.coli parameter.
  - 01 STP (Kapurthala: 25 MLD) is not meeting with BOD and F.Coli parameters.
3. In order to treat 26.6 MLD sewage, which is a gap in treatment capacity, 9 STPs of capacity 29.2 MLD have been proposed to be installed and funds have been tied up. Out of these 9 STPs, 04 STPs are at DNIT stage, 03 STPs have been involved with land issue and 02 STPs are at tendering stage. **The Monitoring Committee recommends that the department of Local Govt. and Punjab Water Supply and sewerage Board should make arrangements to provide STPs of capacity 29.2 MLD by 31.3.2021 and till then in-situ remediation technology may be provided in the drains which are carrying untreated sewage.**
  4. There is proposal to upgrade 25 MLD STP at Kapurthala but the funds have not been tied up. **The department of Punjab water supply and Sewerage Board should take up the matter with the State Govt. for release of funds for upgradation of 25 MLD existing STP and ensure to complete the upgradation work by 31.03.2021.**
  5. In order to utilize the treated sewage of STPs of 8 towns of capacity 50.1 MLD for irrigation, irrigation schemes have been completed. Under these irrigation schemes 1305 hectares of land has been covered. **The Monitoring Committee recommends that Punjab Pollution Control Board shall check these irrigation schemes and ensure that these should be commissioned to utilize the treated sewage for irrigation.**
  6. The irrigation scheme to utilize the treated sewage (2.5 MLD) of STP of Begowal town has been completed. It should be commissioned by 30.06.2020 and the treated sewage should be utilized for irrigation purposes.
  7. Irrigation schemes for 07 STPs of capacity 42 MLD have been prepared but the funds have not been tied up so far. **The department of Soil and Soil Conservation should take up the matter with State Govt. for release of funds to utilize the treated sewage 7 STPs of capacity 42 MLD for irrigation.**

8. *The water quality of River Beas monitored during March, 2020 and April, 2020 indicates that quality of water mostly remains as class B as per the water quality criteria prescribed by CPCB. Thus, the water of river Beas is fit for drinking after imparting disinfection and irrigation purposes.*
9. *The data with regard to water quality of Holy Bein indicates that quality of water varies between class B to C, which indicates that water can be used for drinking purposes by imparting conventional treatment followed by disinfection and irrigation purposes and it can be used for irrigation.*
10. *To maintain the Environment flow and to restore the quality of river Beas, the following recommendations are made:*
  - i. *Department of Water Resources and Department of Soil & Water conservation shall identify the areas / stretches in the catchment area of river Beas for providing check dams / storage tanks for storage of run off / storm water during rainy days and the stored water may be released in regulated way so as to maintain its quality at down streams.*
  - ii. *The Municipal Councils / Corporations / Department of Local Govt. shall install STPs to achieve the stringent parameters i.e. BOD: 10 mg/l, so that the resultant value of BOD after mixing with the river water may be nearly 3 mg/l.*
  - iii. *The industries be directed to achieve the stringent parameters i.e. BOD: 10 mg/l. The industries discharging wastewater having toxic constituents may not be allowed to discharge their effluent into rivers / water bodies. These industries may be directed to achieve Zero Liquid Discharge (ZLD) technology.*
11. *PPCB has placed the order for installation of Real Time Water Quality Monitoring System in river Beas at one location and shall be installed and commissioned by 31.5.2020.*
12. *For management of Septage and Faecal sludge, the Monitoring Committee recommends that the Deptt. of Rural Development & Panchayat and Department of Local Govt. shall jointly constitute committees to identify the sources of generation of septage and faecal sludge from rural and urban areas and these departments shall prepare a comprehensive plan to dispose of these materials in an environmentally sound manner in a time bound manner.*
13. *The department of Local Govt., Punjab Water Supply and sewerage Board, Punjab Pollution Control Board and other concerned departments of State of Punjab Shall comply with the recommendations made by the Monitoring*

*Committee during its visit to Holy Bein ( Kali Bein) on 22.02.2020.”*

23. We find that the third and the fourth reports of the Committee are based on verification of data by site visits and interaction with the stakeholders. As per directions of this Tribunal, the reports have been shared with the concerned authorities. No objection has been raised to the conclusions in the report. The reports thus need to be accepted and acted upon. Directions of this Tribunal in OA 673/2018 in a separate order of date will also apply to Sutlej and Beas rivers which are covered by the list of 351 polluted river stretches.

**XIII. Directions:**

24. Accordingly, we direct:

- (a) Let the concerned authorities in the State of Punjab take steps in terms of observations and recommendations of the Committee in the third and the fourth reports, particularly in the matter of setting up of requisite treatment plants in the State, compliance to standards by the existing STPs and fixing responsibility on officials for non-performance of duties, compliance to standards by CETP leather complex, inadequate inspections by officials of SPCB, slow pace with regard to new/upgradation/rehabilitation of STPs, setting up of new CETPs textile and dyeing industrial cluster, setting up of new ETP for dairy waste, bridging of gap in terms of sewage quantity to be treated, interception of the drains, maintaining flow/release of fresh water in Buddha Nallah and Holy Bein, dealing of Buddha Nalla utilization of treated waste water, treatment facilities for villages, laying down pretreatment

standards, desilting of drains, shifting of dyeing industries, organizing health check-ups, preventing direct discharges into the drains, increased surveillance of polluting industries, training of the staff. If the timelines laid down in the order of this Tribunal dated 06.12.2019 in O.A. No. 673/2018 as modified vide order dated 29.06.2020 are crossed, compensation in terms of the directions in the said order will be payable.

- (b) Local bodies in the catchment area may ensure that solid waste is not dumped into the rivers or the drains connected to the rivers.

25. Further report in the matter may be furnished by the Committee after verifying the status of compliance after four months by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) (preferably in the form of searchable/OCR PDF and not image PDF). A copy thereof may be furnished simultaneously by the Committee to the Chief Secretary, State of Punjab for comments, if any.

List for further consideration on 01.12.2020.

Adarsh Kumar Goel, CP

Sheo Kumar Singh, JM

Dr. Nagin Nanda, EM

June 29, 2020  
OA No. 916/2018  
A & DV