

5th Report

of the

Monitoring Committee

constituted by

Hon'ble

National Green Tribunal

in OA No. 916 of 2018

in the matter of

Sobha Singh & Others Vs State of

Punjab & Others

vide order dated 22.06.2020 uploaded on 29.06.2020

Submitted on:

15th October, 2020

OFFICE OF THE MONITORING COMMITTEE

Constituted by the Hon'ble National Green Tribunal in OA
No.916/2018 (earlier OA No.101 of 2014) OA No.606 of 2018
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To

The Registrar General,
National Green Tribunal,
Faridkot House, Copernicus Marg,
New Delhi, Delhi 110001

No.CMC/SB/2020/1018
Dated: 15.10.2020

Subject: 5th Report of the Monitoring Committee, Constituted by Hon'ble National Green Tribunal, in OA No.916 of 2018 in the matter of Sobha Singh & Ors vs State of Punjab & Ors vide order dated 22.06.2020 uploaded on 29.06.2020.

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It is submitted that the Hon'ble National Green Tribunal vide its order dated 22.6.2020 uploaded on 29.6.2019 at Para no. 24 and 25 has given the directions as under:

Para No. 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 pre-treatment 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.

Para No. 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 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.

Therefore, in compliance to the orders dated 22.6.2020 uploaded on 29.6.2020 as mentioned at para 24 and 25 above, the Monitoring Committee submits its 5th report, which is enclosed herewith for kind consideration by the Hon'ble Tribunal.

It is further submitted that the abovesaid report is also being sent through email at judicial-ngt@gov.in.

DA/As above


(Justice Jasbir Singh)
Former Judge,
Punjab & Haryana High Court
and now as
Chairman of the
Monitoring Committee

Endst No. CMC/SB/2020/1019

Dated: 15.10.2020

A copy of the above is forwarded to the Chief Secretary, Punjab for information and necessary action please.

DA/as above

Sd/-
(Dr. Babu Ram)
Technical Expert,
Monitoring Committee

Endst No. CMC/SB/2020/1020

Dated: 15.10.2020

A copy of the above is forwarded to the Additional Chief Secretary, Department of Local Govt., Sector 35, Chandigarh for information and necessary action please.

DA/as above

Sd/-
(Dr. Babu Ram)
Technical Expert,
Monitoring Committee

Endst No. CMC/SB/2020/1021

Dated: 15.10.2020

A copy of the above is forwarded to the Chief Executive Officer, Punjab Water Supply and Sewerage Board, Sector 27, Chandigarh for information and necessary action please.

DA/as above

Sd/-
(Dr. Babu Ram)
Technical Expert,
Monitoring Committee

Endst No. CMC/SB/2020/1022

Dated: 15.10.2020

A copy of the above is forwarded to the Member Secretary, Punjab Pollution Control Board, Nabha Road, Patiala for information and necessary action please.

DA/as above

Sd/-
(Dr. Babu Ram)
Technical Expert,
Monitoring Committee

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1.0 Background

The Monitoring Committee, constituted by Hon'ble National Green Tribunal in O.A No. 916 of 2018 in the matter of Sobha Singh & Others V/s State of Punjab & Ors, submitted its 3rd report dated 5.2.2020 vide letter No. /SB/2020/497 dated 5.2.2020. Thereafter, the Monitoring Committee submitted its 4th report dated 5.6.2020 vide letter No. CMC/SB/2020/spl-1 dated 5.6.2020. The Hon'ble Tribunal considered 3rd and 4th report of the Monitoring Committee on 22/06/2020 and passed the detailed order, the relevant Paras No. 24 and 25, relating to the Monitoring Committee are reproduced as under.

Para No. 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 pre-treatment 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.

Para No. 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 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.

2.0 4th report of the Monitoring Committee Constituted by Hon'ble National Green Tribunal in compliance to directions issued as per para 24 and 25 mentioned above

In compliance to the order dated 6.12.2019 uploaded on 12.12.2019 as mentioned in para 22 of the said order, the Monitoring Committee submitted its 4th report to the Hon'ble Tribunal on 05 June 2020. The said report was based on the field visits made by the Monitoring Committee, meetings held with State level officers and Districts level Officers, data collected from the concerned departments and detailed discussion held with officers w.r.t control of pollution in river Sutlej and Beas. The report was considered by the Hon'ble National Green Tribunal vide its order dated 22.06.2020 uploaded on 29.06.2020 and issued the directions as mentioned in para no 24 and para no 25 above.

3.0. 5th report of the Monitoring Committee in compliance of the directions in order dated 22.06.2020 uploaded on 29.06.2020 of Hon'ble Tribunal in OA No. 916 of 2018

The Monitoring Committee held its meetings with the State Level Officers and District Level Officers of various districts of the State of Punjab. It has also visited the record of various departments w.r.t. step taken to control pollution in river Sutlej and Beas and made its recommendations which were sent to the concerned departments to take further necessary action on the various activities to be carried out to control the pollution in river Sutlej and Beas .

The monitoring committee has also collected the data w.r.t. water quality of river Sutlej, Beas and tributaries of river Sutlej namely Budha Nallah, East Bein, Kala Singhian drain and Holy Bein, performance of existing sewage treatment plants, status of construction of new STPs, upgradation and enhancement of capacity of existing STPs, gap in sewage treatment, treatment of sewage of rural areas, utilization of treated sewage for irrigation, environmental flow, septage and faecal sludge management etc.

Therefore, based on the data, record and discussion held/interaction made with various departments at State level as well as districts level, w.r.t. activities carried out to control pollution in river Sutlej and Beas, the Monitoring Committee has prepared its 5th report and the same is mentioned as under:

3.1 Recommendations made/directions given by the Monitoring Committee during its meeting with District Level Officers of District Ludhiana on 13.5.2020 regarding control of pollution in Budha Nallah and subsequently in river Sutlej.

3.1.1 Control of pollution in Budha Nallah

PPCB has monitored the effluent discharge of Budha Nallah at three occasions and the discharge was measured as under:

S.No	Period	Activities in Operation	Discharge(MLD)
1.	March-2019	Industrial/commercial and residential	597 MLD except the discharge of STP Bhattian (155 MLD) which is directly falling into River Sutlej

2.	Vishwkarma Day	Residential and commercial	476 MLD
3.	Lockdown	01.04.2020 to 30.04.2020	460 MLD

The above data indicate that there is contribution of about 137 MLD from industries, about 20 - 25 MLD from commercial activities and 460 MLD from domestic activities alone.

3.1.1.1 Water Quality of Budha Nallah during lock down period.

Further, the water quality of Budha Nallah has been monitored during lock down period (April, 2020) and the value of BOD has been found varying between 195 -230 mg/l, as such, there is no impact on the quality of Budha Nallah even during the lockdown period. The major contributors of high BOD in Budha Nallah water is because of defunct condition of STP Jamalpur and untreated discharge from dairies of Ludhiana.

3.1.1.2 Desilting of Budha Nallah

The Chairman of the Monitoring Committee informed that the Monitoring Committee has written letter to the Commissioner Municipal Corporation, Ludhiana regarding desilting of Budha Nallah and the Chief Engineer, Department of Water Resources (Drainage) has also been requested separately to prepare the estimate for desilting of Budha Nallah immediately and submit the same to Municipal Corporation, Ludhiana so that work of desilting of Budha Nallah may be started at the earliest. PPCB was directed to pursue the matter with the Municipal Corporation, Ludhiana and Chief Engineer, Department of Water Resources (Drainage) for early desilting of Budha Nallah.

3.1.1.3 Status of CETPs for clusters of dyeing industries of Ludhiana

Regarding commissioning of 15 MLD CETP for dyeing industries of Bahadurke Road, Ludhiana, it was informed that CETP has been commissioned and the value of BOD at the outlet of CETP has been observed to be 18- 20 mg/l and TDS has been observed to be 4000 mg/l.

With regard to construction of 02 CETPs of capacity 50 MLD and 40 MLD for dyeing industries of Tajpur Road & Rahon Road and Focal point, Ludhiana, it was apprised that State share is pending for release and the work of these CETPs shall be started soon after the release of State Share for which the Board is pursuing the matter.

The Chairman of the Monitoring Committee has directed as under:

- 1. Senior Environmental Engineer, PPCB, Ludhiana shall persue the matter with the Commissioner, Municipal Corporation, Ludhiana for early desilting of Budha Nallah.**
- 2. PPCB shall persue the matter with the State Govt. Punjab for early release of funds as its State share so that the construction work of 50 MLD and 40 MLD CETPs must be completed within the time schedule.**
- 3. PPCB shall monitor the water quality of Budha Nallah and performance of existing STPs of Ludhiana and submit the analysis results to the Monitoring Committee**

3.1.2 Control of pollution in Kala Singhian Drain

3.1.2.1 Water quality of Kala Singhian Drain

The reports of Punjab Pollution Control Board indicate that Kala Singhian drain has become almost dry except small domestic discharges of villages upstream of STP Peer Dad (50 MLD), Jalandhar. The estimated discharge at the downstream of STP Peer Dad is about 45 MLD and the concentration of BOD at the downstream of said STP has been observed to be 30-94 mg/l. PPCB is regularly monitoring the performance of STP Peer Dad.

3.1.2.2 Desilting of Kala Singhian drain

The Monitoring Committee has written letter to the Commissioner, Municipal Corporation, Jalandhar regarding desilting of Budha Nallah. Punjab Pollution Control Board was directed to pursue the matter with the Municipal Corporation, Jalandhar regarding desilting of Kala Singhian drain.

3.1.2.3 Status of CETP for electroplating industries of Jalandhar

Regarding installation of 0.15 MLD CETP for electroplating industries of Jalandhar, it was reported that the construction work of CETP has been stopped due to stay granted by the Hon'ble High Court and PPCB has submitted its application before the Hon'ble High Court for vacation of stay order so that construction work of CETP may be started. The next date of hearing before the Hon'ble High Court is in the month of July, 2020.

The Monitoring Committee has directed as under:

- 1. Punjab Pollution Control Board shall pursue the matter with the Commissioner, Municipal Corporation Jalandhar for early desilting of Kala Singhian drain.**
- 2. PPCB shall pursue the matter with the Hon'ble High Court for vacation of stay so that the construction work of CETP for electroplating industries may be started.**
- 3. PPCB shall monitor the water quality of Kala Singhian drain and performance of existing STPs of Jalandhar and submit the analysis results to the Monitoring Committee**

3.2 Recommendations made/directions given by the Monitoring Committee during its meeting with District Level Officers of District Ludhiana on 21.5.2020 regarding control of pollution in Budha Nallah and subsequently in River Sutlej.

3.2.1 Setting of new / upgradation / rehabilitation of STPs. (Upgradation /rehabilitation of 152 MLD, 48 MLD, 152 MLD, 105 MLD, 111 MLD and 50 MLD STPs and installation of new STP of capacity 225 MLD at Jamalpur and 50 MLD at BalloKe)

The Commissioner, Municipal Corporation, Ludhiana apprised that a comprehensive proposal for upgradation/ rehabilitation and installation of new STPs has been prepared. There is proposal to construct new STP of capacity 225 MLD at Jamalpur including rehabilitation of 48 MLD existing STP, rehabilitation of 152 MLD and 105 MLD STPs at BalloKe, 111 MLD and 50 MLD STPs at Bhattian including the construction of new STP of 50 MLD at BalloKe. The tender for the project has been floated and the tenders shall be

opened on 1.6.2020. The rehabilitation/upgradation work of STP Jamalpur, BalloKe and Bhattian shall be completed and commissioned by 31.10.2022, 31.07.2021 and 31.10.2021, respectively. The new STP of capacity 50 MLD at BalloKe shall be completed by 30.04.2021.

The Chairman of the Monitoring Committee directed that after opening of the tender, priority may be given to the treatment of dairy wastewater of Dairy Complex, Tajpur Road and Haibowal because these dairy wastewaters contribute high value of BOD and COD irrespective of quantity of wastewater.

3.2.2 Setting up of bio-diversity park and tree plantation along Budha Nallah

3.2.2.1 Biodiversity Parks

It was apprised by the Municipal Commissioner, Ludhiana that for setting up of bio-diversity park, bio-diversity management committee has selected 03 sites namely leisure valley, Zone-D, Sarabha Nagar, Focal Point, Phase-V, Near Dry Port and Park Metro Road Opposite to Viswanath Mandir.

3.2.2.2 Development of Plantation along Budha Nallah

With regard to development of plantation along Budha Nallah, it was informed that 850 saplings have been planted along Budha Nallah to protect and purify the environment. Further, plantation in the Parks will be started during rainy season and completed by 15.09.2020.

The Chairman of the Monitoring Committee directed that encroachment along Budha Nallah may be removed within two months so that bio-diversity parks may be developed along Budha Nallah. The plantation along Budha Nallah may be completed within two months by Municipal Corporation, Ludhiana (MCL) (within Municipal Corporation Area) and by the department of Rural Development and Panchayat (DRDP) outside Municipal Corporation limits.

3.2.3 Closing of outlets carrying untreated domestic effluent and directly falling into Budha Nallah

Project regarding closing of outlets carrying untreated sewage and directly falling into Budha Nallah has been covered under comprehensive plans prepared for construction of new STPs and upgradation/rehabilitation of existing STPs. These outlets shall be closed soon after the upgradation/rehabilitation of existing STPs of capacity 48 MLD, 152 MLD, 105 MLD, 111 MLD and 50 MLD and installation of new STPs of capacity 225 MLD at Jamalpur and 50 MLD at BalloKe.

The Chairman of the Monitoring Committee directed that all the outlets carrying untreated sewage and directly falling into Budha Nallah be closed soon after the commissioning of new and upgradation/rehabilitation of existing STPs till then work of providing in-situ remediation technology be started in the drains/nallahs/outlets which are not connected to STPs immediately as the departments are already in violation of orders of Hon'ble National Green Tribunal.

3.2.4 Installation of OCEMS and CCTV Cameras on all the 5 STPs at Ludhiana

Online Continuous Effluent Monitoring Systems (OCEMS) have been installed on all the STPs and the same shall be commissioned after effluent sampling to be done by the third party. CCTV Cameras are being installed under smart city mission and DPR is under preparation.

The Chairman of the Monitoring Committee directed that OCEMS should be commissioned within one month and CCTV Camera should be installed within two months.

3.2.5 Management of Dairy Dung of Tajpur Road and Haibowal dairy complex, Ludhiana

Biogas Plant at Haibowal dairy complex 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.

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 Punjab Energy Development Agency (PEDA) ensured to make efforts to complete the project expeditiously.

The Chairman of the Monitoring Committee directed that 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.

3.2.6 Treatment of wastewater 5 MLD from Tajpur Dairy Complex and 10 MLD from Haibowal Dairy Complex.

It was informed that the project for installation of ETP to treat 5 MLD wastewater generated from Dairy Complex, Tajpur Road and 10 MLD wastewater generated from Haibowal Dairy Complex, has been planned in the comprehensive project and the same shall be completed within 24 months i.e. by 30.4.2022.

The Chairman of the Monitoring Committee desired that ETPs of capacity 5 MLD and 10 MLD to treat the liquid waste from Dairy Complex, Tajpur Road and Haibowal, which contribute high organic load in term of high value of BOD and COD in Budha Nallah, be given priority and therefore, after the opening of the tender of the comprehensive project, installation of ETPs of capacity 5 MLD and 10 MLD for dairy complex Tajpur Road and Haibowal may be given priority and these ETPs may be completed by 31.03.2021.

3.2.7 CETPs for Cluster of Dying Industries of Ludhiana.

The status was submitted as under.

3.2.7.1 CETP of capacity 15 MLD for Bahadur Ke Road dyeing industries cluster

- 15 MLD CETP for Bahadur ke Road dyeing Industries cluster, has been commissioned and the same is under stabilization but due to COVID- 19 pandemic and lockdown & curfew in the State, the project has been delayed and now same shall be stabilized within 03 months.

3.2.7.2 CETP of capacity 40 MLD for cluster of dyeing industries of Focal Point Ludhiana

- 40 MLD CETP for Cluster of Dyeing Industries of Focal Point is under construction but due to non-availability of funds from MoEF and State share, the project could not be completed. Punjab Pollution Control Board has already taken up the matter with the Finance Department of Punjab and MoEF&CC, but the funds have not been released so far.

3.2.7.3 CETP of capacity 50 MLD for clusters of dyeing industries of Tajpur Road and Rahon Road

- 50 MLD CETP for Cluster of dyeing Industries of Tajpur Road & Rahon Road, Ludhiana is under construction but due to non-availability of funds from MoEF and State share, the project could not be completed. Punjab Pollution Control Board has already taken up the matter with the Finance Department of Punjab and MoEF&CC, but the funds have not been released so far.

The Chairman of the Monitoring Committee directed that Punjab Pollution Control Board 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.

PPCB has reported as under:

- **PPCB vide its letter no 15396 dated 13.07.2020 has requested MOEF to release balance central subsidy share of Rs. 12.12 crore for 40 MLD CETP.**
- **PPCB vide its letter no 13684 dated 25.06.2020 has requested MOEF to release balance central subsidy share of Rs. 12 crore for 50 MLD CETP.**
- **The construction of 40 MLD and 50 MLD CETPs have been restarted after lockdown in the State of Punjab. These CETPs are likely to be completed by 31.12.2020.**
- **The monitoring of 15 MLD CETP is being carried out as the CETP has been commissioned.**

3.2.8 Operation of 0.5 MLD capacity CETP installed at Focal Point, Ludhiana for treatment of electroplating effluent.

It was apprised that Punjab Pollution Control Board has analysed the data of member units consented by the Board and it has been observed that from 1089 electroplating units, the consented discharge is 583.376 KLD, whereas, the effluent received at CETP from the member units in January, 2020 and February, 2020 was 424.184 KLD and 401.676 KLD, respectively. In order to make audit of the electroplating industries, Punjab Pollution Control Board has constituted a committee of officers of the Board to carry out a pilot study of 25 units of Ludhiana area. However, due to COVID 19 pandemic, the industries have closed their operation and study could not be carried out.

The Chairman of the Monitoring Committee directed that Punjab Pollution Control Board shall carry out audit of all the small electroplating industries of Ludhiana who have joined CETP and verification be made with regard to actual generation of effluent by the electroplating industries and the quantity of the effluent given/delivered to the CETP. The audit report should be completed within 03 months and report be submitted to the Monitoring Committee.

PPCB has informed that 909 electroplating industries fall in District Ludhiana, out of which 214 industries have been audited and the auditing of remaining industries is likely to be completed upto 31.03.2021.

3.2.9 Monitoring and performance of STPs of Ludhiana.

The monitoring committee was apprised as under:

The monitoring of STPs of capacity 152 MLD, 105 MLD, 111 MLD, 50 MLD and 48 MLD was carried out by PPCB during pre-lockdown and lockdown period.

The study indicates that the value of BOD and TSS have been found in the increasing trend in the lockdown period as compared to the data of pre-lockdown period.

The Chairman of the Monitoring Committee directed that Punjab Pollution Control Board shall carry out monitoring and performance of all the 5 STPs of Ludhiana in June, 2020 to August, 2020 and compare the data of these 03 months with the data collected during pre-lockdown period and lockdown period and comment upon the performance of the STPs of Ludhiana.

PPCB has reported that effluent samples of STPs for the period July, 2020 to August, 2020 were collected and these were discussed in the meeting held on 24.08.2020 with the District Level Officers of District Ludhiana. During the meeting it was decided that PPCB and Municipal Corporation shall make joint study with respect to inlet parameters entering into STPs and various components of STPs and make assessment as to how the improvement in the existing STPs can be made so that these STPs may give better results till the

rehabilitation of existing STPs and installation of new STPs takes place. Further action in the matter is under process.

3.2.10 Status of water quality of Budha Nallah and River Sutlej during the year 2019 and lockdown period.

It was informed that the Punjab Pollution Control Board has carried out the water quality of river Sutlej during pre-lockdown and lockdown period. The study indicates that the value of BOD and TSS in river Sutlej at 100 m downstream of Budha Nallah confluence was found to be 16 mg/l and 66 mg/l during lockdown period as compared to the value of these parameters during pre-lockdown period which were observed to be 14 mg/l and 25 mg/l, respectively. The value of F.Coli monitored during pre-lockdown period and post lock down period was found increased from 3200 to 4900 MPN/100 ml. The study further indicates that the quality of water remained as Class C as per the water quality criteria prescribed by CPCB during the lockdown period and pre-lockdown period.

Similarly, the water quality of Budha Nallah was monitored during pre-lockdown period and lockdown period. The study indicates that the value of BOD, COD and F.Coli are in the increasing trend and there was no effect on the concentration of these parameters with the lockdown though the discharge of effluent has been found reduced during this period.

The Chairman of the Monitoring Committee directed that MCL and PWSSB shall complete and commission new STPs and upgrade/rehabilitate the existing STPs of Ludhiana, PPCB shall enforce to complete and commission the CETPs for cluster of dyeing industries of Ludhiana and PEDDA shall install biogas plant for dairy complex Tajpur Road and upgrade the existing biogas plant installed at Haibowal dairy complex to bio CNG plant within the time schedule as mentioned above so that the quality in water in Budha Nallah and subsequently in River Sutlej may be improved.

It has been informed by PPCB that CETP of capacity 15 MLD for BahdurKe Road dyeing industries cluster has been commissioned and the construction work of 40 MLD and 50 MLD CETP is under progress and shall be completed by 31.12.2020.

3.2.11 Monitoring of water quality of Budha Nallah w.r.t heavy metals.

The Monitoring Committee was informed that the Punjab Pollution Control Board has carried out monitoring of water quality of Budha Nallah w.r.t to heavy metals in month January, 2020 to April, 2020. The data indicates that the value of heavy metals namely total chrome, hexa chrome, lead and nickle have been found BDL. It further indicates that in April, 2020, there was complete lock down in the State of Punjab and the industrial activity in Ludhiana was not in operation, therefore, the values of these parameters were not detected.

The Monitoring Committee is of the view that there is need to make complete audit of the electroplating industries for which the Board has already

constituted a committee. The Monitoring Committee desired that effluent audit of electroplating industries be completed within three months so that the data with regard to generation of actual quantity of effluent and the quantity of effluent contributed to the CETP by the electroplating industries may be compared and assessed.

PPCB has informed that out of 909 electroplating industries in District Ludhiana, 214 industries have been audited and the auditing of remaining industries is likely to be completed upto 31.03.2021.

3.2.12 Shifting of Scattered dyeing industries to the CETP compatible areas in Focal Point, Ludhiana.

Punjab Pollution Control Board has requested Managing Director, PSIEC to allocate suitable industrial plots, if available, in the Focal Point, Ludhiana so that these scattered dyeing industrial units may be easily shifted to the CETP compatible areas. It was further informed that the scattered dyeing industries have already been given hearing before the Chairman of the Board and have been directed to either shift to CETP compatible areas or adopt ZLD technology. However, no response from any industry has been received so far.

The Chairman of the Monitoring Committee directed that the Punjab Pollution Control Board shall finalize the issue regarding either shifting of scattered dyeing industries to CETP compatible area or adopt ZLD system within 06 weeks.

It has been informed by PPCB that all the scattered small and medium scale units cannot be shifted to catchment area of upcoming CETPs as SPVs of such CETPs are not willing to allot shares to new members and they want to retain these shares for expansion in the existing industries. Accordingly, PPCB has requested State Government to issue revised directions to the extent that scattered small and medium dyeing industries shall shift outside MC Limits and change their mode of disposal from sewerage system to on to land for irrigation.

3.2.13 Maintaining continuity to check the performance of effluent treatment plants of all the industries on surprise basis/random checking.

Punjab Pollution Control Board is regularly carrying out the rigorous monitoring of effluent treatment plant of the industries on surprise basis. During the period April, 2019 to March, 2020, 526 industrial units have been visited, out of which 163 industries were found non complying. Environmental Compensation of Rs. 98.5 lakh has been imposed on the defaulting industries. Bank Guarantees of Rs. 80.75 lakh have been imposed and Rs. 8.5 lakh has been en-cashed from the violating units.

The Chairman of the Monitoring Committee directed that the Punjab Pollution Control Board shall continue to carry out the monitoring of effluent treatment plant of the industries on surprise/random basis and legal action in

accordance with the provisions of the Water Act, 1974 may be taken against the non complying industrial units.

PPCB has reported that ETPs of the industries located in the catchment area of River Sutlej and Beas are being monitored regularly and action against the violating industries is taken under the provisions of the Water Act, 1974.

3.2.14 Release of fresh water from Sirhind Canal into Budha Nallah.

It was informed to the Monitoring Committee that the 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.

It was directed by the Chairman of the Monitoring Committee 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.

3.2.15 Utilization of treated wastewater of STPs at Ludhiana and CETPs of cluster of dyeing Industries, Ludhiana

The Monitoring Committee was informed as under:

In order to utilize the treated sewage of STPs of Ludhiana and treated wastewater of CETPs of cluster of dyeing Industries, Ludhiana, a proposal to utilize lower Budha Nallah as irrigation channel was prepared but due to its bed level below the NSL, the proposal was not found feasible.

STPs located at Jamalpur and BalloKe fall within the city limits and surrounded by thickly populated area and industrial area, therefore, the treated wastewater of these STPs cannot be utilized for irrigation purposes.

There is need to construct a channel on the land of lower Budha Nallah, which flows in Zigzag manner and proper alignment is necessary for channelization of new proposed channel.

The farmers of the villages are not willing to use the treated wastewater for irrigation.

In view of the above limitations, the Monitoring Committee directed that department of Soil and Water Conservation shall prepare proposal/scheme to utilize the treated wastewater of STPs and CETPs of the cluster of dyeing industries of Ludhiana within 06 weeks.

3.2.16 Other issues.

Sant Balbir Singh Seechewal, Member of the Monitoring Committee, apprised that he has been informed that the Monitoring Committee has imposed Environmental Compensation on Local Bodies/Industries for not complying with the provisions of the Water Act, 1974 but Punjab Pollution Control Board has hardly collected any amount of environmental compensation imposed by the Monitoring Committee. Therefore, the

purpose of finding of the facts of Local Bodies/Industries is defeated. The matter needs to be brought to the knowledge of the Hon'ble National Green Tribunal.

The Chairman of the Monitoring Committee directed that the Punjab Pollution Control Board shall prepare the status of each Local Bodies/Industries, wherever, the Monitoring Committee has imposed environmental compensation and the said status be submitted to the Monitoring Committee within 15 days.

3.3 Recommendations made/directions given by the Monitoring Committee during its meeting with District Level Officers of District Jalandhar on 29.5.2020 regarding control of pollution in Kala Singhian drain leading to East Bein and further to River Sutlej

3.3.1 Setting up of New/ Up-gradation STPs

- **In 9th State Level meeting held on 14.02.2020, the State level officers were apprised about the implementation of the directions issued by Hon'ble NGT vide order dated 06.12.2019 in O.A. No. 673/2018 especially w.r.t 100% treatment of sewage, in-situ remediation of drains and commissioning of STPs.**

It was apprised that there is total gap of 65 MLD untreated sewage of Jalandhar for which 2 STPs of capacity 15 MLD and 50 MLD have been proposed to be installed at Basti Peer Dad and Pholriwal, Jalandhar. The tenders for 50 MLD STP have been received and technical evaluation is under process. For 15 MLD STP, DPR has been prepared and is at finalization stage.

After deliberation, the Chairman of the Monitoring Committee directed that in-situ remediation technology be adopted in the drains/channels, carrying untreated sewage, till the STPs of capacity 15 MLD and 50 MLD are installed and commissioned.

3.3.2 Setting up of biodiversity parks

The Monitoring Committee was informed that no site has been identified so far for the installation of Biodiversity Park. **The Chairman of the Monitoring Committee took a serious view in this regard that earlier the directions to the Municipal Corporation, Jalandhar were issued on 14.02.2020 to identify the site for setting up of biodiversity parks in the catchment area of river Sutlej but no action has been taken so far by the Corporation in this regard.**

After detailed discussion, it was directed that Municipal Corporation, Jalandhar shall identify the suitable site within 15 days and submit the proposal to install biodiversity park within 01 month.

3.3.3 Desilting of Kala Singhian drain and action taken by Municipal Corporation, Jalandhar.

It was submitted that an estimate of Rs. 23.83 Lac for desilting of Kala Singhian drain has been prepared and funds will be transferred to the department of irrigation within 10 days.

The Chairman of the Monitoring Committee directed that funds shall be transferred within next 10 days and on receipt of funds, irrigation department shall allot the work preferably within next 6 weeks.

3.3.4 Compliance of the directions issued by the Monitoring Committee during its meeting with the District Level Officers of Jalandhar on 4.12.2019:

3.3.4.1 All the outlets, falling within MC limits, discharging untreated sewage into Kala Singhian drain shall be closed by 31.12.2019 by the Municipal Corporation, Jalandhar/PWSSB, failing which action will be taken against the defaulting officers/officials.

It was informed that all the outlets, carrying untreated sewage and falling into Kala Singhian drain, have been closed.

It was directed by the Chairman of the Monitoring Committee that PPCB shall verify the status regarding closing of outlets into Kala Singhian drain and submit its report to the Monitoring Committee by 10.06.2020.

3.3.4.2 Municipal Corporation, Jalandhar shall prepare proposal for installation of ETP and biogas plant for scattered dairies of village Bulandpur and village Nahal by 31.1.2020. Suitable land for ETP and biogas plant shall be identified near these dairy complexes by 31.1.2020. The matter may also be taken up with PEDDA for installation of biogas plant by 31.12.2019.

The Monitoring Committee was informed that for installation of ETP to treat the dairy 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 contactor.

After detailed deliberation, it was directed by the Chairman of 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. Both ETP and biogas plant shall be commissioned by 31.03.2021.

3.3.4.3 Municipal Corporation, Jalandhar shall complete the rehabilitation work of 100 MLD STP Pholriwal by 31.12.2020.

It was informed that the technical evaluation of the bids received after tendering process are under examination and the work regarding rehabilitation of 100 MLD STP at Pholriwal shall be started within 2 months.

After deliberation on the issue, it was directed that Municipal Corporation Jalandhar shall start the work of rehabilitation of 100 MLD STP Pholriwal

within 2 months and the same shall be completed and commissioned by 31.12.2020.

3.3.4.4 Municipal Corporation, Jalandhar shall install new STPs of capacity 15 MLD and 50 MLD by 31.12.2020. Another STP of capacity of 10 MLD shall also be installed by 31.12.2020 so that gap of untreated sewage of 75 MLD may be treated adequately.

As already informed in aforesaid statement, there is total gap of 65 MLD untreated sewage for which 2 STPs of capacity 15 MLD and 50 MLD have been proposed to be installed at Basti Pir Dad and Pholriwal. The tenders for 50 MLD STP have been received and technical evaluation is under process. For 15 MLD STP, DPR has been prepared and is at finalization stage.

It was directed by the Chairman of the Monitoring Committee to install and commission 15 MLD STP at Basti Peer Dad and 50 MLD STP at Pholriwal by 31.3.2021.

3.3.4.5 Municipal Corporation, Jalandhar shall take up the matter with PEDDA regarding installation of biogas plant to manage 330 TPD animal dung of Jamsheer dairy complex. The biogas plant may be setup by 31.12.2020. Regarding treatment of liquid waste of dairy complex Jamsheer, ETP shall be installed by 31.12.2020.

The Monitoring Committee was informed that for installation of ETP to treat the dairy effluent of Jamsheer 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.

After detailed deliberation, it was directed by the Chairman of 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 same shall be completed and commissioned by 31.3.2021.

3.3.4.6 Municipal Corporation, Jalandhar shall depute its officers to visit animal dung based briquetting plant at Gaushala at Tibba road, Ludhiana, its utility and shall adopt the same model for Jamsheer dairy complex till the permanent solution in the matter is made.

It was informed that corporation has proposal to depute its officers to visit the animal dung based plant at Gau Shala, Ludhiana within 7 days and the report shall be submitted accordingly.

The Chairman of the Monitoring Committee directed that Municipal Corporation Jalandhar shall depute its officers to visit animal dung based briquetting plant at Gaushala at Tibba road, Ludhiana and submit its report within 3 weeks.

3.3.4.7 Municipal Corporation, Jalandhar shall remove solid waste lying dumped in Kala Singhian drain and on its banks by 31.12.2019 in all the circumstances because in the last visit dated 2.11.2019, the Municipal Corporation, Jalandhar was directed to remove the solid waste within 15 days but no work was carried out by MC, Jalandhar.

It was informed that the solid waste lying on the bank of Kala Singhian drain has been removed but it is a continuous process and the corporation assures to remove the solid waste from time to time.

The Chairman of the Monitoring Committee directed that the solid waste lying on the bank of Kala Singhian drain should be removed within 15 days and report be submitted to the Monitoring Committee within 1 month.

3.3.4.8 Municipal Corporation, Jalandhar shall pay special attention towards the operation of 50 MLD STP, Basti Peer Dad because it is not giving better results as expected from such treatment system (SBR technology). Moreover, less quantity of sludge is generated during operation of STP and no mechanism has been adopted for its scientific disposal. Also, the filtrate of the centrifuging system is stagnated along the boundary wall towards the Kala Singhian drain as well as in vacant land.

It was apprised that operation and maintenance work of 50 MLD STPs Peer Dad has been given to the contractor and the same is under stabilization and after maintenance, the plant shall be commissioned within 6 weeks.

After detailed deliberation, the Chairman of the Monitoring Committee directed that 50 MLD STP Peer Dad shall be commissioned within 6 weeks. PPCB shall collect the effluent samples from the inlet and outlet of STP within 2 months and submit its report to the Monitoring Committee accordingly.

3.3.4.9 Municipal Corporation, Jalandhar shall start metering system on the public water supply source to the residents. Awareness program may be organized to educate them about the low consumption of water in their houses and quantity of water to the residents may be restricted to 135-150 lpcd so that groundwater may be saved and existing STPs may be sufficient to treat the sewage of Jalandhar area adequately.

It was informed that in order to reduce the consumption of water for domestic, water meter policy for water supply has been sent from State Government to Municipal Corporation Jalandhar and the same is under approval with the house of Corporation. However, in the mean time, water supply hours have been reduced from 10 hours to 7 hours.

After deliberation on the issue, the Chairman of the Monitoring Committee directed that Mayor Municipal Corporation shall be issued necessary

directions to put up the matter regarding water meter policy to the house of Corporation and the same may be implemented accordingly.

3.3.5 Plantation of trees along Kala Singhian drain within M.C. limits.

It was submitted that plantation of trees along Kala Singhian drain shall be made during rainy season.

The Chairman of the Monitoring Committee directed that enough plantation shall be made by the Corporation along the Kala Singhian drain during rainy season and proper guards be placed around the trees for their protection.

3.3.6 Status of monitoring and performance of STPs of Jalandhar.

It was informed to the Monitoring Committee that the Monitoring of STP Bambianwal (10 MLD), STP Pholriwal (25 MLD), STP Peer Dad (50 MLD), STP Jaitewali (25 MLD), STP Pholriwal (100 MLD) was carried out in the month of January, 2020 to March, 2020 and the analysis results indicate that all the STPs are meeting with the prescribed norms w.r.t pH, COD, BOD, TSS and F.Coli except the higher value of BOD and Faecal Coliform at the outlet of STP Peer Dad (50 MLD) and the same is due to its operation and maintenance. High value of F.Coli has also been found at the outlet of STP Phoriwal (100 MLD).

After detailed discussion, the Chairman of the Monitoring Committee directed that STP Peer Dad (50 MLD) should be commissioned after its Operation and Maintenance within 6 weeks and PPCB shall carry out the analysis of effluent sample at inlet and outlet of all the STPs of Jalandhar area within 2 months and submit its report to the Monitoring Committee accordingly.

3.3.7 Status of Water quality of Kala Singhian Drain and River Sutlej during pre-lockdown and lockdown period.

The Monitoring data for the period March and April, 2020 prepared by PPCB indicates that the values of BOD in Kala Singhian drain at Athaula Gazipur Road have been observed as 105-115 mg/l, which may be due to wastewater from scattered dairies.

The Chairman of the Monitoring Committee directed that PPCB shall issue necessary directions to the dairy owners within 3 weeks to shift their dairies to Jamsher Dairy Complex within 6 months and ensure that no effluent is discharged into Kala Singhian Drain from the area near Athaula Gazipur.

3.3.8 Installation of new CETP and up-gradation of existing CETP for leather tanning industries.

It was informed that the existing ETP of capacity 5 MLD installed at Leather Complex Jalandhar was not achieving the prescribed standards. 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.

After detailed deliberation, 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.

3.3.9 Compliance of the directions issued by the Monitoring Committee during its meeting with the District Level Officers of Jalandhar on 4.12.2019, further discussed in the meeting held on 29.05.2020:

- i) **In order to get start the work of 0.15 MLD CETP for electroplating industries of Jalandhar area, PPCB shall get assistance from District Administration and Police Authorities and get start the work by 31.1.2020.**

It was informed that the construction work of boundary wall of CETP was started but the same was stopped due to orders of status quo by the Hon'ble High Court in CWP No. 1483 of 2020 filed by Welfare Society of Jalandhar. The next date before the Hon'ble Court is in July, 2020

The Chairman of the monitoring Committee directed that PPCB shall file an application before the Hon'ble High Court with pray to vacate the stay order as early as possible and get start the construction work of CETP.

- ii) **PPCB shall make surprise inspection of the industries through environment protection squad or special teams to visit the electroplating industries and other miscellaneous industries of Jalandhar area as per the visit schedule prescribed by CPCB and action against the violating industries may be taken within the time schedule.**

PPCB apprised that during December, 2019 to March, 2020, 17 industries were inspected. Out of these 17 industries, 02 industries were found non complying and legal action under the provisions of Water Act, 1974 has been taken.

After deliberation on the issue, it was directed that PPCB shall make surprise inspection of the industries and action may be taken against the violating industries as per the provisions of the Water Act, 1974.

Punjab Pollution Control Board was also directed by Chairman of the Monitoring Committee that it shall carry out audit of 50 electroplating industries who have joined CETP and verification be made with regard to actual generation of effluent by the electroplating industries and the quantity of the effluent given/delivered to the CETP. The audit report should be completed within 01 months and report be submitted to the Monitoring Committee.

- iii) **The officers of PPCB, Department of Water Resources, Department of Rural Development of Panchayat, Municipal Corporation, Jalandhar and PWSSB shall make joint inspection of all the pollution sources falling into Kala Singhian drain. During joint inspection, the study w.r.t discharge of each point source, its characteristics and characteristics of upstream and downstream of point source, cumulative discharge into Kala Singhian drain at the downstream of last outlet may be assessed and it may be corroborated with the total discharge of point sources. (relating to PPCB, DWR, DRDP and MCJ).**

It was apprised that a joint team of officers of various officers, as per the direction of the Monitoring Committee, has visited the various outlets discharging effluent into Kala Singhian drain and effluent samples have been collected and the same have been sent to PPCB Laboratory for analysis. The report shall be submitted within 3 weeks

It was directed by the Chairman of the Monitoring committee that report of the Joint Team shall be submitted by PPCB to the monitoring Committee within 3 weeks.

It was also pointed out by the Chairman of the committee that while inspecting M/s Sheetal Fibres Ltd, Jalandhar, directions were issued to the PPCB to install cover on all the online Monitoring System and these should be properly sealed with the stamp of PPCB and ensure that these are not tampered at any point of time. However, it seems that no such activity has been carried out so far.

Therefore, the Chairman of the Monitoring Committee directed that in the first phase, large and medium scale industries be selected and their online monitoring systems should be covered and sealed with the stamp of PPCB and ensure that no tampering of the online Monitoring System is made. The said exercise may be completed within one month.

C) Punjab Water Supply & Sewerage Board:

- 1. All the outlets, falling within MC limits, discharging untreated sewage into Kala Singhian drain, shall be closed by 31.12.2019 by the Municipal Corporation, Jalandhar/PWSSB, failing which action will be taken against the defaulting officers/officials.**

It was informed that all the outlets, falling into Kala Singhian drain, have been closed.

The Chairman of the Monitoring Committee directed that PPCB shall inspect the outlets and submit its status report w.r.t closing of outlets into Kala Singhian drain within 15 days.

- 2. Installation of OCEMS and CCTV cameras on STPs.**

The Monitoring Committee was apprised that all the STPs of Jalandhar have been provided with OCEMS and CCTV cameras. While asking about flow meter to be installed at the STPs, it was informed that electromagnetic flow meters have been installed at outlet of STPs.

The Chairman of the Monitoring Committee directed that electromagnetic flow meters at the inlet and outlet of STPs should be installed within 2 months and report in this regard be submitted to the Monitoring Committee.

D) Director Rural Development & Panchayats :

- 1. All the outlets, falling outside MC limits, discharging untreated sewage into Kala Singhian drain shall be closed by 31.1.2020 by the Department of Rural Development and Panchayat.**

The Committee was informed that the discharge of 2 villages namely Bulandpur and Nahal has been closed and these have been diverted to the ponds. The wastewater discharge from village Chamiara and Athaula is discharged into Kala Singhian drain. In order to stop discharge from these villages into Kala Singhian drain, land has been made available for construction of ponds and estimates amounting to Rs. 68.76 Lakh and 108.76 Lakh, respectively, has been prepared for the villages Chamiara and village Athaula.

The Chairman of the Monitoring Committee directed that for treatment of sewage/sullage of village Chamiara and Athaula, the ponds shall be constructed by the department of Rural Development and Panchayat by 30.06.2020.

Regarding discharge of effluent from dairies existing at village Nahal, it was informed that notices may be issued by the concerned department.

The Chairman of the Monitoring Committee directed that PPCB shall issue to notices to the scattered dairies located at Nahal for their shifting to Jamsheer Dairy Complex within 3 weeks

- 2. Plantation of trees along Kala Singhian drain outside MC limits.**

Regarding plantation of trees along Kala Singhian drain outside MC Limits, it was informed that 550 plants have been planted by the Forest Department along Kala Singhian Drain during the year 2019-20. Now, during the rainy season, the plants shall be delivered to Gram Panchayat Bulandpur and about 350 plants shall be planted along Kala Singhian drain.

The Chairman of the Monitoring Committee directed that the Department of Rural Development and Panchayat shall ensure to make plantation as maximum as possible but not less than 1000 plants along Kala Singhian drain during rainy season.

E) Department of Soil and Water Conservation :

- 1. The department of Soil and Water Conservation shall prepare estimate for installation of irrigation network for utilization of treated sewage of 6 STPs by 31.1.2020 and these estimated may be sent to Administrative departments for sanctioning of the projects. The irrigation network for utilization of treated sewage of all the STPs shall be laid before 31.12.2020.**

It was informed to the Committee that it is not feasible due to non availability of command area to utilize the treated sewage of STPs of capacity 100 MLD, 25 MLD, 25 MLD. For utilization of treated sewage of 10 MLD Bambiwala STP and 25 MLD STP at

Jaitewali, estimates have been prepared and projects have been sanctioned under NABARD-RIDF-25 Scheme but the funds for the same have not been released so far. For the utilization of treated sewage of 50 MLD STP at Basti Pirdad, the project has been covered under Jalandhar Smart City and estimate of the project shall be submitted on 10.06.2020.

After detailed deliberation, the Chairman of the Monitoring Committee directed as under:

- 1) The Department of Soil and Water Conservation shall carry out its exercise to identify the command area near Jalandhar to utilize 150 MLD treated sewage of Pholriwal STPs (Pholriwal STPs: 100 MLD, 25 MLD and 25 MLD).**
- 2) The Department of Soil and Water Conservation shall take up the matter with State Government for early release of funds to lay the irrigation network to utilize the treated sewage of 10 MLD STP Bhabianwal and 25 MLD STP Jaitewali for irrigation.**
- 3) In order to utilize the treated sewage of 50 MLD STP, Basti Peer Dad, the irrigation network shall be laid by 30.09.2020 by the Department of Soil and Water Conservation.**

F) Punjab Small Industries & Export Corporation:

- 1. PSIEC, shall connect sewage disposal outlets of dry leather complex and sports and surgical complex to the sewerage system of Municipal Corporation, Jalandhar by 31.12.2019.**

It was informed that the disposal outlets of dry leather complex and sports & surgical complex have been connected with sewerage system of Municipal Corporation Jalandhar.

- 2. PSIEC, shall prepare detailed project report for installation of 5 MLD CETP for industries of focal point Jalandhar by 31.12.2019. Tender shall be floated by 15.1.2020 and work may be allotted by 30.1.2020 and CETP shall be completed by 31.12.2020.**

The Monitoring Committee was apprised that DPR of 5 MLD CETP with tertiary treatment has been prepared and approved by the Government of India. Administrative approval of the project has been received on 13.03.2020 but the tenders could not be floated due to lockdown in the State and now the tender shall be called in the 1st week of June-2020.

The Chairman of the Monitoring Committee directed that PSIEC shall float tenders for installation of 5 MLD CETP for industries of Focal point Jalandhar in the 1st week of June, 2020 and CETP shall be constructed and commissioned by 31.03.2021.

3.4 Recommendations made/directions given by the Monitoring Committee during its meeting with the District Level Officers of District Ferozepur on 25.6.2020 regarding control of pollution in river Sutlej.

3.4.1 Control of Pollution in river Sutlej

3.4.2 Status of sewage treatment plants which are in operation and their performances.

04 STPs of capacity 8 MLD, 4 MLD, 4 MLD, 18 MLD have been installed for the treatment of sewage of towns namely Zira, Makhu, Talwandi Bhai and Ferozepur. STPs of towns Zira, Makhu and Talwandi Bhai have been monitored by Punjab Pollution Control Board and these have been found achieving the prescribed standards. STP of Ferozepur town, which has recently been commissioned, shall be monitored by PPCB in the first week of July, 2020.

After detailed discussion, it was directed by the Chairman of the Monitoring Committee that Punjab Pollution Control Board shall conduct the monitoring of STP Ferozepur before 7.7.2020 and the analysis results of the effluent samples may be submitted to the Monitoring Committee within 2 weeks.

3.4.3 Status of sewage treatment plants which are under construction.

In order to treat the wastewater of Guru Harsahai, 2 STPs of capacity 4 MLD and 1 MLD, based on SBR technology, are under construction and these STPs are likely to be commissioned by 31.8.2020 as per the time schedule given by the Monitoring Committee during its meeting at Fazilka on 7.1.2020. Presently, the disposal of wastewater of said town is into Jalalabad main drain leading to river Sutlej.

After discussion on the issue, the Chairman of the Monitoring Committee directed that STPs of capacity 4 MLD and 1 MLD to treat the sewage of Guru Harsahai town shall be installed by 31.8.2020.

3.4.4 Status of sewage treatment plants which are under planning and funds have been tied up.

STPs for the towns Mallanwala, Mudki and Mamdot have been proposed and Detailed Project Reports (DPRs) for sewerage system and STPs amounting to Rs.32.06 crore, Rs.17.22 crore and Rs.26.68 crore, respectively, have been prepared. These DPRs have been sent to the higher authorities of Punjab Water Supply & Sewerage Board for approval, which is awaited. Presently, the untreated sewage of the towns namely Mallanwala and Mudki is discharged into river Sutlej through drains, whereas, the domestic wastewater of Mamdot town does not reach to river Sutlej as it is partly discharged into vacant land and partly into defunct drain.

After detailed discussion, the Chairman of the Monitoring Committee directed as under: -

- i) The Department of Local Government and Punjab Water Supply & Sewerage Board shall install in-situ remediation system for treatment of the wastewater of the town namely Mallanwala, Mudki and Mamdot,**

presently being discharged into drains and not connected to STPs by 31.8.2020.

- ii) **The Department of Local Government shall take up the matter with the Finance Department of the State for early release of funds for installation of STPs for the towns Mallanwala, Mudki and Mamdot. Department of Local Government and PWSSB shall install STPs for the towns namely Mallanwala, Mudki and Mamdot by 31.3.2021.**

3.4.5 Status of irrigation schemes to utilize the treated sewage for irrigation.

Nobody from Department of Soil & Water Conservation attended the meeting conducted through video conference. However, as per the proposal submitted by the Department, it has been submitted that in order to utilize the treated sewage of STP Talwandi Bhai, Zira, Makhu and Ferozpur, irrigation schemes have been proposed to cover an irrigation area of 123 ha, 250 ha, 140 ha, and 800 hectares. The estimated cost of irrigation projects has been mentioned as Rs.1.4 crore, 3.4 crore, 1.65 crore and 8.5 crore, respectively.

After detailed discussion, the Chairman of the Monitoring Committee directed that the Department of Local Government shall take up the matter with the Finance Department of the State for early release of funds for laying of irrigation network to utilize the treated sewage of the towns namely Talwandi Bhai, Zira, Makhu and Ferozpur for irrigation so as to stop the discharge of sewage of the town into river Sutlej.

3.5 Recommendations made/directions given by the Monitoring Committee during its meeting with the District Level Officers of District Barnala on 30.6.2020 regarding control of pollution in river Sutlej.

3.5.1 Control of Water Pollution in Barnala Area

3.5.1.1 Status of Sewage Treatment Plants

5 STPs of capacity 20 MLD, 5 MLD, 5 MLD, 3 MLD and 2 MLD have been proposed to be installed for the treatment of sewage of towns namely Barnala, Tapa, Dhanola, Bhadour and Handiaya. The construction work of 20 MLD STP Barnala has been completed to 99% and PSPCL is yet to release the power connection of STP. In case of 5 MLD Dhanola, presently, no land is available for installation of STP. For the remaining 3 STPs of capacity 5 MLD, 3 MLD and 2 MLD for Tapa, Bhadour and Handiaya towns, the tender work is under progress.

After detailed discussion, the Chairman of the Monitoring Committee directed as under:

- i) **PWSSB shall apprise the status of STP to the Deputy Commissioner, Barnala within 2-days. Deputy Commissioner, Barnala shall ask PSPCL to release power connection of STP of Barnala within 7-days.**
(now the STP has been put into operation)
- ii) **PWSSB shall complete 20 MLD STP for Barnala town by 31/7/2020 and after stabilization, it shall be commissioned by 31/8/2020.**

- iii) **Deputy Commissioner, Barnala shall resolve the issue of land for 5 MLD STP Dhanola and it shall be ensured that the land for installation of STP is made available by 31/8/2020 and work of STP shall be started by 30/9/2020 by PWSSB.**
- iv) **PWSSB shall place work order for installation of STP of capacity 5 MLD, 3 MLD and 2 MLD for the towns Tapa, Bhadour and Handiaya by 31/7/2020.**
- v) **PWSSB shall ensure that all STPs for the towns Tapa (5 MLD), Dhanola (5 MLD), Bhadour (3 MLD) and Handiaya (2 MLD) shall be installed and commissioned by 31/3/2021**

3.5.1.2 Status of irrigation schemes to utilize the treated sewage for irrigation.

Nobody from Department of Soil & Water Conservation attended the meeting conducted through video conference. Also, no irrigation scheme has been prepared to utilize the treated sewage for irrigation.

The Chairman of the Monitoring Committee directed that the Department of Soil and Water Conservation shall prepare irrigation scheme to utilize its treated sewage of STP Barnala (20 MLD), Tapa (5 MLD), Dhanola (5 MLD), Bhadour (3 MLD) and Handiaya (2 MLD) by 30/9/2020.

3.5.1.3 In-situ remediation of drains/Nallahs carrying untreated sewage and not connected to any STP.

The Chairman of the Monitoring Committee apprised that since no STP has been installed for the treatment of sewage of the towns namely Barnala, Tapa, Dhanola, Bhadour and Handiaya, therefore, there is need to install in-situ remediation technology in the drains/ nallahs carrying untreated sewage and not connected to any STP.

After detailed discussion, the Chairman of the Monitoring Committee directed that PWSSB in consultation with PPCB shall install in-situ remediation technology in the drains carrying untreated sewage and not connected to STP, immediately.

3.5.1.4 Control of Pollution by the industries

PPCB reported that in Barnala District 7 large scale red category industries exist there, out of which 4 industries are required to install effluent treatment plant and all the 4 industries have provided the same. Punjab Pollution Control Board has carried out the analysis of treated effluent of ETPs of the industries and all are within the norms prescribed by PPCB. Further, M/s Trident Limited, Barnala has proposal to install zero liquid discharge technology for textile dyeing effluent and the same shall be install as per the directions of regulatory authority.

After detailed discussion, the Chairman, Monitoring Committee directed that PPCB shall continue to monitor all the red category industries as per time schedule prescribed by PPCB/ CPCB.

3.5.1.5 Compliance of order dated 1.6.2020 of Hon'ble National Green Tribunal in OA No. 325 of 2015 in the matter of Lt. Col. Col. Sarvadaman Singh Oberoi vs Union of India & Ors

The Hon'ble Tribunal vide its order dated 1.6.2020 in OA No. 325 of 2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi vs Union of India & Ors, has directed in para No.6 that harvesting surplus water during excessive rains from any areas of catchment needs to be optimized by enhancing the capacity of the existing ponds/water bodies, creation of water harvesting structures in the sub-watersheds to the extent possible, apart from setting up of additional water bodies/water harvesting structures wherever viable, utilizing available funds including under MGNREGA and involving the community at large at every level. Gram Panchayats can certainly play a significant role in the matter. Once adequate capacity enhancement of water bodies takes place, excess flood/ rainwater can be channelized by using appropriate water harvesting techniques. This action needs to be coordinated by the District Magistrates in coordination with the Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/Urban Development/Local Bodies/Forests/Revenue etc. The District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today. The District Magistrates may also ensure that as far as possible at least one pond/water body must be restored in every village, apart from creation of any new pond/water body.

The detailed discussion on the compliance of order dated 1/6/2020 in OA no. 325 of 2015 was held and it was directed as under:

- i) Deputy Commissioner, Barnala shall hold a meeting with the Deptt. of Irrigation, Deptt. of Rural Development and Panchayats, Deptt. of Urban Development, Deptt. of Local Government, Forests and Revenue within 21-days. An officer of District Legal Services Authority shall also be associated in the meeting.**
- ii) The details with regard to number of existing ponds/ water bodies, their area, capacity, rain fall and flood status in the district, water harvesting structure may be mapped out within 01-month.**

3.6 Recommendations made/directions given by the Monitoring Committee during its meeting with the District Level Officers of District Gurdaspur on 7.7.2020 regarding control of pollution in river Sutlej.

3.6.1 Status of installation of Sewage Treatment Plants to treat the sewage of the towns of District Gurdaspur.

3.6.1.1 STP to treat sewage of Batala town:

- i) For the treatment of sewage of Batala town, STP of capacity 30 MLD on 6 acres of land has been proposed. The land for STP has been identified and its approval shall be obtained from the competent authority within 1 month. Tendering process has been completed and work order for construction of STP shall be placed within 2 months.
- ii) No steps have been taken for providing in-situ remediation technique in the drains carrying untreated sewage. Chief Environmental Engineer PPCB, Jalandhar informed that environmental compensation amounting to Rs. 5 lakh per month per drain for default in in-situ remediation and Rs.5 lakh per month per STP for default in commencement of setting up of STP has been imposed on the MC, Batala for not providing in-situ remediation technique and commencement of sewage treatment plant. Also, during the personal hearing held on 12.3.2020 before the Chairman of the Board, the Municipal Corporation, Batala was directed to deposit an environmental compensation amounting to Rs.25 lakh due to non installation of STP for treatment of sewage of Batala town.

After detailed discussion, the Chairman of the Monitoring Committee directed as under: -

- i) **MC, Batala shall start construction work of STP to treat the sewage of Batala town within 2 months. In order to show the seriousness to adhere to the said time schedule, MC, Batala shall submit a bank guarantee of Rs. 2 Lakh as an assurance within 10 days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal Corporation, Batala, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.**
- ii) **The Municipal Corporation, Batala shall start in-situ remediation technique in the drains carrying untreated sewage and not connected to STP within 2 months. In order to show the seriousness to adhere to the said time schedule, MC, Batala shall submit a bank guarantee of Rs. 1 Lakh as an assurance within 10 days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal Corporation, Batala, Punjab Pollution Control Board is free to encash the said bank guarantee**

treating it as a compensation for the damage caused to the environment.

- iii) **Municipal Corporation, Batala shall deposit Rs. 25 lakh as an environmental compensation to Punjab Pollution Control Board within 7 days as directed by the Chairman of Board during the personal hearing held on 12.3.2020 as the Municipal Corporation, Batala has failed to install STP to treat the sewage of Batala Town.**
- iv) **Deputy Commissioner, Gurdaspur shall hold meeting with the officers of PPCB, PWSSB and department of drainage and other concerned departments w.r.t installation of in-situ remediation technique in the drains carrying untreated sewage and not connected to STPs within 15 days. In the said meeting, the concerned officer of PPCB shall provide necessary demonstration/guidance w.r.t. installation of in-situ remediation technology.**

3.6.1.2 STP to treat sewage of Gurdaspur town:

For treatment of sewage of Gurdaspur Town, STP of capacity 20 MLD on 4 acres of land has been proposed. Land for STP has been identified and the case is pending for approval of rates with the committee. Tendering process for installation of STP has been started. Construction work of STP shall be started within 3 months.

After detailed discussion, the Chairman of the Monitoring Committee directed as under: -

- i) **MC, Gurdaspur shall start construction work of STP to treat the sewage of Gurdaspur town within 3 months. In order to show the seriousness to adhere to the said time schedule, MC, Gurdaspur shall submit a bank guarantee of Rs. 2 Lakh as an assurance within 10 days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal council Gurdaspur, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.**
- ii) **The Municipal Council, Gurdaspur shall start in-situ remediation technique in the drains carrying untreated sewage and not connected to STP within 2 months. In order to show the seriousness to adhere to the said time schedule, MC Gurdaspur shall submit a bank guarantee of Rs. 1 Lakh as an assurance within 10 days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal council Gurdaspur, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.**

3.6.1.3 STP to treat sewage of MC, Qadian

No sewerage system has been provided in MC Qadian and presently, the untreated sewage of the town is discharged into Nikasi drain.

The Chairman of the Monitoring Committee took a serious view regarding non-provision of sewerage system in MC Qadian and discharge of untreated sewage into Nikasi drain and causing damage to the environment.

After detailed discussion, the Chairman of the Monitoring Committee directed as under: -

- i) PPCB shall quantify the discharge of sewage of MC, Qadian within 10 days.**
- ii) MC, Qadian shall provide in-situ bio remediation technique in the drain carrying untreated sewage within 2 months. In order to show the seriousness to adhere to the said time schedule, MC Qadian shall submit a bank guarantee of Rs. 1 Lakh as an assurance within 10 days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal council Qadian, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.**

3.6.1.4 STP to treat sewage of MC, Dhariwal

It was reported that untreated sewage of Dhariwal town is discharged into irrigation canal emerging from UBDC. No STP has been installed for the treatment of sewage of the Dhariwal town.

It was suggested in the meeting that for small towns, where the quantity of sewage is low, Seechewal model can be adopted for the treatment of sewage and the treated sewage may be utilized for irrigation purposes.

The Chairman of the Monitoring Committee took a serious view regarding discharge of untreated sewage into irrigation canal causing damage to the environment.

After detailed discussion, the Chairman of the Monitoring Committee directed as under: -

- i) PPCB shall quantify the discharge of sewage of MC, Dhariwal within 10 days.**
- ii) MC, Dhariwal shall provide in-situ bio remediation technique in the drain carrying untreated sewage within 2 months. In order to show the seriousness to adhere to the said time schedule, MC Dhariwal shall submit a bank guarantee of Rs. 1 Lakh as an assurance within 10 days in office of Punjab Pollution Control Board to comply with the said**

directions. If by the time given, the target is not achieved by the Municipal council Dhariwal, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.

- iii) MC, Dhariwal shall explore the possibility of providing wastewater treatment system based on Seechewal model and provision of disinfectant system to control faecal coliform parameter.

3.6.1.5 STP to treat sewage of MC, Dinanagar

It was submitted that for treatment of sewage of Dinanagar town, STP of capacity 4 MLD to be setup on 1 acre of land has been proposed. Land has been given by Department of Panchayat but the residents of village has filed writ petition in the Hon'ble court and next date in the case is on 17.7.2020. DPR of the project is under scrutiny at Head office level.

It was observed that no steps have been taken to provide in situ remediation technique in the drain which carries untreated sewage of Dinanagar town.

After detailed discussion, the Chairman of the Monitoring Committee directed as under:

- i) MC, Dinanagar shall provide in-situ bio remediation technique in the drain carrying untreated sewage within 2 months. In order to show the seriousness to adhere to the said time schedule, MC Dinanagar shall submit a bank guarantee of Rs. 1 Lakh as an assurance within 10 days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal council Dinanagar, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.
- ii) MC, Dinanagar shall explore the possibility of providing wastewater treatment system based on Seechewal model and provision of disinfectant system to control faecal coliform parameter within 1 month.
- iii) MC Dinanagar shall pursue the matter w.r.t pending court case in the Hon'ble Court regarding purchase of land for installation of STP for early decision of the case so as to enable it to install STP at the earliest.

3.6.1.6 Status of Sewage Treatment Plants of MC, Shri Hargobindpur and Dera Baba Nanak

It was apprised that STP of capacity 1 MLD and 1.5 MLD, respectively, have been installed to treat the sewage of Shri Hargobindpur and Dera Baba Nanak. Analysis results of effluent samples collected from the outlets of STPs by PPCB indicate that these STPs achieve the norms prescribed. The treated sewage of both the towns is

utilized for irrigation purposes as the irrigation network has already been laid down by the department of Soil and Water Conservation.

The Chairman of the Monitoring Committee appreciated the steps taken by both the Municipal Councils Shri Hargobindpur and Dera Baba Nanak w.r.t installation of STPs for treatment of sewage of the towns, their effectiveness and utilization of treated sewage for irrigation.

3.6.1.7 STP to treat sewage of MC, Fatehgarh Churian

The Monitoring Committee was informed that in order to treat sewage of Fatehgarh Churian town, STP of capacity 4 MLD in 1 acre of land has been proposed. Land has been identified but its feasibility is yet to be checked.

It was further reported that no steps have been taken for installation of in situ-remediation technique in the drain carrying untreated sewage of the town.

After detail discussion, the chairman of the Monitoring Committee directed as under:

- i) MC, Fatehgarh Churian shall provide in-situ bio remediation technique in the drain carrying untreated sewage within 2 months in order to show the seriousness to adhere to the said time schedule, MC Fatehgarh Churian shall submit a bank guarantee of Rs. 1 Lakh as an assurance within 10 days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal council Fatehgarh Churian, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.**
- ii) MC, Fatehgarh Churian shall explore the possibility of providing wastewater treatment system based on Seechewal model and provision of disinfectant system to control faecal coliform parameter within 1 month.**

3.6.1.8 Compliance of order dated 1.6.2020 of Hon'ble National Green Tribunal in OA No. 325 of 2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi vs Union of India &Ors

The Chairman of the Monitoring Committee apprised that the Hon'ble Tribunal vide its order dated 1.6.2020 in OA No. 325 of 2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi vs Union of India &Ors, has directed in para No.6 that harvesting surplus water during excessive rains from any areas of catchment needs to be optimized by enhancing the capacity of the existing ponds/ water bodies, creation of water harvesting structures in the sub-watersheds to the extent possible, apart from setting up of additional water bodies/ water harvesting structures wherever viable, utilizing available funds including under MGNREGA and involving the community at large at every level. Gram Panchayats can certainly play a significant role in the matter. Once adequate capacity enhancement of water bodies takes place, excess flood/ rainwater can be channelized by using appropriate water harvesting

techniques. This action needs to be coordinated by the District Magistrates in coordination with the Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/ Urban Development/ Local Bodies/ Forests/ Revenue etc. The District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today. The District Magistrates may also ensure that as far as possible at least one pond/water body must be restored in every village, apart from creation of any new pond/ water body.

The detailed discussion on the compliance of order dated 1/6/2020 in OA no. 325 of 2015 was held and it was directed as under:

- i) Deputy Commissioner, Gurdaspur shall hold a meeting with the Deptt. of Irrigation, Deptt. of Rural Development and Panchayats, Deptt. of Urban Development, Deptt. of Local Government, Forests and Revenue within 21-days. An officer of District Legal Services Authority shall also be associated in the meeting.**

The details with regard to number of existing ponds/ water bodies, their area, capacity, rain fall and flood status in the district, water harvesting structure may be mapped out within 01-month.

3.7 Recommendations made/directions given by the Monitoring Committee during its meeting with the District Level Officers of District Bathinda on 10.7.2020 regarding control of pollution in river Sutlej.

3.7.1 Status of installation of Sewage Treatment Plants to treat the sewage of the towns of District Bathinda.

3.7.1.1 Status of Sewage Treatment Plants, which are operation and their performance:

It was reported that in Distt. Bathinda 8 STPs i.e. Bathinda, Rampura Phul, Bhucho Mandi, Kot Fatta, Maur, Sangat Mandi, Goniana and Talwandi Sabo are in operation. Out of these 8 STPs, 4 STPs (Bathinda, Rampura Phul, Maur and Talwandi Sabo) are not meeting with standards. Regarding non operation of STP Rampura Phul, the Executive Engineer, PWSSB informed that Municipal Council, Rampura Phul has not released operation and maintenance charges from the last 01 year, as such, the Board is unable to operate the STP.

After detailed discussion, the Chairman of the Monitoring Committee directed as under:

- i) The concerned Municipal Council / PWSSB shall operate STP Bathinda, Maur and Talwandi Sabo effectively so that these STPs may meet with the standards prescribed by the Board.**
- ii) The Deputy Director, Deptt. of Local Government shall sort out the issue regarding non-release of operation and maintenance charges of STP Rampura Phul to PWSSB within 15 days and necessary funds may be released to PWSSB within 2 months. In the meantime**

PWSSB, shall operate STP effectively and efficiently to meet with the prescribed standards.

3.7.1.2 Status of Sewage Treatment Plants under construction / planning:

It was reported as under:

- Out of 21 towns, STPs for 8 towns (Bathinda, Bhuchho Mandi, Goniana Mandi, Kot Fatta, Rampura Phul, Talwandi Sabo, Maur Mandi and Sangat Mandi) are in operation.
- 02 STPs for the town Mehraj and 2nd STP of capacity 4.5 MLD for Bathinda town are under construction.
- 04 STPs for the towns namely Bhagta Bhai Ka, Rama Mandi, Bhai Roopa and Kothe Guru Ka are at DRP stage.
- Tender has been called for construction of 01 STP for Maluka town.
- No sewerage network has been laid in 07 Municipal Councils namely Nathana, Kot Shamir, Rampura, Ballianwali, Chauke, Mandi Kalan and Lehra Mohabbat.

After detailed discussion, the Chairman of the Monitoring Committee directed as under:

- i. The concerned Municipal Council / PWSSB shall operate STP Bathinda, Maur and Talwandi Sabo effectively so that these STPs may meet with the standards prescribed by the Board.**
- ii. The Deputy Director, Deptt. of Local Government shall sort out the issue regarding non-release of operation and maintenance charges of STP Rampura Phul to PWSSB within 15 days and necessary funds may be released to PWSSB within 2 months. In the meantime, PWSSB shall operate STP effectively and efficiently to meet with the prescribed standards.**
- iii. STP of capacity 2.5 MLD for Mehraj town and 4.5 MLD additional STP for Bathinda town shall be completed by 31.12.2020.**
- iv. 04 STPs for the towns Bhagta Bhai Ka, Rama Mandi, Bhai Roopa and Kothe Guru ke, which are at DPR stage, should be completed by 31.03.2021.**
- v. Deptt. of Local Government shall lay sewerage network in the Municipal Councils namely Nathana, Kot Shamir, Rampura, Ballianwali, Chauke, Mandi Kalan and Lehra Mohabbat by 31.12.2020.**
- vi. The Municipal Councils namely Nathana, Kot Shamir, Rampura, Ballianwali, Chauke, Mandi Kalan and Lehra Mohabbat shall install in-situ remediation techniques in the drain carrying untreated sewage and not connection to STPs by 30.9.2020. For any guidance, these Municipal Councils may consult Punjab Pollution Control Board.**

- vii. **The Municipal Councils namely Nathana, Kot Shamir, Rampura, Ballianwali, Chauke, Mandi Kalan and Lehra Mohabbat shall explore the possibility for providing pond system based on Seechewal model to treat the wastewater of these towns and the treated sewage may be utilized for irrigation purposes.**

3.7.1.3 Utilization of treated sewage for irrigation purposes

Deptt. of Soil and Water Conservation has reported as under:

- Irrigation schemes for utilization of treated sewage of STPs Sangat and Rampura are in progress.
- Irrigations schemes to utilize the treated sewage of STP Goniana, Kot Fatta, Bhucho Mandi, Talwandi Sabo and Maur have been completed.
- The work of laying of irrigation network, to utilize the treated sewage of STP Raman for irrigation, is yet to be started.

After details discussion, the Chairman of the Monitoring Committee directed as under:

- i. Irrigation schemes to utilize the treated sewage of STPs Goniana, Kot Fatta, Bhucho Mandi and Talwandi Sabo shall be commissioned by 31.08.2020.**
- ii. Irrigation schemes to utilize the treated sewage of STP Sangat and Rampura may be completed by 30.9.2020 and shall be commissioned by 30.11.2020.**
- iii. The work of laying of irrigation network, to utilize the treated sewage of STP Raman for Irrigation, may be started by 31.07.2020.**

3.7.1.4 Compliance of order dated 1.6.2020 of Hon'ble National Green Tribunal in OA No. 325 of 2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi vs Union of India &Ors

The Chairman of the Monitoring Committee apprised that the Hon'ble Tribunal vide its order dated 1.6.2020 in OA No. 325 of 2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi vs Union of India &Ors, has directed in para No.6 that harvesting surplus water during excessive rains from any areas of catchment needs to be optimized by enhancing the capacity of the existing ponds/ water bodies, creation of water harvesting structures in the sub-watersheds to the extent possible, apart from setting up of additional water bodies/ water harvesting structures wherever viable, utilizing available funds including under MGNREGA and involving the community at large at every level. Gram Panchayats can certainly play a significant role in the matter. Once adequate capacity enhancement of water bodies takes place, excess flood/ rainwater can be channelized by using appropriate water harvesting techniques. This action needs to be coordinated by the District Magistrates in coordination

with the Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/ Urban Development/ Local Bodies/ Forests/ Revenue etc. The District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today. The District Magistrates may also ensure that as far as possible at least one pond/water body must be restored in every village, apart from creation of any new pond/ water body.

The detailed discussion on the compliance of order dated 1/6/2020 in OA no. 325 of 2015 was held and it was directed as under:

- i) Deputy Commissioner, Bathinda shall hold a meeting with the Deptt. of Irrigation, Deptt. of Rural Development and Panchayats, Deptt. of Urban Development, Deptt. of Local Government, Forests and Revenue within 21-days. An officer of District Legal Services Authority shall also be associated in the meeting.**
- ii) The details with regard to number of existing ponds/ water bodies, their area, capacity, rain fall and flood status in the district, water harvesting structure may be mapped out within 01-month.**

3.8 Recommendations made/directions given by the Monitoring Committee during its meeting with the District Level Officers of District Tarn Taran on 14.7.2020 regarding control of pollution in river Sutlej.

3.8.1 Control of Water Pollution in District Tarn Taran Area

3.8.1.1 Status of Sewage Treatment Plants for treatment of sewage of Tarn Taran town

- 1) 1st STP of capacity 9 MLD to treat the wastewater of Tarn Taran is in operation. PPCB has carried out performance of STP on 19.5.2020 and all the parameters of the treated wastewater have been found within the norms.
- 2) 2nd STP of capacity 4 MLD to treat the wastewater of Tarn Taran has been completed and shall be commissioned within 1½ months.

After detailed discussion, the Chairman of the Monitoring Committee directed that 2nd STP of capacity 4 MLD to treat the sewerage of Tarn Taran shall be commissioned within 45 days.

3.8.1.2 Status of sewage treatment plants for treatment of sewage of Patti town

It was informed that land for installation of STP has been identified and finalized. The process of acquisition of land has been initiated by MC and funds have been tied up.

After detailed discussion, it was directed that Deputy Commissioner Tarn Taran shall resolve the issue of land for STP and shall acquire the land

within 02 months and tendering process shall be started within next 15 days. The construction work of STP shall be started within 04 months and STP shall be completed by 31.3.2021.

3.8.1.3 Status of sewage treatment plants for treatment of sewage of Bhikhiwind

It was informed that there is proposal to install STP of capacity 4 MLD to treat sewage of Bhikhiwind. Advertisement for purchase of land has been given from time to time. Funds have been tied up for installation of STP.

It was further informed that in Bhikhiwind, partial sewerage system exists and detail project report for balanced sewerage network is under preparation.

It was observed by the Monitoring Committee that the discharge of sewage may be increased when 100 % sewerage system shall be laid in Bhikhiwind town. However, it was reported that the population of Bhikhiwind is about 10,000, as such, the discharge of sewage may not be more than 2 MLD, whereas Municipal Council, Bhikhiwind has proposed to install STP of capacity 4 MLD. As such, the capacity of proposed STP shall be adequate to treat the sewage of Bhikhiwind town with 100 % coverage of the town with sewerage network.

After detailed discussion, the Chairman of the Monitoring Committee directed that advertisement for land acquisition shall be made within 15 days, land shall be acquired within next 02 months, work of STP shall be started within 4 months and shall be completed by 31.3.2021.

3.8.1.4 Status of sewage treatment plants for treatment of sewage of Khemkaran

It was reported that there is proposal to install STP of capacity 2 MLD to treat the sewage of Khemkaran town. Advertisement for purchase of land has been given from time to time. Funds have been tied up.

After detailed discussion, the Chairman of the Monitoring Committee directed that advertisement for land acquisition shall be made within 15 days and land shall be acquired within next 02 months, work of STP shall be started within 4 months and shall be completed by 31.3.2021.

3.8.2 Status of irrigation schemes to utilize the treated sewage for irrigation.

It was submitted that in order to utilize the treated sewage of STPs Tarn Taran, Department of Soil & Water Conservation has prepared project costing rupees 3 crore but the funds are not available.

For the other towns namely Patti, Bhikiwind and Khemkaran no irrigation schemes have been prepared to utilize the treated sewage of the towns for irrigation.

After detail deliberation, the Chairman of the Monitoring Committee directed as under:

- i) Deputy Commissioner, Tarn Taran shall take up the matter with the Department of Soil & Water Conservation for early release of funds to lay irrigation network to utilize the treated sewage of Tarn Taran town for irrigation.
- ii) The Department of Soil & Water Conservation shall prepare irrigation schemes to utilize the treated sewage of the towns Patti, Bhikhiwind and Khemkaran by 30.9.2020.

3.8.3 In-situ remediation of drains/Nallahs carrying untreated sewage and not connected to any STP.

- i) The treated sewage of Tarn Taran town is discharged into Muradpura drain.
- ii) The untreated sewage of towns namely Patti, Bhikhiwind and Khemkaran is discharged into Kasoor nallah leading to river Sutlej.

After detailed deliberation, it was directed as under:

- The Deputy Commissioner, Tarn Taran shall hold meeting with the officers of PWSSB, Department of Irrigation, PPCB and any other concerned department within 15 days, wherein, the officer of PPCB, dealing with the matter shall give demonstration/presentation w.r.t. in-situ remediation technology.
- PWSSB in consultation with PPCB shall install in-situ remediation technology in the drains, carrying untreated sewage of the towns namely Patti, Bhikhiwind and Khemkaran immediately leading to Kasoor Nallah and further leading to river Sutlej.

3.8.4 Control of Pollution by the industries

In District Tarn Taran, 13 large scale and 02 medium scale red category industries exist and all these industries have provided effluent treatment plants to treat their wastewater.

After detailed deliberation, the Chairman, Monitoring Committee directed that PPCB shall continue to monitor all the red category industries as per time schedule prescribed by PPCB/ CPCB.

3.8.5 Compliance of order dated 1.6.2020 of Hon'ble National Green Tribunal in OA No. 325 of 2015 in the matter of Lt. Col. Col. Sarvadaman Singh Oberoi vs Union of India & Ors

The Hon'ble Tribunal vide its order dated 1.6.2020 in OA No. 325 of 2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi vs Union of India & Ors, has directed in para No.6 that harvesting surplus water during excessive rains from any areas of catchment needs to be optimized by enhancing the capacity of the existing ponds/water bodies, creation of water harvesting structures in the sub-watersheds to the extent possible, apart from setting up of additional water bodies/water harvesting structures wherever viable, utilizing available funds including under MGNREGA and involving the community at large

at every level. Gram Panchayats can certainly play a significant role in the matter. Once adequate capacity enhancement of water bodies takes place, excess flood/ rainwater can be channelized by using appropriate water harvesting techniques. This action needs to be coordinated by the District Magistrates in coordination with the Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/Urban Development/Local Bodies/Forests/Revenue etc. The District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today. The District Magistrates may also ensure that as far as possible at least one pond/water body must be restored in every village, apart from creation of any new pond/water body.

The detailed discussion on the compliance of order dated 1/6/2020 in OA no. 325 of 2015 was held and it was directed as under:

- i) Deputy Commissioner, Tarn Taran shall hold a meeting with the Deptt. of Irrigation, Deptt. of Rural Development and Panchayats, Deptt. of Urban Development, Deptt. of Local Government, Forests and Revenue within 21-days. An officer of District Legal Services Authority shall also be associated in the meeting.**
- ii) The details with regard to number of existing ponds/ water bodies, their area, capacity, rain fall and flood status in the district, water harvesting structure may be mapped out within 01-month.**

3.9 Recommendations made/directions given by the Monitoring Committee during its meeting with the District Level Officers of District Faridkot on 20.7.2020 regarding control of pollution in river Sutlej.

3.9.1 Control of Water Pollution in District Faridkot

3.9.1.1 Status of Sewage Treatment Plants

- i) Sewage Treatment Plant of capacity 6 MLD, based on SBR technology, for Jaitu town has been constructed but rising main yet to be laid, therefore, STP shall be commissioned by 31.12.2020.
- ii) STPs of capacity 8 MLD and 6 MLD for Kotkapura town shall be commissioned by 31.3.2021.
- iii) For installation of sewage treatment plant of capacity 14 MLD, to treat sewage of Faridkot town, land have been acquired in June, 2020 and the plant shall be completed by 31.12.2020.

It was apprised by the Chairman of the Monitoring Committee that during the last meeting held on 7.1.2020 at Fazilka, the date completion of STPs was submitted as under:

- STP of capacity 6 MLD for Jaitu town to be completed by 31.3.2020.
- Completion date of STPs of capacity 8 MLD and 6 MLD to treat sewage of Kotkapura town was mentioned as 31.7.2020.
- STP of capacity 14 MLD to treat sewage of Faridkot Town to be completed by 31.12.2020.

Therefore, the Chairman of the Monitoring Committee took a serious view in the matter and directed as under: -

1. STP of capacity 6 MLD, to treat sewage of Jaitu town, shall be commissioned by 30.11.2020.
2. Sewage Treatment Plants of capacity 8 MLD and 6 MLD for Kotkapura town shall be completed by 31.12.2020.
3. Sewage Treatment Plant of capacity 14 MLD for treatment of sewage of Faridkot town shall be completed by 31.3.2021 for which tendering process shall be completed by 15.8.2020 and construction of STP shall be started by 31.8.2020. Since in the last meeting held at Fazilka on 7.1.2020, it was informed that land acquisition process has been completed and accordingly the Municipal council was directed to complete STP by 31.12.2020 and in spite of lapse of 6 months, no further progress has been made, therefore, the Monitoring Committee has directed that STP should be completed by 31.3.2021. In order to show the seriousness to adhere to the said time schedule, Municipal Council, Faridkot shall submit a bank guarantee of Rs. 2 Lakh as an assurance within 15 days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal council, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.

3.9.1.2 Status of irrigation schemes to utilize the treated sewage for irrigation.

No irrigation schemes have been prepared to utilize the treated sewage of 6 MLD capacity STP of Jaitu town, 8 MLD and 6 MLD STPs of Kotkapura town and 14 MLD STP of Faridkot town.

The Chairman of the Monitoring Committee took a serious view regarding non-preparation of irrigation schemes by the department of Soil & Water Conservation in spite of the fact that location and capacity of STPs are well known and directed that the Department of Soil & Water Conservation shall prepare irrigation schemes, to utilize the treated sewage of STP Jaitu: 6 MLD, STPs 6 MLD and 8 MLD for Kotkapura and 14 MLD STP for Faridkot town, by 31.10.2020.

3.9.1.3 In-situ remediation

The Monitoring Committee observed that since none of the STPs to treat sewage of the towns Jaitu, Kotkapura and Faridkot have been completed and commissioned so far, therefore, presently, the untreated sewage of these towns is flowing into drains leading to river Sutlej and is source of contamination in the area. Therefore, installation of in-situ remediation of the drains/ nallas carrying untreated sewage and not connected to any STPs is quite essential. Therefore, the Monitoring Committee directed as under: -

- i) **Deputy Commissioner, Faridkot shall hold a meeting with the officers of PWSSB, Deptt. of Irrigation, PPCB, Executive Officers of Municipal councils Faridkot, Jaitu and Kotkapura and any other concerned department within 15 days, wherein, the officer of PPCB dealing with matter shall give demonstration/presentation w.r.t. in-situ remediation technology.**
- ii) **All the Municipal Councils of Faridkot, Jaitu and Kotkapura shall immediately install in-situ remediation technology in the drains, carrying untreated sewage of the towns further leading to river Sutlej with in 1½ month and photographs regarding work done by the MCs to install in-situ remediation be also submitted.**

3.9.1.4 Control of Pollution by the industries

Punjab Pollution Control Board reported that in District Faridkot, 1 large scale, 4 medium scale 11 small scale water polluting industries exist and all these industries have provided effluent treatment plants to treat their wastewater.

After detailed deliberation, the Chairman, Monitoring Committee directed that PPCB shall continue to monitor all the water polluting industries as per the time schedule prescribed by PPCB/ CPCB.

3.9.1.5 Compliance of order dated 1.6.2020 of Hon'ble National Green Tribunal in OA No. 325 of 2015 in the matter of Lt. Col. Col. Sarvadaman Singh Oberoi vs Union of India & Ors

It was submitted that the Hon'ble Tribunal vide its order dated 1.6.2020 in OA No. 325 of 2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi vs Union of India & Ors, has directed in para No.6 that harvesting surplus water during excessive rains from any areas of catchment needs to be optimized by enhancing the capacity of the existing ponds/water bodies, creation of water harvesting structures in the sub-watersheds to the extent possible, apart from setting up of additional water bodies/water harvesting structures wherever viable, utilizing available funds including under MGNREGA and involving the community at large at every level. Gram Panchayats can certainly play a significant role in the matter. Once adequate capacity enhancement of water bodies takes place, excess flood/ rainwater can be channelized by using appropriate water harvesting techniques. This action needs to be coordinated by the District Magistrates in coordination with the Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/Urban Development/Local Bodies/Forests/Revenue etc. The District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today. The District Magistrates may also ensure that as far as possible at least one pond/water body must be restored in every village, apart from creation of any new pond/water body.

The detailed discussion on the compliance of order dated 1/6/2020 in OA no. 325 of 2015 was held and it was directed as under:

- i) Deputy Commissioner, Faridkot shall hold a meeting with the Depts. of Irrigation, Deptt. of Rural Development and Panchayats, Deptt. of Urban Development, Deptt. of Local Government, Forests and Revenue within 21-days. An officer of District Legal Services Authority shall also be associated in the meeting.
- ii) The details with regard to number of existing ponds/ water bodies, their area, capacity, rain fall and flood status in the district, water harvesting structure may be mapped out within 01-month.

3.10 Recommendations made/directions given by the Monitoring Committee during its meeting with the District Level Officers of District Pathankot on 31.7.2020 regarding control of pollution in river Sutlej.

3.10.1 Installation of In-situ remediation technology in the drains/nallahs carrying untreated sewage and not connected to any STP and status of sewage treatment plant to treat the sewage of MC Sujapur and Narot Jaimal Singh

It was reported that no sewerage system exists in MC Sujapur and Narot Jaimal Singh and no STPs have been installed by both the Municipal Councils. The untreated sewage of MC Sujapur is discharged into UBDC, whereas, the discharge of untreated sewage of Narot Jaimal Singh is on low lying areas & seasonal drains.

MC Sujapur has claimed that PWSSB has prepared detailed project report for installation of STP and land for the same has been identified but the funds have not been tied up.

After detailed discussion on the issue, the Chairman of Monitoring Committee directed as under:

- i) Municipal Council Sujapur shall install in-situ remediation technology in the drains carrying untreated sewage by 15.10.2020 and bio-remediated wastewater may be diverted to nearby agriculture fields and outlet maintained for the discharge of untreated sewage into UBDC should be closed by 15.10.2020.
- ii) Municipal Council Sujapur shall lay sewerage network and install sewage treatment plant to treat the sewage of the Municipal Council by 30.06.2021.

In order to show the seriousness to adhere to the said time schedule, as mentioned at points i) and ii) above, Municipal council, Sujapur, shall submit a bank guarantee of Rs. 5 Lakh as an assurance within 07 days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal Council, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.

- iii) **Municipal Council Narot Jaimal Singh shall install in-situ remediation technology in the drains carrying untreated sewage by 15.10.2020 and bio-remediated wastewater may be diverted to nearby agriculture fields and outlets maintained in low lying areas and seasonal drains for the discharge of untreated sewage should be closed by 15.10.2020.**
- iv) **Municipal Council Narot Jaimal Singh shall lay sewerage network and install sewage treatment plant to treat the sewage of Municipal Council by 30.06.2021.**
- v) **Chief Environmental engineer, Punjab Pollution Control Board Jalandhar shall take up the matter with both the Municipal Councils and sort out the issue with regard to installation of in-situ remediation technology in the drains carrying untreated sewage, sewerage network and sewage treatment plants to treat the sewage of these two Municipal Councils within 10 days.**
- vi) **In order to apprise the Municipal Councils Sujanpur and Narot Jaimal Singh about In-situ remediation technology to be set up in the drains, Deputy Commissioner, Pathankot shall hold the meeting of Municipal Councils Sujanpur and Narot Jaimal Singh, PWSSB, department of water resources, PPCB and any other concerned department within 15 days, wherein, the officer of PPCB, dealing with the matter, shall give presentation about in-situ bio-remediation technologies.**

3.10.2 Status of irrigation schemes to utilize the treated sewage of Municipal Councils Sujanpur and Narot Jaimal Singh for irrigation.

No irrigation schemes have been prepared by the department of Soil and Water Conservation for utilization of treated sewage of Municipal Councils Sujanpur and Narot Jaimal Singh, after the installation of STPs by these Councils.

After detailed discussion on the issue, the Chairman of the Monitoring Committee directed that the department of Soil and Water Conservation shall prepare irrigation schemes along with estimate cost for laying of irrigation network to utilize the treated sewage of MCs: Sujanpur and Narot Jaimal Singh for irrigation within 3 months.

3.10.3 Compliance of order dated 1.6.2020 of Hon'ble National Green Tribunal in OA No. 325 of 2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi vs Union of India &Ors

The Chairman of the Monitoring Committee apprised that the Hon'ble Tribunal vide its order dated 1.6.2020 in OA No. 325 of 2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi vs Union of India &Ors, has directed in para No.6 that harvesting surplus water during excessive rains from any areas of catchment needs to be optimized by enhancing the capacity of the existing ponds/ water bodies, creation of water harvesting structures in the sub-watersheds to the extent possible, apart from setting up of additional water bodies/ water harvesting structures wherever viable, utilizing available funds including

under MGNREGA and involving the community at large at every level. Gram Panchayats can certainly play a significant role in the matter. Once adequate capacity enhancement of water bodies takes place, excess flood/ rainwater can be channelized by using appropriate water harvesting techniques.

It was informed in the meeting that rain water harvesting structures and check dams have been provided in Dhar Kalan Block of District Pathankot. In MC Sujanpur, estimates are ready for construction of 4 no. rain water harvesting system.

The Hon'ble Tribunal has also directed that this action needs to be coordinated by the District Magistrates in coordination with the Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/ Urban Development/ Local Bodies/ Forests/ Revenue etc. The District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today. The District Magistrates may also ensure that as far as possible at least one pond/water body must be restored in every village, apart from creation of any new pond/ water body.

The detailed discussion on the compliance of order dated 1/6/2020 in OA no. 325 of 2015 was held and it was directed as under:

- i) Deputy Commissioner, Pathankot shall hold a meeting with the Deptt. of Irrigation, Deptt. of Rural Development and Panchayats, Deptt. of Urban Development, Deptt. of Local Government, Forests and Revenue within 21-days.**
- ii) The details with regard to number of existing ponds/ water bodies, their area, capacity, rain fall and flood status in the district, water harvesting structure may be mapped out within 01-month.**
- iii) Deputy Commissioner, Pathankot shall issue necessary directions to department of Rural Development and Panchayat to restore at least 01 existing pond and create new pond in the villages of District Pathankot in a time bound manner.**

3.11 Recommendations made/directions given by the Monitoring Committee during its meeting with the District Level Officers of District Fazilka on 7.8.2020 regarding control of pollution in river Sutlej.

3.11.1 Control of Water Pollution in District Fazilka

3.11.1.1 Status of Sewage Treatment Plants

- i) For the Treatment of sewage of Abohar, Fazilka and Jalalabad towns, STPs of capacity 25 MLD, 8 MLD and 8 MLD, based on SBR, WSP and MBBR technology, respectively, have been installed and are in operation.**
- ii) STP of capacity 25 MLD installed at Abohar is functioning properly and the treated sewage is meeting with the prescribed standards.**
- iii) STP, Fazilka of capacity 8 MLD is not functioning properly and the discharge of effluent at STP is 12 MLD against its installed capacity of 8 MLD. Moreover, as**

per the directions issued by the Monitoring Committee during its last meeting at Fazilka on 7.1.2020, Municipal Council, Fazilka has constructed storage tank after WSP and the effluent sample from the storage tank was collected by the Board in the presence of farmers in July, 2020 and as per the report, various parameters are beyond the prescribed limits. Therefore, on the demand of the Municipal Council, Fazilka, PWSSB has prepared estimate for installation of new STP of capacity 13 MLD, based on SBR technology, with cost of Rs.15.47 cores but the funds are yet to be tied up.

The Chairman of the Monitoring Committee took a serious view regarding malfunctioning of STP Fazilka and directed as under.

- **Municipal Council Fazilka shall provide in-situ bio remediation technology in the drain carrying untreated sewage and not connected to STP by 30.9.2020.**
 - **Municipal Council, Fazilka shall start construction work of new STP of capacity 13 MLD, based on new technology, by 30.11.2020. In order to show the seriousness to adhere to the said time schedule, MC Fazilka shall submit a bank guarantee of Rs. 5 Lakh as an assurance within 10 days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal council, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.**
 - **Deputy Commissioner, Fazilka shall hold a meeting with the officers of PPCB, PWSSB, department of drainage, all the Municipal Councils of the District Fazilka and other concerned departments within 10 days w.r.t installation of in-situ remediation technique in the drains carrying untreated sewage and not connected to STPs. In the said meeting, the concerned officer of PPCB shall provide necessary demonstration/guidance w.r.t. installation of in-situ remediation technology.**
- iv) With regard to functioning of 8 MLD STP of Jalalabad, it was informed that due to high hydraulic load i.e. 11 MLD against the designed capacity of 8 MLD, STP is not functioning properly and is not meeting with the prescribed standards. Punjab Pollution Control Board has imposed an environmental compensation of Rs.10.70 lakh which is yet to be deposited by the Municipal Council, Jalalabad.

After detailed discussion, the Chairman of the Monitoring Committee directed that Municipal Council, Jalalabad shall either start upgrading the existing STP or start installation of new STP within 4 months.

- v) With regard to treatment of 1 MLD wastewater, being generated by Arniwala town, presently no STP has been installed and the untreated

sewage is being discharged into Bam drain further leading to river Sutlej through ditch channel.

After detailed discussion, the Chairman of the Monitoring Committee directed as under.

- **Municipal Council, Arniwala shall install in-situ bio remediation technology in the Bam drain by 30.9.2020.**
- **Municipal Council, Arniwala shall start constructing STP for treatment of sewage of the town by 30.11.2020 and the same shall be commissioned by 30.6.2021.**

3.11.2 Control of Pollution by the industries

- Punjab Pollution Control Board reported that all the 07 industries have provided Effluent Treatment Plants. Out of these 7 industries, the industries namely M/s Fazilka Cooperative Sugar Mill, M/s International Mega Food Park and M/s Schreiber Dynamix Dairies Pvt. Ltd., had been found violating the norms and accordingly these industries were issued show cause notices alongwith personal hearing before the Chairman of the Board. Now these industries have made compliance and further action shall be as taken as per the decision of the Chairman of the Board.
- 27 small scale water polluting industries in District Fazilka have also provided Effluent Treatment Plants. Punjab Pollution Control Board is monitoring the performance of effluent treatment plants of these industries from time to time.

After detailed discussion on the issue, the Chairman of the Monitoring Committee directed that Punjab Pollution Control Board shall continue to monitor the performance of effluent treatment plants of the water polluting industries of the District and legal action under the provisions of Water Act, 1974 against the violating industries may be taken accordingly.

3.11.3 Status of irrigation schemes to utilize the treated sewage for irrigation.

- For utilization of treated sewage of Jalalabad town (8 MLD), irrigation network, covering a command area of 200 hectares, has been laid. However, due to excess flow wastewater of 11 MLD entering into STP, the performance of the STP, Jalalabad has been hampered.
- For the utilization of treated sewage of STP, Fazilka, irrigation network, covering a command area of 350 hectares, has been laid. However, there is need to install new STP based on new technology so as to meet with the prescribed standards.
- For utilization of treated sewage of STP Abohar of capacity 25 MLD, irrigation scheme has been planned and funds have been sanctioned but the same have not been released so far.

After detailed discussion on the issues, the Chairman of the Monitoring Committee directed as under:

1. Irrigation schemes for utilization of treated sewage of Jalalabad town shall be commissioned by 30.9.2020.
2. Municipal Council, Fazilka shall install new STP of capacity 13 MLD, based on new technology, by 31.3.2021 and the treated sewage may be utilized for irrigation as irrigation network has already been laid by the Department of Soil & Water Conservation.
3. In order to treat the excess wastewater (3MLD), presently entering into STP, Jalalabad, in-situ bio remediation technology may be provided in the drains carrying untreated sewage by the Municipal Council, Jalalabad by 30.9.2020. Municipal Council, Jalalabad shall also make efforts to reduce the consumption of water in the area under its jurisdiction so that the quantity of effluent entering into STP may also be reduced accordingly.
4. Irrigation network, to utilize the treated sewage of STP Abohar of capacity 25 MLD, shall be started laying within 6 months.

3.11.4 Compliance of order dated 1.6.2020 of Hon'ble National Green Tribunal in OA No. 325 of 2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi vs Union of India &Ors

The Chairman of the Monitoring Committee apprised that the Hon'ble Tribunal vide its order dated 1.6.2020 in OA No. 325 of 2015 in the matter of Lt. Col. Sarvadaman Singh Oberoi vs Union of India &Ors, has directed in para No.6 that harvesting surplus water during excessive rains from any areas of catchment needs to be optimized by enhancing the capacity of the existing ponds/ water bodies, creation of water harvesting structures in the sub-watersheds to the extent possible, apart from setting up of additional water bodies/ water harvesting structures wherever viable, utilizing available funds including under MGNREGA and involving the community at large at every level. Gram Panchayats can certainly play a significant role in the matter. Once adequate capacity enhancement of water bodies takes place, excess flood/ rainwater can be channelized by using appropriate water harvesting techniques.

This action needs to be coordinated by the District Magistrates in coordination with the Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/ Urban Development/ Local Bodies/ Forests/ Revenue etc. *The District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today. The District Magistrates may also ensure that as far as possible at least one pond/water body must be restored in every village, apart from creation of any new pond/ water body.*

The detailed discussion on the compliance of order dated 1/6/2020 in OA no. 325 of 2015 was held and it was directed as under:

- i) Deputy Commissioner, Fazilka shall hold a meeting with the Deptt. of Irrigation, Deptt. of Rural Development and Panchayats, Deptt. of Urban

Development, Deptt. of Local Government, Forests and Revenue within 21 days. An officer of District Legal Services Authority shall also be associated in the meeting.

- ii) The details with regard to number of existing ponds/ water bodies, their area, capacity, rain fall and flood status in the district, water harvesting structure may be mapped out within 01-month.

3.12 Recommendations made/directions given by the Monitoring Committee during its meeting with the State Level Officers of State Punjab held on 13.8.2020 regarding control of pollution in river Sutlej and compliance thereof.

Sr. No.	Recommendations made/ directions given by the monitoring committee	Compliance Report
1	Review of Monitoring of STPs in catchment area of rivers	
	1. Reasons for non-compliance of STPs and timelines for compliance.	
	Nobody was present from MES authority and PPCB was asked to take up the matter with MES authorities for up-gradation of 02 STPs (East Jalandhar Cantt-II & West Jalandhar Cantt-I) in a time bound manner so as to improve their performance.	The MES authority is being requested to upgrade their non-complying STPs so as to meet the prescribed standards of the Board.
	Regarding non achievement of standards by 03 STPs of ULBs (Jalalabad, Sultanpur Lodhi & Sham Chuarasi) and 1 STP of DWSS (Muktsar Sahib-II of 5.7 MLD), PPCB shall take up the matter with these urban local bodies and Department of Water Supply and Sanitation to direct them to make up-gradation in the system in the time bound manner to meet with the prescribed standards.	The Departments of Local Bodies and DWSS are being requested to upgrade their non-complying STPs so as to meet the prescribed standards of the Board.
	2. Action taken by PPCB against non-compliant STPs.	
	1) Punjab Pollution Control Board shall continue to make surprise inspection of STPs and action against the violating STPs may be taken accordingly under the provisions of the Water Act, 1974.	All the STPs falling in catchment area of river Sutlej and Beas are being inspected & monitored regularly on monthly basis. In case of any violation, action is being initiated against the concerned authority as per law.
2) PPCB shall constitute the committee consisting of officers of PPCB, PWSSB, DWSS, Department of Local Government, PSCST and other concerned department within 10 days and operational Manual for STPs may be finalized and be submitted to Department of Environment, Punjab for approval.	Committee has been constituted.	
	3. Installation of OCEMS and CCTV cameras	
	2) PPCB shall constitute committee consisting of officers of PWSSB, DWSS, Department of Local Government, PPCB and other concerned department and decide the location where probe of the OCEMS is to be inserted at the outlet of STP so that it may give	Committee has been constituted vide PPCB office order no. 521 dated 17.09.2020

	<p>the realistic results of treated sewage. The Committee shall also examine the technological issues of probe based and sampler based OCEMS and comment which one is the best technology and how the manual intervention in sampler based OCEMS can be minimized. The committee shall submit its report within one month.</p>	
2	Review of monitoring of functioning of CETPs and ETPs in the catchment area.	
	1. Status of CETP Monitoring	
	<p>i. In order to make the existing CETP for leather complex Jalandhar operational, PPCB shall check the status of various components of CETP so that it may be put into operational conditions to achieve the parameters before the operation of leather tanning industries of leather complex Jalandhar, in case these are allowed to be operated by Hon'ble Punjab and Haryana High Court.</p>	<p>The leather tanning units situated in Leather Complex, Jalandhar have been closed as per orders dated 29.10.2019 of Hon'ble Punjab & Haryana High Court, Chandigarh in the matter of LPA 1924 of 2014. Thus, no effluent is coming to CETP installed in Leather Complex, Jalandhar. The officers of PPCB and members of the interim committee, PETS Jalandhar visited the CETP on 11.09.2020 to check the latest status of newly constructed dilution tank of CETP and observed that the Common Effluent Treatment Plant is lying closed. No up-gradation work of CETP of capacity 5 MLD has been started yet. The civil construction work of dilution tank of CETP is almost completed and electric and mechanical work is under progress.</p>
	<p>ii. PPCB shall take legal action under the provisions of the Water Act, 1974 against the operating agency of STP of capacity 3 MLD Phillaur for causing stagnation of untreated effluent in the area due to breaking of sewer line leading to STP.</p>	<p>EO, MC, Phillaur and Executive Engineer, PWSSB, Phillaur were given personal hearing before the Chairman of the Board on 10.09.2020 for violation of provisions of Water (Prevention & Control of Pollution) Act 1974 in case of STP of capacity 03 MLD Phillaur. Further action is under process.</p>
<p>iii. PPCB shall submit its report on pilot study of 25 electroplating industries of Ludhiana with regard to generation of effluent viz-a-viz quantity of products, transportation of effluent and its treatment at CETP site within 2 months.</p>	<p>A team of officers of Board was constituted for conducting pilot study. The team visited various electroplating industries for this purpose. The water auditing of electroplating industries was carried out on the basis of production, water consumption, effluent generation and lifting of effluent to CETP. Also, different processes of the industries were studied in detail and it was observed that effluent generation from such units depends upon number of factors like production, weight of the articles, surface area of the article, quality of plating etc. As such, it has been found that no particular criteria can be developed to predict the generation of electroplating effluent viz-a-viz</p>	

		quantity of products.
	iv. PPCB shall ensure that electroplating industries of Malerkotla have joined CETP at focal point Ludhiana for treatment of effluent, in case CETP at Malerkotla is lying defunct and non-operational.	The Association has executed an agreement with M/s J.B.R Technology Pvt. Ltd, Ludhiana for collection of trade effluent generated by electroplating units of Malerkotla from where same is lifted by JBR for further treatment. The CETP installed by Malerkotla Electroplating Association, Malerkotla now acts as a collection centre.
	2 & 3. Status of ETPs monitoring and action taken by PPCB against non-compliant ETPs.	
	After discussion on the issue, it was directed that PPCB shall continue to monitor ETPs of the industries as per the time schedule prescribed by PPCB/CPCB and action against the defaulting industries may be taken as per the provisions of the Water Act, 1974.	The ETPs of industries existing in catchment area of river Sutlej and Beas are being monitored regularly by the Board. In case of any violation, action as per the provisions of the Water Act, 1974 is taken against the violating industries.
	4. Installation of OCEMS in existing ETPs having discharge more than 50 KLD	
	The Chairman of the Monitoring Committee directed that PPCB shall ensure that OCEMS at the outlets of ETPs are installed at such locations where these can give realistic results and these OCEMS should be placed in a covered box along with sealing by PPCB so as to avoid any tempering in the system.	Action to comply with the direction of Monitoring Committee constituted by NGT is under process.
3	Setting up of New/ up-gradation/ rehabilitation of STPs	
	vi) Punjab Pollution Control Board shall share in-situ bio remediation technologies with the department of Local Government, Punjab Water Supply & Sewage Board and other MCs for installation of the same in the drains/nallahs carrying untreated sewage and not connected to STPs.	The technologies for in-situ bio-remediation have been shared with the concerned department.
	vii) Punjab Pollution Control Board shall collect the effluent samples at the inlet and outlet of in-situ bio remediation technologies within 15 days.	Remediation project of Bhulana Drain was commissioned on 20.06.2020. The sample from the inlet and outlet of in-situ bio-remediation project were collected from 20.06.2020 to 31.07.2020 and as per the analysis results, the average reduction of BOD was observed to be 28.95%.
4	Review of progress of setting up of new CETPs	
	1 to 5) 40 MLD CETP and 50 MLD CETP for Focal Point and Tajpur road dyeing industries clusters.	
	After detailed discussion on the issue, the Chairman of the Monitoring Committee directed as under:	

	<ul style="list-style-type: none"> • 40 MLD CETP and 50 MLD CETP for Focal Point and Tajpur road & Rahon road dyeing industries clusters shall be commissioned by 31.12.2020. 	<p>PPCB is monitoring the progress of construction of CETPs to ensure that the upcoming CETPs of 40 MLD and 50 MLD capacity are commissioned by 31.12.2020.</p>
	<ul style="list-style-type: none"> • PPCB shall take up the matter with MoEF& CC, Government of India for release of its share for early installation of 40 MLD and 50 MLD CETPs. 	<p>PPCB vide its letter no. 15396 dated 13.07.2020 has requested the MoEF to release balance central subsidy of Rs. 12.12 Crores for the 40 MLD CETP.</p> <p>PPCB vide its letter no. 13684 dated 25.06.2020 has requested the MoEF to release balance central subsidy of Rs. 12 Crores for the 50 MLD CETP.</p>
	6. CETP of capacity 0.5 MLD for electroplating industries of Jalandhar.	
	<p>The Chairman of the Monitoring Committee directed that Punjab Pollution Control Board shall pursue the matter before Hon'ble Punjab and Haryana High Court to get vacate the stay order on next date of hearing.</p>	<p>The Board has already submitted reply in the Hon'ble Punjab & Haryana High Court, Chandigarh on 19.02.2020 with prayer to vacate the stay order. The next date before the Hon'ble High Court is 10.11.2020.</p>
	7. Up-gradation of 5 MLD CETP for leather tanning units of leather complex, Jalandhar.	
	<p>After detailed discussion on the issue, it was directed as under:</p> <ul style="list-style-type: none"> i. Punjab Pollution Control Board shall take up the matter with CLRI for vetting of DPR and SPV to make financial arrangements for up-gradation of CETP. ii. The vetting of CETP may be done by CLRI within 02 months and financial plan may be prepared within 02 months and timelines for up-gradation of CETP may be fixed accordingly. iii. PPCB shall depute an officer to keep watch on each activity w.r.t up-gradation of 5 MLD CETP for its up-gradation. 	<ul style="list-style-type: none"> i. The CLRI Chennai has appraised the DPR for up-gradation of existing CETP and recommended to DPIIT New Delhi. Thereafter, the DPIIT New Delhi approved the up-gradation project of CETP of existing capacity 5 MLD on 18.02.2020. ii. The tender for up-gradation of existing CETP with proposed up-gradation cost of Rs. 27.54 crore was floated in the leading newspapers by the Punjab Effluent Treatment Society for Tanneries (PETS) Leather Complex, Jalandhar which was opened on 17.08.2020 and one financial bid was received through e-tendering which is under process with the PETS. iii. The Regional Office, Jalandhar is regularly checking the latest status of the up-gradation of CETP.
5	Action plan for cleaning Holy Bein.	

	The Chairman of the Monitoring Committee directed that copy of Action Plan for Clean Holy Bein may be supplied to the Monitoring Committee and action points mentioned in the Action Plan may be discussed in the next meeting of the Monitoring Committee.	A copy of the Action Plan has been supplied to the Monitoring Committee through email dated 21.09.2020.
6	Additional decisions taken by the Committee in 9 th meeting.	
	Analysis of sludge of STPs located in the industrial towns and report be submitted in the next meeting.	
	After discussion on the issue, the Chairman of the Monitoring Committee directed that Punjab Pollution Control Board shall increase its surveillance/ surprise inspection of electroplating industries of those areas where metal contents has been observed in the sludge and action under the provisions of the Water Act, 1974 may be taken against the defaulting industries.	The PPCB has increased the surveillance/ surprise inspection of electroplating industries.

3.13 Recommendations made/directions given by the Monitoring Committee during its meeting with the District Level Officers of District Ludhiana on 24.8.2020 regarding control of pollution in river Sutlej and compliance thereof.

Agenda No.	Activity	Observations/ directions of the Monitoring Committee
1	<p>Setting of new/ upgradation/ rehabilitation of STPs.</p> <p>(Upgradation/rehabilitation of 152 MLD, 48 MLD, 105 MLD, 111 MLD and 50 MLD STPs and installation of new STP of capacity 225 MLD at Jamalpur and 50 MLD at BalloKe)</p> <ul style="list-style-type: none"> • Status of installation of new STPs of capacity 225 MLD at Jamalpur including rehabilitation of 48 MLD existing STP. 	<p>It was submitted as under:</p> <ul style="list-style-type: none"> • A new STP of capacity 225 MLD has been proposed to be installed including rehabilitation of existing 48 MLD STP at Jamalpur by 31.10.2022 • 50 MLD new STP is proposed to be installed at Balloke by 30.4.2022 • Rehabilitation of existing 152 and 105 MLD STPs by 31.7.2021 • Rehabilitation of existing 111 and 50 MLD STPs by 31.10.2021 • Treatment of water from Haibowal and Tajpur Road Dairy Complex:30.4.2022 <p>The Chairman of the Monitoring Committee took serious for poor quality of treated /partially treated sewage of the STPs and desired that these STPs should be completed and rehabilitated by 31.3.2021 and till then, MC Ludhiana shall install in-situ remediation technology on all the drains carrying untreated sewage within 02 months. In order to show the seriousness to adhere to the said time schedule, MC Ludhiana shall submit a bank guarantee of Rs. 7 Lakh as an assurance within 10</p>

		<p>days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal Corporation, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.</p>
2.	<p>Setting up of bio-diversity park and tree plantation along Budha Nallah.</p> <ul style="list-style-type: none"> • Removal of encroachment and development of bio diversity parks and plantation of trees along Budha Nallah (within Municipal Corporation limits) by MCL. • Plantation of trees along Budha Nallah (outside the Municipal Corporation limits) by Department of Rural Development and Panchayat (DRDP). 	<p>It was informed that 6 sites for development of biodiversity park have been identified, out of which site at Tajpur road, near Balloke STP and Hambran road, Haibowal site are along Budha nallah. In these parks, sapling of shady, medicinal, fruit and flowering trees have been selected. Barbed wire around the site opposite SDM office, Hambran road, Haibowal has been provided. Plants of different varieties have also been planted.</p> <p>After detail discussion on the issue, it was directed that Municipal Corporation Ludhiana shall develop bio-diversity parks along catchment area of river Sutlej and Budha nallah with the infrastructure and environment features required for bio-diversity parks.</p>
3.	<p>Closing of outlets carrying untreated domestic effluent and directly falling into Budha Nallah.</p> <ul style="list-style-type: none"> • All the outlets carrying untreated sewage and directly falling into Budha Nallah should be closed soon after the commissioning of new and upgradation/rehabilitation of existing STPs • Providing in-situ remediation 	<p>It was informed that out of 16 outlets falling into Budha Nallah, 02 outlets (outlets of EWS colony and Chhauni mohalla) have been closed, whereas the remaining 14 outlets shall be closed after the installation of the new STPs and rehabilitation of the existing STPs as mentioned in the comprehensive plan, which is proposed to be completed by 31.10.2022.</p> <p>After detailed discussion, the Chairman of the Monitoring Committee directed that Municipal Corporation Ludhiana shall construct new STPs and rehabilitate the existing STPs as mentioned in the comprehensive plan by 31.3.2021 and shall ensure</p>

	<p>technology in the drains/nallahs/outlets which are not connected to STPs immediately as the departments are already in violation of orders of Hon'ble National Green Tribunal.</p>	<p>that all the outlets carrying untreated sewage and directly discharging into Budha Nallah shall be closed by 31.3.2021.</p>
4.	<p>Installation of OCEMS and CCTV Cameras on all the 5 STPs at Ludhiana.</p> <p>Commissioning of OCEMS installed on STPs and installation of CCTV camera on STPS.</p>	<p>It was reported that OCEMS and CCTV cameras have been installed and commissioned at all the 04 STPs (Bhattian: 50 MLD, Balloke: 105 MLD, Balloke: 152 MLD and Bhattian: 111 MLD). CCTV cameras and OCEMS on 48 MLD STP, which is presently is lying defunct, shall be installed after the construction of new STP.</p> <p>The Monitoring Committee noted the compliance.</p>
5.	<p>Management of Dairy Dung of Tajpur Road and Haibowal dairy complex, Ludhiana</p> <ul style="list-style-type: none"> • Bio Gas Power Plant at Haibowal dairy complex to be upgraded to Bio CNG Plant by 30.09.2020. • Bio Gas Power Plant at Tajpur Road dairy complex, Ludhiana, to be installed by 31.3.2021. <p>Treatment of wastewater 5 MLD from Tajpur Dairy Complex and 10 MLD from Haibowal Dairy Complex.</p> <ul style="list-style-type: none"> • ETPs of capacity 5 MLD and 10 MLD to treat the liquid waste from Dairy Complex, Tajpur Road and Haibowal, which contribute high organic load in term of high value of BOD and COD in Budha 	<p>It was informed that there is proposal to shift the dairies of Tajpur road and Haibowal to some designated site, presently, as such any proposal regarding management of animal dung and treatment of dairy wastewater of both dairy complexes (Tajpur road and Haibowal) shall go waste.</p> <p>After discussion on the issue, it was directed by the Monitoring Committee as under:</p> <p>i) Municipal Corporation Ludhiana shall decide the issue regarding shifting of Dairy complex, Tajpur Road and Haibowal Complex to some other suitable place or retaining of these dairies at the existing locations within 2 months so that further line of action may be decided accordingly. While considering the matter regarding shifting of the dairy complex, Haibowal, 1 MW bio gas based plant installed by PEDDA may also be considered.</p> <p>ii) The Department of Local Government shall take up the issue regarding shifting of Dairy complexes of Ludhiana with the Chief Secretary Punjab within 15 days.</p>

	<p>Nallah, be given priority and therefore, after the opening of the tender of the comprehensive project, installation of ETPs of capacity 5 MLD and 10 MLD for dairy complex Tajpur Road and Haibowal may be given priority and these ETPs may be completed by 31.03.2021.</p>	
7.	<p>CETPs for Cluster of Dyeing Industries of Ludhiana.</p> <ul style="list-style-type: none"> • Punjab Pollution Control Board to follow up the matter with 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 and its status of commissioning. 	<p>It was informed as under:</p> <p>1) CETP of 15 MLD has been commissioned and is under stabilization. All the industrial units have been connected with CETP. The analysis results of treated effluent indicate the value of BOD varying between 9 -11 mg/l.</p> <p>i) 97.5 % and 85 % work of CETP for dyeing cluster of focal point Ludhiana and Tajpur road Ludhiana, respectively, has been completed and these CETPs shall be completed within 6 month after the release of funds by the MoEF&CC. Regarding release of funds, meeting between Chief Secretary Punjab and Additional Secretary MoEF&CC has been arranged and it will be held very shortly.</p> <p>The Monitoring Committee directed as under;</p> <p>i) PPCB shall depute chief Environment Engineer Punjab Pollution Control Board, Ludhiana to visit the office of MoEEF&&CC personally and shall persue the matter regarding release the funds for construction of CETPs.</p> <p>ii) PPCB shall conduct the performance study of 15 MLD CETP for Bahdurke road dyeing cluster by 30.9.2020.</p> <p><u>Compliance status as submitted by PPCB</u></p> <p>PPCB vide its letter no. 15396 dated 13.07.2020 has requested the MoEF to release the balance central subsidy share of Rs. 12.12 Crores for the 40 MLD CETP.</p> <p>PPCB vide its letter no. 13684 dated 25.06.2020 has requested to the MoEF to release the balance central subsidy share of Rs. 12 Crores for the 50 MLD CETP.</p> <p>The construction work of 40 MLD and 50 MLD CETPs has been re-started after lock down period in the State of Punjab. These CETPs are likely to be completed by 31.12.2020.</p>

		15 MLD Common Effluent Treatment Plants has been stabilized and is being monitored on monthly basis.
8.	<p>Operation of CETP installed at Focal Point, Ludhiana for treatment of electroplating effluent.</p> <ul style="list-style-type: none"> Punjab Pollution Control Board to carry out audit of all the small electroplating industries of Ludhiana who have joined CETP and verification be made with regard to actual generation of effluent by the electroplating industries and the quantity of the effluent given/delivered to the CETP. The audit report should be completed within 03 months and report be submitted to the Monitoring Committee. 	<p>Punjab Pollution Control Board reported that water auditing of electroplating industries on the basis of production, water consumption, effluent generation and lifting of effluent to CETP has been conducted. Also, different processes of the industries were studied in details and observed that effluent generation from such unit depends upon the no. of factories like production, surface area of the article, quality of plating. As such, no particular mechanism can be developed/arrived to check the actual discharge of electroplating industries. As such, PPCB makes its surprise inspection to check the effluent discharge by the industries and lifting of the same to CETP.</p> <p>After detail deliberation on the issue, it was directed that PPCB shall make surprise inspection/random checking of the electroplating industries of Ludhiana and shall ensure that whole of the effluent generated by these industries is sent to CETP for its treatment and a proper record may be maintained by the industries. The GPS system provided on the effluent transporting vehicles may also be checked on random basis.</p> <p><u>Compliance status as submitted by PPCB.</u></p> <p>There are total 909 electroplating units falls in district Ludhiana. Out of which the auditing of 204 electroplating industries has been completed and auditing of remaining industries is likely to be completed upto 31.03.2021.</p>
9.	<p>Monitoring and performance of STPs of Ludhiana.</p> <ul style="list-style-type: none"> Punjab Pollution Control Board to carry out monitoring and performance of all the 5 STPs of Ludhiana in June, 2020 to August, 2020 and compare the data of these 03 months with the data collected during pre-lockdown period and lockdown period and comment upon the performance of the 	<p>It was informed as under:</p> <ul style="list-style-type: none"> STP Bhattian of capacity 50 MLD, based on SBR technology, is working effectively and meeting with the prescribed norms. STP Bhattian of capacity 111 MLD is also meeting with the parameters w.r.t. BOD parameter, whereas, the values of F.Coli ranging between 2700-3500 are beyond the permissible limits. STP Balloke of capacity 152 MLD is not meeting with the prescribed standards w.r.t. BOD (180-340 mg/l) and F.Coli (430000-840000 MPN/100 ml). The reasons for malfunctioning of STP is due to higher values of inlet

	STPs of Ludhiana.	<p>parameters and non-operation of STP due to installation of electromagnetic flow meters.</p> <ul style="list-style-type: none"> • STP Ballloke of capacity 105 MLD is also not meeting with the prescribed standards w.r.t. BOD and F.Coli parameters. The reasons for non-compliance have been mentioned due to higher values of inlet parameter. • 48 MLD STP at Jamalpur is not functioning properly because machinery of the STP is lying defunct and there is proposal to construct new STP. <p>After detailed discussion on the issue, it was directed as under:</p> <ol style="list-style-type: none"> Both new STPs of capacity 50 MLD and 225 MLD shall be completed by 31.3.2021. The existing STPs of capacity 105 MLD, 111 MLD and 152 MLD shall be rehabilitated by 31.3.2021. Punjab Pollution Control Board and Municipal Corporation shall make joint study w.r.t. inlet parameters entering into STPs and the various components of STPs and make assessment as to how the improvement in the existing STPs can be made so that these STPs may give better results till the rehabilitation of the existing STPs and installation of new STPs. <p>Compliance status as submitted by PPCB.</p> <p>The samples for the said period were collected and the results were considered by the Monitoring Committee during its meeting held on 24.08.2020 with the District Level Officers of District Ludhiana. During the said meeting on 24.08.2020. It was decided that the PPCB and Municipal Corporation shall make joint study w.r.t. inlet parameters entering into STPs and the various components of STPs and make assessment as to how the improvement in the existing STPs can be made so that these STPs may give better results till the rehabilitation of the existing STPs and installation of new STPs takes place. Further action in this regard is under process.</p>
10.	Status of water quality of Budha Nallah and River Sutlej during the year 2019 and	<p>Punjab Pollution Control Board reported as under: -</p> <ul style="list-style-type: none"> • The quality of water of Rajasthan Feeder Canal originating from Harike Head works was analyzed from

	<p>lockdown period.</p>	<p>January, 2020 to July, 2020 and its analysis results indicate that the value of BOD varying between 1.3-3.2 mg/l and F.coli between 340-2600 MPN/100ml.</p> <ul style="list-style-type: none"> The water quality of Budha Nallah was monitored at Walipur i.e. before its confluence with river Sutlej. The data indicate that heavy metal namely nickel, chromium and ferrous have been detected. The value of BOD in Budha Nallah water has been found varying between 125-190 mg/l. <p>The Monitoring Committee observed that the presence of heavy metals in Budha Nallah water should not be there as the Common Effluent Treatment Plant installed for treatment of electroplating effluent is based on zero liquid discharge technology, as such, there is need to check the functioning of CETP as well as the individual industries contributing their effluent to CETP.</p> <p>After detailed discussion on the issue, the Chairman of the Monitoring Committee directed that Punjab Pollution Control Board shall monitor the performance of CETP installed for electroplating industries within 15 days.</p>
11	<p>Monitoring of water quality of Budha Nallah w.r.t heavy metals.</p>	<p>It was reported as under:-</p> <ol style="list-style-type: none"> Punjab Pollution Control Board has identified 890 electroplating industries upto 31.3.2020, out of which water auditing of 204 electroplating industries was carried out 45 industries were found non-complying and legal action under the provisions of the Water Act, 1974 has been initiated against 42 industries. <p>After detailed discussion, the chairman of the Monitoring Committee directed that Punjab Pollution Control Board shall continue to make surprise inspections of the electroplating industries and make their complete water audit and action against the defaulted industries may be taken as per the provisions of the Water Act, 1974.</p> <p><u>Compliance status as submitted by PPCB</u></p> <p>There are total 909 electroplating units falls in district Ludhiana. out of which the auditing of 204 electroplating</p>

		industries has been completed and auditing of remaining industries is likely to be completed upto 31.03.2021.
12	<p>Shifting of Scattered Dyeing Industries to the CETP compatible areas in Focal Point, Ludhiana</p>	<p>Punjab Pollution Control Board informed as under: -</p> <ul style="list-style-type: none"> ➤ There are 19 no. operational scattered small and medium scale dyeing unit in Ludhiana City. Most of the scattered units falls in non-designated areas and these needs to be shifted to designated industrial area by August, 2023 as per the provision of Master Plan, Ludhiana. ➤ All the scattered Small and Medium Scale dyeing units cannot be shifted to catchment area of upcoming CETPs as the SPVs of such CETPs are not willing to allot shares to new members and they want to retain those shares for expansions in the existing industries. ➤ Accordingly, Punjab Pollution Control Board has requested the Government that direction issued vide letter no. 10/228/2019/STE-5/1594066/1 dated 10.10.2019 may be revised to the extent that the scattered small and medium dyeing industries shall shift outside MC limit and change their mode of disposal of trade effluent from sewerage system to on to land for plantation vide Board letter no. 18044 dated 17.08.2020. <p>After detailed discussion on the issue, it was directed that the scattered dying industries either may be shifted to CETP compatible areas or adopt zero liquid discharge technology within 3 months or shift to any other suitable location as per guidelines of the Punjab Pollution Control Board with proper treatment of effluent and mode of disposal of treated effluent.</p> <p><u>Compliance status as submitted by PPCB:</u></p> <p>All the scattered Small and Medium Scale dyeing units cannot be shifted to catchment area of upcoming CETPs as the SPVs of such CETPs are not willing to allot shares to new members and they want to retain those shares for expansions in the existing industries.</p> <p>The Board has requested the Government that direction issued vide letter no. 10/228/2019/STE-5/1594066/1 dated 10.10.2019 may be revised to the extent that the scattered small and medium dyeing industries shall shift outside MC limit and change their mode of disposal of trade effluent from sewerage system to on to land for plantation</p>

13	<p>Maintaining continuity to check the performance of effluent treatment plants of all the industries on surprise basis/random checking</p>	<p>PPCB submitted data as under: -</p> <ol style="list-style-type: none"> 1. From May, 2020 to July, 2020, 112 industrial effluent were inspected, out of which 18 industries were found non-compliant and action against these industries is under process. <p>The chairman of the Monitoring Committee directed that Punjab Pollution Control Board shall continue to check the performance of Effluent Treatment Plants of the industries on surprise basis/random checking and legal action under the provisions of the Water Act, 1974 may be taken against the non-complying industrial units.</p> <p><u>Compliance status as submit by PPCB</u></p> <p>PPCB is monitoring the ETPs of the industry in catchment area of river Sutlej and Beas regularly. In case of any violation, action against the concerned industry is initiated as per the provision of water Act, 1974.</p>
14	<p>Release of fresh water from Sirhind Canal into Budha Nallah</p>	<p>The officer of Department of Water Resources informed that the project for release of fresh water from Sirhind canal into Budha Nallah shall be completed by 30.4.2021.</p> <p>The Monitoring Committee noted the progress and directed that the project should be completed by 30.4.2021.</p>
15	<p>Utilization of treated wastewater of STPs at Ludhiana and CETPs of cluster of dyeing Industries, Ludhiana.</p>	<p>Nobody was present from the Department of Soil Conservation.</p> <p>Punjab Pollution Control Board informed that in order to utilize the treated effluent from CETP of 40 MLD and 50 MLD for Focal Point, Tajpur Road & Rahon Road dyeing clusters, the areas upstream of these CETPs along Budha Nallah have been identified and the scheme for utilisation of treated effluent.</p> <p>The Monitoring Committee observed that in order to utilize the treated wastewater for irrigation, there is need to keep in mind the parameters which are required to be controlled before utilizing the wastewater of the industries for irrigation. These parameters are Residual sodium carbonate (RSC), Sodium Absorption ratio (SAR) and electric conductivity (EC). Therefore, before finalising any</p>

<p>scheme for utilisation of treated wastewater for CETP for dyeing industries, Punjab Agriculture University, Ludhiana may be associated in the matter and necessary guidance may be obtained w.r.t. use of treated effluent for irrigation so as to avoid any ill-effect on the quality of soil and yield of the crops.</p>

3.14 Recommendations made/directions given by the Monitoring Committee during its meeting with the District Level Officers of District Ropar on 14.9.2020 regarding control of pollution in river Sutlej.

3.14.1 Water Pollution sources and their control

- 9 STPs [Morinda, Anandpur Sahib, Mojowal, BBMB Nangal, Burari Nangal, Rasulpur, Badi Haweli, Sadabart and Chamkaur Sahib] are in operation. The performance of these STPs was carried out by PPCB in the month of July and August, 2020 and all the parameters were within the prescribed norms.
- PWSSB informed that for construction of 2 MLD STP at Kiratpur Sahib, tenders were floated, wherein, 2 agencies participated and financial bid is in the process of approval and thereafter the construction work of STPs shall be completed within 9 months after the allotment of the work.
- The work of laying of pipeline to divert the flow of drain carrying untreated sewage of Kiratpur Sahib and falling into Charan Ganga has been completed but electric connection for 6 MLD MPS is yet to be released by PSPCL. After the release of electric connection, untreated sewage will be diverted

After detailed deliberation, the Chairman of the Monitoring Committee directed as under:

- i. **PPCB shall continue to check the performance of all the 9 STPs of Ropar area as per the frequency of inspection prescribed by PPCB.**
- ii. **Sewage treatment plant of capacity 2 MLD at Kiratpur Sahib may be installed by 31.03.2021 for which work may be allotted within 2 months by PWSSB.**
- iii. **Deputy Commissioner Ropar shall hold meeting with PSPCL, PWSSB and PPCB within 15 days and get release the power connection for operation of 6 MLD MPS to divert the untreated sewage falling into Charan Ganga.**
- iv. **PPCB shall check the record of sludge generated from 5 MLD STP at Burari Nangal and 8 MLD STP BBMB, Nangal w.r.t operation of STPs and the concentration of biomass to be maintained in the aeration chamber for the degradation of organic matter effectively.**

3.14.2 Visit to Sewage treatment plant and disposal system of sewage of towns

- Effluent samples from inlet and outlet and biomass parameter (MLSS and MLVSS) have been collected on 05.03.2020 and the parameters are within the prescribed norms.

- The record of sludge generation has been obtained and the same has been sent to Head Quarter for further action. The report shall be submitted after the approval given by Head Quarter authorities.
- To overcome the problem of stagnation of treated wastewater stagnating in the area along main road, PWSSB has proposal to construct balancing reservoir near STP Badi Haveli to store the surplus treated wastewater and to use it for irrigation purposes for which irrigation scheme shall be prepared by the Department of Soil and Water conservation. For the said work, tender has been called.

It was suggested by Deputy Commissioner Roper that the excess treated wastewater, presently, stagnating in the fields, may be diverted to river Sutlej through Phool Drain.

After detailed discussion, it was directed as under.

- PPCB shall check and verify the record of sludge generation of STPs of District Ropar w.r.t operation of STPs, concentration of organic matter, concentration of biomass in the aeration chamber, quantity of under flow to be recycled from secondary clarifier to the aeration chamber to maintain biomass. The report in this regard may be submitted to the Monitoring Committee within 1 month.**
- Deputy Commissioner, Ropar shall hold meeting with PWSSB, PPCB, Department of Soil and Water Conservation and Department of Water Resources within 15 days and sort out the issues regarding removal of stagnated wastewater in the fields within 2 months.**

3.14.3 Compliance of order dated 01.06.2020 of Hon'ble NGT in OA No 325 of 2015

District Development and Panchayat Officer, Ropar submitted as under.

- Total Gram Panchayat in the District: 611
- Total village ponds: 512
- Total village ponds in which desilting work has been completed: 291
- Total newly constructed village ponds: 25
- Total village ponds constructed on Seechewal Model: 4

After discussion on the issue, it was directed as under.

The Department of Rural Development and Panchayat shall start implementing order dated 01.06.2020 of Hon'ble NGT in OA No 325 of 2015 and prepare detailed scheme/plan for rejuvenation of existing ponds, construction of new ponds to recharge ground water and rain water harvesting structures to harvest the excess rain water in consultation with Deputy Commissioner of concerned District within 15 days. The scheme/plan may be started implementing within 2 months.

3.14.4 Additional issues

The senior member of the Monitoring Committee pointed out that during the visit to Nangal area by the Monitoring Committee on 18.4.2019, it was observed that untreated sewage of area near railway bridge and STP Burarri Nangal (Jawahar Market) was being discharged into Nallah. There was proposal of PWSSB to divert the sewage into STP. However, no report has been received so far from PWSSB in this regard.

PWSSB reported that estimate, design and drawing of pipeline to be laid under the railway line has been prepared. The department of railway has raised the cost of project as Rs. 26 lac in the month of June, 2020 and the same was forwarded to Municipal council Nangal to deposit the said amount with the railway department.

After detailed deliberation, it was directed as under:

- 1) M.C Nangal shall deposit Rs 26 lac as cost of laying of pipeline network under the railway line to carry untreated sewage of Jawahar market area to STP Burarri Nangal with department of Railway within 01 month.**
- 2) M.C Nangal shall install Insitu remediation technology in the drains carrying untreated and not connected to STPs immediately.**

3.15 Recommendations made/directions given by the Monitoring Committee during its meeting with the District Level Officers of District Hoshiarpur on 18.9.2020 regarding control of pollution in river Sutlej.

3.15.1 Sewage treatment plants and irrigation schemes to utilize treated sewage for irrigation.

3.15.1.1 Status of construction of STPs

- 05 MCs namely Hoshiarpur, Tanda, Mukerian, Dasuya and Sham Churasi have provided STPs of capacity 30 MLD, 04 MLD, 05 MLD, 04 MLD and 01 MLD, respectively.
- BBMB Talwara has also provided STP of capacity 08 MLD.

The construction status of STPs for the remaining 05 STPs is as under.

- ✓ STPs for MCs Garhdiwala, Garhshankar and Hariana are at tendering stage.
- ✓ Project for STP for MC Mahilpur has been prepared but the funds are not available.
- ✓ Land for STP Talwara has been given by MC Talwara and the project is under preparation.

3.15.1.2 Utilisation of treated sewage for irrigation

- Irrigation scheme for Hoshiarpur town has been prepared but the funds are not available.
- Irrigation network to utilize the treated sewage of STP Mukerian has been completed.
- Due to low water table in Tanda area, the farmers are not ready to utilize the treated sewage for irrigation.
- In Dasuya town, treated sewage is being utilized for irrigation.
- Irrigation network to utilize the treated sewage of STP Sham Churasi has been completed.

After detailed deliberation, it was directed as under.

- i. MCs Garhdiwala, Garhshankar, Hariana, Mahilpur and Talwara shall start constructing STPs for these towns in the first week of October, 2020 and shall be completed by 30.6.2021.**
- ii. The department of Soil and Water Conservation shall prepare irrigation schemes for utilisation of treated wastewater of MCs Garhdiwala, Garhshankar, Hariana, Mahilpur and Talwara within 3 months and**

irrigation projects of these towns may be sent to the State Government for funding.

3.15.1.3 Performance of existing STPs

- MC Hoshiarpur has installed STP of capacity 30 MLD but presently, STP is operating at 19 MLD, whereas, the remaining 11 MLD sewage is by passing to STP due to damaging of sewer line and untreated sewage is discharged into Nariala Choe. MC Hoshiarpur and PWSSB were given hearing by PPCB and both the departments have been directed to repair the damaged sewer line and route the whole of the sewage of the town through STP by 15.11.2020.
- STP Mukerian (5 MLD), Tanda (4 MLD) and BBMB Talwara (8 MLD) are meeting with the prescribed standards as per the analysis of treated sewage of these STPs conducted by PPCB in the month of August-2020.
- The parameters namely BOD and F.Coli in case of STP Dasuya (4 MLD) and Sham Churasi (1 MLD) have been found higher than the permissible limits.

After detailed deliberation, it was directed as under:

- MC Hoshiarpur and PWSSB shall jointly complete all the works relating to repairing of damaged sewer line within 2 months and PWSSB shall submit a bank guarantee of Rs 3 lakh with PPCB within 10 days as an assurance to complete the repairing work of damaged sewer line, routing the whole of the sewage through STP within the time schedule and operating the STP effectively to meet with the prescribed standards within the scheduled time, failing which, PPCB is free to encash the bank guarantee treating it as a compensation for the damage caused to the environment.**
- MC Sham Churasi shall operate STP (1MLD) effectively so as to meet with the standards prescribed and install OCEMS along with its connectivity with PPCB server within $1\frac{1}{2}$ months. As an assurance to install OCEMS within the scheduled time, MC Sham Churasi shall deposit Rs 50000/- as bank guarantee in the office of PPCB within 10 days, If by the time given, the target is not achieved by the Municipal Council, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.**
- BBMB Talwara shall install OCEMS on STP within $1\frac{1}{2}$ months. As an assurance to install OCEMS within the scheduled time, BBMB Talwara shall deposit Rs 1 lakh as bank guarantee in the office of PPCB within 10 days, If by the time given, the target is not achieved by BBMB Talwara, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.**

- iv. MC Dasuya shall operate STP of 4 MLD effectively so as to meet with the standards prescribed and shall install OCEMS within 2 months, failing which legal action under the provisions of the Water Act, 1974 may be taken by PPCB.
- v. PWSSB shall bring OCEMS (installed on STP of 5 MLD capacity for Mukerian Town) in operation within 15 days and its connectivity should be made with PPCB server within 1 month.

3.15.2 Compliance of order dated 1.6.2020 of Hon'ble National Green Tribunal in OA No. 325 of 2015 in the matter of Lt. Col. Col. Sarvadaman Singh Oberoi vs Union of India &Ors

The Monitoring Committee was informed as under:

- While approving the maps of the houses, MCs are imposing the conditions of providing rain water harvesting structures to harvest roof top rain water.
- Ponds in 11 villages, out of total 20 villages, covered under Holy Bein project, have been constructed.
- 457 ponds in 11 blocks of District Hoshiarpur have been cleaned.

The Chairman of the Monitoring Committee clarified the real spirit of the order dated 1.6.2020 in OA No.325 of 2015 of Hon'ble Tribunal as under.

- *Harvesting surplus water during excessive rains from any areas of catchment needs to be optimized by enhancing the capacity of the existing ponds/water bodies, creation of water harvesting structures in the sub-watersheds to the extent possible, apart from setting up of additional water bodies/water harvesting structures wherever viable, utilizing available funds including under MGNREGA and involving the community at large at every level.*
- *Gram Panchayats can certainly play a significant role in the matter. Once adequate capacity enhancement of water bodies takes place, excess flood/rain water can be channelized by using appropriate water harvesting techniques.*
- *This action needs to be coordinated by the District Magistrates in coordination with the Department of Irrigation and Flood Control or other concerned Departments such as Department of Rural Development/Urban Development/Local Bodies/Forests/Revenue etc. The District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today.*
- *The District Magistrates may also ensure that as far as possible at least one pond/water body must be restored in every village, apart from creation of any new pond/water body.*

After detailed deliberation, it was directed as under.

- i) Deputy Commissioner, Hoshiarpur shall hold a meeting with the Deptt. of Irrigation, Deptt. of Rural Development and Panchayats, Deptt. of Urban Development, Deptt. of Local Government, Forests and Revenue to review the status within 10 days. An officer of District Legal Services Authority may also be associated in the meeting.
- ii) The details with regard to number of existing ponds/ water bodies (not containing wastewater or polluted effluent), their area, capacity, rain fall and flood status in the district, rain water harvesting structures may be mapped out within 01 month and restoration/rejuvenation of existing ponds may be started within 02 months.

3.16 Latest status w.r.t. performance of existing sewage treatment plants, construction of new sewage treatment plants, upgradation and capacity enhancement of existing sewage treatment plants, Treatment facilities for treatment of sewage in rural areas, gaps in treatment of sewage, utilization of treated sewage for irrigation, water quality of drains / Nallahs/ river, environment flow, septage and faecal sludge management.

The Monitoring Committee has held its meeting with State level officers as well as District level officers and collected data/ information/reports w.r.t. performance of existing sewage treatment plants (STPs), construction of new STPs, upgradation and enhancement of capacity of existing STPs, utilization of treated sewage for irrigation, treatment of sewage in rural area, gap in treatment of sewage, water quality of drains/nallahs/rivers, environmental flow, septage and faecal sludge management etc and the same is mentioned as under.

3.16.1 River Sutlej

3.16.1.1 Performance of existing sewage treatment plants (STPs)

Sr. No.	Name of STP	Capacity (MLD)	January, 2020 to March, 2020			April, 2020 to September, 2020			Improvement w.r.t parameters BOD, TSS and F. coli.
			Parameters			Parameters			
			BOD (mg/l)	TSS (mg/l)	F-Coli (MPN/100 ml)	BOD (mg/l)	TSS (mg/l)	F-Coli (MPN/100 ml)	
1.	Goniana	3	44	42	3200	31	38	1740	Improvement
2.	Malout*	3	45	78	8167	35	39	1533	Improvement
3.	Malout*	10	126	285	70613	27	41	1207	Improvement
4.	Muktsar	8.7	115	144	38667	105	94	27000	Improvement
5.	Muktsar	5.7	107	154	39333	82	112	25000	Improvement
6.	Muktsar	3.5	-	-	-	-	-	-	Defunct condition
7.	Abohar	25	26	31	3377	7	8	686	Improvement
8.	Dharamkot	4	11	10	727	7	7	613	Improvement
9.	Makhu	4	11	11	590	6	7	517	Improvement
10.	Moga	27	14	14	820	5	6	473	Improvement
11.	Talwandi Bhai	4	13	10	797	6	8	513	Improvement

12.	Zira	8	14	14	713	15	18	763	No Improvement
13.	Jalalabad	8	61	53	6670	52	71	10733	No Improvement
14.	Banga	3	10	13	683	10	16	610	No Improvement
15.	Hoshiarpur	30	36	173	715	70	80	NA	No Improvement
16.	NawanShahar	6	13	14	593	14	15	797	No Improvement
17.	Jalandhar	100	25	33	1343	26	31	3160	No Improvement
18.	Jalandhar (Jaitewali)	25	12	18	777	9	11	452	Improvement
19.	Jalandhar (Bambianwali)	10	13	15	933	16	25	462	Only F.Coli improvement
20.	Jalandhar (Pholrial, Gridhari Lal)	25	17	13	703	12	14	528	BOD & F.Coli improvement
21.	Jalandhar (Pholrial- Eco Chem)	25	11	9	653	9	13	530	Only F.Coli improvement
22.	Jalandhar (Pir Dad)	50	38	80	1433	40	47	3000	TSS improvement
23.	Nakodar *	6	20	25	820	12	20	815	Improvement
24.	Phagwara (North)	20	30	28	1317	23	24	311	Improvement
25.	Phagwara Hadibad	8	18	24	670	10	11	68	Improvement
26.	Phagwara Palahi Road	8	25	23	983	18	18	338	Improvement
27.	Phillaur	2.6	35	35	1640	31	51	1533	BOD & F.Coli improvement
28.	Phillaur (Tallan Road)	3	19	26	887	12	16	793	Improvement
29.	Machhiewara	4	-	-	-	6	11	330	-
30.	Sahnawal	7	12	23	466	8	-	170	Improvement
31.	Jagraon	16	20	33	534073	24	33	1079	TSS & F.Coli improvement
32.	Jagraon	12	18	23	4593	10	18	1166	Improvement
33.	Ludhiana (Balloke)	152	39	101	1101	170	173	2467020	No Improvement
34.	Ludhiana (Balloke)	105	22	97	860	24	53	814	TSS & F.Coli Improvement
35.	Ludhiana (Bhattian)	111	70	145	1E+06	34	86	3446	Improvement

36.	Ludhiana (Bhattian)	50	22	29	915	10	24	494	Improvement
37.	Ludhiana (Jamalpur)	48	233	285	323333	179	216	154420	Defunct condition
38.	Nangal	8	16	10	553	16	13	747	Only BOD improvement
39.	Nangal*	6.7	21	22	638	9	8	530	Improvement
40.	Badihaveli, Ropar	10	9	9	703	8	9	610	BOD & F.Coli Improvement
41.	Anandpur Sahib	8	16	16	817	10	13	570	Improvement
42.	Kurali	5	8	8	610	13	16	1060	No Improvement
43.	Burari (Nangal)	5	8	8	593	6	7	547	Improvement
44.	Sadabarhat	2	7	9	713	12	10	727	No Improvement
45.	Rasoolpur (Ropar)	2.5	8	8	483	6	6	440	Improvement
46.	East Jalandhar Cantt-I	3	36	46	3783	23	28	1413	Improvement
47.	East Jalandhar Cantt-II	3	45	75	2580	28	40	1533	Improvement
48.	East Jalandhar Cantt-III	0.4	41	72	1690	23	18	520	Improvement
49.	West Jalandhar Cantt- I	1.5	16	22	550	19	21	1950	No Improvement
50.	West Jalandhar Cantt- II	1.5	19	20	810	26	46	1568	No Improvement

Punjab Pollution Control Board is monitoring the performance of existing sewage treatment plants of towns located in the catchment area of river Sutlej. The monitoring data indicate that out of 50 STPs, 28 STPs (56%) are complying with all the norms w.r.t BOD, TSS and F.Coli parameters. 13 STPs (26%) are not meeting with standards for BOD, TSS and F.Coli parameters, out of which STPs Muktsar Sahib (3.5 MLD) and Jamalpur, Ludhiana (48 MLD) are lying defunct for which, department of Water Supply and Sanitation and Municipal Corporation, Ludhiana have been directed upgrade/rehabilitate the same by 31.03.2021. 03 STPs (6%) are meeting BOD and F.Coli parameters. 02 STPs (4%) are meeting with TSS and F. coli parameters. 01 STP (2%) is complying with BOD parameters. 29 STPs (58%) are complying with F. Coli parameters. 01 STP (2%) is complying with only TSS parameter.

3.16.1.2 Status of Construction of new STPs

Sr. No	Name of the town	STP Capacity (MLD)	Target date of completion /commissioning	Target date as per affidavit submitted in Hon'ble NGT	% Work done	
					Status as on 31.03.2020	Status as on 15.09.2020
1.	Guru Har Shai	4	31.12.2020	30.06.2021	15%	20%
2.	Guru Har Shai	1	31.12.2020	30.06.2021	12%	25%
3.	Kotkapura	8	30.06.2020	31.03.2021	85%	86%
4.	Kotkapura	6	30.06.2020	31.03.2021	84%	85%
5	Jaito	6	31.12.2020	31.12.2020	Under testing	Under testing
6	Ferozepur	18	31.12.2020	31.12.2020	Under testing	Under testing
7	Bagha Purana (DWSS)	3.8	31.03.2021	Being done by DWSS		
8	Faridkot	14	Land issue to be resolved	31.12.2022	For STP land-Price fixation has been done on dated 29.06.2019 & Approval of LGM received on 30.12.2019. Land required for approach to STP- Compulsory Land acquisition being pursued by DC, Faridkot. Notification for SIA done by PSLG office on 29.08.2019. Payment done for SIA. SIA started.	Land arranged in August'20. Work shall be started soon.
9	Jalandhar (Pholriwal-I)	50		30.06.2022		Work allotted on 03.08.2020

- The Monitoring Committee noted that there is slow progress with regard to construction of 9 STPs of capacity 110.8 MLD during the period 01.04.2020 to 15.09.2020.
- Construction of 2 STPs of capacity 8 MLD and 6 MLD of Kotkapura has been hardly increased to 86% and 85%, respectively, as compared to the progress of 85% and 84% on 31.03.2020. These STPs should be completed by 31.03.2021.
- Slow progress (20-25%) has been achieved in case of 2 STPs of capacity 4 MLD and 1 MLD of Guru Harsahai. These 02 STPs of Guru Harsahai (4 MLD and 01 MLD) should be completed by 31.03.2021. 2 STPs of capacity 6 MLD and 18 MLD for Jaitu and Ferozepur towns, respectively, have been completed and are at testing stage. These 02 STPs (6 MLD and 18 MLD) should be commissioned by 31.12.2020.
- For STPs of capacity 14 MLD for Faridkot Town, land has been arranged and work shall be started soon, whereas, work has been allotted in case of 50 MLD STP for Jalandhar STP. These 2 STPs of capacity 14 MLD and 50 MLD for Faridkot and Jalandhar towns should be completed by 31.03.2021.

3.16.1.3 Status of STPs which are under planning and funds tied up

Sr. No	Name of the town	STP Capacity (MLD)	Target date of completion /commissioning	Target date as per affidavit submitted in Hon'ble NGT	Status as on 31.03.2020	Current Status as on 30.09.2020
1.	Balachaur	4	03.11.2020	30.06.2022	Tender called several times but not received. Now shall be re-called after lockdown	Tender called several times. Now to be opened on 29.09.2020.

2.	Gharshankar	3	03.11.2020	30.06.2022	Tender called several times but not received. Now shall be re-called after lockdown	Tender called several times. Now to be opened on 29.09.2020.
3.	Maluka	1	31.12.2020	30.06.2022	Revised DNIT under approval	Tender called several times. Now to be opened on 25.09.2020.
4.	Rahon	3	03.11.2020	31.12.2021	Tender called several times but not received. Now shall be re-called after lockdown	Tender called several times. Now to be opened on 29.09.2020.
5	Patti	8	Land issue to be resolved	Land issue to be resolved	Land acquisition process started. Advertisement given in 2 Nos. newspapers by Executive Officer, Patti on 9.7.2019. No application received. Advertisement to be given again.	Land acquisition process started. <ul style="list-style-type: none"> • Advertisement given in 2 Nos. newspaper by Executive Officer, Patti on 30.05.19 and again on 09.07.19. • No application received. Advertisement to be given again. • MLA has asked to transfer Wakaf Board land. * Approval from Waqf board pending.
6.	Jalandhar (Pir Dad)	15	31.12.2021	30.08.2022	DPR under preparation	DPR approved by State Level Technical Committee, Local Govt. and DNIT under preparation.
7.	Ludhiana (Balloke)	50	31.12.2021	30.04.2023	Tender called. To be opened on 16.04.2020. Now shall be re-called after lockdown	Tender called several times. Now to be opened on 06.10.2020.
8	Raikot	7	30.10.2020	30.06.2022	Tender called several times but not received. Now shall be re-called after lockdown	Tender opened on 08.09.2020, Bid evaluation under process
9	Ferozpur	1	Land issue	Land issue	Land identified. NOC for land is received from Ministry of Defense. Funds to be arranged by ULB for land as per AMRUT guidelines	Land Issue, Work will be completed after 24 months from the date of finalisation of land. Rs.1.20 crore is to be paid by EO, MC, Ferozpur to the land owner to acquire 6 Kanal 4 marla land.
10	Sir Mukatsar Sahib (DWSS)	15	-	31.03.2022	Being done by DWSS	
11	Nawanshahar	4	30.09.2022	31.12.2023	DNIT under preparation	DPR under

						preparation
12	Kiratpur Sahib	2	30.09.2021	30.06.2022	Revised DNIT under approval.	Tender opened, technical evaluation under progress.
13	Bhagta Bhaika	3	30.06.2022	31.12.2023	Sewerage system does not exist. DNIT under preparation	Sewerage system does not exist. DPR under approval.
14	Bhai Roopa	4	30.06.2022	31.12.2023	Sewerage system does not exist. DNIT under preparation	Sewerage system does not exist. DPR under preparation
15	Kotha Guru	3	30.06.2022	31.12.2023	Sewerage system does not exist. DNIT under preparation	Sewerage system does not exist. DPR under preparation
16	Arniwala	2	30.06.2022	30.06.2022	Funds not tied up. Funds are being arranged	Funds not tied up. Funds are being arranged
17	Mallan Wala	3	30.06.2022	31.12.2023	Sewerage system does not exist. DPR under preparation	Sewerage system not existing. Land finalised. DPR prepared and under approval.
18	Mamdot	3	30.06.2022	31.12.2023	Sewerage system does not exist. DNIT under preparation	Sewerage system does not exist. DPR under approval.
19	Mudki	3	30.06.2022	31.12.2023	Sewerage system does not exist. DNIT under preparation	Sewerage system does not exist. DPR under approval.
20	Mahilpur	2	30.06.2022	31.12.2023	Sewerage system does not exist. DNIT under preparation	Sewerage system does not exist. DPR prepared.
21	Nihal Singh Wala	3	30.06.2022	31.12.2023	Sewerage system does not exist. DNIT under preparation	Sewerage system does not exist. DPR under approval.
22	Barriwala	2	30.06.2022	31.12.2023	Sewerage system does not exist. DNIT under preparation	Sewerage system does not exist. DPR under approval.
23	Ludhiana (Jamalpur-48 MLD)	225		30.04.2023	Tender called, to be opened on 16.04.2020. Now shall be re-called after lockdown	Tender called several times. Now to be opened on 06.10.2020.

The Monitoring Committee has observed that out of 23 STPs of capacity 366 MLD which are under planning, 8 STPs of capacity 295 MLD are at tendering stage. In case of 2 STPs (Patti: 8 MLD and Ferozpur: 1 MLD) land issues are yet to be resolved. 2 STPs (Jalandhar: 15 MLD, Nawashahr: 4 MLD) are at DPR/DNIT stage. No sewerage system exists in case of 9 towns. Funds have not been tied up in case of Arniwala STP of capacity 2 MLD.

3.16.1.4 STPs which require technologically up-gradation and funds tied up

Sr. No	Name of the town	Present capacity of STP (MLD)	Capacity to be upgraded technologically	Target date for completion/ commissioning	Target date as per affidavit submitted in Hon'ble NGT	Status as on 31.03.2020	Status as on 15.09.2020
1	Ludhiana (Balloke)	152	152		30.04.2023	Tender called, to be opened on 16.04.2020. Now shall be re-called after lockdown.	Tender called several times. Now to be opened on 06.10.2020.
2	Ludhiana (Bhatian)	111	111		30.04.2023	Tender called, to be opened on 16.04.2020. Now shall be re-called after lockdown.	Tender called several times. Now to be opened on 06.10.2020.
3	Jalandhar (Repair)	100	100		30.06.2022	--	Work allotted on 03.08.2020
4	Muktsar Sahib	8.7	8.7		31.03.2021	Being done by DWSS	
5	Muktsar Sahib	5.7	5.7		31.03.2021		
6	Muktsar Sahib	3.5	3.5		31.03.2021		
7	Phillaur	2.6	2.6	30.06.2022	31.12.2023	Reply of Observation raised by tech. advisor sent	DPR prepared and under approval
8	Malout	3	3	30.06.2022	31.12.2023	DNIT under Preparation	DPR prepared and under approval
9	Goniana	3	3	30.06.2022	31.12.2023	DNIT under Preparation	DPR prepared and under approval

The data indicate that out of 9 STPs of capacity 389.5 MLD, which are to be technologically upgraded, 2 STPs of capacity 152 MLD and 11 MLD or at tendering stage. 3 STPs (Phillaur: 2.6 MLD, Malout: 3 MLD and Goniana: 3 MLD) or at DPR Stage. Work has been allotted in case of 100 MLD STP of Jalandhar. Upgradation work of 3 STPs of Sri Mukatsar Sahib of capacity 8.7 MLD, 5.7 MLD and 3.5 MLD are to be done by department of Water Supply and Sanitation

3.16.1.5 Gaps in treatment of sewage of the towns located on river Sutlej

Sr. No	Name of the Town	Total Discharge (MLD)	Present Capacity of STP (MLD)	Gap in sewage quantity to be treated (MLD)
Existing STPs				
1.	Jamalpur, Ludhiana	134	0.00	207
2.	Bhattian-I, Ludhiana	204	111.00	
3.	Bhattian-I Ludhiana I		50.00	
4.	Balloke-I Ludhiana	287	152.00	
5.	Balloke-II Ludhiana		105.00	
6.	Pholriwal-I, Jalandhar	190	100.00	40
7.	Pholriwal-II, Jalandhar (Girdhari Lal)		25.00	

8.	Pholriwal-III , Jalandhar (Eco Chem)		25.00	
9.	Basti Peer Dad, Jalandhar	64	50.00	14
10.	Bambian Wali Cantt, Jalandhar	5	10.00	0
11.	Jaitawali, Jalnadhar	20	25.00	0
12.	Phagwara-I (North)	20	20.00	0
13.	Phagwara-II (Hadibad)	8	8.00	0
14.	Phagwara-III (Palahi Road)	8	8.00	0
15.	Phillaur-I	4	3.00	0
16.	Phillaur-II		2.60	0
17.	Nakodar	5.3	6.00	0
18.	Nawashahar	6.6	6.00	0.6
19.	Banga	3	3.00	0
20.	Hoshiarpur	18	30.00	0
21.	Nangal	7.3	8.00	0
22.	Bruari Nangal		5.00	
23.	Machhiwada	2	4.00	0
24.	Sahnewal	4.5	7.00	0
25.	Ropar-I	8.1	10.00	0
26.	Ropar-II (Rasoolpur)		2.50	
27.	Ropar-III (Sadabarat)		2.00	
28.	Jagraon-I	13.8	12.00	0
29.	Jagraon-II		16.00	
30.	Goniana	3	3.00	0
31.	Moga	27	27.00	0
32.	Abohar	22.5	25.00	0
33.	Malout-I	11.7	3.00	0
34.	Malout-II		10.00	
35.	Dharamkot	3.5	4.00	0
36.	Makhu	1.2	4.00	0

37.	Talwandi Bhai	2	4.00	0
38.	Zira	8	8.00	0
39.	Morinda	3.5	5.50	0
40.	Gidderbaha	5.5	7.00	0
41.	Jalalabad	6	8.00	0
42.	Muktsar Sahib-I	8.7	8.70	0
43.	Muktsar Sahib-II	5.7	5.70	0
44.	Muktsar Sahib-III	3.5	3.50	0
45.	Anandpur Sahib	2.5	8.00	0
	Total –A (Installed)	1130.55	945.50	261.60
New STPs				
46.	Jamalpur, Ludhiana	0	225.00	0
47.	Balloke, Ludhiana	0	50.00	0
48.	Pholriwal, Jalnadhar	0	50.00	0
49.	Basti Peer Dad, Jalnadhar	0	15.00	0
50.	Ferozepur	15.9	18.00	15.9
51.	Ferozepur		1.00	
52.	Guru Har Sahai	2.5	1.00	2.5
53.	Guru Har Sahai		4.00	
54.	Jaito	5.4	6.00	5.4
55.	Kotakpura	13.2	8.00	13.2
56.	Kotakpura		6.00	
57.	Balachaur	3.1	4.00	3.1
58.	Garhshankar	2.5	3.00	2.5
59.	Kiratpur Sahib	1.04	2.00	1.04
60.	Maluka	0.78	1.00	0.78
61.	Rahon	2.3	3.00	2.3
62.	Faridkot	12.6	14.00	12.6
63.	Patti	5.9	8.00	5.9
64.	Arniwala	1.33	2.00	1.33
65.	Barriwala	1.3	2.00	1.3
66.	BhagtaBhaike	2.1	3.00	2.1
67.	Bhai Roopa	1.87	4.00	1.87
68.	Kotha Guru	1.35	3.00	1.35
69.	Mahilpur	1.7	2.00	1.7

70.	Mallanwala	2.4	3.00	2.4
71.	Mamdot	2.37	3.00	2.37
72.	Mudki	1.5	3.00	1.5
73.	Nihal Singh Wala	1.52	3.00	1.52
74.	Raikot	4.2	7.00	4.2
75.	Baghapurana	2.5	4.00	2.5
76.	Muktsar Sahib	11.5	15.00	11.5
77.	Nawanshahr	0	4.00	0
	Total-B(New)	100.86	477	100.86
	Grand Total(A+B)	1231.41	1422.50	362.46

It has been observed that out of total 77 STPs of capacity 1422.5 MLD, gap in quantity of sewage to be treated has been assessed as 342.46 MLD and STPs to treat the gap in sewage quantity have been planned. The Monitoring Committee recommends that these STPs should be completed by 30.6.2021.

3.16.1.6 Utilization of treated wastewater from STPs for irrigation

A) Towns/STPs where Irrigation Projects are commissioned

S. No.	Name of STP/Town	District	Capacity of STP (MLD)	Command Area (ha)	Status as on 15.09.2020
1	Phagwara-I	Kapurthala	28	550	Completed
2	Phagwara-II	Kapurthala			Completed
3	Phillaur-II	Jalandhar	3	105	Completed
4	Nakodar	Jalandhar	6	180	Completed
5	NikkuNangal (BBMB)	Rupnagar	8.5	120	Completed
6	NayaNangal (NFL)	Rupnagar	5	200	Completed
7	Sri Anandpur Sahib	Rupnagar	8.5	150	Completed
8	Haveli Kalan, Ropar-I	Rupnagar	10	100	Completed
9	Rasulpur, Ropar-II	Rupnagar	2.5	80	Completed
10	Sadabarat, Ropar-III	Rupnagar	2	72	Completed
11	Chamkaur Sahib	Rupnagar	1.7	99	Completed
12	Bucho	Bathinda	3	135	Completed
13	Goniana	Bathinda	3	102	Completed
14	Kotfata	Bathinda	1.5	108	Completed
15	Maur	Bathinda	5	150	Completed
16	Dharamkot	Moga	4	45	Completed
17	Jalalabad	Fazilka	8	200	Completed
18	Fazilka	Fazilka	8	350	Completed
19	Muktsar Sahib-I (Balamgarh Road)	Muktsar	8.5	480	Completed

20	Muktsar Sahib-II (Sardarwala)	Muktsar	7.5	185	Completed
21	Malout-I (Bhagwanpura)	Muktsar	3	80	Completed
22	Machhiwada	Ludhiana	4	40	Completed
23	Kurali	Mohali	4	130	Completed

In order to utilize the treated sewage for irrigation of agriculture fields, the irrigation schemes to utilize treated sewage of 23 towns, located in the catchment area of river Sutlej have been completed. These irrigation schemes shall cater 3661 hectares of agriculture land and treated sewage 134.7 MLD shall be utilized in these irrigation fields.

The Monitoring Committee recommends that the department of Water Supply and Sewerage Board and Punjab Pollution Control Board shall jointly visit these irrigation scheme to assure as to whether these irrigation schemes have been commissioned and the farmers are utilizing the treated sewage for irrigation.

B) Towns/STPs where Irrigation Projects was under progress:

Presently, no irrigation scheme to utilize the treated sewage for irrigation is under progress.

C) Towns/STPs where Irrigation Projects have been sanctioned.

S. No.	Name of STP/Town	District	Capacity (MLD)	Command Area (ha)	Status as on 31.03.2020	Status as on 15.09.2020
River Sutlej						
1	MullanpurDhakha	Ludhiana	3	111	Sanctioned under RIDF-25, Funds not released to the department	Mobilization advance of Rs 1472.71 lakhs has been released to the department, works will be started soon.
2	BambianWaliCantt	Jalandhar	10	370		
3	Jaitawali	Jalandhar	25	925		
4	Phillaur-I	Jalandhar	3	135		
5	Shahkot	Jalandhar	3	120		
6	Hoshiarpur	Hoshiarpur	10	370		
7	Jagraon-II	Ludhiana	16	592		
8	Moga	Moga	27	999		
9	BaghaPurana	Moga	4	148		
10	Abohar	Fazilka	25	925		
11	Malout-II	Muktsar	10	370		
12	TalwandiBhai	Ferozepur	4	148		
13	Zira	Ferozepur	8	296		

14	Muktsar Sahib-III	Muktsar	3.5	129.5		
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To utilize the treated sewage of 151.5 MLD of 14 STPs, irrigation schemes to cater 5638.5 hectares of agriculture land have been sanctioned and mobilization advance of Rs. 14.72 crore has been released to the department to start the project.

It is recommended that the department of Soil & Water conservation shall get release necessary funds from the State Govt. so that the irrigation network to utilize treated sewage of 14 STPs (151.5 MLD) may be laid by the department.

D) Towns/STPs where irrigation scheme have been prepared but the funds are not tied up.

S. No.	Name of STP/Town	District	Capacity (MLD)	Status as on 30.09.2020
River Sutlej				
1	Sahnewal	Ludhiana	7	Funds are not tied up
2	Jagraon-I	Ludhiana	12	
3	Makhu	Ferozepur	4	
4	Nangal	Rupnagar	5	
5	East Jalandhar Cantt-I	Jalandhar	3	
6	East Jalandhar Cantt-II	Jalandhar	3	
7	East Jalandhar Cantt-III	Jalandhar	0.4	
8	West Jalandhar Cantt-I	Jalandhar	1.5	
9	West Jalandhar Cantt-II	Jalandhar	1.5	
10	Phagwara-III	Kapurthala	8	
11	Nawashahar	SBS Nagar	6	
12	Banga	SBS Nagar	3	
13	Balloke-II	Ludhiana	105	
14	Pholriwal-II	Jalandhar	10	
15	Pholriwal-III	Jalandhar	25	
16	Basti Peer Dad	Jalandhar	50	

It has been further observed that for utilization of treated sewage of 16 STPs of capacity 244.4 MLD, irrigation schemes have been prepared but the funds have not been tied up so far. The department of Soil & Water Conservation shall take up the matter with department of Finance for release of funds to lay irrigation network to utilize the treated sewage for irrigation. Further, the department of Soil and Water Conservation vide its letter No 8326 dated 7.9.2020 has submitted that the department has already submitted proposal to the State Govt. for formulation a State Plan scheme for irrigation projects for completed/new STPs. Although every effort is being made for tie up of funds but considering the time required for tendering and other department procedure and the constraints that underground pipeline can only be laid when the crops are harvested and the fields are vacant. It has been requested that timelines to lay irrigation network may be revised.

E. Feasibility study of Irrigation Projects from STPs

The feasibility study for reuse of treated wastewater of STPs of Jalandhar of capacity 100 MLD and STPs of Ludhiana (466 MLD) for irrigation was carried out by the Department of Soil and Water Conservation, Punjab. The brief of feasibility study is as under:

S. No.	Name of STP/Town	District	Capacity (MLD)	Feasibility	Remarks
1	Pholriwal-I	Jalandhar	100	Not Feasible	Project not feasible as are farmers are reluctant to use treated water
2	Jamalpur	Ludhiana	48	Not Feasible	The STP is defunct and PWSSB has planned a new STP based on SBR technology
3	Bhattian-I	Ludhiana	111	Not Feasible	Presently the quality of treated water is not fit for irrigation.
4	Bhattian-II	Ludhiana	50	Not Feasible	Presently the quality of treated water is not fit for irrigation.
5	Baloke-I	Ludhiana	152	Feasible provided the problem of brown colour and foul smell of water is addressed	Tentative estimate of Rs. 141.43 cr has been prepared for utilization of treated water. Funds need to be tied up.
6	Baloke-II	Ludhiana	105		

The Monitoring Committee has come across the limitations shown by the department of Soil & Water conservation stating that the feasibility to utilize the treated sewage 100 MLD, 50 MLD and 111 MLD of STPs Pholariwal and Bhattian has become feeble, due to reluctant of farmers not to utilize the treated sewage for irrigation due to quality of treated sewage not to the mark. Therefore, the Monitoring Committee recommends as under:

- i. The Department of Soil and Water Conservation and Municipal Corporation Jalandhar shall jointly conduct IEC Activities to bring awareness among the farmers about the benefits of utilization of treated sewage for irrigation.**
- ii. The Department of Soil and Water Conservation shall take up the matter with Department of Finance for early release of funds amounting to 142.43 crores to lay irrigation network in the agriculture fields to utilize 267 MLD treated sewage of STPs Baloke (152 MLD and 105 MLD) for irrigation.**
- iii. Municipal Corporation, Jalandhar shall upgrade the existing STPs of capacity 100 MLD by 31.3.2021.**
- iv. Municipal Corporation, Ludhiana shall complete the upgradation work of 152 MLD and 111 MLD STPs by 31.3.2021.**
- v. Municipal Corporation, Ludhiana shall operate 50 MLD STP, which is based on new technology, effectively so that it may meet with the standards prescribed for all the times.**

3.16.1.7 Treatment facilities in villages

75 villages have been selected for treatment of their sewage in first phase. The status of these treatment facilities is as under:

Sr. No.	Name of District	Name of Block	Name of Village	Discharge in KLD	Estimated cost (in lakh)	Status as on 15.09.2020
1	Moga	Dharamkot at Kot ise Khan	Indergarh	395	40.00	No land available/ No funds release.
2	Moga	Dharamkot at Kot ise Khan	Kot Sadar Khan	259	37.46	No funds release.
3	Moga	Moga-2	Wadda Ghar	259	39.98	No funds release.
4	Moga	Moga-2	Gill	237	39.72	No land available/ No funds release.
5	Moga	Moga-2	Daulatpur Niwan	332	19.94	No funds release.
6	Moga	Moga-1	Bugipura	450	31.74	Thapar technology based treatment system and Expected date of completion 31.12.2020
7	Moga	Moga-1	Mehna	449	19.66	No land available/ No funds release.
8	Moga	Moga-1	Kokri Kalan	829	39.86	No funds release.
9	Moga	Moga-2	Daroli Bhai	601	34.44	No funds release.
10	Moga	Dharamkot at kot ise khan	Sere Wala	45	36.63	No funds release.
11	Moga	Moga-2	Chottian Khurd	62	19.61	Thapar technology based treatment system and Expected date of completion

						31.12.2020
12	Moga	Moga-2	Thamanwala	95	19.76	No funds release.
13	Moga	Dharamkot at kot ise khan	Attari	95	39.73	No funds release.
14	Moga	Nihal Singh wala	Patto Jawahar Singh	97	27.90	No funds release.
15	Ludhiana	Ludhiana-2	Harian	325	68.54	Fund
16	Ludhiana	Ludhiana-2	Sidhupur	400	38.47	No land available/ No funds release.
17	Ludhiana	Machiwara	Behlolpur	262	6.20	No land available/ No funds release.
18	Ludhiana	Sudhar	Hissowal	217	27.94	No land available/ No funds release.
19	Ludhiana	Sudhar	Raqba	305	20.91	No land available/ No funds release.
20	Ludhiana	Sudhar	Jassowal	219	27.94	No land available/ No funds release.
21	Ludhiana	Sudhar	Aitiana	305	21.52	No land available/ No funds release.
22	Ludhiana	Sudhar	Chownkimaan	382	36.56	No land available/ No funds release.
23	Ludhiana	Sudhar	Sohain	262	29.30	No land available/ No funds release.
24	Ludhiana	Sudhar	Hans Kalan	487	28.58	No land available/ No funds release.
25	Ludhiana	Sudhar	Halwara	276	106.38	No land available/ No funds release.
26	Ludhiana	Sidhwan bet	Gureh	321	24.57	No land available/ No funds release.
27	Ludhiana	Ludhiana-2	Bhaman Khurd	73	26.14	No land available/ No funds release.

28	Ludhiana	Ludhiana-2	Marewal	32	19.08	No land available/ No funds release.
29	Ludhiana	Ludhiana-2	Rajgarh	63	4.16	No land available/ No funds release.
30	Ludhiana	Ludhiana-2	Kot Gangurai	229	37.80	No land available/ No funds release.
31	Ludhiana	Ludhiana-2	Koom Kalan	274	32.90	No land available/ No funds release.
32	Ludhiana	Sidhwan Bet	Talwandi Khurd	233	6.60	No land available/ No funds release.
33	Ludhiana	dhar	Jangpur	274	31.80	No land available/ No funds release.
34	Ludhiana	Sidwan Bet	Talwandi Kalan	289	26.15	No land available/ No funds release.
35	Ludhiana	Dehlon	Gopalpur	250	21.40	No land available/ No funds release.
36	Ludhiana	Ludhiana-1	Baranhara	146	29.76	No land available/ No funds release.
37	Ludhiana	Ludhiana-1	Talwara	106	29.78	No land available/ No funds release.
38	Ludhiana	Sidhwan Bet	Kotmana	110	6.60	No land available/ No funds release.
39	Ludhiana	Ludhiana-2	Panjeta	176	35.45	No land available/ No funds release.
40	Ludhiana	Sidhwan Bet	Sadarpura	141	19.12	No land available/ No funds release.
41	Ludhiana	Sudhar	Haran	282	32.10	No land available/ No funds release.
42	Ludhiana	Ludhiana-2	Khasi Kalan	108	25.78	No land available/ No funds release.

43	Ludhiana	Ludhiana-2	Bhaman Kalan	114	33.58	No land available/ No funds release.
44	Ludhiana	Sidhwan Bet	Malsihan Bhaike	94	19.09	No land available/ No funds release.
45	Ludhiana	Sidhwan Bet	Gorsian Kadar Bakash	62	6.60	No land available/ No funds release.
46	Jalandhar	Jalandhar East	Hazara	120	—	STP completed.
47	Jalandhar	Adampur	Raowali	147	—	STP completed.
48	Ferozpur	Zira	Zira New	70	15.17	No land available/ No funds release.
49	Ferozpur	Ghall Khurd	Piareana	97	21.05	No land available/ No funds release.
50	Ferozpur	Momdot	Ali ke Jhughia	68	16.56	No land available/ No funds release.
51	Ferozpur	Zira	Talwandi Mange Khan	356	29.18	No land available/ No funds release.
52	Ferozpur	Zira	Talwandi Jalle Khan	260	29.25	No land available/ No funds release.
53	Ferozpur	Zira	Sukhe Wala	324	29.92	No land available/ No funds release.
54	Ferozpur	Zira	Alipur	228	29.71	No land available/ No funds release.
55	Ferozpur	Zira	Mansoor Deva	267	29.92	No land available/ No funds release.
56	Ferozpur	Mamdot	Basti Labh Singh	25	41.56	No land available/ No funds release.
57	Ferozpur	Mamdot	Murak Wala	45	50.90	No land available/ No funds release.
58	Ferozpur	Mamdot	Shahed Jarnal Singh	70		No land available/ No

						funds release.
59	Ferozpur	Mamdot	Har Gobindpura	31	46.48	No land available/ No funds release.
60	Ferozpur	Mamdot	Basti Jatta Singh	30		No land available/ No funds release.
61	Ferozpur	Mamdot	Dona Matter Hattar	81	33.05	No land available/ No funds release.
62	Ferozpur	Guruhar Sahai	Sekhra	44	30.4	No land available/ No funds release.
63	Ferozpur	Guruhar Sahai	Haddi Wala	90	41.90	No land available/ No funds release.
64	Ferozpur	Jalalabad	Bare Wala	35	21.76	No land available/ No funds release.
65	Ferozpur	Jalalabad	Chhota Tiwana	36	8.24	No land available/ No funds release.
66	Ferozpur	Jalalabad	Basti Mohar Singh Wala	41	8.20	No land available/ No funds release.
67	Ferozpur	Jalalabad	Jafra Dibbi Pura	44	8.19	No land available/ No funds release.
68	Ferozpur	Jalalabad	Kottu Wala	33	8.22	No land available/ No funds release.
69	Ferozpur	Jalalabad	Sh. Udham Singh Nagar	37	8.21	No land available/ No funds release.
70	Ferozpur	Jalalabad	Chak Bhabra	38	8.37	No land available/ No funds release.
71	Ferozpur	Jalalabad	Chak Bhamba Wattu	37	18.69	No land available/ No funds release.
72	Hoshiarpur	Hoshiarpur-1	Khalwana	53	16.16	No land available/ No funds release.
73	Hoshiarpur	Mahilpur	Dihana	57	—	STP completed.

74	Ropar	Ropar	Rattanpura	90	—	STP completed.
75	Ropar	Sri Anandpur Sahib	Brahmpur Lower	193	—	Work started.
			Bhandhelri	193	—	Work not started

Out of 75 villages covered in Phase-1 for installation of STPs, treatment facilities have been completed in 4 villages. The Monitoring Committee recommends that STPs for the remaining 71 villages to treat their sewage may be completed by 31.03.2021.

3.16.1.8 Details of the villages where STPs have been completed

Treatment facilities in 4 Villages have been provided, the status of which is mentioned as under:

Sr.No.	Name of District	Name of Block	Name of villages	Discahrge in KLD	Remarks
1.	Hoshiarpur	Mahilpur	Dihana	57	Completed
2	Ropar	Ropar	Rattanpura	90	Completed
3	Jalandhar	Jalandhar east	Hazara	120	Completed
4	Jalandhar	Adampur	Raowali	147	Completed

3.16.1.9 Status of CETPs for treatment of effluent of dyeing industries of Ludhiana, leather complex, Jalandhar and effluent of electroplating industries of Jalandhar

Sr. No.	Project	Target date of completion	Status as on 31.03.2020 % work done	Status as on 15.09.2020
1.	Setting up of 15 MLD CETP at Ludhiana	30.06.2019	Completed	Commissioned
2.	Setting up of 40 MLD CETP at Ludhiana	31.12.2020	Approx. 94 % civil work completed Overall 74 % work completed.	Approx. 98.5 % civil work completed Overall 78.2 % work completed and is likely to be completed by 31.12.2020.
3.	Setting up of 50 MLD CETP at Ludhiana	31.12.2020	Civil Work is 84% completed. Overall 55% work completed.	Approx 88% civil work completed. Overall 64% work completed and is likely to be completed by 31.12.2020.
4.	Up-gradation up of 5 MLD CETP for leather complex, Jalandhar	No time schedule mentioned	i. The CLRI Chennai has appraised the DPR for up-gradation of existing CETP and recommended to DPIIT New Delhi. Thereafter, the DPIIT New Delhi approved the up-gradation project of CETP of existing capacity 5 MLD on 18.02.2020. ii. The tender for up-gradation of existing CETP with	

			<p>proposed up-gradation cost of Rs. 27.54 crore was floated in the leading newspapers by the Punjab Effluent Treatment Society for Tanneries (PETS) Leather Complex, Jalandhar which was opened on 17.08.2020 and one financial bid was received through e-tendering which is under process with the PETS.</p> <p>iii. The Regional Office, Jalandhar is regularly checking the latest status of the up-gradation of CETP.</p>
5.	Setting up of 0.15 MLD CETP for electroplating industries of Jalandhar	No time schedule mentioned	Regarding installation of 0.15 MLD CETP for electroplating industries of Jalandhar, it was reported that the construction work of CETP has been stopped due to stay granted by the Hon'ble High Court and PPCB has submitted its application before the Hon'ble High Court for vacation of stay order so that construction work of CETP may be started. The next date of hearing before the Hon'ble High Court is in the month of July, 2020. The next date of hearing before the Hon'ble High Court is 10.11.2020.

The Monitoring Committee recommends as under:

- **15 MLD CETP for BahadurKe Road dyeing industry cluster has been commissioned. Punjab Pollution Control Board should start monitoring the performance of 15 MLD CETP on monthly basis.**
- **2 CETPs of capacity 40 MLD and 50 MLD for treatment of effluent of dyeing industries clusters of Focal point and Tajpur Road & Rahon Road, construction work has been completed to 98.5% and 88%, respectively. These CETPs shall be completed by 31.12.2020.**
- **For upgradation of 5 MLD CETP for leather complex, Jalandhar, PPCB shall pursue the matter with PETS, Leather Complex, Jalandhar to upgrade the same by 31.03.2020.**
- **In order to restart the construction work of 0.15 MLD CETP for electroplating industries of Jalandhar, PPCB shall pursue the matter with Hon'ble High Court for vacation of stay order.**

3.16.1.10 Status of ETPs/Biogas plant for dairy complex

a. Dairy complex, Jamsheer, Jalandhar

In Jalandhar, 1 dairy Complex located at Jamsheer dairy, generate about 5 MLD wastewater and cow dung about 330 TPD. ETP of capacity 5 MLD has been proposed to be installed by MC Jalandhar for which DPR has been prepared. A bio-gas power plant of 1 MW capacity has also been proposed to be installed in the Jamsheer dairy complex for which design statement is under preparation.

The Monitoring Committee recommends that Municipal Corporation, Jalandhar shall install biogas plant to manage the animal dung and ETP to treat the liquid effluent of Jamsheer dairy complex by 31.03.2021.

b. Dairy complex at Haibowal, Ludhiana

Biogas Plant at Haibowal dairy complex 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.

c. Dairy complex at Tajpur Road, Ludhiana

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 PEDA ensured 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 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 should be given for the installation of ETPs for these dairy complex. PEDA has informed that tripartite agreement amongst MC Ludhiana, Tajpur Road Dairy Owner Association and PEDA was signed on 20.12.2019. Demarcation of land measuring 2.5 acres has been given by GLADA on 23.01.2020. Expression of Interest (EOI) at National Level has been invited for technology selection and the same was opened on 14.08.2020. Evaluation of EOI for technology is under process. The completion date of the project has been mentioned as July, 2022.**

3.16.1.11 Water quality of river Sutlej

Part A: With respect to parameters parameters DO, BOD and F.Coli

Sr. No.	Point of sample collection	DO mg/l		BOD mg/l		F.Coli		Improvement w.r.t. parameter
		Jan 20 to Mar 20	April 20 to Aug 20	Jan 20 to Mar 20	April 20 to Aug 20	Jan 20 to Mar 20	April 20 to Aug 20	
1.	River Satluj, U/S Nangal	8.9	8.7	-	-	48	34	Improvement
2.	River Satluj D/S NFL	9.7	8.8	-	-	96	46	Improvement
3.	100m D/s PACL Nangal	9.7	8.6	0.4	-	79	49	Improvement
4.	River Satluj D/s Nangal	8.9	8.8	-	-	94	70	Improvement

5.	River Satluj at Kiratpur Sahib	8.9	8.4	-	-	177	105	Improvement
6.	Ropar Head-Works	8.3	8.4	0.5	-	320	240	Improvement
7.	River Satluj D/S of Rishab-Paper Mills	8.1	8.2	-	-	490	264	Improvement
8.	River Satluj U/S Buddha Nallah	8.4	7.1	2.5	1.3	627	422	Improvement
9.	Satluj at 100 mts D/s Budha Nallah confluence Ludhiana	3.3	3.2	21.7	10.2	356667	122000	Improvement
10.	Satluj at Boat Bridge, Dharamkot Nakodar Road	3.7	4.5	8.3	3.1	49000	28000	Improvement
11.	Satluj at D/s East Bein	3.6	3.9	8.1	3.8	60667	50800	Improvement
12.	Satluj at Harike	5.6	6.0	3.3	2.0	953	1600	Improvement w.r.t BOD & DO
13.	U/S Hussainiwala H/W Ferozepur	9.5	7.6	0.9	0.24	184	286	Slight improvement w.r.t BOD parameter
14.	D/S Hussainiwala H/W Ferozepur	9.4	7.6	0.9	0.24	217	234	Improvement w.r.t BOD parameter

Punjab Pollution Control Board is monitoring the water quality of river Sutlej at 14 locations. The comparison of data w.r.t DO, BOD and F. coli parameters for the months January, 2020 to March, 2020 and April, 2020 to August, 2020, indicates that there is improvement in the water quality. The water quality remains A class upto D/S of PACL Nangal and it comes down to B class upto U/S of Budha Nallah. After mixing of water of Budha Nallah and upto D/S of East Bein after its entry into river Sutlej, it becomes D class and again during its course of flow, it regains to class C upto Harike Head works.

3.16.1.12 Water quality of Budha Nallah

Part A: with respect to parameters BOD, TSS and F.Coli

Sr. No.	Point of sample collection	BOD mg/l				TSS mg/l				F.Coli MPN/100ml			
		May 20	June 20	July 20	Aug 20	May 20	June 20	July 20	Aug 20	May 20	June 20	July 20	Aug 20
1.	Downstream of STP Jamalpur from Buddha Nallah	78	110	125	115	-	-	-	-	110000	79000	32000	630000
2.	Downstream of Tibba Road	290	210	165	105	-	-	-	-	130000	680000	220000	330000

	disposal from Buddha Nallah												
3.	Downstream of Chand Cinema disposal from Buddha Nallah	90	190	140	160	-	-	-	-	170000	310000	220000	490000
4.	Downstream of STP Balloke from Buddha Nallah	150	175	130	135	-	-	-	-	220000	320000	490000	330000
5.	Point source of Buddha Nallah at Walipur	170	155	125	130	-	-	-	-	210000	110000	320000	840000

Part B: With respect to parameters T.Cr and H.cr

Sr. No.	Point of sample collection	T. Chrome mg/l				H. Chrome mg/l			
		May, 20	June, 20	July, 20	Aug, 20	May, 20	June, 20	July, 20	Aug, 20
1.	Downstream of STP Jamalpur from Buddha Nallah	BDL	BDL	0.17	BDL	BDL	BDL	BDL	BDL
2.	Downstream of Tibba Road disposal from Buddha Nallah	BDL	0.35	0.20	BDL	BDL	BDL	BDL	BDL
3.	Downstream of Chand Cinema disposal from Buddha Nallah	BDL	0.30	0.17	BDL	BDL	BDL	BDL	BDL
4.	Downstream of STP Balloke from Buddha Nallah	BDL	0.09	0.18	BDL	BDL	BDL	BDL	BDL
5.	Point source of Buddha Nallah at Walipur	BDL	0.07	0.17	BDL	BDL	BDL	BDL	BDL

Part C: With respect to parameters Cu and Zn.

Sr. No.	Point of sample collection	Copper mg/l				Zinc mg/l			
		May, 20	June, 20	July, 20	Aug, 20	May, 20	June, 20	July, 20	Aug, 20
6.	Downstream of STP Jamalpur from Buddha Nallah	-	BDL	BDL	BDL	0.19	0.41	0.66	0.19
7.	Downstream of Tibba Road disposal from Buddha Nallah	BDL	BDL	BDL	BDL	0.51	0.85	0.87	0.55
8.	Downstream of Chand Cinema disposal from Buddha Nallah	BDL	BDL	BDL	BDL	0.32	1.29	0.66	0.66
9.	Downstream of STP Balloke from Buddha Nallah	BDL	BDL	BDL	BDL	0.26	0.76	0.85	0.68
10.	Point source of Buddha Nallah at	BDL	BDL	BDL	BDL	1.5	0.66	0.90	0.60

Walipur									
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Part D: With respect to parameters Fe and Pb.

Sr. No.	Point of sample collection	Iron mg/l				Lead mg/l			
		May, 20	June, 20	July, 20	Aug, 20	May, 20	June, 20	July, 20	Aug, 20
1.	Downstream of STP Jamalpur from Buddha Nallah	1.42	6.73	5.76	2.17	BDL	BDL	BDL	BDL
2.	Downstream of Tibba Road disposal from Buddha Nallah	4.45	12.6	5.73	5.12	BDL	BDL	BDL	BDL
3.	Downstream of Chand Cinema disposal from Buddha Nallah	3.85	14.2	5.21	5.30	BDL	BDL	BDL	BDL
4.	Downstream of STP Balloke from Buddha Nallah	2.22	10.5	6.08	5.33	BDL	BDL	BDL	BDL
5.	Point source of Buddha Nallah at Walipur	15.9	9.16	6.06	5.55	BDL	BDL	BDL	BDL

Part E: With respect to parameters Nickel and Manganese.

Sr. No.	Point of sample collection	Nickel mg/l				Manganese mg/l			
		May, 20	June, 20	July, 20	Aug, 20	May, 20	June, 20	July, 20	Aug, 20
1	Downstream of STP Jamalpur from Buddha Nallah	BDL	BDL	0.06	BDL	0.13	0.48	0.20	0.25
2	Downstream of Tibba Road disposal from Buddha Nallah	BDL	0.12	0.09	0.14	0.35	0.37	0.28	0.27
3	Downstream of Chand Cinema disposal from Buddha Nallah	BDL	0.25	0.08	0.08	0.16	0.38	0.37	0.27
4	Downstream of STP Balloke from Buddha Nallah	BDL	0.09	0.08	0.07	0.13	0.36	0.22	0.27
5	Point source of Buddha Nallah at Walipur	0.14	0.07	0.08	0.06	0.49	0.32	0.22	0.27

Punjab Pollution Control Board is monitoring the water quality of Budha Nallah at 05 locations. There is no improvement in water quality of Budha Nallah w.r.t BOD and F. coli parameters. This is because of malfunctioning of existing 48 MLD, which is presently, lying defunct and direct discharge of untreated effluent from 16 outlets and dairy effluent from dairy complex, Tajpur Road and Haibowal dairy complex, heavy metals like Hexa Chrome, Copper and Lead have not been detected, whereas, the values of T.Cr, Zinc, Iron, Nickel and Manganese have been found varying between 0.07 to 0.35 mg/l, 0.19 to 1.5 mg/l, 1.42 to 14.2 mg/l, 0.06 to 0.25 mg/l, 0.13 to 0.48 mg/l, respectively.

3.16.1.13 Water quality of East Bein, tributary of river Sutlej

Part (A) : With respect to parameters BOD, TSS and F.Coli

S.No.	Point of sampling	BOD (mg/l)				TSS(mg/l)				F.Coli MPN/100 ml			
		May, 2020	June, 2020	July, 2020	Aug, 2020	May, 2020	June, 2020	July, 2020	Aug, 2020	May, 2020	June, 2020	July, 2020	Aug, 2020
1	East Bein at Phagwara D/s Kanganiwal Bridge	12	15	10	12	36	42	42	60	13000	700	1100	780
2	East Bein at Jalandhar U/s Peeru Shah Ki Dargah	68	64	60	55	110	90	132	118	14000	21000	46000	26000
3	East Bein at Jalandhar D/s Malsian bridge	60	66	48	60	117	94	110	90	11000	17000	46000	33000

Part (B): With respect to parameters T.Cr, Ni, Zn, Fe and Pb

S.No.	Point of sampling	T.Cr (mg/l)		Ni (mg/l)		Zn (mg/l)		Fe (mg/l)		Pb (mg/l)	
		Oct, 2019	April, 2020	Oct, 2019	April, 2020	Oct, 2019	April, 2020	Oct, 2019	April, 2020	Oct, 2019	April, 2020
1.	East Bein at Phagwara D/s Kanganiwal Bridge	BDL	BDL	BDL	BDL	0.08	0.11	0.89	0.56	BDL	BDL
2.	East Bein at Jalandhar U/s Peeru Shah Ki Dargah	BDL	BDL	BDL	BDL	0.08	0.09	0.70	0.54	BDL	BDL
3.	East Bein at Jalandhar D/s Malsian bridge	BDL	BDL	BDL	BDL	0.19	0.14	1.08	0.70	BDL	BDL

The water quality of East Bein is monitored at 03 locations. The values of BOD, TSS and F. coli have been found varying between 12-68 mg/l, 36-132 mg/l and 700 -46000 MPN/100ml. Water quality further indicates that East Bein at Phagwara contains low values of BOD, TSS and F. Coli. Its quality starts degrading at its entry at Jalandhar because of discharge of part of untreated sewage of Jalandhar area and untreated effluent from dairy complex, Jamsher and scattered dairies. Total Chrome, Nickel and Lead have not been detected in East Bein water. The values of Zinc and Iron have been found varying between 0.08 to 0.14 mg/l and 0.54 to 1.08 mg/l, respectively.

3.16.1.14 Water quality of Kala Singhian Drain, a tributary of East Bein

Part (A): With respect to parameter BOD, TSS, and F.Coli

Sr. No.	Point of sampling	BOD (mg/l)				TSS (mg/l)				F.Coli (mg/l)			
		May, 2020	June, 2020	July, 2020	Aug, 2020	May, 2020	June, 2020	July, 2020	Aug, 2020	May, 2020	June, 2020	July, 2020	Aug, 2020
1	Puli adjoining M/s H.B Industry Unit-	28	34	35	66	42	46	59	118	-	-	-	-

	II, Raowali, Pathankot Jalandhar Road												
2	Puli at Athaula Gazipur Road near Karyana Store.	122	84	72	88	214	156	156	144	-	-	-	-
3	Puli at Billi- Khanpur Road.	109	80	88	84	192	174	160	152	-	-	-	-

Part (B): With respect to parameters Zn and Ni

Sr. No.	Point of sampling	Zn (mg/l)				Ni (mg/l)			
		May, 2020	June, 2020	July, 2020	Aug, 2020	May, 2020	June, 2020	July, 2020	Aug, 2020
1	Puli adjoining M/s H.B Industry Unit-II, Raowali, Pathankot Jalandhar Road	BDL	BDL	BDL	0.37	BDL	BDL	BDL	BDL
2	Puli at Athaula Gazipur Road near Karyana Store.	0.45	0.45	0.32	0.31	BDL	BDL	BDL	BDL
3	Puli at Billi-Khanpur Road.	0.39	0.54	0.09	0.34	BDL	BDL	BDL	BDL

Part (C): With respect to parameters namely T. Cr and lead

Sr. No.	Point of sampling	T.Cr (mg/l)				Pb (mg/l)			
		May, 2020	June, 2020	July, 2020	Aug, 2020	May, 2020	June, 2020	July, 2020	Aug, 2020
1	Puli adjoining M/s H.B Industry Unit-II, Raowali, Pathankot Jalandhar Road	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	Puli at Athaula Gazipur Road near Karyana Store.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	Puli at Billi-Khanpur Road.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Sr. No.	Point of sampling	Cu (mg/l)				Mn (mg/l)			
		May, 2020	June, 2020	July, 2020	Aug, 2020	May, 2020	June, 2020	July, 2020	Aug, 2020
1	Puli adjoining M/s H.B Industry Unit-II, Raowali, Pathankot Jalandhar Road	-	-	-	BDL	-	-	-	0.5
2	Puli at Athaula Gazipur Road near Karyana Store.	-	-	-	BDL	-	-	-	0.7
3	Puli at Billi-Khanpur Road.	-	-	-	BDL	-	-	-	0.2

Punjab Pollution Control Board monitors the water quality of Kala Singhian drain and the values of BOD and TSS have been observed as 28-66 mg/l and 42-118 mg/l at its section at Pathankot-Jalandhar Road. The water quality of Kala Singhian drain degrades at section crossing culvert at village Khanpur having BOD level 80-192 mg/l. The values of zinc, Total chromium and lead have not been detected. The values of Zinc have been found varied between 0.09 to 0.54 mg/l.

3.16.2 River Beas

3.16.2.1 Performance of existing sewage treatment plants

Sr. No.	Name of STP	Cap	January, 2020 to March, 2020			April, 2020 to August, 2020			Improvement w.r.t parameters BOD, TSS and F.coli.
			Parameters			Parameters			
			BOD mg/l	TSS mg/l	Faecal Coliform MPN/100 ml	BOD mg/l	TSS mg/l	Faecal Coliform MPN/100ml	
1.	Pathankot	27	23	31	605	27.0	39	675	No Improvement
2.	Sri Hargobindpur	1	27	27	715	27	41	1110	Only improvement BOD
3.	Dasuya	4	28	25	780	29	24	1228	Only improvement TSS
4.	Mukerian	5	29	39	4467	27	27	978	Improvement
5.	Sham Churasi	1	54	63	7500	33	33	2070	Improvement
6.	Tanda	4	37	35	4533	15	11	680	Improvement
7.	Talwara		9	22	697	8	12	495	Improvement
8.	Begowal	2.5	10	17	863	10	17	548	Improvement
9.	Bhulath	4	15	19	897	13	16	1310	BOD & TSS improvement
10.	Kapurthala	25	-	-	-	20	34	1700	--
11.	Sultanpur Lodhi	2.6	21	29	973	31	50	1275	No Improvement
12.	GE, Air Force STP 960 m3/day, Pathankot	3	12	14	375	--	--	--	--
13.	GE, South Mammon STP Lal Tikku Khad Area (2.5 MLD)	2	14	17	405	--	--	--	--
14.	GE, West Pathankot	8	14	17	485	--	--	--	--
15.	GE, South Mammon, Bhaskar Area	2	16	16	640	--	--	--	--
16.	GE, South Basante, Line Area	2	19	18	505	--	--	--	--

Presently, sewage treatment plants of capacity 76.1 MLD for 10 towns, located in the catchment area of River Beas, have been installed by Punjab water Supply and sewerage Board and 5 STPs have been installed by MES authorities. The performance study of STPs located in the catchment area of river Beas, as monitored by Punjab Pollution Control Board, indicates as under.

There is improvement w.r.t parameters BOD, TSS and F. coli parameter in case of 05 STPs, whereas, no improvement has been observed in case of 02 STPs. 01 Sewage Treatment Plant has been found complying BOD and TSS parameters. 01 Sewage Treatment Plant has been found achieving BOD parameter and 01 STP found achieving TSS parameters.

3.16.2.2 Status of new STPs under construction

3.16.2.3 Status of STPs which under planning and funds tied up

Sr. No	Name of the town	Capacity of STP	Likely date of completions	Target date as per affidavit submitted in Hon'ble NGT	Status as on 31.03.2020	status as on 15.09.2020
1	Kartarpur	4	31.12.2020	30.06.2022	Tender allotment in process	Tender cancelled due to higher rates. To be recalled.
2	Dhilwan	2.5	Land issue	30.09.2022	Land acquired. DNIT under preparation	land acquired. DNIT under approval
3	Kothi Pandita, Pathankot	2	31.12.2023	31.12.2022	DNIT prepared. Tenders to be floated after lockdown	Revised DNIT under preparation
4	Adarsh Nagar, Pathankot	1.2	31.12.2023	31.12.2022	DNIT prepared. Tenders to be floated after lockdown	Revised DNIT under preparation
5	Hariana	2	03.11.2020	31.12.2021	Tender called several times but not received. Now shall be re-called after lockdown	Tender called several times but not received. Now tender called again and is due on 29.09.2020
6	Sultanpur Lodhi	1	30.09.2022	30.09.2022	1 MLD land available. Tender under process	Revised DNIT prepared & under approval .
7	Sultanpur Lodhi	4(2.6 MLD existing STP to be upgraded to 4 MLD)	30.09.2022	30.09.2022	Land for 4 MLD is being identified.	Land arranged. DNIT prepared & under approval .
8	Talwara	4	Land issue	31.12.2022	Land issue	land finalised. DNIT under preparation.
9	Sujanpur	5.5	30.06.2022	30.06.2022	Land finalized. DNIT under preparation	Land available . DPR under approval.
10	Rawal & Colonies, Kapurthala	3	30.06.2021	30.06.2022	Land purchased through PUDA & DPR under approval. Funds for STPs to be given by Rural Development Deptt. & JDA.	land purchased through PUDA. Funds yet to be received from JDA and Rural Development Department. DPR prepared & objections raised by Head Office related to Division office removed, reply of objections related PUDA & Rural Development deptt. Still awaited.
11	Goindwal Sahib	1.3		31.12.2020	Being done by DWSS	
	Total	30.5				

It has been observed by the Monitoring Committee there is proposal to construct 11 new Sewage Treatment Plants of capacity 30.5 MLD. Out of these 11 Sewage Treatment Plants, 02 Sewage Treatment Plants are at tendering stage. Land issues are yet to be resolved in case of 04 Sewage Treatment Plants. 03 Sewage Treatment Plants are at DNIT stage. In case of 01 Sewage Treatment Plant (Rawal and its colonies: 03 MLD), funds are yet to be received from JDA. 01 Sewage Treatment Plant of capacity 1.3 MLD for Goindwal Sahib town, department of Water Supply and Sanitation has to install the Sewage Treatment Plant.

3.16.2.4 Status of STPs which require technologically up-gradation and funds tied up

Sr. No	Name of the town	Present capacity of STP (MLD)	Capacity to be upgraded technologically	Target date for completion/ commissioning	Status as on 31.03.2020	status as on 15.09.2020
1	Kapurthala	25	25	No target date given	Tender allotted, repair work in progress	Work completed
	Total	25	25			

25 MLD Sewage Treatment Plant, which is based on old technology, was required to be upgraded to meet with the standards prescribed. Now PWSSB has completed the upgradation work of Sewage Treatment Plant

3.16.2.5 Gap in treatment of sewage

Sr. No	Name of the Town	Total Discharge (MLD)	Present Capacity of STP (MLD)	Gap in sewage quantity to be treated (MLD)
Existing STPs				
1	Pathankot	22.4	27.00	0
2	Sri Hargobindpur	1	1.00	0
3	Mukerian	2	5.00	0
4	Tanda	2	4.00	0
5	Begowal	2.5	2.50	0
6	Bhulath	4	4.00	0
7	Dasuya	3.5	4.00	0
8	Kapurthala	25	25.00	0
9	Sultanpur Lodhi	3.9	2.60	1.3
10	Sham Chuarasi	1	1.00	0
	Total –A (Installed)	67.3	76.1	1.3
New STPs				
11	Sultanpur Lodhi	0.00	1.40	0
12	Sultanpur Lodhi	0.00	1.00	0
13	Kartarpur	3.70	4.00	3.70
14	Dhilwan	1.20	2.50	1.20
15	Kothi Pandita	0.00	2.00	0
16	Adarash Nagar	0.00	1.20	0
17	Hariana	1.30	2.00	1.30
18	Sujanpur	4.10	5.50	4.10

19	Talwara	2.80	4.00	2.80
20	Goindwal Sahib (DWSS)	1.30	1.30	1.30
21	Rawal & Colonies	1.40	3.00	1.40
	Total-B(New)	15.8	27.9	15.8
	Grand Total(A+B)	83.1	104	17.10

The total discharge of 21 towns located in the catchment area of river Beas is 83.1 MLD and present capacity of Sewage Treatment Plant is 104 MLD. There is gap of 17.10 MLD sewage quantity to be treated.

The Monitoring Committee recommends that STPs to treat the gap in sewage quantity should be completed by 31.03.2021.

3.16.2.6 Utilization of Treated wastewater from STPs for Irrigation

A) Towns/STPs where Irrigation Projects are commissioned

S. No.	Name of STP/Town	District	Capacity of STP (MLD)	Command Area (ha)	Date of Start of Project	Status as on 31.03.2020
1	Sri Hargobindpur	Gurdaspur	1	96	13.06.2016	Completed
2	Nurmehal	Jalandhar	2.6	105	01.06.2016	Completed
3	Bholath	Kapurthala	4.8	260	01.03.2014	Completed
4	Kapurthala	Kapurthala	25	484	2015	Completed
5	SultanpurLodhi	Kapurthala	2.7	100	01.07.2016	Completed
6	Sham Chuarasi	Hoshiarpur	1	90	05.10.2016	Completed
7	Talwara	Hoshiarpur	8	70	18.03.2017	Completed
8	Mukerian	Hoshiarpur	5	100	16.06.2017	Completed
9	Begwal	Kapurthala	2.6	66	1.5.2019	Completed

In order to utilize the treated sewage of STPs of 9 towns of capacity 52.7 MLD, irrigation schemes have been completed. Under these irrigation schemes, 1371 hectares of land has been covered. Punjab Pollution Control Board shall check these irrigation schemes and ensure that these irrigation schemes should have been commissioned to utilize the treated sewage for irrigation.

C) Towns/STPs where Irrigation Projects are under progress.

Presently, no irrigation scheme/ project to utilize the treated sewage for irrigation is under progress.

D) Towns/STPs where Funds are not tied up for Irrigation Projects

S. No.	Name of STP/Town	Capacity (MLD)	Status as on 31.03.2020	Status as on 15.09.2020
1	Pathankot	27	Funds are not tied up	Funds are not yet tied up
2	Tanda	4		
3	GE, Air Force, Pathankot	3		
4	GE, South, Pathankot	2		

5	GE, West, Pathankot	2		
6	GE, Mammon, Pathankot	2		
7	GE, North, Pathankot	2		

Irrigations schemes to utilize treated sewage of 07 towns have been prepared but the funds have not been tied up so far. The department of Soil and Water conservation shall take up the matter with State Government to refunds so that irrigation network for 07 towns may be laid.

3.16.2.7 Water quality of River Beas

Sr. No.	Point of Sampling	DO (mg/l)			BOD (mg/l)			F.coli (MPN/100ml)		
		May, 2020	June, 2020	Aug, 2020	May, 2020	June, 2020	Aug, 2020	May, 2020	June, 2020	Aug, 2020
1	Beas at Talwara H/W	7.9	7.6	7.5	BDL (<1)	1.2	1.0	36	22	17
2	Beas at Mirthal Bridge Gurdaspur	7.3	7.2	7.4	1.0	1.1	1.1	40	31	45
3	U/S Pathankot	7.2	7.5	7.5	1.0	1.1	1.1	36	26	21
4	D/S Pathankot	7.1	7.1	7.0	1.2	1.3	1.0	100	58	78
5	Beas 1km D/S effluent discharge point at Mukerian	7.8	7.0	6.6	1.4	1.3	1.4	200	110	180
6	Beas Bridge at village Bheate Patan Tehsil Batala Distt. Gurdaspur	7.3	7.3	6.4	BDL (<1)	1.2	1.1	78	170	180
7	Beas at G.T. Road, under Bridge Near Kapurthala	7.9	7.8	6.8	1.2	1.1	1.3	93	170	140
8	U/s Goindwal	8	7.9	7.4	1.0	1.0	1.0	68	78	68
9	D/s Goindwal	7.8	7.8	7.5	1.1	1.1	1.0	78	93	170
10	Beas at Harike	7.9	8.1	7.4	1.0	1.0	1.0	200	120	120

Water quality of river Beas is monitored by Punjab Pollution Control Board on monthly basis at 10 locations. The water quality of river Beas has been found complying class 'B' as per the water quality criteria prescribed by CPCB.

3.16.2.8 Water quality of Holy Bein

S.No	Point of Sampling	BOD (mg/l)				TSS (mg/l)				F.Coli MPN/100ml			
		May, 2020	Jun, 2020	July, 2020	Aug, 2020	May, 2020	Jun, 2020	July, 2020	Aug, 2020	May, 2020	Jun, 2020	July, 2020	Aug, 2020
1	Nanakpur Bridge	2.8	3.0	3.0	2.8	27	20	21	18	78	170	110	170
2	Bhagwanpura Bridge	-	-	-	-	-	-	-	-	-	-	-	-
3	Khera Dona Bridge	-	-	-	-	-	-	-	-	-	-	-	-
4	Ber Sahib Gurudwara Sultanpur Lodhi (Gurudwara side)	4.8	3.3	3.0	3.2	21	27	17	16	68	230	110	230
5	D/S at Village Alowal	-	-	-	-	-	-	---	-	-	-	-	-
6	Point of origin (Tarkiana)	7.8	10	8.4	6.5	38	30	19	20	780	920	130	200
7	G.T. Road, Subhanpur	2.9	3.5	3.2	2.9	24	25	20	18	92	110	200	130

Water quality of Holy Bein (Kali Bein) is monitored at 07 locations on monthly basis. The analysis results indicate that the water quality of Holy Bein meets with B class as per the water quality prescribed by CPCB.

3.17 Conclusions and Recommendations

In view of the latest status w.r.t performance of existing sewage treatment plants, construction of new sewage treatment plants, upgradation and capacity enhancement of existing sewage treatment plants, treatment facilities for treatment of sewage in rural areas, gaps in treatment of sewage, utilization of treated sewage for irrigation, water quality of drains / Nallahs/ river, environment flow, septage and faecal sludge management, the Monitoring Committee has made the following conclusions recommendations

3.17.1 River Sutlej

1. The Monitoring Committee has held its meeting with District Level Officers of District Ludhiana on 13.05.2020 and 21.05.2020 (pages: 3 to 5 and 5 to 13), District Jalandhar on 29.05.2020 (pages: 13 to 21), District Ferozepur on 25.06.2020 (pages: 22 to 25), District Gurdaspur on 07.07.2020 (pages: 26 to 31), District Bathinda on 10.07.2020 (pages: 31 to 33), District Tran Taran on 14.07.2020 (pages: 34 to 37), District Faridkot on 20.07.2020 (pages: 37 to 40), District Pathankot on 31.07.2020 (pages: 40 to 42), District Fazilka on 07.08.2020 (pages: 42 to 45), State Level meeting on 13.08.2020 (pages: 46 to 50), District Ludhiana on 24.08.2020 (pages: 50 to 58), District Ropar on 14.09.2020 (pages: 51 to 61), District Hoshiarpur on 18.09.2020 (pages: 61 to 64). In these meetings the Monitoring Committee has made detailed discussion on each issue w.r.t various activities to be carried out to control of pollution

in river Sutlej. The Monitoring Committee has given directions to the District Level Officers in each meeting.

The Monitoring Committee recommends that District Level Officers should comply with the directions given by Monitoring Committee timely so as to control pollution in river Sutlej.

2. Punjab Pollution Control Board is monitoring the performance of existing Sewage Treatment Plants of the towns located in the catchment area of river Sutlej on monthly basis. The analysis results that indicate that out of 50 STPs, 28 STPs (56%) are complying with all the norms w.r.t BOD, TSS and F.Coli parameters. 13 STPs (26%) are not meeting with standards for BOD, TSS and F.Coli parameters, out of which STPs Muktsar Sahib (3.5 MLD) and Jamalpur, Ludhiana (48 MLD) are lying defunct for which, department of Water Supply and Sanitation and Municipal Corporation, Ludhiana have been directed upgrade/rehabilitate the same by 31.03.2021. 03 STPs (6%) are meeting BOD and F.Coli parameters. 02 STPs (4%) are meeting with TSS and F. coli parameters. 01 STP (2%) is complying with BOD parameters. 29 STPs (58%) are complying with F. Coli parameters. 01 STP (2%) is complying with only TSS parameter. 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 by-pass of the STPs and record in this regard may be maintained by the STP operator.
- ✓ OCEMS and CCTV cameras on all the STPs should be installed by 31/10/2020, failing which environment compensation may be imposed by PPCB on the defaulting STPs.

3. The performance of STPs of capacity 466 MLD of Ludhiana alone indicates as under:

- STP Bhattian of capacity 50 MLD, based on SBR technology, is working effectively and meeting with the prescribed norms.
- STP Bhattian of capacity 111 MLD is also meeting with the parameters w.r.t. BOD parameter, whereas, the values of F.Coli ranging between 2700-3500 are beyond the permissible limits.
- STP Balloke of capacity 152 MLD is not meeting with the prescribed standards w.r.t. BOD (180-340 mg/l) and F.Coli (430000-840000 MPN/100 ml).

- STP Ballloke of capacity 105 MLD is also not meeting with the prescribed standards w.r.t. BOD and F.Coli parameters.
 - 48 MLD STP at Jamalpur is non functional because the machinery of the STP is lying defunct and there is proposal to construct new STP.
4. The Monitoring Committee noted that there is slow progress with regard to construction of 9 STPs of capacity 110.8 MLD during the period 01.04.2020 to 15.09.2020.

- Construction of 2 STPs of capacity 8 MLD and 6 MLD of Kotkapura has been hardly increased to 86% and 85%, respectively, as compared to the progress of 85% and 84% on 31.03.2020. These STPs should be completed by 31.03.2021.
- Slow progress (20-25%) has been achieved in case of 2 STPs of capacity 4 MLD and 1 MLD of Guru Harsahai. These 02 STPs of Guru Harsahai (4 MLD and 01 MLD) should be completed by 31.03.2021. 2 STPs of capacity 6 MLD and 18 MLD for Jaitu and Ferozpur towns, respectively, have been completed and are at testing stage. These 02 STPs (6 MLD and 18 MLD) should be commissioned by 31.12.2020.
- For STPs of capacity 14 MLD for Faridkot Town, land has been arranged and work shall be started soon, whereas, work has been allotted in case of 50 MLD STP for Jalandhar STP. These 2 STPs of capacity 14 MLD and 50 MLD for Faridkot and Jalandhar towns should be completed by 31.03.2021.

5. The Monitoring Committee has observed that Out of 23 STPs of capacity 366 MLD which are under planning, 8 STPs of capacity 295 MLD are at tendering stage. In case of 2 STPs (Patti: 8 MLD and Ferozpur: 1 MLD) land issues are yet to be resolved. 2 STPs (Jalndhar: 15 MLD, Nawashahr: 4 MLD) are at DPR/DNIT stage. No sewerage system exists in case of 9 towns. Funds have not been tied up in case of Arniwala STP of capacity 2 MLD.

The Monitoring Committee recommends that the department of Local Govt. and PWSSB shall sort out all the issues like land issues, installation of sewage system in the unsewered areas and availability of funds for installation of Sewage Treatment Plant so that all the 23 Sewage Treatment Plants of capacity 366 MLD may be completed by 30.06.2020.

6. In order to meet with the prescribed standards, there is need to upgrade the existing Sewage Treatment Plants technologically. Presently, Out of 9 STPs of capacity 389.5 MLD, which are to be technologically upgraded, 2 STPs of capacity 152 MLD and 111 MLD are at tendering stage. 3 STPs (Phillaur: 2.6 MLD, Malaut: 3 MLD and Goniana: 3 MLD) are at DPR Stage. Work has been allotted in case of 100 MLD STP of Jalandhar. Upgradation work of 3 STPs of Sri Mukatsar Sahib of capacity 8.7 MLD, 5.7 MLD and 3.5 MLD are to be done by department of Water Supply and Sanitation

The Monitoring Committee recommends that all the 09 Sewage Treatment Plants of capacity 389.5 MLD should be technologically upgraded by 30.06.2020.

7. Further, considering the poor quality of treated/ partially treated sewage of STPs of capacity 48 MLD, 111 MLD, 152 MLD, 105 MLD, and 50 MLD of Ludhiana area, the Monitoring Committee took serious view and directed to the Municipal Corporation,

Ludhiana in its meeting with District Level Officers of District Ludhiana on 24.08.2020 that these STPs should be completed and rehabilitated by 31.3.2021 and till then, MC Ludhiana shall install in-situ remediation technology on all the drains carrying untreated sewage within 02 months. In order to show the seriousness to adhere to the said time schedule, MC Ludhiana shall submit a bank guarantee of Rs. 7 Lakh as an assurance within 10 days in office of Punjab Pollution Control Board to comply with the said directions. If by the time given, the target is not achieved by the Municipal Corporation, Punjab Pollution Control Board is free to encash the said bank guarantee treating it as a compensation for the damage caused to the environment.

Presently, 14 direct outlets carrying untreated sewage of Ludhiana city are falling into Budha Nallah. Municipal Corporation, Ludhiana has covered these 14 outlets into comprehensive plan prepared for rehabilitation of existing STPs and installation of new STPs.

The Monitoring Committee has directed Municipal Corporation, Ludhiana to construct new STPs and rehabilitate the existing STPs by 31.3.2021 and ensure that all the outlets carrying untreated sewage and directly discharging into Budha Nallah shall be closed by 31.3.2021.

8. Based on the discharge of all the towns located in the catchment area of river Sutlej, the present discharge of the towns is 1231.41 MLD and present capacity of 77 Sewage Treatment Plants is 1422.5 MLD and gap in quantity of sewage to be treated has been assessed as 342.46 MLD and STPs to treat the gap in sewage quantity have been planned.

The Monitoring Committee recommends that these STPs should be completed by 30.6.2021.

9. For utilization of treated sewage for irrigation to conserve the water, the irrigation schemes to utilize treated sewage of 134.7 MLD of 23 towns, located in the catchment area of river Sutlej, have been completed. These irrigation schemes shall cater 3661 hectares of agriculture land and treated sewage shall be utilized in these irrigation fields.

It is recommended that Punjab Pollution Control Board shall check all the irrigation schemes laid down for utilization of treated sewage of 23 towns for irrigations and submit report as to whether these irrigations have been commissioned and implemented.

10. To utilize the treated sewage of 151.5 MLD of 14 STPs, irrigation schemes to cater 5638.5 hectares of agriculture land have been sanctioned and mobilization advance of Rs. 14.72 crore has been released to the department to start the project.

The department of Soil and Water Conservation should take up the matter with State Government for release of the amount sanctioned to lay irrigation network to utilize treated sewage of 151.5 MLD of 14 Sewage Treatment Plants for irrigation.

11. For utilization of treated sewage of 16 STPs of capacity 244.4 MLD, irrigation schemes have been prepared but the funds have not been tied up so far. The department of Soil

& Water Conservation shall take up the matter with department of Finance for release of funds to lay irrigation network to utilize the treated sewage for irrigation. Further, the department of Soil and Water Conservation vide its letter No 8326 dated 7.9.2020 has submitted that the department has already submitted proposal to the State Govt. for formulation a State Plan scheme for irrigation projects for completed/new STPs. Although every effort is being made for tie up of funds but considering the time required for tendering and other department procedure and the constraints that underground pipeline can only be laid when the crops are harvested and the fields are vacant. It has been requested that timelines to lay irrigation network may be revised.

The Monitoring Committee recommends that the department of Soil and Water Conservation shall start laying irrigation network to utilize the treated sewage of 16 Sewage Treatment Plants of capacity 244.4 MLD within 01 month after the release of funds by the State Government.

12. Since the feasibility to utilize the treated sewage 100 MLD of Pholariwal, Jalandhar 111 MLD and 50 MLD of STPs of Bhattian, Ludhiana, has become feeble, therefore, the Monitoring Committee recommends as under:

- i. The Department of Soil and Water Conservation and Municipal Corporation Jalandhar shall jointly conduct IEC activities to bring awareness among the farmers about the benefits of utilization of treated sewage for irrigation.
- ii. The Department of Soil and Water Conservation shall take up the matter with Department of Finance for early release of funds amounting to 142.43 crores to lay irrigation network in the agriculture fields to utilize 267 MLD treated sewage of STPs Balloke (152 MLD and 105 MLD) for irrigation.
- iii. Municipal Corporation, Jalandhar shall complete and commission the upgradation of 100 MLD STPs by 31.12.2020.
- iv. Municipal Corporation, Ludhiana shall start upgradation work of 152 MLD and 111 MLD STPs by 31.10.2020.

13. Out of 75 villages covered in Phase-1 for installation of STPs, treatment facilities have been completed in 4 villages.

The Monitoring Committee recommends that STPs for the remaining 71 villages to treat their sewage may be completed by 31.03.2021.

14. 15 MLD CETP for Bahadur Ke Road dyeing industry cluster has been commissioned. Punjab Pollution Control Board should start monitoring the performance of 15 MLD CETP on monthly basis.

15. 02 CETPs of capacity 40 MLD and 50 MLD for treatment of effluent of cluster of dyeing industries of Focal point and Tajpur Road & Rahon Road, has been completed to 98.5% and 88%, respectively. Punjab Pollution Control Board should take up the matter with MOEF&CE for release of Central Govt. share for completion of CETPS so that these CETPs shall be completed by 31.12.2020.

16. For upgradation of 5 MLD CETP for leather complex, Jalandhar, PPCB shall pursue the matter with PETS, Leather Complex, Jalandhar to upgrade the same by 31.03.2020.
17. In order to restart the construction work of 0.15 MLD CETP for electroplating industries of Jalandhar, PPCB shall pursue the matter with Hon'ble High Court for vacation of stay order.
18. In order to install biogas plant to manage 330 TPD animal dung of Jamsher dairy complex, the design statement is being prepared by the contractor. Further in order to treat 05 MLD wastewater, Municipal Corporation, Jalandhar shall install ETP to treat the liquid effluent by 31.03.2021.
19. In order to manage cow dung of Haibowal dairy complex, biogas plant of capacity 1 MW has already been installed. There is proposal to upgrade biogas plant to bio CNG plant but the delay in purchase of machinery, project has been delayed. The Monitoring Committee recommends that efforts should be made to upgrade biogas plant to BioCNG plant by 31.03.2021.
20. 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 should be given for the installation of ETPs for these dairy complex.
21. For development of biodiversity parks by Municipal Corporation, Ludhiana and Jalandhar along catchment area of Budha Nallah and Kala Singhian drain, Municipal Corporation, Ludhiana has already identified 06 sites, out of which site at Tajpur Road, near Balloke STP and Hambran Road, Haibowal site are along Budha nallah. In these parks, sapling of shady, medicinal, fruit and flowering trees have been selected. Barbed wire around the site opposite SDM office, Hambran road, Haibowal has been provided. Plants of different varieties have also been planted.

Municipal Corporation, Ludhiana has been directed to develop biodiversity park along catchment area of river Sutlej and Budha Nallah with infrastructures and environment feature required for biodiversity parks.

Municipal Corporation, Jalandhar has also been directed to identify suitable sites along Kala Singhian drain for development of biodiversity park immediate and start the process of developing biodiversity parks within 02 months.

22. Punjab Pollution Control Board is monitoring the water quality of river Sutlej at 14 locations. The comparison of data w.r.t DO, BOD and F. coli parameters for the months January, 2020 to March, 2020 and April, 2020 to August, 2020, indicates that there is improvement in the water quality. The water quality remains A class upto D/S of PACL Nangal and it comes down to B class upto u/s of Budha Nallah. After mixing of water of Budha Nallah and upto d/s of East Bein confluence with river Sutlej, it remains D class and again during its course of flow, it regains to class C upto Harike Head works.

23. Punjab Pollution Control Board is monitoring the water quality of Budha Nallah at 05 locations. There is no improvement in water quality of Budha Nallah w.r.t BOD and F. coli parameters. This is because of malfunctioning of existing 48 MLD, which is presently lying defunct and discharge of untreated effluent from 16 outlets and dairy effluent from dairy complex, Tajpur Road and Haibowal dairy complex, heavy metals like Hexa chrome, copper and lead have not been detected, whereas, the values of T.Cr, Zinc, Iron, Nickel and Maganese have been found varying between 0.07 to 0.35 mg/l, 0.19 to 1.5 mg/l, 1.42 to 14.2 mg/l, 0.06 to 0.25 mg/l, and 0.13 to 0.48 mg/l, respectively.
24. The water quality of East Bein is monitored at 04 locations. The values of BOD, TSS and F. coli have been found varying between 12-68 mg/l, 36-132 mg/l and 700 -46000 MPN/100ml. Water quality further indicates that East Bein at Phagwara contains low values of BOD, TSS and F. coli. Its quality starts degrading at its entry at Jalandhar because of discharge of part of untreated sewage of Jalandhar area and untreated effluent from dairy complex, Jamsher and scattered dairies. Total Chrome, Nickel and Lead have not been detected in East Bein water. The values of Zinc and Iron have been found varying between 0.08 to 0.14 mg/l and 0.54 to 1.08 mg/l, respectively.
25. Punjab Pollution Control Board monitors the water quality of Kala Singhian drain and the values of BOD and TSS have been observed as 28-66 mg/l and 42-118 mg/l at its section at Pathankot-Jalandhar Road. The water quality of Kala Singhian drain degrades (BOD: 80- 192 mg/l) at section crossing culvert at village Khanpur. The values of Zinc, Total Chromium and Lead have not been detected. The values of Zinc have been found varied between 0.09 to 0.54 mg/l.
26. PPCB has installed 02 Real Time Water Quality Monitoring System (RTWQMS) in Budha Nallah, Ludhiana. Punjab Pollution Control Board shall monitor the water quality of Budha Nallah at this location manually and shall compare the data with the data obtained from Real Time Water Quality Monitoring System (RTWQMS).
27. Punjab Pollution Control Board shall carry out the performance of In-situ bio remediation technology installed in Phulana drain and replicate the same in other drains carrying untreated sewage not connected to any STP.
28. NGO office, Ludhiana has set up micro forest at various locations in Budha Nallah to increase its aesthetic value.
29. 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.

30. 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.
31. 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 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.

32. 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.

3.17.2 River Beas

1. Presently, sewage treatment plants of capacity 76.1 MLD for 10 towns, located in the catchment area of River Beas, have been installed by Punjab water Supply and sewerage Board and 5 STPs have been installed by MES authorities. The performance study of STPs located in the catchment area of river Beas, as monitored by Punjab Pollution Control Board, indicates as under.

There is improvement w.r.t parameters BOD, TSS and F. coli parameter in case of 05 STPs, whereas, no improvement has been observed in case of 02 STPs. 01 Sewage Treatment Plant has been found complying BOD and TSS parameters. 01 Sewage Treatment Plant has been found achieving BOD parameter and 01 STP found achieving TSS parameters.

2. It has been observed by the Monitoring Committee there is proposal to construct 11 new Sewage Treatment Plants of capacity 30.5 MLD. Out of these 11 Sewage Treatment Plants, 02 Sewage Treatment Plants are at tendering stage. Land issues are yet to be

resolved in case of 04 Sewage Treatment Plants. 03 Sewage Treatment Plants are at DNIT stage. In case of 01 Sewage Treatment Plant (Rawal and its colonies: 03 MLD), funds are yet to be received from JDA. 01 Sewage Treatment Plant of capacity 1.3 MLD for Goindwal Sahib town, department of Water Supply and Sanitation has to installed the Sewage Treatment Plant.

The Monitoring Committee recommends that these STPs should be completed completed by 31.03.2021.

3. 25 MLD Sewage Treatment Plant of Kapurthala which is based on old technology, was required to be upgraded to meet with the standards prescribe. Now PWSSB has completed the upgradation work of Sewage Treatment Plant.

Punjab Pollution Control Board should check the performance 25 MLD sewage treatment plant of Kapurthala within 15 days.

4. The total discharge of 21 towns located in the catchment area of river Beas is 83.1 MLD and present capacity of Sewage Treatment Plant is 104 MLD. There is gap of 17.10 MLD sewage quantity to be treated of 09 Sewage Treatment Plants.

The Monitoring Committee recommends that gap in sewage quantity to be treated should be completed by 31.03.2021.

5. In order to utilize the treated sewage of STPs of 09 towns of capacity 52.7 MLD, irrigation schemes have been completed. Under these irrigation schemes, 1371 hectares of land has been covered.

Punjab Pollution Control Board shall check these irrigation schemes and ensure that these irrigation schemes should have been commissioned to utilize the treated sewage for irrigation.

6. Irrigations schemes to utilize treated sewage of 07 towns have been prepared but the funds have not been tied up so far.

The department of Soil and Water conservation shall take up the matter with State Government to refunds so that irrigation network for 07 towns may be laid.

7. Water quality of river Beas is monitored by Punjab Pollution Control Board on monthly basis at 10 locations. The water quality of river Beas has been found complying B class parameters as per the water quality criteria prescribed by CPCB.
8. Water quality of Holy Bein (Kali Bein) is monitored at 07 locations on monthly basis. The analysis results indicate that the water quality of Holy Bein meets with B class as per the water quality prescribed by CPCB.
9. 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.
10. PPCB shall install Real Time Water Quality Monitoring System (RTWQMS) at the appropriate locations by 31.12.2020.
 11. Punjab Pollution Control Board shall carry out the performance of In-situ bio remediation technology installed in Phulana drain and replicate the same in other drains carrying untreated sewage not connected to any STP.
 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.

sd/
Dr Babu Ram

sd/
Sant Balbir Singh Seechewal

sd/
S.C. Agrawal

sd/
Justice Jasbir Singh
Former Judge
Punjab & Haryana High
Court and now as
Chairman of the
Monitoring Committee